JENOPTIK

MORE LIGHT

Annual Report 2020

Table of content

Jenoptik at a glance

	Jan. – Dec. 2020	Jan. – Dec. 2019	Change in %
Revenue (adjusted; in million euros)[1]	767.2	837.0	−8.3
Domestic (adjusted; in million euros)[1]	214.7	233.7	−8.1
Foreign (adjusted; in million euros)[1]	552.5	603.3	−8.4
Revenue (in million euros)	767.2	855.2	−10.3
Domestic (in million euros)	214.7	234.0	−8.2
Foreign (in million euros)	552.5	621.3	−11.1
EBITDA (adjusted; in million euros)[2]	130.7	138.0	−5.3
EBITDA (adjusted and before ppa-effects; in million euros)[2]	135.3	138.0	−1.9
EBITDA (in million euros)	111.6	134.0	−16.7
EBITDA margin (adjusted; in %)[2]	17.0	16.5	
EBITDA margin (adjusted and before ppa-effects; in %)[2]	17.6	16.5	
EBITDA margin (in %)	14.6	15.7	
EBIT (adjusted; in million euros)[2]	78.8	93.4	−15.6
EBIT (in million euros)	59.3	88.9	−33.3
EBIT margin (adjusted; in %)[2]	10.3	11.2	
EBIT margin (in %)	7.7	10.4	
Earnings before tax (in million euros)	53.2	85.2	−37.5
Earnings after tax (in million euros)	42.7	67.6	−36.8
EPS (in euros)	0.73	1.18	−38.1
Dividend (in euros)	0.25	0.13	92.3
Free cash flow before income taxes (adjusted; in million euros)[2]	67.2	79.3	−15.3
Free cash flow before income taxes (in million euros)	62.3	77.2	−19.3
Cash conversion rate (adjusted; in %)[2]	51.4	57.5	
Cash conversion rate (in %)	55.8	57.7	
Net debt (in million euros)	201.0	−9.1	n. a.
Equity ratio (in %)	51.5	60.5	
Order intake (adjusted; in million euros)[1]	739.4	792.7	−6.7
Order intake (in million euros)	739.4	812.6	−9.0

	31/12/2020	31/12/2019	Change in %
Order backlog (adjusted; in million euros)[1]	460.1	464.7	−1.0
Order backlog (in million euros)	460.1	466.1	−1.3
Frame contracts (in million euros)	42.3	49.9	−15.3
Employees (adjusted; head count)[1]	4,472	4,089	9.4
Employees (head count)	4,472	4,122	8.5

[1] Prior-year figures without HILLOS GmbH
[2] Figures adjusted for structural and portfolio measures (see comments on page 104)

More Light

Under this motto we announced our Strategy 2022. In future, we will concentrate on our core areas of expertise – optics and photonics – and will develop Jenoptik into a focused technology group, based on the three pillars “More focus”, “More international”, and “More innovation”.

To ensure that our strategy will be successful, we have started a comprehensive cultural change in the Group. Numerous initiatives as well as our corporate values „open“, „driving“ and „confident“ will help create a common spirit. Under the motto “More Light” we do not only want to imbue Jenoptik with more color and motivation, but secure long-term sustainable growth.

The online report is available at:
www.jenoptik.com / annual-report

About Jenoptik

Optical technologies are the very basis of our business. Our customers are leading companies in industries such as semiconductor equipment, automotive and suppliers, mechanical engineering, medical technology, traffic, aviation as well as the security and defense technology.

The Jenoptik Group is headquartered in Jena (Thuringia). In addition to several major sites in Germany, Jenoptik is represented worldwide, for example with production and assembly sites in the US, France, the United Kingdom, China, and Switzerland. Additionally, the Group has subsidiaries in Australia, Brazil, Canada, the Czech Republic, India, Japan, Malaysia, Mexico, the Netherlands, Singapore, Spain, and South Korea.

As a globally active technology group Jenoptik is active in the three photonics-based divisions Light & Optics, Light & Production and Light & Safety. Under the TRIOPTICS brand, Jenoptik also offers optical test and manufacturing systems for the quality control of lenses, objectives and camera modules. VINCORION is the brand for our mechatronic business.

Management

» In short «

Jenoptik took

1st PLACE

in the SDax in the "Investors' Darling" capital market competition in 2020, and was named the best capital market communicator of all 70 SDax companies.

Points assessed in this competition of German financial market communication were financial reporting, investor relations work including digital communication, presentation on the internet, and communication relating to corporate social responsibility (CSR).

INTERVIEW WITH THE EXECUTIVE BOARD

This photo was taken in 2019, before COVID-19 began.

17.6%
adjusted
EBITDA margin
including TRIOPTICS and before PPA impacts is impressive in 2020, the year of the coronavirus

In 2020, Jenoptik consistently continued its development into a leading photonics group with the acquisition of TRIOPTICS, the ongoing internationalization and a large number of cutting-edge innovations being key milestones. The subject of sustainability too has become considerably more important. The very robust financial situation will allow further investment in organic growth, innovations and suitable acquisitions in the future. Jenoptik successfully completed the 2020 reporting year despite the difficult conditions caused by the COVID-19 pandemic. With an adjusted EBITDA margin including TRIOPTICS and before PPA impacts of 17.6 percent, profitability was significantly above even the company's own targets. In this light, the two members of Jenoptik's Executive Board, Dr. Stefan Traeger and Hans-Dieter Schumacher, have given an interview in which they express their confidence that the Group is on the right track for further sustainable and profitable growth with its strategy.

The COVID-19 pandemic had a major impact on all aspects of life around the world. What is the conclusion for Jenoptik for the 2020 reporting year?

Stefan Traeger: First and foremost, I would like to thank all of our employees. Without their great commitment, the successes achieved in 2020 would not have been possible. For us, the focus is on the well-being of the entire team, our entire workforce. We implemented all the necessary hygiene and safety standards at a very early stage, and we also pushed forward digitization so that business operations could continue as best as possible. We had to secure liquidity, the operating business including the supply chains and profitability. Our comparatively good operating performance shows that we succeeded in doing this. Thanks also to a strong final quarter, we even exceeded expectations with respect to profitability in 2020. Jenoptik has performed well in this challenging environment. Although, as expected, our revenue of 767.2 million euros was down on the prior year, the quality of our earnings is really impressive, with an adjusted EBITDA margin including TRIOPTICS and before PPA impacts of 17.6 percent. The Light & Optics and Light & Safety divisions particularly contributed to this. However, we saw a diffenrent business performance in the units.

What does this mean specifically? Where did things go well and where did you see the biggest challenges?

Stefan Traeger: Business with public-sector customers and with the semiconductor equipment industry was good. Development in the automotive industry with the trend away from combustion engines towards electrified drives, exacerbated by the coronavirus pandemic, significantly impacted on our business. However, even here, we recorded exciting new orders thanks to our innovative power and new sales approaches. In addition, the COVID-19 pandemic had a clear impact on our biophotonics and aviation business. It is important to add that we have done our homework with regard to our cost efficiency and in terms of structural adjustments, and have been able to further expand our technology leadership with the acquisition of TRIOPTICS. At the beginning of 2021, Jenoptik stands for growth, innovation and profitability even more than it did a year ago.

> “Thanks to a very healthy balance sheet and a sustainably good free cash flow, we have sufficient reserves for further investments and acquisitions, even after the purchase of TRIOPTICS.”
>
> Hans-Dieter Schumacher

What were and are the greatest drivers of growth for Jenoptik?

Stefan Traeger: In 2020, Light & Optics, our largest division, benefited from very good demand for semiconductor equipment. The reason for this was the continuing increase in digitization in many areas of application. It is no longer just computers and smart phones that require chips, but also increasingly other sectors such as the automotive industry. It is our view that this trend will continue and even strengthen. There are also good prospects in Light & Production with orders in the areas of automation and electric mobility due to increasing demand. Consequently, we also see future growth potential here. With respect to the conventional metrology field, we do not see demand from the automotive sector in this part of our business returning to precrisis levels in the foreseeable future. Therefore, we have started to adapt both the structures and our sales approach. This is already paying off. The Light & Safety division also benefited from very robust demand from the public sector in 2020. With our systems and the associated software, we are following the trend toward increased safety on the roads and in public places. VINCORION has a broad range of services. While there was a significant decline in orders from the aviation sector, we were able to achieve further growth in energy systems.

TRIOPTICS has been the largest acquisition in recent years. What is special about this company and why is this acquisition so important for Jenoptik?
Stefan Traeger: TRIOPTICS is a great example of how we are strategically developing the entire Group. We want the Jenoptik Group to focus even more strongly on photonics, to put the business on a more international footing, and to accelerate profitable growth. TRIOPTICS, an international leader in measurement and production systems for optical components and sensors in the digital world, represents dynamic growth in the photonics sector, has a strong presence in Asia and a very high profitability. Due to our complementary portfolios we can make additional offerings of measuring systems as well as production systems for sensor solutions and optical microcomponents, which will translate into significant revenue synergies of around 50 million euros in the long term. We also see great opportunities in megatrends such as artificial intelligence and augmented reality.

"At the beginning of 2021, Jenoptik stands for growth, innovation and profitability even more than it did a year ago."
Dr. Stefan Traeger

Was the financing of such an acquisition not an issue in such a special year as 2020?
Hans-Dieter Schumacher: The fact that we had a healthy balance sheet and financing structure at the start of the pandemic definitely paid off here. This has, of course, helped us to finance TRIOPTICS on the capital market at very favorable terms. At the end of 2021, we will acquire the remaining 25 percent as planned, yet we will still have financial reserves for further acquisitions.

Sustainability is becoming increasingly important, how do you see Jenoptik's position in this respect?
Stefan Traeger: At Jenoptik, sustainability is firmly embedded in the organization and is practiced by all of our approximately 4,500 employees. As a socalled "enabler", we make an important contribution to the conservation and efficient use of resources with our innovative products and solutions, enabling our customers to achieve greater sustainability and efficiency. Accordingly, sustainability has also gained a prominent position in our corporate strategy. And we want to get better every day. This is demonstrated by numerous actions we have taken to improve resource and energy efficiency, in the area of diversity, in our social commitment and, of course, also in corporate governance issues, and an increasing transparency within our supply chain. This is already acknowledged by various ESG ratings. We are also breaking new ground in the area of "green finance", placing a debenture bond with a "green component".

We have taken a major step forward in the area of diversity in particular: The diversity rate, which is calculated from the average percentage of managers with an international background as well as female managers, is to increase to 30 percent by 2022 and to 33 percent by 2025. We signed the Diversity Charter in August 2020 and will join the UN Global Compact by the end of 2021.

Where is the road heading in 2021?
Stefan Traeger: We are optimistic. Based on the positive order intake development in Q4 2020, a well-filled project pipeline and the continuing promising development in the semiconductor equipment business, we expect to be able to grow in the low double-digit percentage range in revenue in the current fiscal year. In addition to organic growth in the divisions, TRIOPTICS, which is consolidated for the full year for the first time, will also contribute to the positive development. However, uncertainties arise from the COVID-19-related renewed lockdown currently in force and the risk of a third wave of the pandemic. We expect a significant increase in EBITDA, the EBITDA margin is forecast to reach between 16.0 and 17.0 percent. Due to the uncertainty caused by COVID-19, a more precise forecast is not possible at this time, but we intend to specify it as the year progresses.

Will this mean that shareholders may hope for a higher dividend again?
Hans-Dieter Schumacher: We want our shareholders to participate appropriately in our success, on the one hand through the targeted increase in the enterprise value, and on the other hand through a dividend. Accordingly, the Executive and Supervisory Boards will propose a dividend of 0.25 euros per share to the next Annual General Meeting.

Let's look a little further into the future. What are your medium to long-term goals?
Stefan Traeger: We will continue to pursue our strategy, and systematically develop Jenoptik into a focused, high-growth and very profitable high-tech group in the photonics sector. Innovation will remain the driving force behind our future success. Accordingly, we will continue to invest heavily in this area, and want to spend around 10 percent of revenue on research and development in 2022. Our high level of innovation enables us to identify good opportunities for further sustainable organic growth in revenue. We will also continue to examine opportunities for acquisitions to strengthen our photonics business. This and greater cost efficiency should also facilitate continuously increasing profitability. Although, in 2020 we have already exceeded on an adjusted basis our original EBITDA margin target of 16 percent for 2022 despite the COVID-19 pandemic, we still see room to grow in the medium to long term. Our incentive is to create added value for all stakeholders by means of sustainable profitable growth.

Stefan Traeger, Hans-Dieter Schumacher, thank you for the interview!

“We want our shareholders to participate appropriately in the success of the company.”
Hans-Dieter Schumacher

Supervisory Board Report

Honored Shareholders,

With the COVID-19 pandemic raging throughout the world, 2020 was a challenging fiscal year for all of us. Jenoptik too reported declines in key indicators in several areas of its business. At the same time, our purchase of the TRIOPTICS Group represented the biggest acquisition in the company's recent history, one that will be a key driver in Jenoptik's ongoing strategic focus on the high-growth cutting-edge industries in the photonics sector. The TROPTICS acquisition allows us to complement our existing portfolio with new products and services, in the process expanding our leading market position in the field of optical measurement and testing technology. The Supervisory Board provided significant support to the Executive Board throughout the fiscal year. In its view, the Executive Board responded promptly to the COVID-19 pandemic, rapidly putting effective measures in place to counter it. This helped us to meet the challenges we faced together. We are confident that we will emerge stronger from this crisis.

In the past fiscal year, the Supervisory Board diligently performed the duties imposed on it by law, by the Articles of Association and by the Rules of Procedure, regularly provided advice to the Executive Board on the management of the company and continuously monitored its work. The Executive Board directly involved the Supervisory Board in all decisions of fundamental importance to Jenoptik and notified it regularly, in good time and in full, both verbally and in written form, of the current status of business, the course of business and the economic situation, the risk position, risk management, and issues relating to compliance, strategy, and corporate planning. The Executive Board also set out in detail to the Supervisory Board the reasons for discrepancies between the planned and actual course of business, in particular as a result of the economic impact of the coronavirus pandemic. The members of the Supervisory Board dealt comprehensively with the reports submitted by the Executive Board and reviewed them for plausibility at committee and Supervisory Board meetings. It further maintained full compliance with the professional duties set out in § 90 of the Stock Corporation Act (AktG) and the German Corporate Governance Code ("Code"). The Supervisory Board signed off on business transactions requiring approval following due deliberation and discussion.

Over the course of the 2020 fiscal year, the Supervisory Board met for five ordinary meetings and one extraordinary meeting. Even though the Code suggests that videoconferencing and conference calls should not predominate, the Supervisory Board felt compelled to hold almost all the meetings by telephone or online due to the COVID-19 pandemic. One meeting was held as both a face-to-face meeting and online. In addition, resolutions were adopted by unanimous written consent. Over the past fiscal year, the Supervisory Board saw a consistently high participation rate: all members of the Supervisory Board attended considerably more than half of the meetings convened by the board and the committees on which they sit. On average, participation in Supervisory Board meetings was 97 percent. There were also five meetings of the Audit Committee, four meetings of the Personnel Committee, and six meetings of the Investment Committee, all of which were also held exclusively by telephone or virtually using electronic communications. Attendance at Investment Committee meetings was also 97 percent, at the other committee meetings 100 percent. Detailed information on individual attendance at meetings can be found in table T01.

The members of the Executive Board attended the meetings of the Supervisory Board and the committees. The Supervisory Board, however, also met regularly without the Executive Board, for example to discuss personnel matters relating to the Executive Board or with regard to adjustments to the remuneration system for Executive Board members arising from new legal requirements.

The Executive Board and the Supervisory Board worked together in an atmosphere of mutual trust and understanding at all times. The Chairman of the Supervisory Board and the Chairmen of the committees maintained ongoing contact with the Executive Board between the meetings of the Supervisory Board and the committees. Monthly reports on the company's position were sent to all members of the Supervisory Board between meetings.

Particular Subjects discussed by the Supervisory Board

At all its regular meetings, the Supervisory Board dealt with the Executive Board's detailed reports on the impact of the COVID-19 pandemic on the business outlook, in particular the Group's current revenue and earnings performance and its financial and asset position. This included a comprehensive examination and discussion of the monthly and quarterly reports. Recurring issues at several meetings further included in-depth explanations and discussions on a range of acquisition and divestiture projects, in particular the acquisition of the TRIOPTICS Group in July and the Spanish company INTEROB at the beginning of the 2020 fiscal year.

The members of the Supervisory Board adopted their report for the 2020 Annual General Meeting and approved the Corporate Governance Statement and the Corporate Governance Report for the 2019 Annual Report **by written consent in February 2020**. In addition, the CVs of Supervisory Board members were compared against the competency profile adopted by the Supervisory Board, updated, and published on the Jenoptik website.

At its **meeting on March 24, 2020**, the Supervisory Board discussed the audit of JENOPTIK AG's Annual Financial Statements, the Consolidated Financial Statements, the Consolidated Management Report, the Non-Financial Report, and the appropriation of accumulated profits at length in the presence of the auditor. Following extensive discussion, the Supervisory Board approved the Annual Financial Statements of JENOPTIK AG as well as the Consolidated Financial Statements for the 2019 fiscal year. The Annual Financial Statements were thus adopted. Due to impacts of the COVID-19 pandemic Executive Board and the Supervisory Board had to make the Forecast Report contained in the Consolidated Financial Statements' Management Report and its proposal for the appropriation of profits subject to reservations due to the impacts of the COVID-19 pandemic. The members of the Supervisory Board resolved to approve the Executive Board's proposal for the appropriation of profits, but also to review it at a later date based on business performance in the following weeks and then adjust it if necessary. The Executive Board informed the Supervisory Board about the company's Coronavirus Task Force, which dealt with the novel challenges and impacts of the COVID-19 pandemic in the company on a daily basis. Another matter discussed at the meeting was the settlement of the target agreements for Executive Board members in the 2019 fiscal year and the conclusion of new target agreements for both Executive Board members for 2020. The Supervisory Board also dealt with a group project to establish efficient administrative structures and various potential acquisition projects. The resolution on the agenda for the Annual General Meeting was postponed because, due to the pandemic, it was not yet clear at this meeting in what form and at what time the 2020 Annual General Meeting could be held.

The **meeting on June 8, 2020** focused on the company's current business outlook and financial situation following the end of the first quarter and as of April 30, 2020. Due to the impacts of the COVID-19 pandemic on business performance, the Executive Board and Supervisory Board together reviewed the proposal for the appropriation of accumulated profits for 2019 and decided to propose a dividend payment of 0.13 euros per dividend-bearing share to the 2020 Annual General Meeting. The Supervisory Board then approved the Executive Board's proposal to hold the 2020 Annual General Meeting virtually, without the physical presence of shareholders, and approved the agenda for the Annual General Meeting. The Supervisory Board dealt with a project on the future strategic trajectory of a business unit in the Group and set a new target for the proportion of women on the Executive Board to be achieved by June 30, 2023. It approved in principle the use of a bridge financing to finance a potential acquisition. Revised Rules of Procedure for the Supervisory Board were adopted and subsequently made available to the public on the company's website. Expressing their solidarity in the coronavirus crisis, the members of the Supervisory Board agreed to waive 10 percent of their fixed annual remuneration in the 2020 fiscal year. Employee representatives and the Jenoptik Executive Board have since resolved to use the money saved to help pay the healthcare costs of Jenoptik employees in the US who have been severely affected financially by the pandemic. The Chairman of the Executive Board, Dr. Traeger, also agreed to waive his fixed salary increase of 25,000 euros for 2020, which was due to take effect on July 1, 2020.

At an **extraordinary meeting on July 1, 2020**, we approved the scheduled acquisition of TRIOPTICS by JENOPTIK Optical Systems GmbH in two stages, as well as the bridge financing required for this transaction.

At its **meeting on September 16, 2020**, the Executive Board reported on the current business outlook and financial situation following the end of the second quarter and as of July 31, 2020, in particular its actions to manage the enduring impacts of the coronavirus pandemic on business performance. The meeting also dealt with a restructuring project in the Group. The Supervisory Board

T01 Participation of the individual Supervisory Board members in meetings

	Astrid Biesterfeldt	Evert Dudok	Michael Ebenau (until 15.10.2020)	Elke Eckstein	Thomas Klippstein	Dörthe Knips
6 Supervisory Board Meetings	●●●●●●	●●●●● ○	●●●●	●●●●●●	●●●●●●	●●●●●●
5 meetings of the Audit Committee	●●●●●	–	–	–	●●●●●	–
4 meetings of the Personnel Committee	–	–	●●	–	●●●●	–
6 meetings of the Investment Committee	–	–	●●●●●	●●●●●●	–	●●●●●●

● Participation ○ No participation

examined the planning assumptions for the 2021 fiscal year, a range of acquisition and divestiture projects, and the Group's Risk and Opportunity Report as of June 30, 2020. Due to the departure of our Deputy Chairman of the Supervisory Board, Mr. Michael Ebenau, effective October 15, 2020, we elected Mr. Stefan Schaumburg as the new Deputy Chairman of the Supervisory Board with effect from October 16, 2020. Other items on the agenda included information on potential structural alterations at the Jena site and the resolution on an investment in a new electron-beam lithography facility at the Dresden site. The Supervisory Board also agreed to appoint an independent external expert to evaluate processes and collaboration within the Supervisory Board and its committees.

During the **two-day strategy meeting in November**, the Supervisory Board was joined by the Executive Board and other members of the Executive Management Committee to discuss a range of group initiatives, potential portfolio transformations, and the strategic positions of the separate divisions from the perspective of the market, the competition, and customers.

At its last **meeting** of the year **on December 15, 2020**, the Supervisory Board again dealt in detail with the impacts of the COVID-19 pandemic on the business performance of JENOPTIK AG and the Group following the end of the third quarter and as of October 31, 2020. We were provided with information on the medium-term planning and approved the corporate planning for the 2021 fiscal year. On successful completion of the TRIOPTICS Group acquisition on September 24, 2020, the Executive Board set out to us the current status of post-merger integration. The Executive Board presented the Group's future financing strategy, following which the Supervisory Board agreed to start negotiations with banks regarding a range of financing instruments. After reviewing a corporate governance checklist, we also, together with the Executive Board, approved the declaration of conformity in accordance with § 161(1) of the Stock Corporation Act (AktG) for the 2020 fiscal year. We looked at potential adjustments to the existing Executive Board remuneration system in view of the new regulatory requirements of the Act Implementing the Second Shareholder Rights Directive (ARUG II) and the German Corporate Governance Code. The revised remuneration system is due to be agreed at the beginning of the new fiscal year and then submitted to the 2021 Annual General Meeting for approval. Further matters dealt with at the meeting included a sustainability management update and the independent expert's report on the results of their efficiency review.

Dieter Kröhn	Doreen Nowotne	Heinrich Reimitz	Stefan Schaumburg	Frank-Dirk Steininger (since 16.10.2020)	Prof. Dr. Andreas Tünnermann	Matthias Wierlacher	Total attendence in percent
●●●●●●	●●●●●●	●●●●●●	●●●●● ○	●●	●●●●●●	●●●●●●	97 %
–	●●●●●	●●●●●	–	–	–		100 %
–	–	●●●●	●●●●	●	●●●●	●●●●	100 %
●●●●●●	●●●●● ○	–	–	–	–	●●●●●●	97 %

Work in the Committees

The Supervisory Board has established five committees to help perform its tasks with greater efficiency. To the extent permissible by law, these committees make one-off decisions in place of the Supervisory Board and prepare topics that are then addressed by the Supervisory Board. The chairmen on the committees provided in-depth information on the content and outcomes of each committee meeting at the following meetings of the Supervisory Board. Information on the individual members of each committee can be found in the Group Notes appended to the Annual Report, from page 228 on, or in the Corporate Governance Statement, on page 36.

The Audit Committee headed by Mr. Heinrich Reimitz convened four meetings and one conference call in the period covered by the report. Both members of the Executive Board, the Head of Group Controlling, and the Head of Group Accounting and Taxes were present at all meetings; the heads of relevant departments attended as required for individual topics. In addition to the Monthly, Quarterly, and Half-Year Financial Statements, and the Annual and Consolidated Financial Statements, the Audit Committee paid particular attention to the effectiveness and ongoing development of the risk management, internal control, and compliance management systems. The Audit Committee also dealt regularly with current analyst assessments and the performance of the Jenoptik share.

During **a conference call** in February 2020 prior to publication of the preliminary figures, the Audit Committee together with the Executive Board discussed the key indicators in the 2019 fiscal year as well as the progress made in preparing the Annual and Consolidated Financial Statements.

The **balance sheet meeting in early March** focused on the audit of the Consolidated Management Report, JENOPTIK AG's Annual Financial Statements, the Consolidated Financial Statements, and the Executive Board's proposal for the appropriation of profits. Two auditor representatives attended this meeting. The Non-Financial Report and the results of the review were also discussed with a representative from auditing firm PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft ("PWC") in the form of a limited assurance engagement. The Audit Committee was provided with updates on sustainability reporting in the Group, on current analyst and investor assessments, and with detailed information on the Group Risk and Opportunity Report as of December 31, 2019. Another issue at the meeting was the recommendation by the Audit Committee to the Supervisory Board that Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart ("EY"), again be proposed to the Annual General Meeting as the auditor for the 2020 fiscal year. EY confirmed that there are no circumstances that might compromise its independence as auditor.

At its **meeting in May**, the Audit Committee dealt in detail with the Quarterly Statement for the first quarter of 2020, in particular the impacts of the corona pandemic on business performance. The committee looked at audits completed by Internal Audit, at sustainability management, and share price performance, and assessed the quality of the audit carried out by EY for the past fiscal year.

In addition to the Half-year Financial Statements and the simulation as of December 31, 2020, the committee's **discussions in August** focused on determining the audit priorities and reviewing EY's fee agreement. The committee also addressed the issue of monitoring the independence of the auditor. To this end, it reviewed the services provided in the past year in addition to the audit and updated its approved catalog of permissible non-audit services. The Audit Committee then appointed EY as auditor for the 2020 fiscal year. The committee was also notified of issues in sustainability management and current analyst assessments.

At its last **meeting** of the year **in November**, the Audit Committee examined the Financial Statements for the third quarter and the current simulation as of December 31, 2020. The Head of Internal Audit reported on audit procedures and his main findings, scheduled optimization of the internal control system, and audit planning for the following year. The Head of Investor Relations provided updates on sustainability management and the performance of the Jenoptik share.

The Personnel Committee headed by the Chairman of the Supervisory Board, Mr. Matthias Wierlacher, convened four times in the past fiscal year. Its meetings focused on the settlement of the Executive Board's target agreements for 2019 and the agreement of new targets for the 2020 fiscal year. The committee also dealt with long-term succession planning for the Executive Board and the review and revision of the Executive Board remuneration system with regard to the new requirements of ARUG II and the German Corporate Governance Code.

The Investment Committee is also headed by the Chairman of the Supervisory Board, Mr. Matthias Wierlacher. It met six times in the past fiscal year to deal with various acquisition and divestiture projects, in particular the acquisition of the TRIOPTICS Group, which was successfully completed in September 2020.

The Nomination Committee and the Mediation Committee did not meet in the past fiscal year. These two committees are also headed by Mr. Wierlacher.

Corporate Governance

Over the past fiscal year, the Supervisory Board engaged with corporate governance issues, and in December, following examination of a corporate governance checklist and in conjunction with the Executive Board, adopted the declaration of conformity according to § 161(1) of the Stock Corporation Act (AktG). The current declaration of conformity, together with declarations of prior years, are permanently available to shareholders on the company's website. The latest declaration of conformity can also be found in the Corporate Governance Statement, on page 36.

Following the most recent external efficiency review in 2017 and internal self-evaluations in both 2018 and 2019, the Supervisory Board appointed an independent external expert in September 2020 to evaluate its work and processes with regard to its composition, culture and leadership, and general aspects of good corporate governance. At its December meeting, the external consultant presented his findings to the full Supervisory Board. The review gave a positive picture – also in benchmarking – of the work of the Supervisory Board and its committee.

Within the Supervisory Board, there were no conflicts of interest subject to reporting requirements in the past fiscal year. Individual members of the Supervisory Board of JENOPTIK AG exercise an executive role at companies with which Jenoptik has a business relationship. Jenoptik does not consider any of these business transactions to be of significance, especially as they are conducted under the same conditions as would have been maintained with third-party companies. Furthermore, neither the Executive Board nor the Supervisory Board effected any transactions that would have required approval or are subject to disclosure under the new provisions of ARUG II ("related party transactions"). More information on business transactions by the Executive Board or Supervisory Board with related parties can be found in chapter 8.5 of the Notes on page 224.

Members of the Supervisory Board are independently responsible for undergoing the training and professional development measures necessary for their tasks. They are given targeted support by the company in the form of invitations to selected events. All members are regularly notified of new regulatory requirements. New members are also supported by the company during their inductions. In the course of a virtual meeting, the Chairman of the Executive Board personally presented the Jenoptik business model to our new Supervisory Board member, Mr. Frank-Dirk Steininger.

Detailed information on corporate governance at Jenoptik can be found in the Corporate Governance Statement beginning on page 36 of the Annual Report.

Annual Financial Statements and Consolidated Financial Statements

In accordance with the resolution of the Annual General Meeting on August 7, 2020, EY was appointed to audit the Annual Financial Statements of JENOPTIK AG and the Consolidated Financial Statements. EY has acted as the JENOPTIK AG and Group auditor since the 2016 fiscal year. For the second time, the lead audit partner is Mr. Steffen Maurer. EY audited the Annual Financial Statements prepared by the Executive Board according to the provisions of the German Commercial Code (HGB), the Consolidated Financial Statements prepared according to § 315e HGB and on the basis of International Financial Reporting Standards (IFRS) as applicable in the EU, and the Consolidated Management Report, and issued its unqualified approval. Within the scope of its duties, EY also checked whether the Executive Board had adopted suitable measures to ensure that developments that may endanger the continued existence of the company are identified in good time. The EY audit was conducted according to § 317 HGB, giving consideration to the generally accepted German audit principles defined by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer [IDW]).

On completion, the auditor’s reports, the Annual Financial Statements, the Consolidated Financial Statements, the Executive Board’s proposal for the appropriation of profits, the Consolidated Management Report, and the Non-Financial Report were dispatched to all members without delay and, together with the documents submitted by the Executive Board, discussed in great detail by the Audit Committee and the Supervisory Board at their March meetings. Both also dealt extensively with the key audit matters. Whereas the Non-Financial Report had been audited by PWC in prior years, the Supervisory Board and the Audit Committee conducted the audit of the Non-Financial Report for the 2020 fiscal year themselves. PWC remained available in an advisory capacity, and Internal Audit provided significant support in the audit of the Non-Financial Report.

Representatives from EY reported personally on the scope, main focus, and key findings of their audit at the meetings, and were also available to respond to any further queries. EY also provided information on services rendered in addition to the financial statement audit services. Detailed information can be found in the Notes in chapter 10.3. According to the auditor, there were no circumstances that gave rise to a concern of partiality. No major weaknesses in the risk early warning system or the accounting-related internal control system were reported. The Chairman of the Audit Committee also reported in detail on the audits of the Annual Financial Statements and the Consolidated Financial Statements prepared by the Audit Committee.

Following the final outcomes of the preliminary audit by the Audit Committee and its own review and discussion, the Supervisory Board raised no objections to the outcomes of the audit at its meeting on March 24, 2021 and approved the Annual Financial Statements and Consolidated Financial Statements prepared by the Executive Board. The Annual Financial Statements for 2020 are thus adopted according to § 172(1) of the Stock Corporation Act (AktG). The Supervisory Board discussed in detail the Executive Board's resolution on the appropriation of profits, which provides for a dividend payment of 0.25 euros per dividend-bearing share, and approved it following an internal review.

Changes on the Supervisory Board and Executive Board

Our Deputy Chairman of the Supervisory Board, Mr. Michael Ebenau, left his position to enter retirement with effect from October 15, 2020. We thank him for his valuable assistance and years of service on the Supervisory Board of JENOPTIK AG. Mr. Stefan Schaumburg, who has been a member of the Supervisory Board since 2012, was appointed the new Deputy Chairman of the Supervisory Board. As successor to Mr. Ebenau, Mr. Frank-Dirk Steininger, Regional Secretary of IG Metall Mitte, was appointed to the Supervisory Board by court order with effect from October 16, 2020, for a limited period until the expiry of Mr. Ebenau's remaining term of office, i.e., until the end of the Annual General Meeting in 2022. Mr. Steininger was also elected a member of the Personnel Committee, Mr. Schaumburg a member of the Investment Committee. Over the past fiscal year, there were no personnel changes on the Executive Board.

On behalf of the Supervisory Board, I would like to express my particular thanks to all employees, employee representatives, and the members of the Executive Board for their extraordinary commitment and great personal dedication in the past year, which has been a very challenging time in the light of the COVID-19 pandemic. I would also like to thank our shareholders, who have continued to place their trust in us throughout this time.

Jena, March 2021
On behalf of the Supervisory Board

Matthias Wierlacher

Matthias Wierlacher
Chairman

Jenoptik Highlights 2020

Acquisition of INTEROB

The acquisition of the Spanish INTEROB Group boosts Jenoptik's position as a turnkey provider of automated production solutions and gives the company an opportunity to tap into further potential for regional and technological growth in the automotive industry.

Investment in Japan

Jenoptik acquires all remaining shares in JENOPTIK Japan Co. Ltd., providing a further boost to its business and sales structures for diode laser, laser machines, optics, and instrumentation.

Better traffic safety in North America

In March the photonics Group announces new orders for traffic safety technology worth over 21 million US dollars. Speed measuring instruments and a new VECTOR camera platform featuring artificial intelligence will help to increase safety on roads and in communities in North America.

Diverse coronavirus prevention measures

In the light of the global coronavirus pandemic, Jenoptik is adopting a range of measures within the company to provide maximum protection for its employees in addition to safeguarding its business and financial liquidity. An internal Coronavirus Task Force is responsible for communicating and coordinating the measures.

Long-term order for infrared optics

Jenoptik is contracted by Rheinmetall to supply custom infrared optics of high quality and precision over the period from 2020 to 2025. The order value is in the high seven figures.

Laser technology for car manufacturing in China

Chinese automotive supplier Xinquan Automotive orders a further laser machine for airbag perforation, thus investing in an efficient form of material processing for automotive interiors.

Demand for infrared cameras

Jenoptik and InfraTec extend their longstanding successful partnership in the field of non-contact temperature measurement. Jenoptik is supplying the Dresden-based company with handheld and stationary high-end infrared cameras and lenses worth several million euros.

Patriot order for VINCORION

Through its mechatronics business VINCORION, Jenoptik will supply spare parts for the Patriot air and missile defense system's power supply into 2021. The order is worth around 10 million euros.

Acquisition of TRIOPTICS

In early July, Jenoptik reports its biggest acquisition in recent years: TRIOPTICS supplies measuring and testing equipment for optical components and sensors. The Wedel-based company's portfolio of mobility, connectivity, virtual reality, and digital imaging strengthens Jenoptik's position as an expert for photonics.

Donation for better home schooling

Together with the "Jenaer Bündnis für Familie" (Jena Family Alliance), Jenoptik launches an appeal for donations for schools in the city. The money, including 10,000 euros from Jenoptik, will be used to buy tablets and laptops to help support socially disadvantaged families with children currently being schooled at home.

One of the best communicators

Jenoptik is again one of the best communicators on the German capital market. This was confirmed by its first place in the SDax in the renowned "Investors' Darling" capital market competition.

Major order for automotive production

Jenoptik receives a major automotive order from Gestamp. It comprises three automated production cells, including laser machines, for cutting and welding car body components produced at a Gestamp plant for electric vehicles in Germany.

Investment in lithography equipment

The Group is investing in a state-of-the-art electron-beam lithography tool at its Dresden site. It is used to manufacture ultra-precise micro-optics, which represent the functional core of sensors required in the semiconductor equipment industry.

Gesture of solidarity

In a gesture of solidarity in the COVID-19 crisis, the members of the JENOPTIK AG Supervisory Board waive part of their fixed remuneration in 2020. Employee representatives and the Jenoptik Executive Board together resolve to use the 60,000 US dollars saved to help support Jenoptik employees in the US who have been severely affected financially by the pandemic.

The Jenoptik Share

Stock Markets

The 2020 stock market year was dominated by the coronavirus pandemic and its impact, and saw strong fluctuations in the markets. In mid-February, the spread of the virus and lockdowns in many countries caused stock markets to plunge. Hopes that economic activity would soon return to normal, together with aid programs initiated by governments and central banks to mitigate the effects of the crisis on the economy – which flooded the markets with money –, and the anticipation of effective coming vaccines all resulted in a relatively quick recovery of the stock markets. Brexit and the elections in the US also influenced the capital markets in 2020, albeit to a lesser extent than the pandemic.

The latest information on the Jenoptik share and the development of the Jenoptik Group can be found at www.jenoptik.com/investors or on Twitter

At the end of the year, Germany's benchmark index, the Dax, rose to 13,718.78 points, an increase of 2.5 percent. The TecDax, Germany's technology index climbed to 3,212.77 points by the end of December, up 4.8 percent for the year. On the last day of trading in 2020, the SDax was up 16.8 percent, at 14,764.89 points.

Jenoptik Share Trends

Over the period covered by the report, the Jenoptik share was unable to escape the drop in the overall market. Starting the first day of trading in 2020 with a closing price of 26.18 euros, the share increased to its high for the year of 27.44 euros on February 12, before slumping dramatically, like the overall German capital market, in mid-February, and reached its lowest value of 13.82 euros on March 19. Following announcement of a first outlook for 2020, the share slowly recovered from May on. In the second half-year of 2020, the share price showed a volatile trend. It benefited, for example, from the acquisition of TRIOPTICS in early July, but fell when the revenue forecast was adjusted in October. The share ended trading on December 30 at 25.12 euros, a fall of 4.0 percent. Jenoptik's total shareholder return, i.e., share price performance accounting for dividends paid in the fiscal year, came to minus 3.1 percent in 2020 (prior year: 7.9 percent). At 57,238,115 shares issued, market capitalization amounted to 1,437.82 million euros at the end of the year (prior year: 1,458.42 million euros).

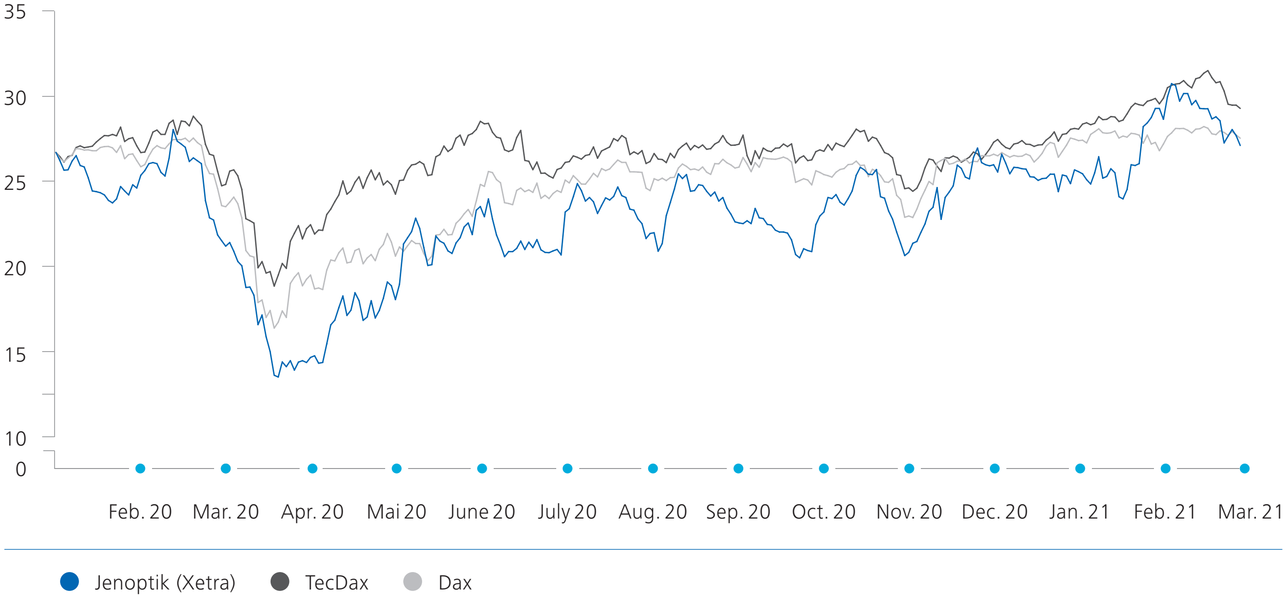
The mood on the international capital markets was mixed in January and February 2021. The leading German index, the Dax, showed a very stable sideways movement, while the TecDax and SDax rose slightly. Supported by an announcement on higher profitability, the Jenoptik share price rose noticeably in the first two months, and ended trading at 26.56 euros on February 26. This equated to a market capitalization of 1,520.24 million euros. G01 G02

Compared to the prior year, investor trading saw a considerable upturn. In 2020, the average number of Jenoptik shares traded per day on the Xetra, in floor trading, and on Tradegate was 190,855 (prior year: 152,355). Trading volumes thus rose significantly, by 25.3 percent.

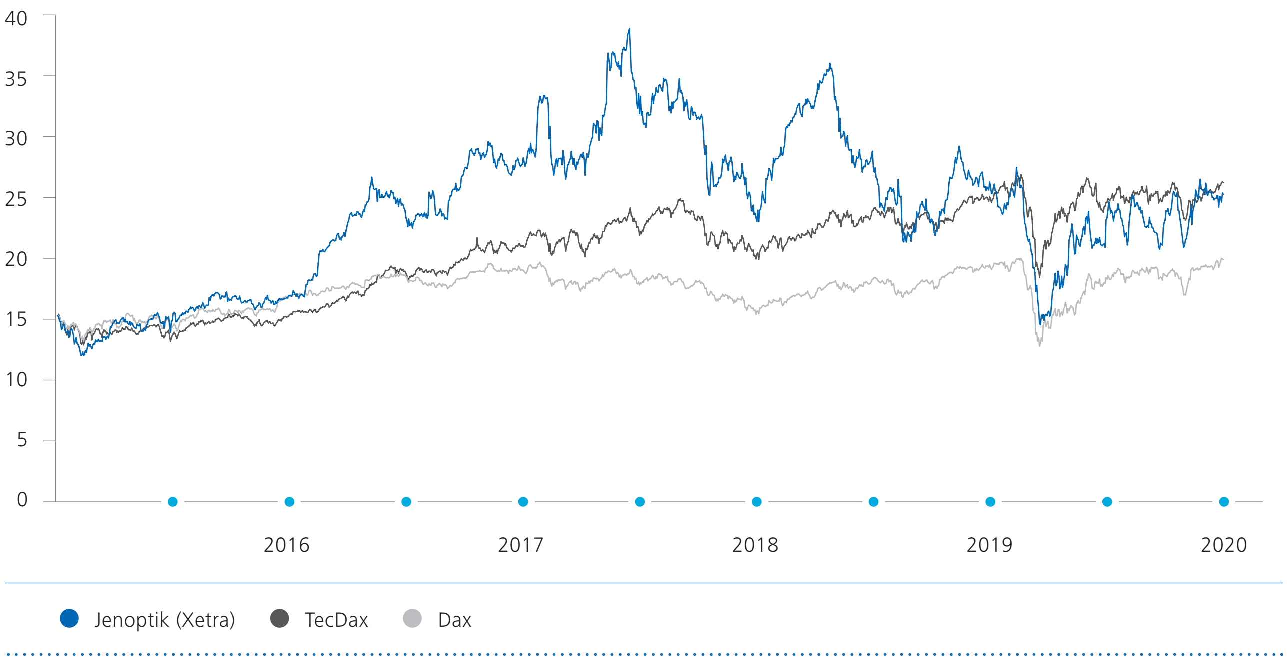
In the TecDax ranking compiled by Deutsche Börse, the Jenoptik share was 29th in terms of stock turnover (prior year: 28th). In terms of free float market capitalization, the company held 23rd place (prior year: 23rd).

Of the 70 stocks on the SDax, JENOPTIK AG occupied 11th place in market capitalization (prior year: 7th) and 25th in trading volumes (prior year: 23th) at the end of the year.

G01 Share performance January 2, 2020 through February 26, 2021 (indexed in euros)



G02 Share performance 2016 to 2020 (indexed in euros)



Shareholder Structure

At the end of the fiscal year, the company's free float was unchanged at 89 percent.

Throughout 2020, we received several voting right notifications from institutional investors to buy or sell larger long stock positions; these were published by the company.

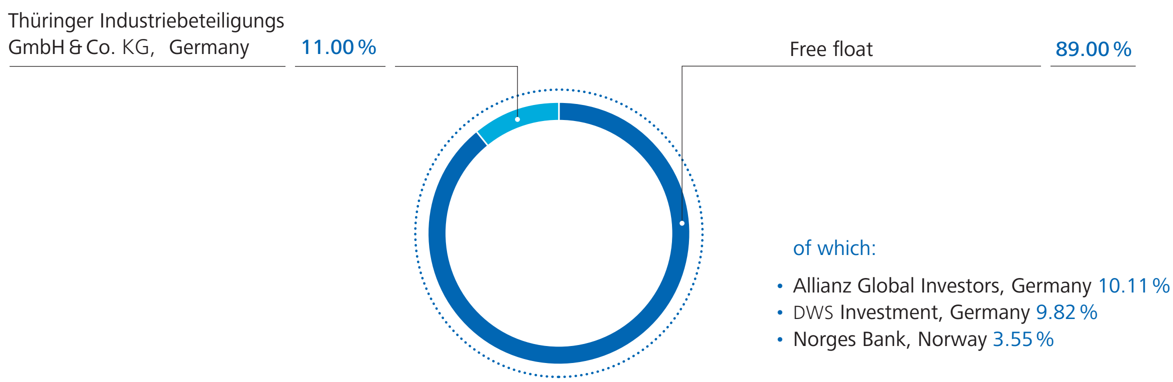
For more information on this, see the Notes in the Equity chapter and the Investors/Share/Voting rights announcements section on www.jenoptik.com

Dividend

The Jenoptik management aims to pursue to a policy of dividend reliability and continuity in which shareholders receive a dividend in line with the company's success. At the same time, sufficient cash and cash equivalents to finance Jenoptik's operating business, strategic investment to assist its transformation into a streamlined technology company for optics and photonics, and the use of acquisition opportunities to secure the lasting growth of the company are also in the interests of the shareholders. The Executive and Supervisory Boards of JENOPTIK AG therefore review their dividend proposal with considerable prudence every year. In the light of the coronavirus crises and the associated economic impacts, Jenoptik paid its shareholders a 2019 dividend of 0.13 euros per share (prior year: 0.35 euros) in the past fiscal year.

For fiscal year 2020, the Executive Board and Supervisory Board of JENOPTIK AG will propose to the 2021 Annual General Meeting a dividend of 0.25 euros per share (prior year 0.13 euros). With this recommendation, the boards are continuing their consistent dividend policy. Despite the effects of the COVID-19 pandemic, the acquisition of two companies and investments at a high level, the shareholders of JENOPTIK AG are to participate appropriately in the company's success. With earnings per share of 0.73 euros (prior year 1.18 euros), the payout ratio amounts to 34.2 percent, subject to the approval of the Annual General Meeting, (prior year 11.0 percent) and thus significantly exceeds the value of previous years.

G03 Shareholder structure (as of February 26, 2021)*



* based on received voting right notifications

Capital Market Communications

We are committed to making sure our communication with shareholders, analysts, and institutional investors is open, transparent, and reliable. This includes reporting comprehensive and up-to-date information on the development of our business, while also seeking an active exchange with others. We believe it is important to achieve a high level of transparency and boost trust in Jenoptik by engaging in ongoing dialog.

At the end of the year 2020, a total of 45,173 shareholders (prior year: 42,526) were entered in the share register, of which 478 were institutional investors (prior year: 477) and 44,695 private investors (prior year: 42,049). Institutional investors held 78.99 percent of the company's share capital, virtually unchanged on the prior year (prior year: 79.80 percent), private investors 21.01 percent (prior year: 20.20 percent).

T02 Jenoptik share key figures

	2020	2019	2018	2017	2016
Closing price (Xetra end-year) in euros	25.12	25.48	22.78	27.55	16.43
Highest/lowest price (Xetra) in euros	27.44/13.82	36.45/21.00	39.48/22.78	29.68/16.11	16.65/11.14
Absolute performance in euros/relative in percent	−1.06/−4.05	1.74/7.33	−5.02/−18.1	10.78/64.28	1.84/12.6
Issued no-par value shares (31/12) in millions	57.24	57.24	57.24	57.24	57.24
Market capitalization (Xetra end-year) in million euros	1,437.8	1,458.4	1,303.9	1,576.9	940.1
Average daily trading volume (in shares) [1]	190,855	152,355	167,748	152,928	107,183
P/E ratio (based on highest price/based on lowest price)	37.6/18.9	30.9/17.8	25.8/14.9	23.4/12.7	16.7/11.1
Operating cash flow per share in euros	1.79	2.12	2.61	1.84	1.91
Group earnings per share in euros	0.73	1.18	1.53	1.27	1.00

[1] Source: Deutsche Börse; includes trading on the Xetra, in Frankfurt, Munich, Berlin, Düsseldorf, Hamburg, Hannover, Stuttgart and on Tradegate

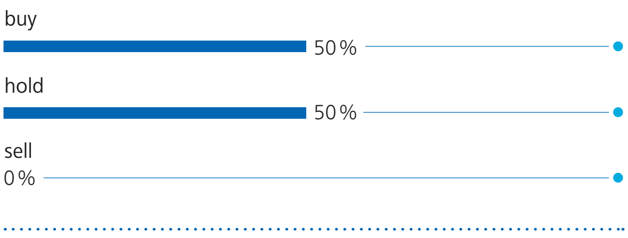
T03 Dividend key figures

	2020	2019	2018	2017	2016
Dividend per share in euros	0.25	0.13	0.35	0.30	0.25
Payout amount in million euros	14.3	7.4	20.0	17.2	14.3
Dividend yield [1] in %	1.0	0.5	1.5	1.1	1.5
Payout ratio [2] in %	34.2	11.0	22.9	23.7	24.9
Total shareholder return in %	−3.1	7.9	−17.0	65.8	14.1

[1] based on year-end closing price
[2] based on earnings attributable to shareholders

In the annual "Investors' Darling" competition run jointly by HHL Leipzig Graduate School of Management and the business journal "manager magazin", Jenoptik took first place in the SDax index for the second time and was thus named the best capital market communicator of all 70 SDax companies. Points assessed were financial reporting, investor relations work and presentation, including digital communication, and communications relating to corporate social responsibility (CSR). A high level of transparency in relation to the business model, the competitive environment, the capital market, and the excellent forecast presentation were the key factors cited by the jury contributing to its top ranking. Added to this was a detailed equity story and extensive information on M+A impacts. In terms of digital communication, the investor relations website of Jenoptik boasts a high level of functionality and very good content coverage.

G04 Analyst recommendations (as of December 31, 2020)



The 22nd Annual General Meeting of JENOPTIK AG was for the first time held in purely virtual form on August 7, 2020 due to the coronavirus pandemic. At around 65 percent, the proportion of capital represented was virtually unchanged. By a large majority, the shareholders formally approved the actions of the Executive Board and Supervisory Board, elected the auditor, and agreed to payment of the proposed dividend.

The company attended numerous investor conferences and roadshows, almost all of which were held virtually, in the 2020 fiscal year. During conference calls on the publication of the annual and quarterly financial statements and in numerous individual conversations, the Executive Board and the investor relations team explained the development of business, key figures and strategy to institutional investors, analysts and journalists.

Over the course of 2020, 12 (prior year: 11) analysts published recommendations on the Jenoptik share: Baader Helvea, Bankhaus Lampe, Bankhaus Metzler, Deutsche Bank, DZ Bank, Hauck & Aufhäuser, HSBC, Independent Research, Kepler Cheuvreux, LBBW, Warburg Research, and, since the beginning of 2020, Commerzbank. On December 31, 2020, the average target price of the Jenoptik share as assessed by analysts was 26.88 euros (prior year: 28.95 euros). G04

Corporate Governance

» In short «

The current declaration of conformity in accordance with

§ 161

Stock Corporation Act was issued jointly by the Executive Board and the Supervisory Board in December 2020.

Information and Notes relating to Takeover Law, the Corporate Governance Statement, and the Remuneration Report are part of the Combined Management Report.

Corporate Governance Statement

The Corporate Governance Statement is in accordance with §§ 289 f, 315 d of the German Commercial Code (HGB). It is an unaudited part of the Combined Management Report. In the Corporate Governance Statement, the Executive Board and Supervisory Board also report on the company's corporate governance. The JENOPTIK AG Executive Board and Supervisory Board affirm their commitment to responsible corporate governance and control, geared towards lasting value creation. They see good corporate governance as the foundation for sustained corporate success and, at the same time, an important contribution to strengthening the trust in Jenoptik on the part of shareholders, business partners, employees, and the general public.

Corporate Governance

In the reporting year, the Executive Board and Supervisory Board again dealt in detail with corporate governance issues, in particular the new version of the German Corporate Governance Code ("Code"), which came into force in March 2020. The Executive and Supervisory Boards issued the current Declaration of Conformity in adherence with § 161 of the German Stock Corporation Act (AktG) in December 2020. It is permanently available to shareholders on the company's website. If, in the future, changes arise at Jenoptik which have an impact on compliance, the Declaration of Conformity will be updated during the year.

The Corporate Governance Statement as well as the current Declaration of Conformity, and those of previous years, are permanently accessible on our website at www.jenoptik.com under the category Investors/Corporate Governance

Declaration of Conformity by the Executive Board and Supervisory Board of JENOPTIK AG in the 2020 Fiscal Year

According to § 161, Para. 1, Sent. 1 of the German Stock Corporation Act (AktG), the Executive and Supervisory Boards of a listed company are required to issue a declaration once a year that the recommendations of the "Government Commission on the German Corporate Governance Code" as published by the Federal Ministry of Justice in the official section of the Federal Gazette [Bundesanzeiger] have been and are complied with, or to indicate which recommendations have not been or are not applied and why not.

The Executive and Supervisory Boards of JENOPTIK AG support the recommendations of the "Government Commission on the German Corporate Governance Code," and state that pursuant to § 161, Para. 1, Sent. 1 of the German Stock Corporation Act (AktG):

I. Since the last Declaration of Conformity as of December 2019, the recommendations of the "Government Commission on the German Corporate Governance Code" in the version dated February 7, 2017 ("Code 2017") have been complied with with the following exception:

   In accordance with Point 5.4.1 Para. 2 Sent. 2 of the Code 2017 the Supervisory Board shall specify a regular limit to the Supervisory Board members' term of office when naming concrete objectives regarding its composition.

   This recommendation has not been complied with. The Supervisory Board has decided not to specify a regular limit regarding the Supervisory Board members' term of office. It is not consistently compatible with the procedure for elections of employee representatives to the Supervisory Board as stipulated in the German Co-Determination Act. The recommendation is no longer included in the current version of the Code dated December 16, 2019.

II. JENOPTIK AG has complied with the recommendations of the Code in the version dated December 16, 2019, published in the Federal Gazette on March 20, 2020 ("Code 2019") and will comply with them with the following exception which is declared purely as a precautionary measure:

   In accordance with recommendation C.4 of the Code a Supervisory Board member who is not a member of any Executive Board of a listed company shall not accept more than five Supervisory Board mandates at non-group listed companies or comparable functions, with an appointment as Chair of the Supervisory Board being counted twice.

   Our Supervisory Board member, Ms. Doreen Nowotne, is also Chairwoman of the Supervisory Board of Franz Haniel & Cie. GmbH as well as of Brenntag AG and Supervisory Board member of Lufthansa Technik AG. If the mandate at Jenoptik, which from Jenoptik's point of view is an internal mandate, is counted in the addition of the mandates according to C.4 Ms. Nowotne has in total six mandates. Therefore, a deviation has been declared purely as a precautionary measure. The Supervisory Board has made sure that Ms. Nowotne has sufficient time available to discharge her duties.

According to the reasons stated in the Code 2019, the recommendations on Executive Board compensation need not to be taken into account in current Executive Board contracts until their next renewal or amendment, therefore, JENOPTIK AG does not deviate from the Code 2019 in this respect. In connection with the resolution on the remuneration system to be submitted to the 2021 Annual General Meeting for approval pursuant to §§ 87a, 120a of the German Stock Corporation Act (Aktiengesetz) for the first time, the Supervisory Board will decide whether the recommendations of Chapter G of the Code 2019 should be fully complied with for Executive Board contracts to be concluded or amended in the future.

In the interest of transparent communication, we would like to inform that in the current compensation system for the Executive Board, approved by the Annual General Meeting 2018, no maximum compensation in the sense of recommendation G1 of the Code 2019 has been determined as there were no such requirements included in the Code 2017. In addition, although a peer group comparison was made with regard to market conformity of the Executive Board remuneration, the peer group was not disclosed as recommended in recommendation G3 of the Code 2019 – also due to the lack of corresponding requirements in the Code 2017.

December 15, 2020 | JENOPTIK AG

For the Executive Board	For the Supervisory Board
Dr. Stefan Traeger President & CEO	Matthias Wierlacher Chairman of the Supervisory Board

Information on Corporate Governance Practices

Code of Conduct, Opportunity and Risk Management, Compliance

We see success in business and responsibility for our actions as being two inseparable goals. For us, essential factors for responsible conduct with all stakeholders include respect, fairness, and openness. Jenoptik also considers compliance with statutory provisions and internal rules and regulations to be part of responsible corporate management. In order to guarantee the high level of integrity as well as ethical and legal standards within the Jenoptik Group, the most important principles of conduct have been compiled in a Code of Conduct which is equally binding on all employees of the Jenoptik Group. It sets out minimum standards and serves as a reference framework to establish maximum integrity as well as ethical and legal standards at Jenoptik. In the event of questions regarding the Code of Conduct or suspected illegal or unlawful matters, all Jenoptik employees may speak in confidence to the respective executive or the contact persons named in the Code of Conduct. All employees may also use the reporting system (whistleblowing system) on the Jenoptik intranet, by telephone or via email to report significant violations that must be handled confidentially.

The Code of Conduct can be found at www.jenoptik.com, under the category Investors/Corporate Governance/Code of Conduct

For Jenoptik, good corporate governance also involves continuously and responsibly evaluating opportunities and risks which may result from entrepreneurial activity. The goal of our risk and opportunity management is to support the implementation of the group strategy and to define actions which create an optimum balance between growth and return targets on the one side and the associated risks on the other.

Detailed information on risk and opportunity management can be found in the Risk and Opportunity Report from page 133

Observing nationally and internationally recognized compliance requirements is an integral part of our risk prevention and the processes of the Jenoptik Compliance Management System (CMS). The CMS is based on the Jenoptik values, the Code of Conduct, and various group guidelines and process descriptions from Jenoptik, compliance with which is a fundamental requirement for maintaining the trust of our business partners, shareholders, and the public in the performance and integrity of Jenoptik. The CMS is continuously developed and adapted to changing conditions. On the Executive Board, Dr. Stefan Traeger is responsible for the central Compliance & Risk Management department. Global compliance activities are coordinated by the Center of excellence in Germany and supported by local colleagues in the North America and Asia/Pacific regions.

The Jenoptik Group has a globally uniform framework with the group guidelines for key business processes With this system of processes and controls any possible deficits in the company can be identified at an early stage and appropriate actions taken to minimize or eliminate them. Central departments, divisions, and regions can reinforce this set of rules with more detailed regulations in accordance with their respective requirements. The guidelines are regularly reviewed, and extended or updated as necessary.

In order to familiarize employees with these topics and to improve employee awareness, regular online training courses and classroom events on subjects relevant to compliance, such as anti-corruption, anti-trust law as well as data protection, are regularly held at both the German and foreign business units. The aim of this is to create company-wide uniform understanding of our compliance standards. In addition to the main training courses offered as part of onboarding training for new employees, everyone is also required to participate in mandatory e-learning refresher courses. The aim is to provide them with the content of important compliance topics on a continuous basis, but at least once a year, and to then verify this with a test. In addition, employees can contact the central Compliance & Risk Management department with any questions relating to compliance or risk issues at Jenoptik as well as use a help desk on the intranet or an app on their smartphones.

Further information on compliance and supplier management can also be found in the chapter "Non-financial Report"

Holding company: As the holding company and corporate center of the Group, JENOPTIK AG performs top-level functions: Jenoptik's operating business is divided into divisions and business units which are supported by the Corporate Center. The strategic decisions of the Executive Board are prepared by the central Corporate Development department. The Executive Board is also supported by the Executive Management Committee (EMC), which as of December 31, 2020 alongside the members of the Executive Board also included the head of Personnel, the head of Corporate Development, the heads of the North America and Asia/Pacific regions as well as the heads of the divisions. At comprehensive monthly meetings, this committee provides the Executive Board with information on all relevant events for the company and the economic situation of the divisions. The Jenoptik Management Days conference takes place once a year. It is attended by numerous group managers from within Germany and around the world along with the Executive Board and the other EMC members.

Sustainability

Jenoptik's understanding of sustainability is based on the conviction that the economic goals of the company and thus lasting profitable growth can only be achieved by behaving responsibly towards the environment and society. Together with our customers, we create forward-looking trends in the fields of energy efficiency, healthcare, the environment, mobility, and safety. The separate Non-financial Report from page 60 of the Annual Report contains detailed information on Jenoptik sustainability management in the areas of employee and environmental matters, human rights, anti-corruption and the supply chain, quality as well as social commitment of the Group.

Composition and Mode of Operations of the Executive Board, Supervisory Board and its Committees

JENOPTIK AG is a stock corporation under German law with a dual management and monitoring system. The Executive Board runs the company on its own responsibility and in the interests of the company and with the goal of sustainably increasing the value of the company. It takes into account the concerns of all stakeholders, in particular shareholders and the Group's employees. The Supervisory Board advises and monitors the Executive Board in its management wof the company and is involved in decisions of fundamental importance to the company. The Executive Board cosults with the Supervisory Board about the strategic orientation of the company and discusses the status of strategy implementation with it at regular intervals. The Executive and Supervisory Boards work closely together for the good of the company.

Executive Board

The members of the JENOPTIK AG Executive Board are appointed by the Supervisory Board. In accordance with the Articles of Association, the Executive Board shall comprise at least two persons. The Board currently has two members. They share common responsibility for the overall management of the Group, work cooperatively and confidently together, and decide on primary matters of group corporate policy, its management, corporate strategy as well as annual and longer-term planning. The Executive Board ensures compliance with statutory provisions and internal corporate guidelines and is responsible for establishing a control and risk management system tailored to the Company's risk situation. The specific allocation of responsibilities and departamental tasks (including the responsibility for sustainability topics (environment, social, governance)) is regulated in a schedule of responsibilities. Detailed information on the allocation of responsibilities can be found in the section "Further Information on Corporate Governance" on page 45 of the 2020 Annual Report.

The members of the Executive Board continually update one another on important activities and events within their assigned areas. Executive Board meetings take place at least once a month. The Executive Board's rules of procedure regulate which actions are of major importance for the Jenoptik Group and thus require the approval of the entire Executive Board or the Supervisory Board. In addition, the rules of procedure also set out in greater detail the internal working procedures of the Executive Board and the methods of reporting to and coordinating with the Supervisory Board.

The Executive Board continually informs the Supervisory Board in a timely and comprehensive manner, and in both written and spoken communication, on all matters relevant to the current development of the Group's net assets, financial position and results of operations, corporate planning including financial, capital expenditure and human resource planning, the profitability of the company, essential strategic issues, the risk situation, risk management and compliance. The Chairman of the Executive Board coordinates the cooperation of the Executive Board with the Supervisory Board. The Supervisory Board is required to give its approval on decisions or actions which may involve considerable changes to the company's assets, finances or earnings. Members of the Executive Board are required to disclose conflicts of interest to the Supervisory Board without delay and to inform the other members of the Executive Board of this.

Supervisory Board

With equal representation in accordance with the German Codetermination Act, the Supervisory Board of JENOPTIK AG consists of twelve members, six of whom are elected by the shareholders at the Annual General Meeting and six of whom are nominated by employees in accordance with the Codetermination Act. The Supervisory Board is composed in such a way that, as a whole, it is endowed with the knowledge, abilities, and professional experience necessary to carry out its tasks in an orderly manner. Each member shall ensure that they have sufficient time available to perform their duties. In accordance with the requirement of § 96 (2) (1) of the German Stock Corporation Act, four of its twelve members, two of the shareholder representatives and two employee representatives, are female. The shareholder representatives were individually elected at the 2017 Annual General Meeting to serve until the conclusion of the 2022 Annual General Meeting. The diversity policy pursued with respect to the composition of the Supervisory Board is described in the "Diversity Policy" section of this declaration.

Further details on the composition of the Supervisory Board and its committees can be found in § 11 of the Articles of Association of JENOPTIK AG, in the Report of the Supervisory Board from page 20 and in the Group Notes appended to the 2020 Annual Report from page 228

The Chairman of the Supervisory Board is elected by its members and coordinates the work of the Supervisory Board, presides over its meetings and represents the body externally. The Chairman maintains regular contact with the Executive Board, which provides the Supervisory Board Chairman with immediate information on important events which are of crucial importance to the position and development of the company. In the event of a tied vote by the Supervisory Board, a second round of voting is conducted in which the Chairman casts two votes, insofar as this is permitted by law. The Chairman of the Supervisory Board also chairs the Personnel, Mediation, Investment and Nomination Committees, but not the Audit Committee.

The Supervisory Board meets at least four times a year, but as a rule meets five times a year because of the Supervisory Board's strategy meeting which takes place in the fall. Extraordinary meetings are called for major events that cannot be delayed or a resolution is adopted by written consent. Taking into account the results of the audit and the recommendations of the Audit Committee, the Supervisory Board examines and approves the Financial Statements and Consolidated Financial Statements, the Non-financial Report, the Combined Management Report for JENOPTIK AG and the Group and adopts the Annual Financial Statements. Ernst & Young GmbH, Wirtschaftsprüfungsgesellschaft, Stuttgart, was appointed to audit the Annual and Consolidated Financial Statements for the 2020 fiscal year. The Supervisory Board also resolves on the Executive Board's proposal for the appropriation of accumulated profits.

Further information on this can be found in the "Accounting and Auditing" section on page 46 and in the Supervisory Board Report (pages 20 ff) of the 2020 Annual Report.

The Supervisory Board carries out a review of the efficiency of its activities at regular intervals. The Supervisory Board has decided to have the efficiency externally evaluated every three years. In the intervening period, efficiency will be discussed and reviewed internally on an annual basis. Following the most recent external efficiency review in 2017 and internal self-evaluations in both 2018 and 2019, the Supervisory Board again commissioned an independent external expert in September 2020 to evaluate its work and processes with regard to its composition, culture and leadership as well as overarching aspects of good corporate governance. The external consultant subsequently presented the anonymized results of his findings to the full Supervisory Board. The review presented a positive picture – also in benchmarking – of the work of the Supervisory Board and its committee. As a result of the audit, the Supervisory Board has resolved to evaluate and, if necessary, adjust the tasks and functioning of the Investment Committee.

Supervisory Board members are to disclose any conflicts of interest to the Supervisory Board without delay. No conflicts of interest arose for Supervisory Board members in the 2020 fiscal year.

The Supervisory Board has adopted rules of procedure which govern important aspects of its internal cooperation and collaboration with the Executive Board. The rules also mandate the creation of committees as a means of improving efficiency when it comes to Supervisory Board work on complex topics.

The Rules of Procedure (only German) of the Supervisory Board can be found at www.jenoptik.de under the heading "About Jenoptik"

The Supervisory Board currently has five committees that, with the exception of the Nomination Committee, which is composed only of shareholder representatives, are made up of equal numbers of shareholder and employee representatives. The candidates' professional and personal expertise is taken into account in the formation of committees.

The committees prepare decisions for the Supervisory Board and may, in individual cases, make decisions in place of the Supervisory Board insofar as this is permitted by law. The respective committee chairmen report to the Board on the content discussed and the resolutions and recommendations approved no later than at the next Supervisory Board meeting.

T04 Committee memberships of the Supervisory Board members

	Astrid Biesterfeldt (since 2014)	**Evert Dudok** (since 2015)	**Michael Ebenau** (since 2007 until 15/10/2020)	**Elke Eckstein** (since 2017)	**Thomas Klippstein** (since 1996)	**Dörthe Knips** (since 2017)
Member of	• Audit Committee		• Personnel Committee (until 15/10/2020) • Investment Committee (until 15/10/2020) • Mediation Committee (until 15/10/2020)	• Investment Committee	• Personnel Committee • Audit Committee	• Investment Committee

The Audit Committee meets at least four times each year. Its discussions involve, in particular, the monitoring of accounting, the accounting process and auditing, with particular reference to the independence of the auditor, the non-audit services provided by the auditor and the determination of the focus of the audit. It also grants the audit assignment. On the basis of the auditor's reports, and following its own review, the Audit Committee submits proposals for the adoption of the Annual Financial Statements of JENOPTIK AG and for the approval of the Consolidated Financial Statements by the Supervisory Board. The Audit Committee's responsibilities also include monitoring ESG issues, therefore it also prepares the Supervisory Board's decision on the Combined Non-financial Report. The Audit Committee's responsibilities also include monitoring ESG issues, therefore it also reviews the effectiveness and further development of the compliance and risk management systems as well as the internal control and internal auditing system. In accordance with the regulations of the German Stock Corporation Act and the German Corporate Governance Code, the Audit Committee must have at least one independent member who possesses expertise in accounting or auditing. Both the Chairman of the Audit Committee, Heinrich Reimitz, and his deputy Doreen Nowotne, possess expert knowledge and experience of accounting principles and internal control procedures, are independent (more information can be found in the diversity policy for the Supervisory Board) and not former members of the Executive Board of JENOPTIK AG.

The Personnel Committee convenes at least once a year. It deals with the long-term succession planning for the members of the Executive Board and and prepares their appointment by the Supervisory Board. The Personnel Committee regularly reviews the remuneration system for the Executive Board members, which is then approved by the Supervisory Board and submitted to the Annual General Meeting for approval whenever significant changes are made. It also prepares the conclusion and settlement of the annual targets for the variable remuneration for the Executive Board members. If necessary, the Personnel Committee is supported by external, independent consultants.

The Nomination Committee proposes to the Supervisory Board suitable candidates for election to the Supervisory Board at the Annual General Meeting and meets only when required.

The Investment Committee supports the Supervisory Board in investment and divestment decisions requiring approval in accordance in the Executive Board's rules of procedure, in particular in the preparation and operational implementation of resolutions on the acquisition or sale of equity interests in companies or parts of companies.

The Mediation Committee, which deals with matters relating to § 31 (3) (1) of the Codetermination Act, only meets when necessary.

Further details on the activities of the Supervisory Board and its committees in the 2020 fiscal year (as well as the individual attendance at meetings) can be found in the Supervisory Board Report on page 20.

Dieter Kröhn (since 2010)	**Doreen Nowotne** (since 2015)	**Heinrich Reimitz** (since 2008)	**Stefan Schaumburg** (since 2012)	**Frank-Dirk Steininger** (since 16/10/2020)	**Prof. Dr. Andreas Tünnermann** (since 2007)	**Matthias Wierlacher** (since 2012)
• Investment Committee • Mediation Committee	• Audit Committee (Vice Chairman) • Investment Committee	• Audit Committee (Chairman) • Personnel Committee • Nomination Committee	• Personnel Committee • Investment Committee (since 12/11/2020) • Mediation Committee (since 16/10/2020)	• Personnel Committee (since 12/11/2020)	• Personnel Committee • Mediation Committee • Nomination Committee	• Personnel Committee (Chairman) • Investment Committee (Chairman) • Nomination Committee (Chairman) • Mediation Committee (Chairman)

Remuneration of the Executive Board and Supervisory Board

The remuneration for the members of the Executive and Supervisory Boards is described in the Remuneration Report from page 51, which is part of the Combined Management report. The Remuneration Report can be found on our website at www.jenoptik.com in the category Investors/Corporate Governance. The last vote on the remuneration system for members of the Executive Board was made by the 2018 Annual General Meeting. In 2021, the remuneration system for the Executive Board and Supervisory Board members will be submitted to the Annual General Meeting for a vote again and for the first time in accordance with the new requirements of sections § 87a, §120a, and 113 (3) of the German Stock Corporation Act.

Specifications for Promoting the Participation of Women in Management Positions / Targets for the Proportion of Women

In accordance with § 111 (5) and § 96 (2) of the German Stock Corporation Act, the Supervisory Board at Jenoptik must be comprised of at least 30 percent women and 30 percent men. A total of four women are represented on the Supervisory Board – Doreen Nowotne and Elke Eckstein on the shareholder side and Astrid Biesterfeldt and Dörthe Knips on the employee side. This equates to 33 percent.

According to § 76 (4) of the German Stock Corporation Act, Jenoptik is also required to determine targets for the proportion of women on the Executive Board as well as at both management levels below the Executive Board and to report on whether the targets have been achieved during the reference period. As the Jenoptik Executive Board consists of only two persons, the Supervisory Board resolved at its meeting on June 8, 2020 to again set a quota of zero percent until June 30, 2023 and to decide on the quota again as soon as the Executive Board is composed of more than two persons. Due to the extension of the appointment of Dr. Stefan Traeger until June 30, 2025, and the appointment of Hans-Dieter Schumacher until March 31, 2023, no short-term change in the composition of the Executive Board is to be expected. Therefore the quota – as specified – is currently zero percent. In the case of Jenoptik's two-member board, the determination of a higher quota would also have the mandatory consequence that, in the event of a vacancy, a woman would always have to be appointed. The Supervisory Board would, however, like to be able to make appointments giving due consideration to the professional expertise and personal integrity of who is, in its opinion, the most suitable candidate, irrespective of their gender. This would no longer be possible if the Supervisory Board were to set a target of more than zero percent for a two-person Executive Board.

For the first management level below the Executive Board, the JENOPTIK AG Executive Board has decided on a target of 16.7 percent with a deadline of June 30, 2022. The Executive Board has expressly reserved, in due course, to decide once again whether this quota can be raised. As of December 31, 2020, the proportion of women in the first management level below the Executive Board was 23.1 percent. As of January 1, 2021, the proportion increased to 25 percent, which is why the target is currently significantly exceeded. A target for the second management level has not been set because JENOPTIK AG as a Corporate Center has flat management structures and therefore has no continuous second management level. At the end of 2020, women made up 52.0 percent of all employees in the Corporate Center. The diversity rate, which is calculated from the average proportion of executives with an international background and female executives, is to increase to 30 percent by 2022 and 33 percent by 2025. To further accelerate this change in corporate culture, Jenoptik launched numerous new measures within the Group in 2020. For example, there are internal and external recruitment campaigns, women's networks, and regular (online) events for the exchange of ideas. In the fall of 2020, a "Jenoptik Diversity Council" was also established as an internal contact for questions relating to diversity within the company.

Description, Goals, and Implementation of Diversity Policy with Results Achieved

1. Diversity Policy for the Executive Board

The diversity policy for the Executive Board should facilitate an orderly selection process for the appointment of new Executive Board members. The aim is to fill the Executive Board in such a way that it has the knowledge, skills, and professional experience which, when taking into account the statutory framework, are necessary for the proper performance of the Executive Board's duties, and essential for the activities of the Jenoptik Group.

For this purpose, the Supervisory Board has developed a requirements and skills profile with the support of the Personnel Committee and an external, independent personnel consultant. This is an integral element of the diversity policy and defines various criteria which must be fulfilled, such as age, education, professional background, current position as well as the personality requirements of the candidate. When developing this requirements profile, the specifications of the Supervisory Board's rules of procedure with regard to the appointment of Executive Board members were also observed. For example, a maximum age limit for the appointment of Executive Board members is 65 years at the time of the appointment.

The diversity policy is implemented as part of the procedure for appointing a member of the Executive Board. With the appointment of Dr. Traeger by the Supervisory Board on May 1, 2017, the approved requirements and skills profile is fully completed by the current members of the Executive Board. There were no changes to the existing diversity policy in the 2020 fiscal year. Information on the CVs of the members of the Executive Board can be found on our website at www.jenoptik.com/about-jenoptik/management.

The Personnel Committee of the Supervisory Board also deals with the long-term succession planning for the Executive Board, partially in conjunction with the Executive Board. When doing so, the Personnel Committee and Supervisory Board are supported by independent external experts as required. The basis of the Personnel Committee's work is the requirements and skills profile which has been developed and is continuously being refined. It ensures that the abilities, knowledge and experience of the members of the Executive Board are balanced.

2. Diversity Policy for the Supervisory Board

The diversity policy for the Supervisory Board should ensure an orderly selection process for the appointment of new Supervisory Board members for JENOPTIK AG. The aim here is also to fill the Supervisory Board in such a way that, as a whole, it has the knowledge, skills and professional experience necessary to properly undertake its tasks. This ensures qualified control by the Supervisory Board, in accordance with the German Stock Corporation Act, the German Corporate Governance Code, the Articles of Association and the Rules of Procedure of the Supervisory Board of JENOPTIK AG.

The diversity policy is implemented in the election of shareholder representatives. In its search for candidates, the Nomination Committee of the Supervisory Board takes into account the objectives for the composition of the Supervisory Board, which follow the Diversity Statement, the requirements of the German Stock Corporation Act (AktG) and the German Corporate Governance Code. In doing so, it also takes into account the existing skills and abilities of the elected employee representatives. The Nomination Committee then submits suitable candidate proposals for the Supervisory Board for the election of shareholder representatives to the Supervisory Board to the Annual General Meeting. The Supervisory Board ensures that the respective candidates have the necessary time to perform their duties.

With the support of an external consultant, the Supervisory Board also developed a requirements profile detailing the abilities and skills necessary for the full Supervisory Board, which has been continually developed and used by the Nomination Committee and Supervisory Board when seeking new candidates. According to this, competencies in the three categories listed in the table 05 are essentially considered necessary.

Most recently, the Supervisory Board has taken into account its aims for composition as well as the skills and requirements profile it has developed when considering the appointment of shareholder representatives at the 2017 Annual General Meeting. The periods of office for the shareholder representatives elected by the 2017 Annual General Meeting taking into account these requirements will end at the conclusion of the 2022 Annual General Meeting. There were no changes to the diversity policy in the 2020 fiscal year. However, the requirements and skills profile is to be revised again with the help of an independent expert in preparation for the next election at the end of 2021.

The Deputy Chairman of the Supervisory Board, Michael Ebenau, has resigned his seat with effect from October 15, 2020, as he has retired. Frank-Dirk Steininger, District Secretary of IG Metall Mitte, was appointed by the court to the Supervisory Board as Mr. Ebenau's successor with effect from October 16, 2020. This appointment is for a limited period until the end of Mr. Ebenau's remaining term of office, i.e. until the end of the Annual General Meeting in 2022. As a lawyer and honorary judge at the Federal Labor Court, Mr. Steininger will be able to support the Supervisory Board in the future, particularly with his expertise in labor law and collective bargaining.

It is the opinion of the Supervisory Board that, with the current composition, the above-mentioned abilities, experience and skills fulfilled for the most part. Details can be found in the CVs of the individual Supervisory Board members.

The CVs of the Supervisory Board members can be found at www.jenoptik.com/about-jenoptik/management

In accordance with its Diversity Statement, the Supervisory Board includes at least four members with extensive international experience.

Furthermore, the Supervisory Board should include at least four women. With two women on the shareholder side and two women on the employee side, the quota of at least 30 percent required by the German Stock Corporation Act is exceeded with a current figure of 33.3 percent.

With regard to the length of service, the Supervisory Board has decided not to establish a regular limit applicable to all members because there is no compelling link between the length of service and the independence of the member concerned. It is the view of the Supervisory Board that an across-the-board regular limit does not take into account individual factors that may justify a longer length of service for individual Supervisory Board members with continued independence. The Supervisory Board can benefit significantly from individual members with a long length of service, in particular from their experience and in-depth knowledge of the company, which promotes the quality of the work of the entire board.

No member of the Supervisory Board has either an advisory or an executive role with customers, suppliers, creditors or other business partners of JENOPTIK AG, which will lead to a significant and not merely temporary conflict of interest.

In accordance with the specifications of the rules of procedure, all members are under 70 years of age not only at the time of their respective election but also at the end of 2020. Two members are between 61 and 69 years of age, eight members between 50 and 60 years of age and two members between 40 and 50 years of age, which is why different age groups are adequately represented on the Supervisory Board.

It is the view of the Supervisory Board that all shareholder representatives are independent. These are Matthias Wierlacher, Elke Eckstein, Doreen Nowotne, Evert Dudok, Heinrich Reimitz and Professor Andreas Tünnermann (PhD). In the opinion of the Supervisory Board, both Mr. Reimitz and Prof. Tünnermann, who have been members of the Supervisory Board for 12 and 13 years respectively, continue to be independent, despite the recommendation of point C.7 of the Code, as is Mr. Dudok despite Jenoptik's business relationships with companies of the Airbus Group.

T05 Requirements and skills profile in the Supervisory Board

General skills	Functional skills	Strategic and company-related skills
• Independence • Availability, number of positions held • Corporate governance experience • (Supervisory Board or CEO) experience in listed companies • CFO experience in comparable companies	• Financial and business skills • Personnel skills • Sales and marketing skills	In the following areas: • Digitization • Technology • Strategy and growth / M&A • Markets and internationality • Entrepreneurship / management • Capital markets

Mr. Reimitz is the financial expert on the Audit Committee and has special knowledge and experience of the application of accounting principles and internal control processes. As a result of his many years of service, he is particularly familiar with the processes of preparing and reviewing Jenoptik's financial information and monitoring the independence of the auditor. The quality of the work of the Audit Committee and the Supervisory Board as a whole is particularly enhanced by this expertise. This in no way detrimental to his independence from the company.

Professor Tünnermann is the technology expert on the Supervisory Board and complements the expertise of the entire board, particularly in the key areas of expertise for Jenoptik of optical technologies, digitization, strategy and growth planning. As head of the Fraunhofer Institute for Applied Optics and Precision Mechanics, Jena, founder and member of the optics cluster Optonet e.V. and stakeholder in the European platform Photonics 21, Professor Tünnermann possesses outstanding experience and knowledge in the field of photonics. The Supervisory Board is therefore of the opinion that Professor Tünnermann's many years of knowledge of the Jenoptik Group and its products and technologies significantly contributes to the work of the entire Board in these areas, nevertheless this does not call into question his independence from the company.

The Supervisory Board is also of the opinion that Mr. Dudok's activity as Executive Vice President of Connceted Intelligence at Airbus Defense & Space is not detrimental to his independence. It is true that Jenoptik's VINORION division maintains business relationships with the Airbus Group. However, none of these transactions between Jenoptik and Airbus relate to the Defense & Space division for which Mr. Dudok is responsible. Revenue with the Airbus Group amounted to 15.1 million euros in the 2020 fiscal year, amounting to less than 2 percent of Jenoptik Group revenue. All transactions with Airbus are therefore not material for the Jenoptik Group. Should a transaction with Airbus require the approval of the Supervisory Board, Mr. Dudok would abstain from voting.

Further information on the Executive Board and Supervisory Board, in particular on their working methods, including work in the committees, participation in meetings, and other mandates held by members, can be found in the Supervisory Board Report from page 20 and in the Notes from page 227.

Further Information on Corporate Governance

Annual General Meeting

JENOPTIK AG shareholders exercise their rights at the Annual General Meeting which takes place at least once a year. Each share is accorded one vote – there are no special voting rights. Since September 2018, the shares of JENOPTIK AG have been registered shares. The holders of the shares must be entered in the share register of JENOPTIK AG and disclose the information required by law and the Articles of Association. Only shareholders recorded in the share register are entitled to vote at the Annual General Meeting. They may either participate directly in the Annual General Meeting, or exercise their voting rights via a company-nominated proxy who is bound by the shareholder's instructions, via postal voting, or by authorizing a person of their choice. The shareholders are adequately supported by the company in this process. The reports as well as other documents and information required by law for the Annual General Meeting are available for inspection on our website www.jenoptik.com in the category Investors/Annual General Meeting. Following the Annual General Meeting, the attendance figures, voting results and the speech by a representative of the Executive Board will also be published on the Internet.

As a result of the coronavirus pandemic and the associated restrictions on meetings, the Executive Board, with the approval of the Supervisory Board, decided to hold the Annual General Meeting in the 2020 fiscal year as a virtual AGM, i.e. without the physical presence of shareholders or their proxies. Consequently, the shareholders were given the opportunity to vote electronically and to follow the Annual General Meeting remotely by picture and sound via the Internet-based shareholder portal.

Transparent information

As part of our investor relations work, we report comprehensively on the position and development of the company. In doing so, we follow the principle of providing the participants in the capital market as well as the general public with equal, continual, and current information in order to guarantee as much transparency as possible. We also use the Internet intensively for this purpose and information is made available at www.jenoptik.com in the Investors category. Together with the Executive Board, the investor relations team maintains a regular and intensive exchange with participants in the capital market at roadshows, capital market conferences, and other events.

We use the financial reports and releases to provide extensive information about the Group's earnings, assets, and finances four times a year. In addition, important events and current developments are reported in press releases and, where necessary, ad-hoc announcements. These documents, presentations, the financial calendar, the Articles of Association and further information are also available in German and English on the Jenoptik website at www.jenoptik.com.

For further information on investor relations activities, please refer to the section "The Jenoptik share"

In accordance with the statutory requirements of the Regulation on Market Abuse, insider information is published immediately and simultaneously worldwide in German and English, insofar as JENOPTIK AG is not, in individual cases, exempt from this publication.

Jenoptik immediately publishes major changes to its shareholder structure when it is informed that reportable voting rights targets have been achieved, missed or exceeded. All publications are available on the JENOPTIK AG website at www.jenoptik.com under the category Investors/Share/Voting rights announcements. Further information can also be found in the Notes in the section on Equity.

Directors' Dealings

In the 2020 fiscal year, none of the members of the Executive Board or the Supervisory Board or persons closely related to them disclosed any reportable securities transactions pursuant to Article 19 of the EU Market Abuse Regulation.

Directors' Dealings reports from prior years can be found at www.jenoptik.com under the category Investors/Corporate Governance/ Directors' Dealings

Accounting and Auditing

Jenoptik prepares the Consolidated Financial Statements as well as Consolidated Interim Financial Statements in accordance with the International Financial Reporting Standards (IFRS) and the additional requirements of commercial law according to § 315e (1) of the German Commercial Code (HGB), as they are to be used in the European Union. JENOPTIK AG's Financial Statements, which are decisive for the dividend payment, are compiled in accordance with the requirements of the German Commercial Code (HGB) and the German Stock Corporation Act. The Consolidated Financial Statements and the Annual Financial Statements, including the Combined Management Report, are examined by the auditor. On August 7, 2020, the Annual General Meeting selected Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart ("EY") as the auditor for the 2020 fiscal year on the recommendation of the Supervisory Board. EY was initially appointed in the 2016 fiscal year following an external tender. The position of responsible auditor for the auditing of the Consolidated Financial Statements and the Financial Statements as well as the Combined Management Report was taken on for the second time by Steffen Maurer. Michael Blesch has signed the audit opinion since the 2016 fiscal year and Steffen Mauer since the 2019 fiscal year.

The Supervisory Board has agreed with the auditor that it shall inform the Supervisory Board Chairman of any grounds for bias or disqualification, as well as of all important events and findings that emerge during the audit. This includes inaccuracies that are ascertained during the audit in the Declaration of Conformity submitted by the Executive Board and Supervisory Board in accordance with § 161 of the German Stock Corporation Act (AktG).

Before submitting the proposal for the election of the firm to the Annual General Meeting, the Supervisory Board received a declaration of independence from the auditing firm, stating that there were no employment, financial, personal or other links between EY, its board members and audit managers on the one side and the company and its board members on the other, that could give rise to doubts about the independence of the auditor. EY also reported in its declaration on the degree to which non-audit services have been provided for Jenoptik over the past fiscal year or which have been contractually agreed for the current year. In the summer of 2020, the Audit Committee reviewed EY's non-audit services provided in the past year and updated the catalog of approved, predefined non-audit services.

Information and Notes Relating to Takeover Law

Explanatory Report in accordance with § 176 (1) (1) of the German Stock Corporation Act (AktG) and Reporting on § 289 a and § 315 a of the German Commercial Code (HGB) in accordance with the German Takeover Directive Implementation Act

This information is part of the Combined Management Report.

1. Composition of the share capital

As of the balance sheet date on December 31, 2020, the subscribed capital totaled 148,819 thousand euros (prior year: 148,819 thousand euros). It is divided into 57,238,115 no-par value registered shares (prior year 57,238,115). Each share is therefore worth 2.60 euros of the nominal capital.

The same rights and obligations apply to all the shares of the company. Each share represents one vote in the Annual General Meeting and is the determining factor for the shareholders' proportion of company profits (§ 58, § 60 of the German Stock Corporation Act). The shareholders' rights also include the subscription right to shares in the event of increases in capital (§ 186 of the German Stock Corporation Act). In addition, the shareholders are entitled to administrative rights, e.g. the right to participate in the Annual General Meeting and the authority to put forward questions and motions and to exercise their right to vote. The shareholders' additional rights and duties are defined in the German Stock Corporation Act, in particular in § 12, 53a ff., § 118 ff., and § 186. Under § 4 (3) of the Articles of Association, any claim by a shareholder to the securitization of their shares is excluded.

2. Restrictions relating to voting rights or the transfer of shares

In accordance with § 136 (1) of the German Stock Corporation Act, legal restrictions affecting voting rights exist with respect to votes for approval of the actions regarding shares which are held directly or indirectly by members of the Executive and/or Supervisory Boards. Violations of reporting obligations as specified in § 33 (1) or (2) and § 38 (1) or § 39 (1) of the German Securities Trading Act may nullify voting rights, at least temporarily, in accordance with § 44 of this Act.

Pursuant to § 67 (2) of the German Stock Corporation Act, rights and obligations arising from shares shall exist in relation to JENOPTIK AG only for and against those persons entered in the share register. To be recorded in the share register, shareholders must provide JENOPTIK AG with the information required by law (name or company name, address, registered office if applicable, email address, date of birth and number of shares they hold). Also to be disclosed in accordance with the Articles of Association is the extent to which the shares belong to the person who is recorded as the holder in the share register. Shareholders who do not comply with these disclosure obligations may not exercise their voting rights pursuant to § 67 (2) (2) and (3) of the German Stock Corporation Act.

In connection with Article 19 (11) of the EU Market Abuse Regulation (EU 596/2014) and due to internal Group requirements, certain restraints of trade shall apply to members of the Executive and Supervisory Boards and to certain employees in connection with the publication of quarterly statements and reports, preliminary figures as well as the Annual and Consolidated Financial Statements.

3. Direct or indirect participations in the capital exceeding 10 percent of the voting rights

Information on direct or indirect investments in capital which exceed ten percent of the voting rights can be found in the Group Notes under item 5.16, "Equity", from page 198.

4. Holders of shares with special rights conferring controlling powers

There are no shares in JENOPTIK AG that entail special rights.

5. Form of controlling voting rights if employees own shares and do not directly exercise their control rights

There are no employee shareholdings and therefore no resultant control of voting rights.

6. Statutory regulations and provisions of the Articles of Association relating to the appointment and dismissal of Executive Board members and changes to the Articles of Association

The appointment and dismissal of Executive Board members is carried out exclusively in accordance with the statutory regulations of § 84 and § 85 of the Stock Corporation Act and § 31 of the Codetermination Act (MitbestG). In accordance with this, the Articles of Association stipulate in § 6 (2) that the appointment of members to the Executive Board, the revocation of their appointment and the conclusion, modification and termination of contracts for services with members of the Executive Board shall be carried out by the Supervisory Board. In accordance with § 31 (2) of the Codetermination Act, a majority of at least two thirds of the members of the Supervisory Board is required for the appointment of Executive Board members. Revocation of appointment as a member of the Executive Board is only possible for serious due cause (§ 84 (3) of the Stock Corporation Act).

§ 6 (1) (1) of the Articles of Association stipulates that the Executive Board of JENOPTIK AG must comprise at least two members. In the absence of a required Executive Board member, in urgent cases the court must appoint the member on the application of a stakeholder (§ 85 (1) (1) of the Stock Corporation Act). The Supervisory Board can appoint a Chairman of or Spokesperson for the Executive Board (§ 84 (2) of the Stock Corporation Act, § 6 (2) (2) of the Articles of Association).

In accordance with § 119 (1) (5), § 179 (1) (1) of the Stock Corporation Act, changes to the content of the Articles of Association are passed by the Annual General Meeting. However, changes relating purely to the wording of the Articles of Association may be passed by the Supervisory Board in accordance with § 179 (1) (2) of the Stock Corporation Act in conjunction with § 13 (3) of the Articles of Association. This also includes the corresponding adaptation to the Articles of Association following the utilization of the Authorized Capital in 2019 and of the Conditional Capital in 2017. According to § 24 (1) of the Articles of Association, resolutions by the Annual General Meeting require a simple majority of the votes cast unless stipulated otherwise by law. In those cases in which the law requires a majority of the nominal capital represented for a resolution to be passed, a simple majority of the nominal capital represented is sufficient, unless specified otherwise by the law.

7. Authority of the Executive Board to issue and buy back shares

In accordance with § 4 (5) of the Articles of Association, the Executive Board is authorized until June 11, 2024, with the consent of the Supervisory Board, to increase the nominal capital of the company by up to 44.0 million euros through one or multiple issues of new, no-par value registered shares against cash and/or contribution in kind ("Authorized Capital 2019"). With the consent of the Supervisory Board, the Executive Board is authorized to preclude subscription rights for shareholders in certain cases: a) fractional amounts; b) capital increases against contributions in-kind in particular also within the framework of business combinations or the acquisition of companies, units of companies or investments in companies (including increasing existing investments) or other contributable assets in conjunction with such an intended acquisition as well as claims against the entity; c) capital increases against cash contributions, under the condition that the percentage of any new shares in the share capital does not in total exceed 10 percent of the share capital at the time the authorized capital is registered or in total 10 percent of the share capital at the time the new shares are issued, taking into consideration resolutions of the AGM or the use of other authorizations to preclude subscription rights in a direct or corresponding application of § 186 (3) (4) of the German Stock Corporation Act since the effective date of this authorization, and the issuance price of the new shares is not to be significantly lower than the stock market price; d) issuances of new shares to employees of the entity and to associates in which the entity holds a majority interest.

All aforementioned authorizations to exclude subscription rights are limited to a total of 10 percent of the share capital available at the time this authorization becomes effective – or, if this value is lower, to 10 percent of the share capital at the time this authorization is exercised. This limit of 10 percent includes shares that (i) are sold for the purpose of servicing options and/or convertibles that were or could still be issued during the period of validity of the authorized capital to the exclusion of subscription rights or (ii) are sold by the entity as treasury shares during the period of validity of the authorized capital to the exclusion of subscription rights. Decisions on the details of the issuance of new shares, in particular their conditions and the content of rights of the new shares, are taken by the Executive Board, with the consent of the Supervisory Board. The Authorized Capital 2019 has not yet been utilized.

A shareholder resolution passed at the Annual General Meeting on June 7, 2017 empowered the Executive Board, with the consent of the Supervisory Board, to issue option and/or convertible bonds with a maximum total nominal value of 250 million euros. In order to grant shares to the holders / creditors of such option and/or convertible bonds, the company's nominal capital is conditionally increased by up to 28.6 million euros through the issue of up to 11 million new shares ("Conditional Capital 2017") in accordance with § 4 (6) of the Articles of Association. The conditional capital increase will be implemented only to the extent that

- creditors or holders of option and/or conversion rights arising from option and/or convertible bonds issued by the entity, or by a domestic and/or foreign corporation in which the entity either directly or indirectly holds a majority interest, make use of their option or conversion rights by June 6, 2022 as resolved by the shareholders in their Annual General Meeting resolution dated June 7, 2017, and/or

- the creditors of the issued convertible bonds obliged to exercise their conversion rights issued by the company or a domestic or foreign company in which the company has a direct or indirect majority stake, on the basis of the resolution of the Annual General Meeting on June 7, 2017, fulfill their conversion rights by June 6, 2022 and/or the shares are tendered

and neither treasury shares are used nor payment is made in cash. The new shares participate in profits from the start of the fiscal year for which, on the date of their issue, no resolution has yet been passed by the Annual General Meeting in respect of the appropriation of profits.

The Executive Board is authorized, with the consent of the Supervisory Board, to exclude the subscription rights of shareholders to the bonds under certain circumstances. Authorization to exclude subscription rights is, however, limited in the sense that the pro rata amount of nominal capital corresponding to those shares that must be issued after exercising conversion and/or option rights / obligations may not account for more than 20 percent of existing nominal capital existing at the time this authorization takes effect or – if the figure is lower – at the time use is made of the authorization. This 20-percent limit also applies to the sale of treasury shares that are excluded from subscription rights during the period of this authorization, and to shares excluded from subscription rights that are issued under authorized capital during the period of this authorization.

The Executive Board is authorized to set out the further details relating to the increase in conditional capital (e.g. terms of the bonds, interest rate, form of interest, specific period, denomination, issue price, option / conversion price, option / conversion period) in the bond terms and conditions.

Further details regarding the resolved authorization can be found in agenda item 8 in the invitation to the 2017 Annual General Meeting, accessible on our website at www.jenoptik.com in the category Investors / Annual General Meeting. The authorization to issue option and/or convertible bonds has not yet been utilized.

According to a resolution passed by the Annual General Meeting on June 5, 2018, the Executive Board is authorized up to June 4, 2023 to purchase treasury no-par value shares not exceeding a proportion of ten percent of the nominal capital existing at the time the resolution is adopted or – if this amount is lower – at the time of excercising the resolution for purposes other than trading in its own shares. The purchased treasury shares together with treasury shares that the entity had already purchased and still holds (including the attributable shares in accordance with §§ 71a ff. of the German Stock Corporation Act) may not exceed 10 percent of the share capital of the entity. The authorization may be exercised in whole or in part, on a one-off or repeat basis and for one or more authorized purposes. The purchase and sales of treasury shares may be exercised by the company or, for specific authorized purposes, by dependent companies, by companies in which the company holds a majority interest, or by third parties for its or their account. At the decision of the Executive Board, acquisition is, subject to compliance with the principle of equal treatment (§ 53a of the Stock Corporation Act), by purchase via the stock exchange or by means of a public offering or a public invitation to the shareholders to submit an offer for sale. For the purpose of protecting shareholders against a dilution of their shares, the proposed resolution expressly provides for a restriction of the use of acquired treasury shares in such a way that the total of the acquired shares together with shares issued or sold by the Company during the term of this authorization under another authorization to the exclusion of shareholders' subscription rights or which enable or oblige the subscription of shares is limited to a total of 20 percent of the nominal capital at the time the authorization becomes effective or – if the following value is lower – at the time this authorization is exercised. Further details regarding the buyback of shares are described in agenda item 9 in the invitation to the 2018 Annual General Meeting, accessible on our website at www.jenoptik.com in the category Investors / Annual General Meeting. As of December 31, 2020, the company had no treasury shares.

8. Key agreements in the event of a change of control resulting from a takeover bid

Clauses in contracts concluded by JENOPTIK AG, which apply in the event of a change in control within the ownership structure of JENOPTIK AG following a change of control, exist for the financing agreements described below with a total utilized volume as of December 31, 2020 of approximately 190.5 million euros (prior year: 104.4 million euros).

The conditions for accepting a change in control are different in each of the loan agreements. For the debenture bond with a total utilized volume of 69.0 million euros, a change in control gives the lenders the right to special termination of the loan in the amount corresponding to their share of the total volume and to demand the immediate repayment of this sum plus the interest accumulated up to the repayment date. A change of control applies if one or more persons acting in concert, with the exception of the existing main shareholders on the date the contract is concluded, acquire more than 50 percent of the outstanding nominal capital or more than 50 percent of the voting rights, directly or indirectly at any time.

Under the revolving syndicated loan, every change in the current shareholder base of JENOPTIK AG, under which at least 50 percent of the shares or voting rights are held by one or several persons acting in concert as described in § 2 (5) of the Securities Acquisition and Takeover Act (WpÜG), results in the possibility of refusing further disbursements and immediate termination of loan commitments in full or in part within up to 15 banking days following notification of the change of control and any disbursements executed becoming due, in full or in part, with an execution period of 16 banking days, including subsidiary credit lines and accrued interest. The syndicated loan has a total volume of 230 million euros, of which 121.5 million euros had been utilized by December 31, 2020 (prior year: 13.9 million euros).

In the case of the bridge facility with a total volume of 300 million euros, which has not yet been utilized, the lender has the right to terminate the loan without notice in the event of a change of control among the current shareholder base. Accordingly, a change of control applies if at least 50 percent of the shares or voting rights in JENOPTIK AG are held by one or several persons acting in concert as described in § 2 (5) of the Securities Acquisition and Takeover Act (WpÜG).

9. Compensation agreements by the company with Executive Board members or employees in the event of a change of control

No right to give notice of termination in the event of a change of control, i.e. the acquisition of at least 30 percent of voting rights by a third party, has been agreed with the members of the Executive Board. In such cases, they also have no claim to any severance payment. If the premature termination of an Executive Board role is agreed with an Executive Board member due to a change of control, the amount of a severance payment is limited to a maximum of two years' annual compensation in accordance with the respective recommendations of the German Corporate Governance Code as amended on December 16, 2019. Under no circumstances, however, may the severance payment be greater than the compensation due for the remaining term of the service contract.

Remuneration Report

Remuneration for the Executive Board

The Remuneration Report below sets out the basic principles of the remuneration system for the members of the Executive Board and Supervisory Board and gives details of the total remuneration for the individual members. This information is part of the Combined Management Report.

Executive Board Remuneration System

Following preparation by the Personnel Committee, the Supervisory Board is responsible for specifying the remuneration system and determining the total remuneration for the individual Executive Board members. The criteria for defining the appropriateness of the individual total remuneration are primarily the respective tasks and areas of responsibility of the members of the Executive Board, their personal performance, as well as the economic situation, the success of the company and its future prospects. Standard practice within the comparative environment and in relation to established comparative groups within the company is another factor in the remuneration.

The remuneration for the Executive Board of Jenoptik consists of non-performance-related and performance-related components.

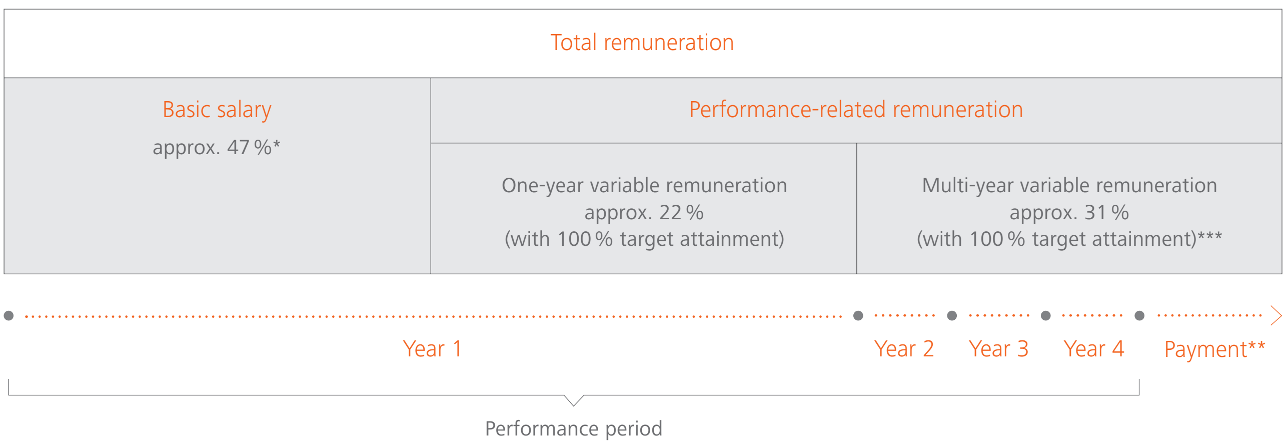
The system of performance-related remuneration of the Executive Board applicable in the 2020 fiscal year was decided in 2016/2017 by the Supervisory Board with the assistance of an independent external remuneration advisor, approved by a majority at the 2018 Annual General Meeting and slightly modified with effect from January 1, 2020.

For Hans-Dieter Schumacher, the remuneration system applicable until 2017 will continue to have an effect, as the virtual shares allocated to him from 2015 to 2017 will be paid out in the years 2020 to 2022. Further details can be found on page 46 of the 2017 Annual Report. In 2020, the virtual shares from the old remuneration system were paid out for the first time; the amount can be found in table T11 on page 57.

I. Non-performance-related remuneration

Fixed remuneration. The non-performance-related basic salary is paid on a pro rata basis each month. In 2020, it totaled 600 thousand euros for Dr. Stefan Traeger and 450 thousand euros for Hans-Dieter Schumacher. As part of the first extension of his appointment, it was agreed with Dr. Stefan Traeger in July 2019 that the level of remuneration would be adjusted as described in table T06. In May 2020, due to the impact of the corona pandemic, Dr. Stefan Traeger waived his contractually agreed adjustment to his fixed remuneration for 2020, with effect from July 1, 2020.

G05 The new remuneration system of the Executive Board members



* without fringe benefits
** payment of multi-year variable remuneration
*** at constant share price

35 Corporate Governance 58

T06 Remuneration of Dr. Stefan Traeger

in thousand euros	Fixed remuneration	Bonus (with 100 % target attainment and multiplier of 1.0)	Initial value of performance shares
Since May 2017	600.0	300.0	400.0
2020*	600.0	310.0	415.0
from 2021	650.0	320.0	430.0
from July 2023	700.0	340.0	460.0

The pension contribution of 200.0 thousand euros p.a. applicable since May 2017 remains unchanged.
* Increase as of July 1, 2020, therefore half of the increase amount; in the case of fixed salary, waiver of increase for 2020

Retirement benefits and fringe benefits. Agreements relating to occupational retirement benefits were concluded with the members of the Executive Board. The pension commitment is based on a pension fund reinsured by a life insurance policy. This is a defined contribution scheme within the framework of a provident fund. The annual and the long-term costs for Jenoptik are clearly defined. On reaching retirement age, the payments will no longer affect Jenoptik – with the exception of a possible subsidiary liability. The contributions for the provident fund totaled 200 thousand euros for Dr. Stefan Traeger and 160 thousand euros for Hans-Dieter Schumacher in 2020.

There is an accident insurance and third-party loss liability insurance for the members of the Executive Board. The latter comprises the contractual obligation to pay a deductible amounting to 10 percent of the loss per claim, however up to a maximum sum of 150 percent of the fixed remuneration of the Executive Board member in question for all claims. Executive Board members are also entitled to the private use of a company vehicle.

Non-competition clause. A post-contractual non-competition clause was agreed with Dr. Stefan Traeger for a period of one year following the end of his contract of employment. An amount equaling 50 percent of the annual remuneration including variable compensation (with a target attainment of 100 percent) and pension contributions is agreed as compensation for the non-competition clause. Any severance payment shall be offset against the compensation. Prior to the termination of the employment relationship, Jenoptik may also waive the post-contractual non-competition clause by means of a written declaration.

II. Performance-rated remuneration components

The variable remuneration of the Executive Board is based on personal target agreements concluded with the respective member of the Executive Board in the first quarter of each calendar year. The objectives are oriented towards the company's sustainable and long-term business development.

The performance-related variable remuneration comprises two components:

The (one-year) bonus (approx. 40 percent of the variable remuneration) is based on the achievement of certain targets within the fiscal year and is paid in the subsequent year.

The second part of the performance-related variable remuneration (approx. 60 percent of the variable remuneration) is granted in the form of so-called performance shares. To this end, virtual shares are allocated to the members of the Executive Board on an annual basis. For each installment of performance shares granted, the target attainment is determined at the end of the four-year performance period and the amount resulting from a predefined calculation method is paid out.

The performance-related variable remuneration can be between 0 euros and a maximum of 1,450 thousand euros for Dr. Stefan Traeger and between 0 euros and a maximum of 1,000 thousand euros for Hans-Dieter Schumacher. The value is 0 euros when less than 50 percent of all targets are achieved. For the respective maximum amount, 200 percent of all targets for the one-year bonus and 150 percent of the targets for the multi-year variable remuneration must be achieved.

Bonus. After the end of the fiscal year, the Supervisory Board determines the degree to which the financial targets for this component have been reached.

With effect from January 1, 2020, the target metric for the bonus was adjusted. Accordingly, 30 percent of the bonus is reached at 100 percent if the revenue growth from the annual plan adopted by the Supervisory Board for the Jenoptik Group is achieved for the corresponding year. 10 percent of the bonus is reached at 100 percent if a certain level of revenue attributable to new acquisitions (irrespective of the acquisition date in relation to the entire fiscal year) is achieved. 40 percent of the bonus is calculated on the basis of the EBITDA margin contained in the annual plan (adjusted for 2020). The previous free cash flow target, with a share of 20 percent of the bonus, will be replaced by a target that is achieved at 100 percent if the ratio of free cash flow to EBITDA for the year in question (the so-called “cash conversion rate”) reaches the value from the annual plan adopted by the Supervisory Board. With the exception of the acquisition target, unplanned amounts from acquisitions or divestments of companies or parts of companies shall not be taken into account in the target settlement.

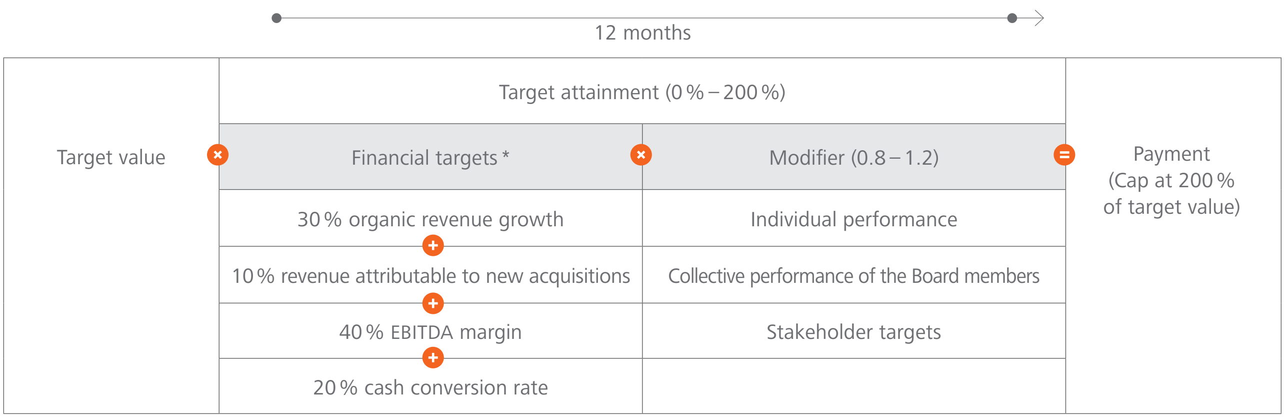
The financial targets for 2020 and their weighting are shown in the chart below. G06

The yardstick for determining the degree of target attainment need not be linear. This means that a target attainment of 200 percent does not necessarily require a doubling of the initial value of the financial key indicator. In the same way, a 50 percent target attainment does not necessarily have to be achieved at half of the originally defined financial baseline for 100 percent. The precise calibration of the targets is based on historical experience and future expectations, as well as the adopted budget of the respective year.

The financial targets agreed for 2020 are shown in table T07.

To take account of non-financial aspects, the bonus amount for the respective Board member resulting from the target attainment is then multiplied by a performance factor, the so-called multiplier. The value for this can be between 0.8 and 1.2. The multiplier is determined on the basis of the individual performance of the Executive Board member, the collective performance of the entire Executive Board, and certain stakeholder targets such as sustainability/corporate social responsibility, employee satisfaction or diversity. The Supervisory Board can use this multiplier to reduce the variable bonus in the sense of a malus system by up to 20 percent even if the financial targets are met or exceeded, if, for example, the behavior of the Executive Board member strongly warrants it, but is not serious enough to justify termination or liability due to breach of duty or a reduction in remuneration in accordance with § 87 (2) of the German Stock Corporation Act (AktG) is not possible.

G06 One-year variable remuneration (bonus)



* for 2020 adjusted EBITDA margin

T07 The financial targets agreed for 2020

Target	Target attainment in %		
	100	50 (lower cap)	200 (upper cap)
Organic revenue growth in %	2.8	1.4	4.2
Inorganic revenue growth in million euros (with regard to the complete calendar year)	80.0	40.0	120.0
EBITDA margin in % (adjusted without PPA impacts)	15.7	10.0	20.0
Cash conversion rate in %	52.0	26.0	80.0

With 100 percent target attainment and a multiplier of 1.0, Dr. Stefan Traeger receives a one-year bonus of 310 thousand euros (figure for 2020) and Hans-Dieter Schumacher 200 thousand euros. In each case, the bonus for 2020 for Dr. Stefan Traeger is limited to a maximum of 620 thousand euros and for Hans-Dieter Schumacher to 400 thousand euros. This part of the performance-related variable remuneration is paid in cash after the target settlement and adoption of the annual financial statements.

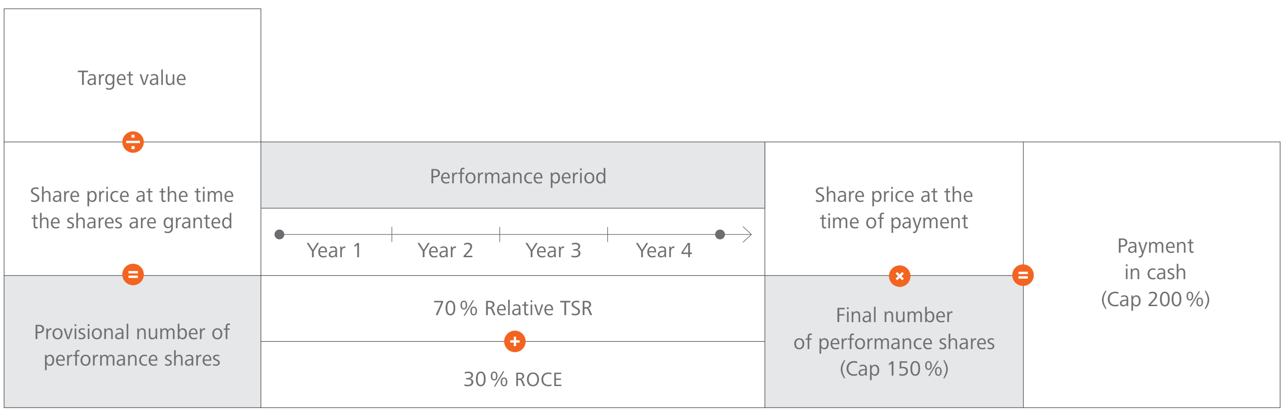
On the basis of its assessment, and taking into account all relevant aspects for the 2020 fiscal year, the Personnel Committee of the Supervisory Board has decided to propose to the Supervisory Board that a multiplier of 1.0 be used for both members of the Executive Board. When doing so, in particular the fulfillment of certain sustainability targets from the areas of diversity, innovative strength, supply chain and the environment was also taken into account. T08

Performance Shares. Based on a value of 415 thousand euros for Dr. Stefan Traeger and 300 thousand euros for Hans-Dieter Schumacher ("initial value" for 2020), performance shares are allocated to the member of the Executive Board in the first quarter of each fiscal year, usually at the balance sheet meeting of the Supervisory Board in the second half of March. In order to calculate the provisional number of performance shares to be allocated, the initial value is divided by the volume-weighted average price (VWAP) of the Jenoptik share on the twenty trad-

T08 Actual target attainment of the one-year variable remuneration for 2020 and payment in thousand euros

Indicator	Fiscal year 2020 Actually attained	Target attainment	Payment to Dr. Stefan Traeger	Payment to Hans-Dieter Schumacher
Organic revenue growth in %	−13.9 %	< 50 %	0	0
Inorganic revenue growth in million euros (with regard to the complete calendar year)	95.9	139.75 %	43.32	27.95
EBITDA margin in % (adjusted without PPA impacts)	17.6 %	144.19 %	178.79	115.35
Cash conversion rate in %	59.9 %	128.21 %	79.49	51.29
Multiplier	1.0	/	/	/
Total	/		**301.6**	**194.6**

G07 Multi-year variable remuneration



ing days following the announcement of the preliminary annual figures. The VWAP for the specified 2020 period was 21.92 euros. Consequently, Dr. Stefan Traeger was provisionally allocated a total of 18,933 performance shares and Hans-Dieter Schumacher 13,687 (2020 installment). Long-term performance targets are agreed for each installment, the achievement of which is measured at the end of each four-year "performance period". For the performance shares provisionally allocated in 2020, the performance targets will be measured at the beginning of 2024. G07

The ROCE and relative TSR are calculated using the method described in the glossary on page 246. Again, the yardstick for determining the degree of target attainment need not be linear here. T09

Depending on the level of target achievement, the number of performance shares to be finally allocated is determined at the end of the four-year performance period. It is limited to one and a half times the number of provisionally allocated performance shares ("allocation cap"). If the level of target attainment is less than 50 percent, the entitlement to final allocation of performance shares shall no longer apply.

The number of finally allocated performance shares is multiplied by the VWAP of the Jenoptik share on the twenty trading days following the announcement of the preliminary annual figures for the last fiscal year of the performance period ("payout rate"). The resulting amount shall be paid after the adoption of the annual financial statements. The payout amount is limited to a maximum of 200 percent of the initial value: for Dr. Stefan Traeger for the 2020 installment to 830 thousand euros and Hans-Dieter Schumacher to 600 thousand euros ("payout cap").

The system of remuneration with performance shares is summarized as follows:

Year 1: Agreement of a performance target for the year 1 installment ("Installment 1") with the member of the Executive Board; provisional allocation of performance shares for Installment 1; calculation of the provisional number by dividing the initial value by a VWAP determined in year 1.

Years 1–4: Performance period for Installment 1.

Year 5: Measurement of target attainment, from which determination of the number of final performance shares to be allocated for Installment 1, taking into account the allocation cap; multiplication of this final number by a VWAP determined in year 5. Payment of this amount to the member of the Executive Board, taking into account the payout cap.

In the event of termination of the Executive Board mandate, performance shares which have not yet been allocated finally, but only provisionally, shall not be prematurely finally allocated and paid out, but evaluated, allocated and then paid out in accordance with the regular procedure at the end of the respective performance period. Should JENOPTIK AG terminate the employment relationship for a good reason for which the member of the Executive Board is responsible, all provisionally allocated performance shares for which the performance period has not yet expired shall be forfeited without substitution or compensation.

The Executive Board service agreements contain provisions for capital and conversion measures and in the event of a delisting, which are aimed at ensuring that the performance shares are economically equivalent to real shares.

T09 Performance targets and their weighting for the 2017 to 2020 installments of the performance shares

Target	100 % target attainment	50 % target attainment	150 % target attainment	Weighting
Return on Capital Employed – ROCE	16 % average over the performance period	11 % average over the performance period	21 % average over the performance period	30 %
Relative total shareholder return – TSR	Outperformance of the Jenoptik share against the TecDax 5 %	Underperformance of the Jenoptik share against the TecDax in the amount of minus 20 %	Outperformance of the Jenoptik share against the TecDax 30 %	70 %

T10 Remuneration of the Executive Board – Benefits granted

	Dr. Stefan Traeger President & CEO				
	2020				2019
in euros	Actual	Min	100 %	Max.	
Fixed remuneration	600,000	600,000	600,000	600,000	600,000
Fringe benefits	18,517	18,517	18,517	18,517	18,034
Total	**618,517**	**618,517**	**618,517**	**618,517**	**618,034**
One-year variable remuneration	301,600	0	310,000	620,000	185,752
Multi-year variable remuneration	199,705 *	0	415,000	830,000	376,248
thereof performance shares 2020 (term until 2023)	199,705 *	0	415,000	830,000	0
thereof performance shares 2019 (term until 2022)	0	0	0	0	376,248 *
thereof LTI dividends on outstanding LTI tranches	n. a.	n. a.	n. a.	n. a.	n. a.
Total	**1,119,822**	**618,517**	**1,343,517**	**2,068,517**	**1,180,034**
Pension contribution	200,000	200,000	200,000	200,000	200,000
Total remuneration	**1,319,822**	**818,517**	**1,543,517**	**2,268,517**	**1,380,034**

* fair value at the time of provisional allocation

Clawback. The company has a right to repayment of the multi-year variable remuneration (so-called clawback) if, within three years of payment of the multiple variable remuneration, it becomes apparent that one of the audited and approved consolidated financial statements during the four-year performance period was objectively incorrect and therefore had to be subsequently corrected in accordance with the relevant accounting standards. In addition, the Supervisory Board has the option to reduce the one-year variable remuneration by selecting a low multiplier if there are significant reasons relating to the behavior of a member of the Executive Board. Should JENOPTIK AG terminate the employment relationship for a good reason for which the member of the Executive Board is responsible, all provisionally allocated performance shares for which the performance period has not yet expired shall be forfeited without substitution or compensation.

Other agreements. Dr. Stefan Traeger and Hans-Dieter Schumacher are not entitled to payment of bridging payments following their departures. Nor was any right of termination agreed with them in the event of a change of control.

For the amount of any settlement in the event of a change of control, see the chapter on Information and Notes Relating to Takeover Law on page 50

Should the Annual General Meeting reject the remuneration system and/or the remuneration report, the members of the Executive Board have committed themselves to enter into discussions on an adaptation of the remuneration system.

III. Anticipated changes to the remuneration system from 2021

With the implementation of the second European Shareholder Rights Directive into German law (ARUG II), the Personnel Committee reviewed the existing remuneration system. The following changes to the existing system with effect from 2021 were proposed to the Supervisory Board:

- Based on the development of ROCE in the last few years and its expected further development, the ROCE target value for 100 percent target achievement in the multi-year variable remuneration will be recalibrated. The specific target attainment curve with lower limit, target value and upper limit is described in detail in the remuneration system.
- Currently, the number of performance shares and the total shareholder return of Jenoptik and the TecDax are calculated on the basis of the 20 trading days following announcement of the preliminary figures. In order to achieve consistency between the fiscal year and the performance period, the last 60 trading days prior to the start or end of the performance period will be used as the basis for the respective calculations in future, in line with market practice.

The remuneration system will be presented for approval at the Annual General Meeting on June 9, 2021.

T10 Remuneration of the Executive Board – Benefits granted

	Hans-Dieter Schumacher Executive Board member				
	2020				2019
in euros	Actual	Min	100 %	Max.	
Fixed remuneration	450,000	450,000	450,000	450,000	450,000
Fringe benefits	21,008	21,008	21,008	21,008	18,390
Total	471,008	471,008	471,008	471,008	468,390
One-year variable remuneration	194,580	0	200,000	400,000	123,834
Multi-year variable remuneration	148,406 *	4,036	304,036	604,036	301,552
thereof performance shares 2020 (term until 2023)	144,370 *	0	300,000	600,000	0
thereof performance shares 2019 (term until 2022)	0	0	0	0	282,186 *
thereof LTI dividends on outstanding LTI tranches	4,036	4,036	4,036	4,036	19,366
Total	813,994	475,044	975,044	1,475,044	893,776
Pension contribution	160,000	160,000	160,000	160,000	160,000
Total remuneration	973,994	635,044	1,135,044	1,635,044	1,053,776

* fair value at the time of provisional allocation

T11 Remuneration of the Executive Board – Inflow

	Dr. Stefan Traeger President & CEO		Hans-Dieter Schumacher Executive Board member	
In euros	2020	2019	2020	2019
Fixed remuneration	600,000	600,000	450,000	450,000
Fringe benefits	18,517	18,034	21,008	18,390
Total	618,517	618,034	471,008	468,390
One-year variable remuneration	185,752	521,664	123,834	347,776
Multi-year variable remuneration	0	0	610,796*	0
Total	804,269	1,139,698	1,205,638	816,166
Pension contribution	200,000	200,000	160,000	160,000
Total remuneration	1,004,269	1,339,698	1,365,638	976,166

* Payment of 2015 tranche of the LTI model valid until 2017

Total Remuneration for the Individual Members of the Executive Board.

Tables T10 and T11 contain a list of the remuneration components granted to Dr. Stefan Traeger and Hans-Dieter Schumacher in the fiscal year just past. The summaries differentiate between six components – fixed remuneration, fringe benefits, performance-related variable remuneration with one-year (bonus) and multi-year calculation base (performance shares) and pension contributions.

Based on the degree to which the target for the bonus has been achieved (see table T08) and adopting the multiplier of 1.0 recommended by the Personnel Committee, the variable remuneration for the 2020 fiscal year for Dr. Stefan Traeger will be 301,600 euros in cash and for Hans-Dieter Schumacher 194,580 euros in cash, subject to the consent of the Supervisory Board. For the 2020 installment, Dr. Stefan Traeger was provisionally allocated a total of 18,933 performance shares and Hans-Dieter Schumacher 13,687 performance shares. Whether and to what extent the performance shares provisionally allocated in 2020 can be finally allocated and paid out in cash will be decided at the beginning of 2024, depending on the achievement of the multi-year targets agreed in 2020 (see chart G07).

Further details on the share-based remuneration in the form of performance shares / virtual shares can be found in section 5.21 in the Notes from page 206 on. We consider this to also be an integral part of this Remuneration Report.

Remuneration System for the Supervisory Board

Each member of the Supervisory Board receives a fixed annual remuneration of 40 thousand euros for their services. No variable remuneration is provided. This is the best way to ensure independent control of the Executive Board by the Supervisory Board. The Chairman of the Supervisory Board receives double and their deputy one-and-a-half times this amount.

Information on the total remuneration for individual members of the Supervisory Board can be found on page 230 of the Notes

In addition, each member of a committee receives an annual remuneration in the sum of 5 thousand euros per year. The Chairman of the committee receives double this amount. The annual remuneration for members of the Audit Committee, whose duties are particularly labor- and time-intensive, is 10 thousand euros. The Chairman of the Audit Committee receives double and their deputy one-and-a-half times this amount. These allowances are intended to take account of the particular responsibility and greater time commitment associated with individual roles on the Supervisory Board. This also implements the recommendation of Point G.17 of the German Corporate Governance Code.

Members of committees which have not met during the fiscal year receive no remuneration. Members of the Supervisory Board who have only served on the Supervisory Board or a committee for part of the fiscal year receive a pro rata temporis payment. All the aforementioned remuneration is payable on expiry of the fiscal year.

The members of the Supervisory Board are paid a meeting allowance of 1 thousand euros for attending a meeting. Half of this amount is paid for participation in conference calls. The same applies from the second meeting on any day on which several meetings are convened. Verified expenses incurred in connection with a meeting are reimbursed in addition to the meeting allowance, but limited to an amount of 1 thousand euros for meetings held in Germany. JENOPTIK AG also reimburses the members of the Supervisory Board for any value added tax applicable to the payment of their expenses.

The members of the Supervisory Board are covered by third-party financial loss-liability insurance. This comprises the contractual obligation to pay a deductible amounting to 10 percent of the loss per claim, however up to a maximum sum of 150 percent of the fixed remuneration per year of the Supervisory Board member in question for all claims.

There are no further remuneration-related agreements between the company and the members of the Supervisory Board which go beyond the provisions of § 19 of the Articles of Association.

As a gesture of solidarity in the Covid-19 crisis, the members of the JENOPTIK AG Supervisory Board have waived 10 percent of their basic remuneration in 2020. Accordingly, 693.8 thousand euros (gross, after withholding tax in accordance with § 50a (1) No. 4 of the German Income Tax Act (EStG)) were recognized as a liability in the 2020 fiscal year for the fixed remuneration of the Supervisory Board and its committees payable in January 2021. Jenoptik did not pay any other remuneration or benefits to the members of the Supervisory Board for services rendered personally by them, in particular consulting and intermediary services.

Combined Non-financial report

» In short «

In 2020, the materiality analysis to identify material non-financial aspects for Jenoptik was updated. For this purpose, internal and external stakeholders were surveyed online.

The Combined Non-financial report meets the requirements of the CSR Directive Implementation Act.

Separate Combined Non-financial Report in accordance with the CSR Directive Implementation Act

Position and Business Model

Jenoptik sees its entrepreneurial activity as more than purely the realization of commercial objectives; it is equally a commitment to society and the environment. We work with our customers to create forward-looking trends in the fields of energy efficiency, healthcare, the environment, mobility, and safety. As an international technology company, innovation is our driving force and the basis of our success in business. Our products allow us to make significant contributions to overcoming the societal challenges we face as well as to the conservation and efficient use of resources.

More information on the business model and markets can be found in chapter 80 of this Annual Report

Jenoptik provides the majority of its products and services to the photonics market and is a supplier of high-quality capital goods. The Group is thus primarily a technology partner to industrial companies and public sector contractors. As a technical application of light, photonics is a key driver of global sustainability, according to the current SPECTARIS study "Light as a Key to Global Environmental Sustainability". Photonic technologies enable resource-saving production processes as well as energy savings and reduce material consumption. According to SPECTARIS, the use of photonic technologies will reduce global greenhouse gas emissions by at least 11 percent by 2030. Thanks to its product portfolio and sustainable internal company processes, Jenoptik is making a significant contribution to achieving the UN Sustainable Development Goals (SDGs).

Our Take on Sustainability

Our understanding of sustainability is based on the conviction that we can only achieve our economic goals, thereby sustaining profitable growth, by behaving responsibly towards the environment and society. To satisfy this requirement, the issue of sustainability at Jenoptik falls within the remit of the Chairman of the Executive Board. The Investor Relations & Communications department is responsible for group-wide sustainability management at Jenoptik. The Executive Board, Supervisory Board and Audit Committee are regularly updated on current projects. The Sustainability Working Group – comprising representatives of the Investor Relations & Communications, Human Resources, Environmental Management, Quality Management, Compliance & Risk Management as well as Finance departments – regularly discusses relevant cross-cutting issues.

What follows is information on sustainability issues which are essential to a better understanding of our business performance and the company's development in the future.

The separate Combined Non-financial Report published here serves the purpose of fulfilling the requirements of the CSR Directive Implementation Act (CSR-RL-UG) in accordance with § 289b (3) and 315b (3) of the German Commercial Code (HGB). The report covers the key issues in the areas of employees, the environment, social commitment, human rights and anti-corruption for both our external stakeholders and the company in the 2020 fiscal year. The information in the non-financial report applies equally to the Group and JENOPTIK AG; any information that differs is indicated. The description of the approaches set out here is guided by Standard 103 of the Global Reporting Initiative (GRI). This means that Jenoptik presents components such as goals, existing guidelines, responsibilities, but also specific measures such as projects, programs and initiatives within the scope of the description. The GRI standard served as an orientation aid for the selection of key figures, but was not used for further detailing. This includes information on the number of employees, employees on parental leave or the fluctuation rate. The materiality analysis and the risk assessment were prepared in accordance with the requirements of CSR-RL-UG. In accordance with § 315b (1) (3) of the German Commercial Code, reference is occasionally made to other information available in the Group Management Report. The list below shows all the passages in the Management Report that are relevant to the separate Combined Non-financial Report.

- Business model page 80
- Strategy page 84 ff
- R+D / Innovation management page 92 ff
- Risk & opportunities page 133
- Diversity policy page 43

Materiality Analysis

Jenoptik maintains ongoing dialog with all of its stakeholders. In 2020, the materiality analysis, last conducted in 2017, was updated through an online survey. All non-financial aspects which are essential for sustainable business development – both from Jenoptik's perspective and from the perspective of the respective external target groups (customers and business partners, suppliers, employees, shareholders, investors and the general public) – were once again assessed independently. The results of the overall assessment are summarized in a materiality matrix. Topics in the upper right quadrant are particularly essential to the Group's business development from the perspective of both Jenoptik and our stakeholders. Compared with the 2017 materiality analysis, topics such as sustainable supplier management, occupational safety, as well as energy management and the reduction of CO_2, have increased in importance. Our materiality matrix forms the basis of all our long-term activities and is incorporated into the corporate strategy. The key non-financial topics are explained in detail in the sections below. G08 T12

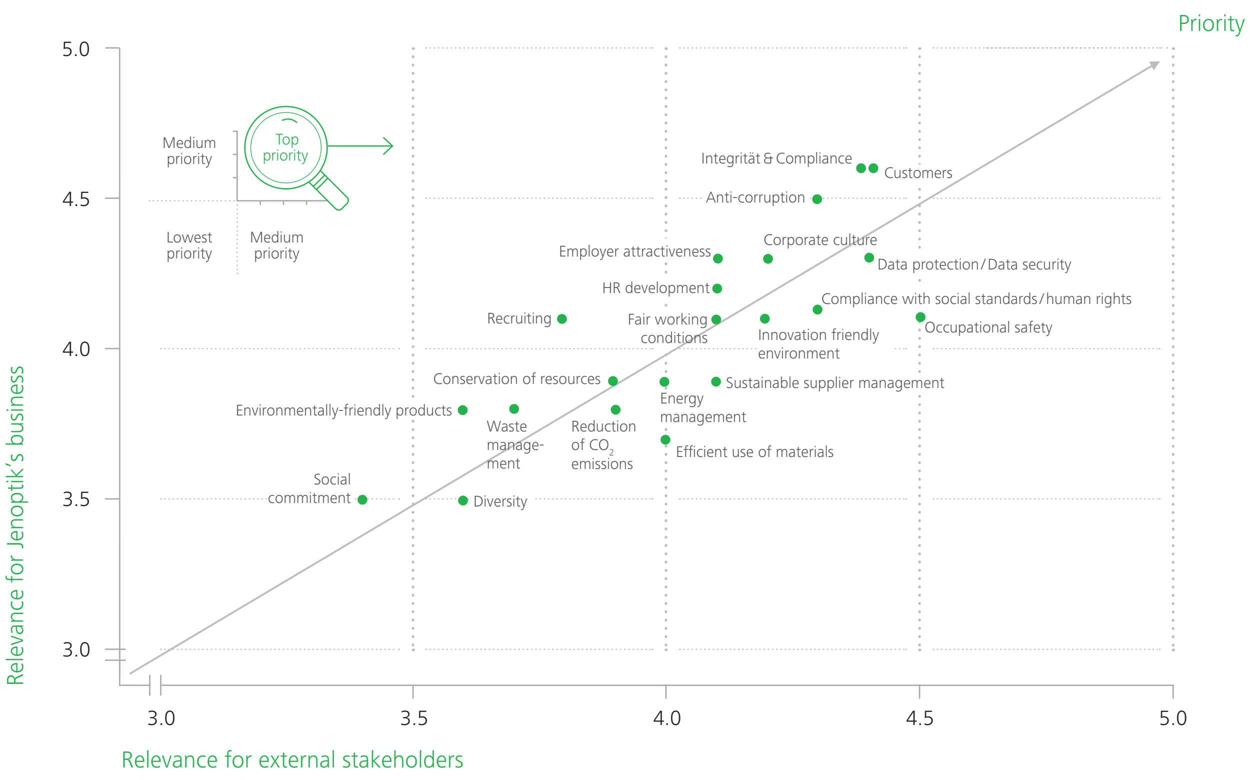
The following overview reveals where Jenoptik sees its specific priorities in the value chain.

Non-financial Targets

Our Strategy 2022 also goes hand in hand with a change in corporate culture towards a more open, agile and less complex company whose employees contribute to its success with commitment and motivation. The Jenoptik Executive Board is actively committed to more sustainability and has established various non-financial objectives for the Group, some of which will also be reflected in Executive Board remuneration. With "Employee Matters" taking top priority in human resources work and measures aimed at increasing employee satisfaction and the attractiveness of Jenoptik as an employer already implemented in 2020, management focused on the topic of "More Innovation" as well as the reduction of CO_2 emissions and sustainable supplier management.

Combined Non-financial Report 59 76

G08 Materiality matrix 2020



The promotion of good framework conditions for more innovations and greater investment in research and development ensure substantial growth and play a decisive role in our future performance. In addition to our already defined strategic goal of increasing our R+D performance, including customer-specific developments, to 10 percent of revenue by 2022, we therefore want to continuously increase the share of revenue generated by products and platforms that have been developed in the last three years. The so-called Vitality Index increased to 17.1 percent in the reporting year (prior year: 16.2 percent). The Executive Board has set itself the goal of increasing revenue with new products to 20 percent by 2022. In 2025, the Vitality Index is to be 22 percent.

For more on the topic of innovation and IP management, see R+D chapter from page 92

However, a need for action was also identified in other areas: The requirements in connection with the goal of international climate policy to limit global warming are constantly rising, and companies are increasingly being called upon to contribute actively to the reduction of CO_2 emissions. We at Jenoptik therefore want to increase the proportion of green electricity used at our main production sites worldwide to 70 percent by 2022, and to 75 percent by 2025 of our total electricity requirements, expand our vehicle fleet to include vehicles with alternative drive systems and create an appropriate infrastructure at our sites for charging all battery-powered vehicles. In addition, we also wish to implement the increasing transparency requirements regarding human rights with regard to our supply chain. Our goal is to meet the higher standards of due diligence through sustainable supplier management and increase transparency in our supply chain.

Further information on the corporate strategy can be found in the chapter Targets and Strategies and the Corporate Governance Statement

A non-financial reporting system was set up in 2020 for the recording of all non-financial KPIs group-wide. It was integrated into our existing financial reporting system LucaNet. The creation of a now uniform reporting process will also guarantee regular information of the boards, and the management of these KPIs in the future. At the time of reporting, TRIOPTICS, which was acquired at the end of 2020, is not yet part of the non-financial reporting.

See Corporate Governance Statement

The non-financial targets are described in detail in the respective chapters on the following pages and are summarized in table T13.

Corporate governance, compliance and adherence to stringent quality criteria are also of key importance to Jenoptik. We are equally as committed to law-abiding and compliant conduct with respect for human rights as we are to ensuring the above-average quality of our products and services. As a responsible and socially committed company, Jenoptik considers it its duty to play an active role in shaping its environment. Commitment to our region is also another high priority.

The key topics are also reflected in our corporate strategy and are value drivers in our various areas of business.

Risks in Connection with Non-Financial Aspects

Acting in conformity with rules and considering business risks and rewards – for Jenoptik, these are the principles of responsible corporate governance. The Group has a risk manual and a system of guidelines, thus providing a reliable reference framework for all employees worldwide. A new structure for group guidelines was introduced in 2020. The revised version reduces the scope of content regulated at group level and, for the first time, provides a globally uniform framework which can be supported with more detailed regulations. The guidelines are reviewed annually, and extended or updated as necessary.

T12 Jenoptik's key topics

Employee matters	Environmental matters	Social commitment	Human rights	Anti-corruption	Other topics
Corporate culture Recruiting and employer attractiveness	Energy management Reduction of CO_2 emissions	Social commitment in science, education, art & culture as well as social projects	Compliance with human rights and social standards in the supply chain	Responsible business relationships and fair business practices	Innovation: Environmentally friendly products Efficient use of materials
HR development	Water management		Sustainable supplier management	Integrity and compliance	Innovation-friendly environment
Fair working conditions	Protection of resources			Data protection	Customer satisfaction
Occupational safety				Data security	

In two risk periods per year, the Compliance & Risk Management department identifies all risks within the Group and discusses the top issues – set in net terms – with the Executive Board and the Audit Committee of the Supervisory Board. Our processes for the identification, management and control of risks involve non-financial environmental, social and corporate governance

T13 Non-financial targets and key performance indicators

Aspects	Aspiration	Performance indicators	Status 2019	Status 2020	Target
Corportate culture	We want to increase the satisfaction and commitment of the employees	• Fluctuation (attributable to employees) • Sick leave • Engagement Score • Net Promoter Score	4.1% 5.6% 72% 69%	3.1% 5.2% 76% 74%	<5% <5% >76% >74%
	We want to increase our diversity and and employ more women and employees of international origin in management positions	• Diversity rate*	25.5%	27.8%	30% by 2022 33% by 2025
Recruiting	We want to fill more internal vacancies with specialists who have been trained by Jenoptik	• Training ratio • Number of trainees taken on (hiring ratio)	3.8% 93%	4.2% 79%	>4% 100%
Brand & Reputation	We want to increase the attractiveness of Jenoptik as an employer	• Fluctuation (attributable to employees) • Engagement Score	4.1% 72%	3.1% 76%	<5% >76%
Innovation and R+D	Securing and boosting competitiveness, revenue and earnings through successful innovations:				
	• We want to increase our R+D output including customer-specific developments	• R+D output	8%	9%	10% by 2022
	• We want to increase the share of revenue generated with products and platforms which have been developed in the last three years	• Vitality Index	16.2%	17.1%	20% by 2022 22% by 2025
Environmental management	Reduction in CO_2 emissions:				
	• We want to increase the proportion of green electricity used at our main production sites and take this issue into account in the purchasing process	• Proportion of green electricity at the main production sites	63.1%	–	70% by 2022 75% by 2025
	• We want to expand our fleet of vehicles with alternative drive technologies and create an appropriate infrastructure	• Number of vehicles with alternative drive technologies in the fleet • Number of charging stations	4 1	7 15	Increase Increase
Supply chain management	We want to increase transparency in our supply chain in order to guarantee the protection of human rights and the environment	• CRSA Coverage Rate of the purchase volume** • Change to CSR rate***	25.4% –	36.4% –	 40% by 2022 50% by 2025

* Diversity rate: Average percentage of the number of managers with an international background as well as female managers
** CRSA: Corporate Social Responsibility Supplier Self Assessment: percentage of purchasing volume from risk countries for which CRSA is available
*** CSR rate: Corporate Social Responsibility Rate: average percentage of all suppliers of production materials with an annual purchasing volume of more than 200,000 euros for which complete CSR self-assessments are available

Detailed information on our risk management system and major risks, including in connection with non-financial aspects, can be found in the Risk and Opportunity Report from page 133

risks, including climate-related risks in the form of physical risks and transition risks. Physical climate risks result from the physical effects of climate change, e.g. plant damage due to extreme weather events or losses due to long periods of drought. Transition risks are understood as the risks for business models resulting from decarbonization and the transition to CO_2-free economic structures. They are divided, for example, into political/regulatory risks (e.g. rising prices for CO_2 emissions), legal risks (e.g. liability suits for climate damage), market risks (e.g. falling demand for fossil fuels), technology or competitive risks (e.g. outdated environmental technology), and risks to reputation (e.g. changing consumer preferences) in response to climate change. For risks associated with the coronavirus pandemic, refer to the Risk and Opportunity Report page 133.

See page 36 in the Corporate Governance Statement

The net analysis did not identify any risks that are very likely, now or in the future, to have a serious negative impact on the specified key non-financial aspects.

Employee Matters

Our employees, with their experience and abilities, are our greatest asset and absolutely essential to the Jenoptik Group's business success. Forward-looking HR work and the responsible and modern approach to working conditions are therefore among our most important tasks, because excellent business performance is only possible with dedicated employees.

HR at Jenoptik covers all employee-related operating and strategic measures for the implementation of the Group's objectives and is thus an essential component of the overall leadership and management process. HR is an internal, internationally active business partner which supports the operating business and participates in the implementation of strategic decisions in all Jenoptik divisions. HR delivers local service on site in the respective country for all employees and managers, supports division-specific projects and offers expert knowledge in the areas of recruiting, employer branding, HR development, labor law and remuneration. HR reports directly to the Chairman of the Executive Board, who is also HR Director, via the function Head of Global HR.

The first point of contact for all HR-related issues in day-to-day business concerning the Group's employees and managers are our colleagues from HR Operations. Each division has an HR Business Partner who is part of the management team. Working with Division Management, the HR Business Partners develop and implement HR strategic topics. In 2021, our HR work will be further professionalized and internationally standardized through the introduction of an SAP tool for the digitization of HR processes (so-called success factors).

Alongside an appealing corporate culture, we see our employees' efforts, expertise, experience, and commitment to the company as key value contributions. This was also confirmed by the results of the materiality analysis, which in Human Resources in particular point to topics such as corporate culture, HR development and employee satisfaction.

Detailed information on gender equality and targets for the proportion of women on the Supervisory Board, Executive Board and the management level below the Executive Board can be found in the Corporate Governance Statement.

With the implementation of the group strategy, the focus is on establishing a dialog-based corporate culture characterized by initiative, respect for diversity and equal opportunities. The basis for this is formed by our Jenoptik values – open, driving, confident. We believe that committed and curious people always perform outstandingly. We value new ideas and develop them further in an open dialog. In order to achieve our targets, we encourage employees who drive things forward and who have the will to succeed. In 2020, the further development of our corporate culture was one of three strategic group initiatives. The focus was on, among other things, intensive communication and exchange with our employees, the efficient design of our meeting culture, a structured approach to reducing overtime, and the topic of diversity. Progress on all topics was measured by a total of three so-called Culture Cockpits, an employee survey on the implementation status of our actions.

In particular, we have taken a major step forward in the area of diversity and defined both targets and measures for implementation: The diversity rate, i.e. the average percentage of managers with an international background and female managers, is to increase to 30 percent by 2022 and to 33 percent by 2025. In the past fiscal year 2020, the diversity rate was already increased to 27.8 percent (prior year: 25.5 percent).

The two target figures are reported to the EMC on a quarterly basis along with other non-financial KPIs. Closely related to this is the adaptation of our recruitment strategy to increasingly appeal to and hire applicants with diverse profiles. To make our activities in this area externally visible, we signed the Diversity Charter in August 2020 – a voluntary commitment and an association under the patronage of the German Chancellor that promotes a prejudice-free working environment. Internally, the topic is managed by a global Diversity Council, an internationally diverse body. The ten members come from seven countries and include Stefan Traeger (CEO), Maria Koller (Head of Global HR) and Thomas Klippstein (Chairman of the Group Works Council). For external benchmarking, we took part in the Women's Career Index (FKI) audit in 2020. In the overall index, we scored 79 points, two points above the industry average. In March 2021, Jenoptik was even named "Rising Star of the Year". Focus on all these topics will continue in 2021.

Jenoptik is modern and flexible in terms of leadership culture. Key to this will be the promotion of respectful behavior towards one another in the workplace, balancing of career and family, flexible working hours, and a healthy work environment. In particular, the introduction of remote working in 2019 has helped us to cope well with the challenging conditions created by COVID-19.

We have measured the satisfaction and commitment of our employees via an employee survey. This is conducted globally. When completing the survey, employees evaluate the various facets of the corporate and leadership culture. The commitment of our employees (so-called Engagement Score) and the recommendation rate (so-called Net Promoter Score) are also measured. We have also achieved our non-financial objective of increasing both KPIs in 2020.

A total of 58 percent of our employees took part in the 2020 survey (prior year: 68 percent). The engagement of our employees, the so-called "Engagement Score" improved by 4 percentage points to 76 percent, i.e. 76 percent of our employees identify positively with their duties at Jenoptik and are actively involved (prior year: 72 percent). With a "Net Promoter Score" of 74 percent (prior year: 69 percent) significantly more than two thirds of our employees would recommend Jenoptik as a good employer. This puts Jenoptik nine percentage points above the benchmark of 65 percent determined by our service provider Qualtrics. Our managers communicated the results of the employee survey to their teams and developed team-specific measures in a joint workshop. The next employee survey will take place in May 2021.

In 2020 we also conducted a survey of our new employees on the onboarding process at Jenoptik. Among our new colleagues (joining January to September 2020), the Engagement Score was 91 percent (2019: 90 percent) and the Net Promotor Score 93 percent (2019: 90 percent). The satisfaction with our recruitment process remains unchanged at 93 percent, while satisfaction with our onboarding process is 85 percent (2019: 86 percent). We also hold structured exit interviews with colleagues who leave our company in order to further improve our performance as an employer.

Jenoptik is family-friendly and responds to the needs of its employees with flexible working hour models. Flextime, part-time work, and flexible parental leave all make it easier for our employees to strike their own balance between family and working life. In 2020, 159 employees made use of parental leave in Germany (prior year: 154 employees). The number of part-time contracts in Germany rose to 10.9 percent and, globally 8.9 percent of our employees are part-time workers (prior year: 7.1 percent in Germany and worldwide). One of the most important preconditions for balancing career and family is the availability of childcare. For several years, Jenoptik has been investing in daycare centers at the Jena, Wedel, and Monheim locations, as well as in flexible childcare models. This means that our employees are assured a place at the daycare centers.

The global staff fluctuation rate of 3.1 percent in 2020 itself reflects a high level of employee satisfaction within Jenoptik (prior year: 4.1 percent). Across Germany, the fluctuation in the past fiscal year was 1.9 percent (prior year: 3.1 percent).

HR development is a key factor that determines the future viability of the company and the commitment of our employees. To help promote them in line with their potential and interests, the development needs are analyzed in regular staff appraisals. In our employee survey, we verified whether staff appraisals are held at all sites. In 2020, Jenoptik invested around 2.2 million euros (prior year: 2.6 million euros) in the professional development of its employees. This includes both the costs for trainees and students at the Cooperative State Universities and the costs for further training for our employees.

Learning at Jenoptik is structured according to the 70:20:10 principle: as employees and their supervisors are the experts for their own further development, 70 percent of learning takes place in the workplace and 20 percent through learning from others. Classroom or online training makes up 10 percent.

We have also been following the 70:20:10 learning principle in the development of our managers: since 2019, there have been three target-group specific programs aimed at potential employees, new managers and experienced managers. Our managers are key drivers of a uniform leadership culture at Jenoptik and thus of our corporate success. They are responsible for motivating the employees and have a direct influence on their satisfaction. COVID-19 restrictions meant that all three programs were conducted online in 2020. We also plan to offer more extensive training for experienced managers in 2021.

HR Recruitment

Jenoptik's HR requirements are guided by the Group's international growth strategy, resulting in a greater need for recruitment in Asia, Canada and the USA. However, experts and managers are also being sought in Germany. The audiences addressed by recruitment and thus also HR marketing are primarily specialists and skilled workers in the natural and engineering sciences as well as experts with business management and legal backgrounds. We will also continue to push ahead with the topic of "diversity" here in 2021 in order to increasingly reach out to and recruit applicants with diverse profiles.

In order to fill more vacant positions with internal specialists trained at Jenoptik, the training ratio was increased, taking into account the retirement of employees in the context of succession planning. In the reporting period, the training ratio was 4.2 percent (prior year: 3.8 percent). Thus, at the end of 2020, a total of 189 trainees were employed by the Group worldwide (prior year: 156 worldwide). For 2021, the number of trainees is to be increased to a total of 219 group-wide. This will create 30 additional apprenticeships. The retention rate for trainees who successfully completed their vocational training in 2020 was 79 percent in 2020 (prior year: 93 percent). These trainees were taken on for an unlimited period by the company. A total of three international trainees from Syria, Malaysia and Afghanistan were hired in 2020.

Specific support for school students, university students and graduates forms part of the Group's expertise strategy, ensuring early loyalty to the company and thus simplifying the recruitment process. A selection of targeted initiatives and cooperation arrangements is shown in table T14.

Increasing attractiveness as an employer is the focus of employer branding at Jenoptik. Clear and distinctive positioning as an attractive employer should support recruitment and develop a positive and unmistakable employer image as a future-oriented, innovative high-tech company in the photonics industry. The definition of the employer brand and the development of the associated values (Employer Value Proposition) were carried out on the basis of the Jenoptik Strategy 2022 under the motto "More Light". The focus was once again on target-group oriented communication using social media channels in 2020. Numerous vocational training and university fairs were held online.

T14 Initiatives and coorperations (selection)

Jenoptik supports	• career guidance projects at schools, also offering their students the opportunity to complete an internship • young researchers in Thuringia as a longstanding state-level corporate sponsor of the "Jugend forscht" initiative • various industry organizations to promote professional development activities • students in the form of degree theses, internships, and scholarships
Jenoptik works with	• selected universities around the world with regards to HR marketing and recruitment, for research purposes, and to foster the professional development of its employees • selected universities around the world via projects and is active through a range of committees and networks in an advisory capacity

Further information on our social commitment can be found from page 71

Occupational health and safety are also key topics affecting the basic needs of our employees and their satisfaction in the workplace. They are firmly anchored in the Group's operating processes and aim to minimize risks arising in the work environment that may endanger employees. The Jenoptik companies are each responsible for applying the law on all aspects of occupational health and safety. Occupational Safety, Health and Environmental Protection (OSHEP) is part of Corporate Real Estate Management, falling within the remit of the Chief Financial Officer. It provides advice to all companies, coordinates tasks and supports the Executive Board in implementing measures. Occupational health and safety committee meetings are held in all divisions each quarter. In addition, all employees are briefed on issues relating to health and safety at work at least once a year. At all of the German locations, around ten percent of the workforce are trained as first-aiders. The number of reportable workplace and commuting accidents in Germany fell in 2020 to 11.4 per 1,000 employees (prior year: 10.7). The rate for the Group as a whole was 10.8. Compared to the other members of the ETEM trade association (Energy, Textile, Electronics and Media Products), Jenoptik is still significantly below the average figure of 22.3 in 2019.

In the interests of our employees' health and performance, the Group offers regular medical examinations by a company physician. In 2020, the focus was on managing the pandemic. With the help of a pandemic plan and hygiene concept at all sites, it was possible to prevent the spread of infection at the operating facilities while maintaining the ability to work in all areas. The fast and regular exchange of information between all the coronavirus task forces set up and the provision of information to employees, but in particular the rapid introduction, implementation and consistent enforcement of hygiene measures, vaccination offers and the opportunities for remote working have made a significant contribution to the success. Despite all this, it was not possible to prevent 86 employees across the Group from contracting COVID-19 in 2020. However, with the exception of four cases at the start of the pandemic in March, these infections can be exclusively attributed to private leisure activities outside Jenoptik's operating facilities.

Since the end of 2019, company health management at Jenoptik in Germany has been centrally managed by the HR department in the Corporate Center. In 2020, the structures required for this were established. The starting point was the conclusion of a cooperation agreement with the Techniker Krankenkasse (TK) health insurance fund and the establishment of local "health steering groups" to support the implementation of the actions on site. These include the "Move It!" initiation project, a digital exercise offer from TK for all employees, a "Healthy Leadership" training offer for our managers, and the further improvement of our process for company integration management (BEM). In 2020, we carried out a mental risk assessment for all German sites as part of the "Healthy Work" project. Our employee survey included 26 questions focused on this, covering working conditions and potential workloads and determining both stressors and resources at work. With the support of the "health steering groups", managers communicated the results to their teams and, if necessary, workshops were held with internal or external support to develop improvement measures. Overall, the results were very positive across Germany. The best score was for "social support", and the second-best score was for "appropriate working environment". The "Healthy Work" survey will be conducted again in 2022 to measure the effectiveness of the agreed measures.

Environmental Matters

Protection of our environment is of high priority to us. We see it as our corporate responsibility to grow sustainably in harmony with the environment and society and to use resources and energy efficiently at all our sites worldwide. As many of our products enable our customers to use resources efficiently and responsibly, Jenoptik primarily makes an indirect contribution to conserving resources and therefore also to protecting the environment. In order to make an active contribution to reducing CO_2 emissions, we want to increase the share of green electricity used at our main production sites, expand our vehicle fleet to include vehicles with alternative drive systems, and create an appropriate infrastructure at our sites for charging all battery-powered vehicles.

In order to take advantage of our employees' high level of motivation when it comes to sustainability and to implement as many topics as possible at the same time, the first group-wide competition for greater sustainability at Jenoptik with a focus on environmental protection took place in 2020. Over the course of the year, more than 40 projects were implemented independently by employees:

- In the "recycling economy" category, significant waste savings were achieved through the reuse of special packaging material and cold packs for sensor packaging,
- Significant energy savings were realized through the introduction of peak load and shutdown management, compressed air control and the use of LED lighting systems,
- The use of drinking water dispensers in conjunction with reusable drinking bottles has replaced costly ordering of mineral water, while also saving on transport costs and transport emissions,

- In the "Biodiversity" category, the repurposing of an area close to the company's site, the targeted planting of shrubs and wildflowers, and the installation of insect hotels transformed the unused grassland in Camberley, UK, into a kind of local recreational area for our employees. They use it for walks and yoga during breaks and it also provides a home for numerous insects.

An independent jury evaluated the implemented project contributions, with prizes being awarded to the three winners at the Management Days conference in early January 2021.

Environmental management is a key part of our business practices. We comply with national and international statutes and set standards in resource conservation and energy efficiency with respect to the manufacture of our products. However, we also require our suppliers and contractual partners to comply with relevant laws to minimize environmental risks. As a manufacturing company, we set our focus on efficient resource management so as to reduce energy consumption and greenhouse gas emissions to the best of our ability, use commodities and materials in a safe and resource-saving manner and to largely avoid producing hazardous waste. We espouse good environmentally friendly design and the economical use of resources as early as the development stage, while minimizing the impact on people, the environment and nature through regulated recycling and disposal. In line with their environmental relevance, selected Jenoptik companies are certified in accordance with the ISO 14001 environmental management standard, which sets out globally recognized requirements for an environmental management system.

See section on quality management in the Non-financial Statement, page 75

Occupational Safety, Health and Environmental Protection (OSHEP) topics are part of Corporate Real Estate Management and fall within the remit of the Chief Financial Officer. The Jenoptik companies are each responsible for applying the law on all aspects of environmental protection. The central environmental protection officer from Safety, Occupational and Environmental Protection is available to provide assistance where required and, for example, reviews all group capital projects with regard to their environmental relevance. An exchange also took place in 2020 to share experiences between the managers responsible for environmental issues at the German locations to ensure a standard approach to implementing environmental law requirements and processes. Waste officers take care of all matters relating to the prevention, accrual, recycling, and disposal of hazardous and non-hazardous waste.

Jenoptik continues to implement and in part exceed statutory requirements relating to nature conservation and environmental protection for new buildings, extensions and the modernization of production facilities. State-of-the-art technologies for saving resources and protecting the environment are applied when fitting out production facilities. The company building for the Light & Production division at the Villingen-Schwenningen site, completed in 2020, fully complies with the environmental protection standards introduced at Jenoptik. For example, the new building was equipped with modern insulation, sensor-controlled LED lighting and energy-saving heating and air conditioning technology. In addition, several charging stations for electric mobility have already been installed. The construction of the new employee restaurant in Jena is proceeding at a rapid pace in 2021, with the opening scheduled for mid-2022. The Boards of JENOPTIK AG approved the investment of more than 10 million euros at the end of December. The focus of the plans is on the company's values and strategy. For example, an internationally recognized sustainability certification will be pursued, which highlights environmental and social aspects. In addition, the open culture is reflected in the spatial design and furniture structures, along with the future orientation in the use of modern materials (e.g. Alubond and glass façades or metal grids as privacy screens).

T15 2019 energy consumption by energy source (in MWh)

	Electricity	Gas	Wood pellets	District heating	Heating oil	Energy consumption
Germany	32,581	7,150	842	8,965	472	50,011
Europe	672	60	0	0	0	732
Americas	8,574	4,341	0	0	0	12,914
Asia / Pacific	455	0	0	0	0	455
Total	**42,282**	**11,551**	**842**	**8,965**	**472**	**64,112**

The conversion of existing lighting to LED lighting is being examined and successively implemented at several sites worldwide in ongoing conversion measures taking into account cost and environmental aspects. In the future, obsolete and resource-intensive technology will be replaced by low-emission and more resource-efficient systems if necessary. Electrical energy in Germany is already provided almost exclusively from green electricity. Cleaning agents are currently being switched to environmentally compatible products for Germany. The successive development of an e-charging network – especially at the headquarters in Jena and beyond – will create the basis for a vehicle fleet utilizing alternative drive technologies in 2021.

Greenhouse gases: As a technology company, Jenoptik generates only small volumes of emissions within its plants. The majority of its pollutant emissions is attributable to procured and externally purchased energy (district heating, electricity or gas). Due to data availability, we report our energy consumption with a time lag to the reporting year. The group-wide total energy consumption is shown in Table T15 and is largely derived from electricity, gas and district heating. At 64,112 MWh, this was lower than in 2019 (2018: 75,605 MWh), due to energy savings and efficiency improvements. T15

In addition to absolute energy consumption, we are also reporting the energy consumption in relation to revenue, thus making the development of energy efficiency in our production transparent. In 2019, the total energy consumption of 74.96 MWh per 1 million euros group revenue was higher than in the prior year (2018: 90.59 MWh / 1 million euros group revenue).

Through the targeted purchase of renewable energies, Jenoptik has been sourcing almost exclusively green electricity from European hydropower throughout Germany since 2020, which is backed by proof of origin. Our international sites are also gradually converting to renewable energy sources. Through these measures, we aim to increase the share of green electricity used at our main production sites worldwide to 70 percent of total electricity demand by 2022, and to 75 percent by 2025. In 2019, the share of renewable energies in the total electricity demand was increased due to the conversions to green electricity that have already taken place, already amounting to 63.1 percent (2018: 45.3 percent).

The CO_2 emissions are calculated on the basis of the media consumption (electricity, district heating, gas, heating oil, wood pellets) of all major Jenoptik production sites. Group-wide CO_2 emissions decreased in 2019 by 20.9 percent to 10,161 tons (2018: 12,843 tons). T16

T16 Energy consumption and CO_2 emissions at major Jenoptik production sites (in MWh and t)

	Energy consumption		CO_2 emissions	
	2019	2018	2019	2018
Germany	50,011	58,447	5,637	8,038
Europe	732	1,332	38	158
Americas	12,914	15,543	4,174	4,455
Asia / Pacific	455	283	312	192
Total	**64,112**	**75,605**	**10,161**	**12,843**

Water: Jenoptik does not require large volumes of water for its manufacturing processes. Water is only used as a coolant, as a process medium and for sanitary purposes and comes primarily from the public drinking water supply and from groundwater. Nevertheless, as part of our water management, we take care to keep water consumption as low as possible at all our sites. For the current reporting year 2020, the reporting of water consumption and waste volumes is based, as far as possible, on billing during the year and valid estimates of the remaining consumption. In 2020, 69,758 m³ of water were consumed at our main production sites (prior year: 72,117 m³/2018: 70,790 m³). T17

Due to low volumes of water required for production processes, we do not see ourselves encountering any key risks in this area. Conservation regulations only play a very minor role for the Group due to its business purpose and the location of its sites outside conservation areas.

Waste: Within the scope of our business activities, hazardous waste is also generated to a small extent in a few production processes, for example, adhesive residues or solvents. Our goal is to avoid producing such waste which is generated during production as far as possible or to recycle it and, when this is not possible, to dispose of it properly in order to minimize negative effects on the environment. In the production of semiconductor lasers in Berlin-Adlershof, for example, a new process has reduced the solvents used. The volumes sent for recovery or recycling are recorded locally and we distinguish between hazardous and non-hazardous waste within these categories. T18

T17 Water consumption (in m³)

	2020	2019	2018
Total	**69,758**	**72,117**	**70,790**

In Germany, waste types in all divisions are systematically recorded, categorized and their quantities calculated. In the 2020 reporting year, the volume of hazardous waste disposed of in waste treatment/disposal plants reduced to 106 tons (prior year: 160 tons/2018: 162 tons) particularly in the Light & Optics division and VINCORION due to optimization measures in waste management. The quantity of non-hazardous waste rose slightly to 1,439 tons (prior year: 1,327 tons/2018: 1,022 tons). In general, Jenoptik recycles its waste through certified waste management companies. Through continuous waste separation and training of the employees on waste prevention, the amount of residual waste was again further reduced. At the Triptis site, for example, more plastic materials are being channeled back into the recycling process, thereby conserving resources, avoiding expenditure on waste disposal and even generating income.

As a high-tech company, Jenoptik is dependent on a wide range of raw materials. In the face of an increasing scarcity of resources, Jenoptik is committed to making sparing use of the materials it requires. Sporadic supply bottlenecks in connection with the coronavirus pandemic were offset by targeted supplier management measures. We comply with the applicable regulations, for example the requirements of the European chemicals regulation REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) and the European RoHS directive (Restriction of certain Hazardous Substances), and are fully involved on associated committees. In order to implement efficient processes for collecting relevant data, the Product Compliance project will also be continued in 2021. In the future, declarations from suppliers, raw material and chemical data can be systematically and automatically evaluated and the respective declarations issued. The objective of our purchasing processes is to also meet all regulations relating to conflict minerals in compliance with the Dodd-Frank Act.

T18 Hazardous and non-hazardous waste (in t)

	2020	2019	2018
Non-hazardous waste	1,439	1,327 *	1,022
Hazardous waste	106	160 *	162

* Figures in Annual Report 2019 only for Germany: 1,100 t non-hazardous waste or 179 t hazardous waste (deviation due to change in fractionation as a result of group-wide recording)

Resource Management

Many innovative Jenoptik products and solutions contribute to the efficient and responsible use of resources and support the UN's Sustainable Development Goals (SDGs). As a technology company, we enable our customers to design production processes and products more efficiently, thereby saving energy. The table below provides an overview of the contribution of selected Jenoptik products to resource conservation. T19

Social Commitment / Corporate Citizenship

Supporting young people in their education and scientific activities, as well as in social projects – this is at the heart Jenoptik's social commitment. The Group supports a whole range of non-profit projects, organizations and initiatives and is chiefly involved in the following three funding areas, primarily in Germany but increasingly also abroad:

- A commitment to the younger generation with projects in science, education, and in the social arena.
- Art and cultural projects to lend an attractive design to our company locations and create good conditions for our employees' work / life balance.
- A commitment to integration and internationality to strengthen the foundations of business and society in the future.

As a responsible and socially committed company, Jenoptik considers it its duty to play an active role in shaping its business environment. As part of this process, our main concern is to achieve close, long-term partnerships, with the aim of providing

T19 Contribution of our products to resource conservation

Product	Contribution to resource conservation, environmental and health protection
Jenoptik diode lasers and **laser machines** for a wide range of applications, e.g. in medical technology or the automotive industry	• The most efficient light sources available with an efficiency of up to 70 percent • Resource-friendly alternative to conventional machining processes, especially when machining high-strength steel with a lower weight
Optical systems and components for information and data transmission as well as medical diagnostic procedures	• Ongoing development toward ever-smaller crystalline structures in semiconductor production opens up ever newer applications • Digital imaging, real-time disease detection and medical diagnostics increase health and well-being • Time-saving processes and more cost-effective production save resources
Metrology – systems and equipment to check shape and roughness, particularly in the automotive industry	• The results are more precise surfaces and tighter tolerances in engine components (downsizing) and thus vehicles requiring less fuel and generating fewer emissions • More complex transmissions for hybrid vehicles in the field of electromobility demand the increased use of metrology
Hybrid power generation systems to enable an efficient power supply to the Patriot missile defense system	• Use of battery technology to reduce fuel consumption • Longer life cycles for customers, lower service expenditure and thus more sustainable products
Traffic monitoring systems check compliance with current road traffic regulations and improve traffic flow **Toll payment monitoring systems** on federal highways	• Increased safety on the roads and in public squares through reduction of accidents and resilient infrastructures • Improvement of living conditions through reduced noise pollution and environmental pollution • Installation at the side of the road limits interference in the environment (no installation of monitoring gantries)

not just financial but also non-material assistance. With our commitment to society, we want to strengthen the confidence placed in Jenoptik and boost our employees' sense of identification with the company. We also expect this to have a positive effect on our brand image, reputation and our attractiveness as an employer.

The duties of Corporate Citizenship are the responsibility of Investor Relations & Communications. Group-wide guidelines govern the principles of a structured and standardized approach to defining "Jenoptik as a Corporate Citizen" and ensure a uniform method of handling donations and sponsorship queries, as well as carrying out sponsorship projects.

Our commitment to our region is of particular relevance. Since 1996, the Group has acted as the patron of the "Adult Initiative for Children with Cancer Jena". Donations both made by Jenoptik and collected from partners, and the organization of various events, have helped to support children with cancer and their parents. Particularly worthy of note is the Easter Charity Concert given by the International Youth Orchestra Academy, the proceeds of which are donated to the initiative. In 2020, the group-wide program "Mitarbeiter im Ehrenamt" (Employees and Volunteering) entered its second round as a further pillar of social commitment. Volunteering is an important link in society. Many Jenoptik employees make an important contribution to associations and organizations through their volunteering work. The "Mitarbeiter im Ehrenamt" program encourages and honors this commitment.

T20 Social commitment – examplary projects 2020

Social	Jenoptik supports	• Easter charity concert by the International Young Orchestra Academy on behalf of the Elterninitiative für krebskranke Kinder Jena e.V. • Fundraising campaign on the occasion of the New Year's Eve reception on behalf of Deutscher Verkehrswacht (German Association for the Prevention of Road Accidents)/School Crossing Guards Project • Summer camps for children of Jenoptik employees and children of recognized refugee families • Promotion of "Mitarbeiter im Ehrenamt" • Thanksgiving food collections for the needy in Jupiter • Blood donation campaigns for One Blood in Jupiter
Science & Education	Jenoptik is a partner for	• The Thuringian young researchers competition "Jugend forscht" and "Schüler experimentieren" • Applied Photonics Award • Campaign – mobile devices for home schooling for needy families • Lothar Späth Award for Outstanding Innovations in Science and Business • Global competition "SPIE Startup Challenge"
Art & Culture	Jenoptik promotes artists through its own series of "tangente" art exhibitions (since 1994)	• Own series of "tangente" art exhibitions
	Jenoptik supports cultural projects with partners	The following projects, which Jenoptik traditionally promotes, did not take place due to the pandemic: • Open-air Cultural Festival "Kulturarena" organized by the city of Jena • Summer theater spectacular by Theaterhaus Jena • Summer concert series at the Thalbürgel monastery church

Together with numerous partners, the Group is also active as a member of "Familienfreundliches Jena e.V." (Family-Friendly Jena) support group for projects conducted by the "Jenaer Bündnis für Familie" (Jena Family Alliance) to improve general underlying conditions, the work/life balance and equal opportunities in education. Jenoptik supports various models of family-friendly childcare, the "Saaleknirpse" in Jena, the "Wasserstrolche" in Wedel, and the "Talentschuppen" in Monheim. For school children, there was once again a joint summer camp for the children of Jenoptik employees.

2020 was marked by the coronavirus pandemic, which was also reflected in our social commitment. Some projects that Jenoptik traditionally supports could not take place in the usual way due to the pandemic. Consequently, Jenoptik redirected some of its commitment to the promotion of pandemic-related projects. For example, Jenoptik initiated a large-scale fundraising campaign to finance mobile devices for students of needy families for home schooling, supported emergency aid funds for students, campaigns for pandemic key workers, and for the heavily burdened arts and culture sector. In 2020 the members of the Supervisory Board of JENOPTIK AG waived parts of their basic remuneration as a sign of solidarity in the COVID-19 crisis. Employee representatives and the Jenoptik Executive Board jointly decided to use the amount of around 60,000 US dollars to support Jenoptik employees in the USA who have been hit particularly hard financially by the Corona pandemic. In the USA, Jenoptik employees at the Jupiter site supported the "One Blood" organization with blood donation campaigns. Also at the Jupiter site, employees organized a food collection at Thanksgiving for those in need.

Since the company's earliest days, Jenoptik has been enriching life in Jena with art and cultural projects. The in-house "tangente" series of art exhibitions is a key part of this endeavor. In 2020, Jenoptik set the course for a new commitment, the sponsors hip of Imaginata Jena e.V., an experimentarium for the senses, an extraordinary learning and event venue. The aims of Imaginata, to increase young people's awareness of science and technology at an early age, fit in very well with one of the central issues of Jenoptik's social commitment – encouraging young people socially and in education. Likewise, Jenoptik 2020 created the technical prerequisites for a contemporary video mapping projection on the Ernst-Abbe high-rise in Jena as a future artistic light installation for Jena, the city of Light.

Responsible Corporate Governance

In a globalized market environment, Jenoptik is fully committed to responsible corporate governance and law-abiding, compliant conduct. We make our business decisions with this in mind and always work to ensure that our actions are in accordance with regulations, laws and our values. Compliance & Risk Management therefore lies within the remit of the Chairman of the Executive Board and reports directly and regularly to him. The Director of Compliance & Risk Management is in close contact with all employees throughout the organization and controls the Group's opportunity and risk management system in close cooperation with the central divisions and the divisions' risk officers. Our compliance organization comprises a central Compliance Competence Center with specialist responsibility for compliance, risk management, data protection as well as customs and export control. In the North America and Asia / Pacific regions, the team is strengthened by regional compliance officers.

Respect for human rights is a high priority for Jenoptik, especially in the supply chain. Jenoptik is committed to internationally recognized standards of human rights and does not tolerate any form of slavery, forced labor, child labor, human trafficking or exploitation in its own business operations or those of its supply chain. We also expect our suppliers to comply with and respect internationally recognized human rights standards, e.g. the Slavery and Human Trafficking Statement. Separate Codes of conduct for sales partners and suppliers define the Jenoptik Group's requirements for our business partners and require them to comply with nationally and internationally applicable statutes, regulations and standards. In order to identify violations and high-risk business partners in good time, a platform for group-wide supplier screening regarding compliance with all sustainability criteria was launched in 2020. Cooperation only takes place with those business partners who accept Jenoptik's compliance declaration.

Anti-corruption: Jenoptik fights all forms of active and passive corruption and expects all its business partners to do the same. For detailed information on Jenoptik's compliance management system, the company guidelines and codes of conduct for employees, suppliers and sales partners, our online training, and our whistleblower system, we refer you to the Corporate Governance Statement from page 36 and the Risk and Opportunity Report from page 133.

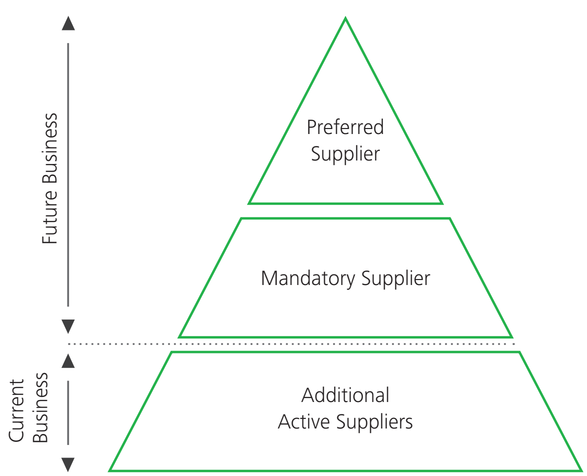
Supplier management: As one of our most important resources, our supplier base has a significant influence on the value contribution of our products, but also on sustainability and environmental protection. We partner with our suppliers all along the value chain on a long-term basis. When selecting our business partners and when working together, we take into account their performance in terms of safety, health, the environment, social standards and fair business practices in order to further develop an integrated supplier management system.

Our business partners are classified and assigned to the different phases of the supplier life cycle. Our Preferred Suppliers are of strategic importance for our future business. They are qualified according to uniform criteria applying group-wide. We hold a strategic meeting with our Preferred Suppliers at least once a year at which we discuss supplier assessment and its development. We use a scorecard to help set targets and measures relating to quality, logistics, technology, costs and sustainability. G09

Our Code of Conduct for Suppliers to the Jenoptik Group is binding on all suppliers worldwide, irrespective of procurement volume, and serves as the basis for contractual relationships. Among other things, it includes topics such as compliance with laws and regulations, respect for human rights, the prohibition of forced and child labor, the responsible handling of conflict materials and the obligation to protect the environment. Our qualification process in the reporting year included the request for a "Corporate Social Responsibility Supplier Self-Assessment (CRSA)" – a questionnaire for suppliers from high-risk countries on sustainability topics in the social, compliance, governance and environmental areas. An evaluation of the questionnaire is carried out interdivisionally with the Compliance & Risk Management and Safety, Occupational Health and Environmental Protection departments. The CRSA Coverage Rate is a non-financial indicator of the proportion of the purchasing volume from high-risk countries for which a CRSA exists. In the period under review, the CRSA coverage rate increased further to 36.4 percent (prior year: 25.4 percent). In order to further increase transparency in the supply chain, Jenoptik will implement a central platform in 2021 for the global monitoring of suppliers with regard to compliance and sustainability. In this context, a new key figure, the so-called Corporate Social Responsibility Rate (CSR Rate), will be introduced, which indicates the percentage of suppliers of product materials with an annual purchasing volume of more than 200,000 euros for which complete CSR self-assessments are available. The CSR self-assessments cover the topics of environmental protection, compliance management, human rights and the prohibition of child labor, ensuring health and safety, and anti-corruption and sustainability in the supply chain in the form of questionnaires. The survey will be managed via the sustainability and compliance platform implemented in 2021. The CSR rate is expected to reach 40 percent by 2022 and 50 percent by 2025.

Purchasing in the Jenoptik Group is established globally and responsible for all procurement activities and the implementation of responsible supply chain management. The various purchasing categories and product groups are controlled and managed by category / commodity managers worldwide. The Vice President for Corporate Supply Chain Management & Procurement reports directly to the CFO of JENOPTIK AG, Hans-Dieter Schumacher.

G09 Classification of suppliers



Quality Management

Quality Management

The key to Jenoptik's success as a technology company primarily lies in the quality of its components, products and solutions. Longstanding collaborations with key customers, sometimes in the form of development partnerships, and the confidence placed in us by our partners are proof that our products and solutions are convincing in their quality worldwide. As a quality leader, we are proactively committed to ensuring that the quality of our products and services is above average in many of our product areas. For more than 30 years, Jenoptik has been a member of the German Association for Quality (DGQ e.V.) and was recognized for this in 2020.

Quality management at Jenoptik is managed locally in the business units and falls within the responsibility of the division managers. Each division applies individual customer and market-related quality indicators. The following overview summarizes key KPIs for quality management in the Jenoptik Group. T21

Our process optimizations are one way of ensuring and further improving our quality, the impact of which can be felt in all areas of the business – from the development of new products via quality planning to the quality of the finished product (safe launch). Topics such as international quality and occupational health and safety as well as environmental protection programs were developed on the basis of the Jenoptik and divisional strategies. In 2020, for example, a CAQ module was introduced for more efficient planning, execution and evaluation of testing activities. With the introduction of a CAQ module for audit management, internal audits and supplier audits can be better prepared, executed and followed up in the future.

T21 KPIs for quality management

Criterion	Examples for KPIs of the divisions
Quality from a customer perspective	• Customer satisfaction • Complaints costs ratio • Warranty and guarantee costs
Quality as an internal operations partner	• Internal audits (number of improvements) • Measures in the process of continual improvement (number) • Process and product quality - Production yield / quality level - Reworking costs - Scrap costs
Quality from the supplier's perspective	• External supplier audits (number of improvements • Suitable suppliers (number) • Complaints costs ratio • Guarantee and warranty costs

In addition to certifications, further issues in quality management at Jenoptik include standardization, process improvements, tests as well as continuous dialog with customers, e.g. analyses of customer satisfaction. Almost all the group companies comply with the requirements of quality management standard ISO 9001; many of them also meet the requirements of the ISO 14001 environmental management system.

The table on page 76 shows a selection of group certifications and actions undertaken in 2020. The Light & Optics division has successfully passed the matrix certification in accordance with the ISO 9001 and ISO 14001 international standards for quality and environmental management for several sites. The German VINCORION sites also received the re-certification audits for the implementation of their quality and environmental management systems. Successfully audited were the implementation of the environmental management standard ISO 14001:2015 (in Wedel and Essen) and compliance with the industry-specific standard EN 9100:2018 (in Wedel and Essen). In all audits, the DQS auditors (Deutschen Gesellschaft zur Zertifizierung von Managementsystemen) positively highlighted the further development of the quality and environmental management system, the high degree of integration of environmental topics in into company processes, and the large number of improvement measures planned and implemented in particular. In addition, they certified that the employees receive a very high level of training. In the fall, the Automotive division's production area at the Shanghai site successfully passed an audit by the DQS.

In the current 2021 fiscal year, VINCORION plans to introduce an information security management system in accordance with ISO 27001 and to certify an environmental management system in accordance with ISO 14001 for JENOPTIK Power Systems at the Altenstadt site.

T22 Certification within the Group (selection)

Certification	Description	2020 actions
ISO 9001	Certification of quality management processes	• Matrix certification of all German Light & Optics sites • Successful surveillance audit at the Shanghai site • Matrix certification of all Light & Production sites excluding Spain • Matrix certification of Light & Safety sites in Germany and Austria • VINCORION certifications: Successful surveillance audit at JENOPTIK Power Systems GmbH
ISO 50001	Certification of the energy management system	• Certification of Photonic Sense GmbH due to energy-intensive machining processes, change to ISO 50001:2018 standard revision
EN 9100	Certification of quality management processes specific to the aerospace and defense industries	• Re-certification / surveillance audit at VINCORION
ISO 13485	Certification for the medical market with respect to the design, development and manufacture of medical products	• Certification in the Light & Optics division: Expansion audit for the biophotonics production area
ISO 14001	Certification of the environmental management system	• Matrix certification of German Light & Optics sites: Expansion of the scope for the Berlin-Adlershof site within the framework of the existing multi-site certification • Re-certification in the Light & Production division: Successful certification of the Bayeux site (France) • Re-certification at VINCORION
ISO 45001	Certification of the occupational health and safety management system	• Successful certification of the Light & Production site in Bayeux (France)
IATF 16949	Certification for the automotive industry	• Surveillance audit and special audit at the Triptis site
ISO/TS 22163	Quality management system for the rail industry	• VINCORION: Successful recertification audit
IRIS	International Railway Industry Standard	• Certification at VINCORION
ILO-OSH-2001 / OHSAS 18001 bzw. DIN ISO 45001	Certification of occupational safety and health management	• Re-certification in Light & Production • Re-certification at VINCORION
AQAO 2110/2210	NATO quality assurance system	• Renewal of certification at VINCORION

Combined Management Report

» In short «

The adjusted EBITDA margin was 17.0%. Excluding the PPA impacts, the EBITDA margin increased to

17.6 %

Jenoptik has thus again improved its profitability.

The Remuneration Report, the Information and Notes relating to Takeover Law as well as the Corporate Governance Statement (see Corporate Governance chapter) are part of the Combined Management Report.

General Group Information

Group Structure

Legal and organizational structure

As the corporate center and strategic holding company of the Group, JENOPTIK AG, based in Jena, is responsible for top-level functions including strategic corporate development, innovation management, and key tasks in controlling, corporate development (strategy, mergers and acquisitions, innovation), corporate real estate management, finance, internal audit, investor relations & communications, human resources, accounting, legal and IP, compliance and risk management, taxes, and treasury. It further pools the central functions of IT and data security, purchasing, safety, occupational health and safety, and environmental protection.

For more information on the acquisitions, see the "Business Model" chapter and the Segment Report from page 99 on

The divisions are responsible for Jenoptik's operating business which is focused mainly on the growth market of photonics. According to a study conducted by ReportLinkers this market is expected to see annual average growth of 7.0 percent in the years 2020 through 2027. Since the beginning of 2019, the photonics business has been organized within three photonics divisions, Light & Optics (OEM business), Light & Production (industrial customer business), and Light & Safety (business with public-sector customers). The three divisions build on common core competencies in the field of photonics, including expertise in the fields of optics, sensors, imaging, robotics, and data analysis. Activities based on mechatronic technologies are managed under the VINCORION brand. With this organizational structure, which is based on a common understanding of markets and customers using the same business models, we have further improved our market and customer orientation.

For more information on the development of the photonics market, see the "Macro-economic and Sectoral Developments" chapter from page 119 on

The three photonics divisions and VINCORION represent the segments as defined in IFRS 8. G10

On the closing date of September 24, 2020, Jenoptik completed the acquisition of an initial 75-percent stake in Trioptics GmbH. The Group will acquire the remaining 25 percent from the owners on December 31, 2021. The TRIOPTICS business is being integrated into the Light & Optics division.

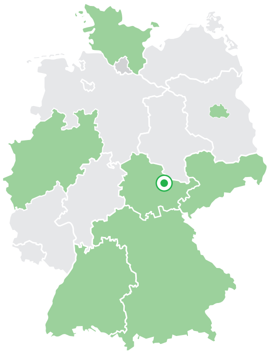
In February 2020, Jenoptik also acquired the Spanish INTEROB Group, consisting of INTEROB, S.L. and INTEROB RESEARCH AND SUPPLY, S.L, which was integrated into the Light & Production division. In March 2020, Jenoptik acquired 33.42 percent of shares in JENOPTIK Japan Co. Ltd. from its partner Kantum Ushikata Co., Ltd. and is now a wholly-owned group subsidiary.

In recent years, Jenoptik has continued to expand its international business and the structures associated with it. The US holding company at the Jupiter location in Florida is responsible for steering the overall strategy and coordinating financial activities for the American market. The administrative functions for Asia as a whole are managed from Shanghai, China. The operating business in Europe is coordinated at the main locations in Germany.

G10 Organizational structure of the Jenoptik Group since January 1, 2019

Photonics			Mechatronics
Light & Optics OEM business	Light & Production B2B business	Light & Safety B2G business	VINCORION
Optical products and key technologies for the markets of the digital world and healthcare	System solutions for more efficiency of products and production processes	Systems and services for safer roads and cities around the world	Mechatronic products and solutions for more security in the civil and military area

G11 Key locations of the Jenoptik Group



Germany

Altenstadt
Berlin
Dresden
Essen
Jena
Monheim am Rhein
Triptis
Villingen-Schwenningen
Wedel

Europe

France
Bayeux
Villeurbanne

Great Britain
Camberley

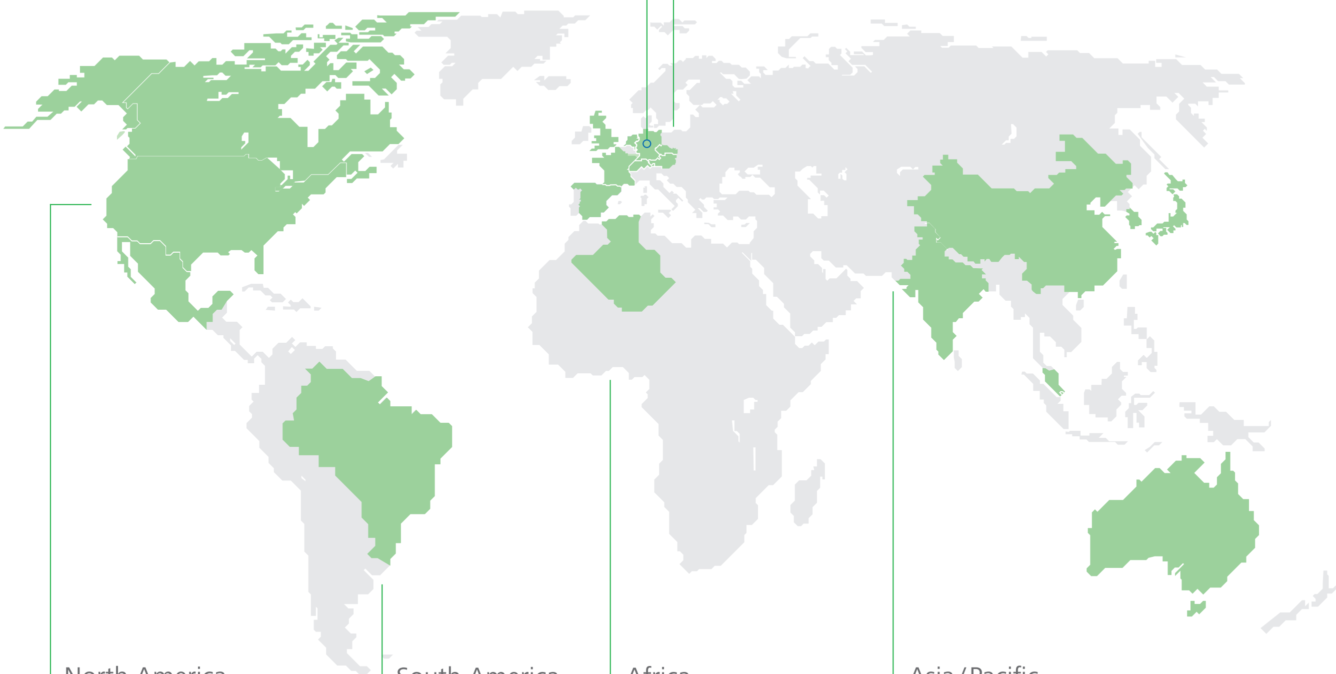
Netherlands
Riel

Austria
Vienna

Switzerland
Peseux
Uster

Czech Republic
Teplice

Spain
Valladolid



North America

USA
El Paso (TX)
Fremont (CA)
Huntsville (AL)
Jupiter (FL)
Rancho Cucamonga
Rochester Hills (MI)

Mexico
Saltillo

Canada
Barrie
Toronto

South America

Brazil
São Bernardo do Campo

Africa

Algeria
Algiers

Asia / Pacific

Australia
Sydney

China
Shanghai
Hongkong

India
Bangalore

Taiwan
Taiwan

Japan
Yokohama
Shizuoka-City

Singapore
Singapore

South Korea
Pyeongtaek
Suwon-si

As of December 2020

Key locations

Jenoptik is represented in over 80 countries worldwide, with a direct presence in 20 of them, e.g., through its own companies, investment companies, or affiliated firms. The majority of the Group's products are manufactured in Germany, followed by the US. The Group's Jena headquarters is primarily home to the photonic activities carried out in the Light & Optics and Light & Production divisions. Other major German sites are at Wedel near Hamburg (Light & Optics and VINCORION), Essen and Altenstadt in Bavaria (VINCORION), Monheim near Düsseldorf (Light & Safety), Villingen-Schwenningen (Light & Production), Dresden, Berlin, and Triptis (Light & Optics).

Outside Germany, Jenoptik maintains sites or is represented by subsidiaries or affiliated firms in the following countries: Algeria, Australia, Brazil, Canada, China, the Czech Republic, France, Great Britain, India, Japan, Korea, Mexico, the Netherlands, Switzerland, Singapore, Spain, Taiwan, and the US. G11

For investment holdings of the Jenoptik Group, see pages 231/232

Business Model and Markets

Jenoptik is a globally operating photonics group that provides the majority of its products and services to the photonics market. Photonics covers the basics and areas of use of optical methods and technologies that address the generation, transmission, shaping, and measurement of light. Controllable light sources such as LEDs and lasers, together with suitable optical devices and sensors, make it possible to transmit data, analyze materials, create micro-optical components, and perform non-contact precision measurements. Self-driving cars that have to find their way around independently are practically inconceivable without LiDAR (light detection and ranging) technology. Pulsed laser technology is also used, allowing satellite constellations, for example, to share data at high speeds. In the process, they use the special physical properties of light quanta (photons) in place of electrons or also combine optics and electronics. Under the VINCORION brand name, the Group also supplies mechatronic solutions. Our key markets primarily include the semiconductor equipment industry, the medical technology, automotive, mechanical engineering, traffic, aviation, and security and defense technology industries. As a supplier of innovative capital goods for these markets, Jenoptik is primarily a technology partner to industrial companies. Our range of products comprises OEM or standard components, modules and subsystems through to complex systems and production lines for various sectors. It further includes total solutions and full-service operator models. Alongside industrial customers, the Light & Safety division and VINCORION primarily serve public sector clients, in part indirectly through system integrators.

Jenoptik competes with its product range with a wide range of internationally operating companies not uncommonly specializing in only one or a few of the product areas and markets listed above. Differing product and service ranges are only comparable to a limited extent and thus make it difficult to provide definite market share estimates.

Research and development occupy a key position in Jenoptik's work, with the customer at the center of everything we do. Our technology-intensive products and systems are often created in close collaboration with customers. Such lasting and successful cooperations with key customers are an important factor of our success. This demands a spirit of mutual trust together with knowledge of our partners' requirements, and is reflected, for example, in the costs for developments on behalf of customers, amounting to 16.3 million euros in the 2020 fiscal year.

Examples of innovative products can be found in the "Research and Development" chapter from page 92 on

The Jenoptik Divisions

Light & Optics

The Light & Optics division is a global OEM supplier of solutions and products based on photonic technologies. Jenoptik offers a wide range of products and services in this field, combining comprehensive expertise in optics, laser technology, digital imaging, optoelectronics, and software. Our systems, modules, and components help customers to tackle the challenges they face using photonic technologies. Customers include plant and machinery manufacturers, equipment manufacturers, and research institutions. As a high-tech photonics company, Jenoptik can assist its customers as an OEM partner offering an in-house technology portfolio covering everything from development to volume production.

In the Semiconductor & Advanced Manufacturing area, the Light & Optics division develops and produces optical and micro-optical systems as well as precision components to the highest quality standards. This includes complete systems and modules, all the way to special optical components and custom solutions for wavelengths from the far infrared (FIR) to the extreme ultraviolet (EUV) region. These products are used, for example, in both lithography and inspections within the semiconductor equipment industry. The division works with leading international manufacturers in this field.

With its innovative, in part software-assisted optical and micro-optical solutions, Jenoptik is also in a position to exploit further potential for growth in the field of digitization, for example in the market for information and communication technology, and increasingly also in the laser material processing market. Customers in the field of information and communication technology included manufacturers of fiber optic transceiver modules, predominantly in the US and Asia. In the laser material processing market, customers include system integrators and manufacturers of laser production equipment.

In the field of biophotonics, the division focuses on applications for bio-imaging and laser-based therapy. Based on its core expertise in laser and LED-based beam sources, optical components and modules, sensors, digital imaging, and system integration, the Light & Optics division develops OEM solutions and products for the medical technology/life science industry.

Our diode and solid-state lasers are used in ophthalmology, dermatology / aesthetics (tattoo and hair removal), and surgery. The division also develops and produces optical and optoelectronic modules and subsystems for digital imaging and microscope cameras for applications in the medical field. A new product concept for the fields of diagnostics and analysis is the JENOPTIK SYIONS modular technology platform for digital imaging and analysis, which can be configured according to customer requirements. It can be used to generate image data from in-vitro diagnostics for use in scientific and clinical environments.

Biophotonics customers include national and international medical technology companies, in particular OEMs in ophthalmology, diagnostics suppliers, and companies involved in DNA sequencing.

For the field of industrial solutions, Jenoptik supplies high-peformance optoelectronic components and modules as well as integrated solutions that combine optics, laser technology, sensors, and digital imaging as required. The company focuses on applications in the fields of industrial automation and automotive and mobility. In addition to complex components for head-up displays, lenses for driver assistance systems, laser optical systems for particle sensors, and polymer optics for machine vision applications, we also produce LED components. Sensor products cover infrared camera systems and laser rangefinders, which are used in automation technology, security technology, and military reconnaissance.

The acquisition of Trioptics GmbH in 2020 allowed the Jenoptik Group to considerably expand its testing and measurement product range, gain access to new markets, e.g., for smartphones, and significantly expand its reach in Asia. TRIOPTICS develops and manufactures measurement and production systems for optical components and sensors in the digital world. These systems help to accelerate and improve the development, quality control, and production of lenses, objectives, and camera modules. Customers include smartphone and camera manufacturers, and their suppliers. We are also targeting other markets, such as those for new virtual and augmented reality applications in the industrial and consumer segments, or the automotive industry.

In 2018, the Group acquired the OTTO Group, allowing it to boost its range of services for innovative metrology solutions, e.g., for 3D inspections, and further expand its market position as a systems supplier for production metrology and industrial imaging applications. To better utilize synergies, OTTO has been part of the Test & Measurement area in the Light & Optics division since January 1, 2021 (OTTO was part of the Light & Production division until December 31, 2020).

Detailed information on the course of business in the segments can be found in the Segment Report from page 119 on; see the Forecast Report from page 146 on for information on the development of the divisions

Information on our extensive product range can be found at www.jenoptik.com/products

Key sales regions in the Light & Optics division are in Europe and North America, as well as in Asia/Pacific. The core markets in which Jenoptik supplies specific market segments are the semiconductor equipment, medical technology/life science, information and communication technology, show and entertainment, metrology, automotive, virtual and augmented reality, industrial automation, and the defense and security technology industries. The Light & Optics division's competitors include MKS/Newport, Excelitas/Qioptiq, IDEX, Berliner Glas, OptoAlignment Technologies, and Optikos.

Light & Production

The Light & Production Division is a global specialist in the optimization of manufacturing processes, and increasingly also offers integrated solutions (complex production lines utilizing a range of technologies) from a single source.

With many years of experience and expertise in industrial metrology and optical inspection, laser-based material processing, and highly flexible robot-based automation, the division develops manufacturing solutions for customers in the automotive, aerospace, and other manufacturing industries. Jenoptik supports industrial customers in making their production processes more effective and efficient through the use of optical and photonic technologies.

The division's portfolio includes high-precision contact and non-contact production metrology with a resolution in the nanometer range for pneumatic, tactile, and optical inspection of roughness, contour, shape, and the determination of dimensions at every stage of the production process and in the inspection room. A wide range of services such as in-depth advice, training, service, and long-term maintenance agreements are also all provided.

In addition to this, Light & Production develops 3D laser processing machines that are integrated into customer production lines as part of process optimization and automation. They are used to process plastics, metals, and leather at high speed and with accurate contours, and are thus both efficient and precise.

In a similar way to Five Lakes Automation (FLA), which was acquired in 2017, Prodomax (Canada), which was acquired in 2018, plans and designs automated production lines and integrates them into customer production environments. The acquisition of the Spanish INTEROB Group in early 2020 further boosted Jenoptik's position as a turnkey provider of automated production solutions. The Light & Production division is in a position to offer not only stand-alone laser machines but also complete process solutions from a single source. Solutions, products and services related to process engineering and implementation include plant layouts, simulation, machine control and software design, robot handling systems, and transport devices.

The Light & Production division is active around the world and, in addition to Germany, also operates development and production facilities in the US, Canada, France, Spain, and China. It also has numerous sales and service offices located on three continents, and so the division is present in the centers of the global automotive and automotive supplier industries in Europe, North America, and Asia. Companies such as Marposs, Mahr, and ViciVision compete with Jenoptik's metrology operations, Trumpf, Prima Power, and others with our laser processing machine business, and firms such as Centerline Automation in Canada and Serra in Spain with our automation business.

Light & Safety

The Light & Safety Division operates in three areas of business: traffic law enforcement, civil security, and road user charging. Here, Jenoptik develops, produces, and sells various components, systems, and services used by public sector customers to monitor compliance with applicable road traffic regulations and thus make the world's roads safer. Its product portfolio includes systems covering all aspects of road traffic, such as speed and red light monitoring systems and custom solutions for identifying other traffic violations. Further expertise relates to the measurement of average speeds (section control) and automatic number plate recognition (ANPR), including applications for the police. In order to improve the recognition rate for car license plates using ANPR cameras, the division uses artificial intelligence and computer-based algorithms. Jenoptik thus supplies integrated solutions for public safety and future smart cities.

Beyond this, the division also offers a combination of equipment business and services, known as Traffic Service Provision. Here, Jenoptik covers the entire supporting process chain – from system development, construction, and installation of the monitoring structure, to capturing images of traffic violations and their automated processing.

Jenoptik has contributed to the further technical development of toll payment systems in Germany. For these applications, the Group markets innovative toll payment monitoring pillars that combine various digital sensor technologies such stereo image processing and axle number detection in a single system.

The Light & Safety division's regional areas of focus are also primarily determined by customers. Over 30,000 Jenoptik devices are in use around the world. Competitors here include Redflex, the Sensys Gatso Group, Safran, and Vitronic.

Traffic safety systems in Germany are tested and certified by the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig, thereby obtaining proof of their measuring accuracy. Foreign deliveries are subject to controls by national institutes, although various countries also partially or fully recognize the German PTB test certificate or licenses from other leading European licensing authorities. As all companies have to go through these procedures, they represent a significant barrier to market entry for potential suppliers.

VINCORION

VINCORION develops, produces, and sells mechatronic products for civil and military markets, in particular for the security and defense technology, aviation, and the rail and transport industries. Its portfolio ranges from individual assemblies through to systems which customers integrate into their systems. VINCORION does not manufacture components or systems for controversial or internationally banned weapons. The division specializes in energy systems, drive and stabilization systems, and aviation systems. Qualified customer service ensures product support over what are typically long service lives. Products include diesel-electric generating units, electrical machinery such as generators, electric motors, and converters, power electronics, heating systems, rescue winches, and radomes. They are used in military and civilian vehicles and in rail and aircraft equipment.

VINCORION supplies equipment to major systems companies such as Krauss-Maffei Wegmann and Rheinmetall in Germany or Raytheon (US), and aircraft manufacturers such as Airbus (France/Germany) and BAE Systems (Great Britain); it also supplies governments directly. In the area of defense and security technology as well as aviation and rail equipment, VINCORION is a business partner to national and international customers, with end products frequently exported worldwide by the systems companies it supplies. Many of the components and subsystems are developed specially on behalf of clients. Business is predominantly geared toward the long term and is subject to exacting security, certification, and export control requirements. The platforms on which the systems are deployed, such as the Leopard 2 tank and the Patriot missile defense system, often remain in use for many years and decades, increasing the importance of spare parts business and modernization projects. Competition with other companies is frequently limited to individual product groups. VINCORION's competitors include Moog, UTC Aerospace Systems, and Meggitt.

Further information on the development of the sectors and markets can be found in the Group Management Report

Targets and Strategies

Strategic orientation of the Group

As noted in the chapter titled “Business Model and Markets”, the Jenoptik Group offers the majority of services and products for the photonics market. As so-called enabling technologies, the extremely precise, flexible methods and processes of photonics have great economic leverage and continue to enjoy an increasing share in industrial value creation.

With a greater focus on photonics growth markets, we want to develop into a focused and globally positioned photonics company. A concentration on core competencies in optics and photonic technologies is the core of our Strategy 2022. In implementing this strategy, Jenoptik is concentrating on internationalization and innovation, in addition to focusing. We want to target in particular markets where technological expertise justifies a price premium. Our solutions contribute to increased efficiency and precision of our customers’ products and processes as well as to improved resource conservation and more sustainability.

In order to implement the growth strategy, we

- are focusing on our core areas of expertise in the field of photonics and optics,
- have reorganized and simplified our corporate structure,
- actively manage our portfolio with a view to additional purchases as well as transformatory acquisitions and selective divestments,
- are continuing to work on further internationalization in conjunction with greater vertical integration and customer proximity in our growth regions,
- want to drive innovation even more strongly and be an innovation leader in our markets,
- are contributing to more sustainability in our production processes as well as in our products to achieve the Sustainable Development Goals / global sustainability targets,
- are expanding our system and application expertise and developing as a solutions provider,
- are promoting an active cultural change within the company, and
- are continuing to steadily strengthen our financial resources.

Focus

Our activities in the market for photonic technologies focus on the fields of information processing, intelligent production processes, sensor technology, metrology, and biophotonics. For us, these are markets that are not only characterized by growth, but also by technological differentiation potential. Jenoptik continues to benefit from the global trends in digitization, health, mobility & efficiency, infrastructure as well as security and sustainability, and is increasingly establishing itself as a strategic systems partner for international customers, with whom it works to design forward-looking solutions.

G12 Strategy of the Jenoptik Group

Group strategy 2022

Strategic building blocks	More Focus	More Innovation	More International
Strategic targets	Quantitative long-term targets: Growth | Profitability | R+D ratio Strengthening financial power		Qualitative long-term targets: Cultural change | Employee satisfaction | Headquarters of the divisions | International value creation

The clustering of the operating business according to a similar understanding of the market and customers into three photonic divisions and VINCORION is based on the same business models. This helps us to increase the reach of our products and solutions and opens up improved growth opportunities. For us, however, focusing does not just mean an emphasis on our core areas of expertise, but also efforts to simplify structures and make the company more agile. That is why we have already reorganized our business structure. Decision-making processes and responsibility have been further decentralized and, increasingly, relocated into the operating areas. This will enable us to prioritize initiatives for future growth more clearly and to achieve success more quickly and efficiently.

Our planned profitable growth will be further supported by efficiency measures and increasingly by the expansion of the service business as well as realizing economies of scale.

Innovation

As an innovative high-tech company, it is of critical importance for Jenoptik to identify future customer needs and trends early on, to align them with our strategic actions and business activities to derive appropriate technology and product developments and to help drive developments forward. That is why we want to increase our R+D investment, including customer-related projects, to a total of approximately 10 percent of revenue by 2022 (2020: 9.0 percent) in order to strengthen our market position in the field of photonics. We will continue to expand our software expertise and our knowledge in the field of artificial intelligence across all business segments in order to supply technological solutions for new requirements with interdisciplinary teams. In addition, we will drive the expansion of our technology platforms in order to better utilize synergies.

As a system partner, Jenoptik is constantly looking for new solutions in conjunction with customers. Our customers are often already involved in the very early stages of the development processes. This enables us to strengthen our relationships and steadily boost value creation. At the same time, we also want to drive innovation forward independently of customer-related orders.

Internationalization

Due to a continuing strengthening of the respective domestic industrial production as well as the demographic development, Jenoptik sees especially great potential for future growth in the regions of the Americas and Asia/Pacific. In terms of internationalization, we are therefore focusing on these markets. In 2020, one of the priorities for implementing the group strategy was development in Asia. Alongside China, the focus here is increasingly on Japan, Korea, and other southeast Asian markets. In addition, we are aiming to increase value creation by expanding manufacturing and product development in this region. This will enable us to also offer local customers with their different needs locally manufactured products and solutions as well as the associated services, and to support them in achieving their innovation goals. The plan by 2022 is to establish local R+D teams and our own production facilities in all major growth markets – such as China – in order to better target our customers in their local markets.

To further improve our market orientation and customer proximity, we are adapting our structures and developing products and solutions that are consistently geared to the trends and needs of our customers. In the future, Jenoptik will also continue to invest in the establishment and expansion of new and existing sales and service structures. We rely both on our own direct distribution channels and on dealer structures.

Active portfolio management to support the group strategy

By focusing on optics and photonics, our aim is to further increase profitability along with organic growth. We also intend to further expand our market and customer reach through targeted acquisitions – not only in Europe, but also in America and Asia in particular. We intend to round off our portfolio through forward integration and additional systems expertise. Examples of this include the acquisitions of the Canadian Prodomax and the German OTTO Group, successfully completed in prior years, along with the acquisition of TRIOPTICS in Germany and INTEROB in Spain in the past fiscal year. The acquisition of TRIOPTICS in particular is an important step in Jenoptik's strategic focus on being a leading company in the field of photonics. It will enable us to tap into new technological growth markets such as virtual and augmented reality

Further information on the group structure can be found in the "Business Model and Markets" chapter from page 80 on

Further information can be found in the "Research and Development" section, from page 92 on

Further information on sustainability can be found in the Non-financial Report from page 60 on

applications in the industrial and consumer segments and expand the Group's presence in Asia. Each acquisition must be a strategic fit for us and fulfill the criteria for increasing corporate value as well as integratability. The discontinuation of existing business activities or the sale of parts of companies is also continuously reviewed against the backdrop of the intended focus on photonic core expertise.

Employees – our most important resource

In order to maintain lasting profitable growth, we must attract highly qualified and capable employees and ensure their long-term retention in the company. Structured HR planning is necessary to achieve this in an environment which is becoming increasingly demanding from a demographic viewpoint. Jenoptik is positioning itself as an attractive employer by utilizing targeted HR marketing activities. Personnel development measures, an interdisciplinary and intercultural work environment as well as an open and dialog-oriented corporate culture should help to strengthen employees' loyalty to the company. The basis for this are our values – open, driving, confident – which help to boost Jenoptik's growth across different cultural and legal systems. As part of our personnel work, the anchoring of the values in everyday corporate life is therefore a further focal point in the realization of our strategic objectives. As we are convinced that more diversity in the company leads to greater innovation and creativity, we have set ourselves diversity targets and defined measures to implement them. The diversity rate, which is calculated from the average proportion of executives with an international background and female executives, is to increase to 30 percent by 2022 and to 33 percent by 2025. The top four management levels are decisive here. In the past fiscal year 2020, the diversity rate was already increased to 27.8 percent (prior year: 25.5 percent).

Further information on the subject of personnel can be found in the Non-financial Report from page 64 on

Sustainability is part of our corporate strategy

For us, our corporate activities are not only aimed at achieving economic goals but also meeting an obligation to the environment and society. Consequently, the subject of sustainability is firmly rooted throughout the entire Jenoptik organization. As a so-called "enabler", we make an important contribution to the conservation and efficient use of resources with our innovative products and solutions, enabling our customers to achieve greater sustainability and efficiency. We have also taken numerous measures to improve resource and energy efficiency, broaden diversity, strengthen our social commitment, further improve corporate governance, and increase transparency in our supply chain. We have set ourselves specific goals for this, which are detailed and explained on page 63 of the Non-financial Report. We are also breaking new ground in the area of "green finance", and plan to place a debenture bond with a "green component" in March 2021.

Priorities for strategy implementation 2020 and 2021

In the gradual implementation of Strategy 2022, the Executive Board had set the following priorities for 2020:

- Development in Asia
- Global business excellence and
- Cultural change.

The Executive Board, the members of the EMC and our employees continued to work hard to implement these strategic group initiatives in 2020. For example, sales activities in Asia were aligned even more closely with customers and markets, while revenue in the Asia/Pacific region increased from 97.2 million euros to 105.8 million euros. With TRIOPTICS, we have acquired a company with its own sites in the Asian markets enabling it to maintain a very strong presence and generating more than 50 percent of revenue there. Jenoptik also acquired the remaining shares in JENOPTIK Japan in 2020, thereby converting the company into a wholly owned subsidiary of the Group.

With the Global Business Excellence (GLOBE) program, we want to create the prerequisites for future digital business models and standardized processes and data in the Group. In doing so, our processes and systems are to be consistently aligned with the needs of Jenoptik's photonics core business. The objective is to have lean and harmonized processes, to map them in a new SAP system (S/4HANA), and thus provide management with a better basis for control. The GLOBE project is being implemented in three phases, the third of which began at the end of 2019. In this, the GLOBE template that has been created, is to be gradually introduced in the divisions in several roll-outs and continuously be expanded to meet business-specific and local requirements. The introduction of the S/4HANA within JENOPTIK AG took place in mid 2020.

The cultural change in the Jenoptik Group became another focus within our strategic initiatives in 2020. The focus was on, among other things, intensive communication and exchange with our employees, the efficient design of our meeting culture, and the topic of diversity. The progress on all topics was determined by conducting a total of three so-called Culture Cockpits, an employee survey on the implementation status of our actions. Jenoptik advocates a respectful and prejudice-free working environment that values talent based on achievement. This is why Jenoptik signed the Diversity Charter in August 2020, making it part of an employer initiative to promote diversity in companies and institutions.

We have set ourselves two subjects as strategic priorities for 2021:

- Strengthening innovation,
- Anchoring sustainability even more firmly within the Group.

As a technology group, innovation is of key importance to Jenoptik. That is why we are focusing even more strongly on research and development – both our own innovative products and joint developments with our customers. This enables us to achieve competitive advantages which determine our performance and thus our economic success. In the current fiscal year, we will therefore focus our attention even more strongly on our innovation power.

We are also convinced that we can only achieve our economic goals and profitable growth in the long term by behaving responsibly towards society and the environment. So, this year, we are also placing particular emphasis on environmental protection, social commitment and corporate governance. We intend to continue with actions taken and strengthen initiatives to anchor sustainability even more firmly in our group strategy and in all areas involved, such as our supply chain and product development.

Strategic orientation of the operating business

The Group's photonics divisions are interconnected in many ways to ensure the transfer of technology or expertise between them. Infrastructures and cross-section functions are also increasingly used jointly, for example for global procurement or in the expansion of the international sales network. shared locations and the shared use of infrastructure facilitate market entry, enable the company to achieve critical mass more quickly in key regions around the world, and help to optimize the cost base through the leverage of synergies. Cost benefits are realized and currency risks minimized through global sourcing and production.

In the Light & Optics division, we use our expertise in photonics as a key technology and support our OEM customers in improving their competitiveness and environmental sustainability. We are continuing to consistently focus our optical systems business on the "digitization" megatrend, which market assessments, such as those from SEMI, indicate is set to intensify. In addition to the semiconductor equipment market, our optical and micro-optical solutions are being targeted at other digital world markets such as advanced manufacturing or industrial solutions. Jenoptik is already positioning itself in the market for optical information and communication technology. In order to also successfully target these high-tech markets in the future, innovation, technological development, and differentiation remain key issues. This will also require targeted investments, e.g. in a new electron beam lithography system. In the long term, we want to position ourselves as a system-relevant supplier to our customers. Ongoing internationalization, including in Asia, expansion of the systems business, focus on key customers as well as the use of economies of scale form the basis for sustainable profitable growth.

In the market for biophotonics, we are also focusing on the "health" megatrend. Based on beam sources that use lasers and LEDs, optical precision components, digital imaging, and platform technologies, we want to increasingly position ourselves as one of the leading, sustainably profitable partners for the development of system solutions and products for diagnostics, analysis, screening, and therapy in the healthcare and life science industries. In doing so, we are focusing both on the development of customer-specific products and on unique selling points.

However, we are also participating in the trend for more mobility and efficiency with innovative industrial applications. One focus of business activities is on expanding volume business with optoelectronic and polymer optical high-performance components and modules. In addition, we are continuing to pursue promising growth options with technologies for innovative applications centered on our core areas of expertise, such as driver assistance systems or technologies for autonomous driving (LiDAR). We also want to become an internationally operating supplier in these fields.

The acquisition of TRIOPTICS in the 2020 fiscal year has enabled the Jenoptik Group to significantly expand its product portfolio in the Test & Measurement business unit. Combining the two companies' expertise in optics and industrial imaging will enable them to further expand their technological leadership

Further information on employees and corporate culture can be found in the Non-financial Report starting on page 64

77 Combined Management Report 152

and gain associated market shares, for example in the growing markets for new virtual and augmented reality applications in both the industrial and consumer segments. In the automotive industry, the expanded portfolio for manufacturing high-precision optical components and systems offers considerable potential, particularly in view of the growing importance of driver assistance systems and new mobility concepts in the field of autonomous driving, for which improved image and data acquisition are essential. With its strong presence and the established access to key TRIOPTICS customers in Asia, Jenoptik wants to expand its existing market share in strategic markets such as China, Japan, and Korea. The Group is also strengthening its position in North America, expanding its range of services for important American customers in the digital and communications sector. The integration of OTTO Vision (OTTO) into the Light & Optics division is also intended to expand market and customer reach by using the global TRIOPTICS distribution channels.

As a supplier of products, systems, automation solutions and services for industrial customers (B2B), the Light & Production division primarily addressed the trend towards more flexibility and efficiency in production processes. We will use our high-performance Smart Manufacturing applications to support the manufacture of efficient products in various sectors such as the automotive industry. As our customers rely increasingly on central suppliers for complex production lines, the division wants to position itself even more strongly as a technology integrator in the future and to offer end-to-end solutions, based on its many years of process knowledge and existing systems expertise.

A concentration on automated plastic and metal processing will support further growth in the field of laser processing systems and automation. The acquisitions of INTEROB (2020) and Prodomax (2018) have also contributed to this development. As an integrated supplier, Jenoptik is now able to offer end-to-end solutions for efficient production environments, from its own products and systems to automated system concepts and complete process solutions. The Light & Production division is therefore developing from a supplier of key technologies to a strategic partner for globally active customers in our target markets. At regional level, we intend to grow our business primarily in Asia.

Jenoptik's use of inspection and production metrology enables it to focus, above all, on the need to reduce fuel consumption and CO_2 emissions, particularly in combustion engines. However, the current trend in the automotive industry towards more and more e-mobility has been reflected in business development within the metrology business area. Actions have already been taken to bring the business back on track for sustainable growth and to significantly increase profitability. As the market for metrology is growing particularly rapidly in Asia, the business is to be strengthened here. In addition, the product portfolio and associated technologies are being further developed, for example for electrical powertrains in the field of alternative drives. However, applications outside the automotive industry are also being developed, e.g. in production metrology for machining processes or in the aviation industry. The aim is for the metrology area to become a premium niche provider of customized metrology solutions.

In the Light & Safety division, we are pursuing two further future trends with a focus on infrastructure and public safety. In the field of traffic monitoring systems, we continue to support our customers – primarily public-sector customers (B2G) – in achieving their targets to improve traffic safety with complete solutions. With the global trends toward increasing mobility, urbanization and security, particularly in newly industrialized countries, Jenoptik is also tapping into new sales regions. To support the further growth, the product portfolio is being modernized and a new uniform product platform developed. In the existing key markets, demand is primarily for more applications/ functionalities as well as greater information density per monitoring system. The division will meet this demand through the expansion of its growing technology and software expertise as well as the increased use of ANPR. In the global traffic safety technology market, there is also a trend towards larger projects with a combination of equipment business and services, known as Traffic Service Provision. That is why Jenoptik is focusing on strengthening this profitable service business. The Light & Safety division also sees good growth opportunities in the area of toll enforcement and therefore also wants to develop and expand this business further.

Alongside the traffic safety sector, the market for civil safety is also gaining in importance. Based on the existing systems and software applications, the division aims to develop into an integrated solution provider for civil security and future smart cities, while at the same time positioning itself for a future in which autonomous driving is part of everyday life. The introduction of the SaaS (Software as a Service) model supports the ambition to grow further in the smart cities sector. The expansion of our presence in international markets, selected cooperation arrangements as well as the concentration on innovative and competitive products are aimed at securing future growth and boosting our market position.

Jenoptik's mechatronics business was consolidated under the VINCORION brand and will continue to position itself as a partner for systems companies and customers who have a need for individual solutions that meet the stringent requirements of heavily regulated markets such as those of aviation and defense technology. Opportunities for further growth are seen in global trends such as the growing need for security, mobility, and efficiency as well as the increasing electrification in military and civilian sectors. For this reason, the focus will be on such high-growth business areas as energy systems. Beyond this, the proportion of products used in civilian fields such as aviation is to be increased. More newly developed systems will be placed on the market, while at the same time the product portfolio will become focused and customer relationships and cooperation with OEMs and end customers worldwide will be intensified. VINCORION is also seeking to expand its service business and international sales and service structures, especially in North America and Asia.

Strategy development and processes

Jenoptik's Corporate Development department strives to achieve an optimum strategic market alignment of the Group with its segments and foreign locations. The Corporate Strategy team supports the development, implementation, and follow-up of the strategy implementation. The head of the division reports directly to the Chairman of the Executive Board.

To underpin the group and division strategies, on the one hand, there is close cooperation between Corporate Development and the divisions in the area of market intelligence – particularly with respect to global target markets, trends and customer requirements, disruptive developments, opportunities and risks, as well as competitors and other framework conditions. On the other hand, it is important to bundle and expand our own technological expertise and unique selling points, including by means of strategic roadmaps and structural adaptations. Here the operating business units are also supported in terms of process and content. This contributes to securing the targeted market position.

In addition, the central Corporate Development department also supports the operating units in planning and implementing their strategic plans and in designing business models and structures – all with the target of securing sustained profitable growth within the Group. This target can also be supported through company acquisitions.

Further information on the segments can be found in the Segment Report on page 119 and the "Business Model and Markets" chapter from page 80

Control System

The company control system is geared toward the long-term corporate strategy and is therefore consistently aligned with the Group's short to medium-term objectives. The Executive Board is responsible for overall planning and thus for achieving the stated objectives as part of the strategic corporate development.

With the support of the Executive Management Committee (EMC), the Executive Board uses a strategy process to steer the development of the business units and monitors the implementation of defined measures at quarterly business reviews. At annual strategy meetings, growth paths are defined, opportunities and risks are evaluated, portfolio decisions are made, and the focuses of in-house research and development are determined using technology roadmaps on the basis of global trends. Strategy and planning meetings provide a planning basis for the following year and in medium-term group planning.

A planning forecast for the coming year and a five-year period is created annually on the basis of the long-term corporate strategy, and is guided by the market-driven strategic planning of the key indicators. Planning is made using the "counter flow method" (bottom up – top down). In the course of a fiscal year, the planning for that year is updated in several forecast cycles.

Monthly results meetings as part of the EMC meetings are used for operational control: the division heads/regional managers report to the Executive Board on the economic situation, the development of customer relationships, the competitive situation, and any special business events. They employ standardized reporting methods and ad hoc analyses largely involving performance indicators, information parameters, and qualitative assessments, which are then used to define further operating and strategic measures to achieve the objectives in the event of planning deviations. The internal reports for the monthly Executive Board meetings provides aggregated financial and non-financial information for the divisions and the Corporate Center, which is used as a basis to manage the Group on a global level, allocate resources in a targeted manner, and pass resolutions on the Executive Board.

A business intelligence environment enables and supports continuous improvement in business development analysis, reporting, and planning processes.

The indicator system used in internal reports and to manage the business units in 2020 comprises high-priority performance indicators ("key performance indicators"), and other financial and non-financial information parameters. All the indicators focus on shareholder value, the interests of our stakeholders,

G13 Performance indicators for corporate management

	Financial indicators		Non-financial indicators	
Key performance indicators	Growth	Revenue, order intake, capital expenditure		
	Liquidity	Cash conversion rate		
	Return	EBITDA margin, adjusted EBITDA margin (2020)		
Information parameters	Growth	Order backlog, frame contracts	Growth	Number of employees
	Return	ROCE EBIT margin, adjusted EBIT margin (2020)	HR management	Training, fluctuation, sick days
	Liquidity	Net debt, working capital, free cash flow	Process control	Throughput times, reject quotas, and indicators for quality management

the requirements of the capital market, and the corporate strategy. The key indicators are shown in the chart 13. One major key performance indicator is the EBITDA margin. Due to the structural and portfolio measures announced already at the beginning of the fiscal year, the Executive Board had decided to report for fiscal year 2020 an EBITDA margin which was adjusted for expenses and income arising from these measures.

In addition to the key performance indicators at group level, there are also control parameters used only within the business units, e.g. order backlog or number of employees. Alongside quarterly forecasts, a rolling three-month forecast for revenue and order intake updated monthly is used to manage the company's development. G13

In the current fiscal year, too, the Jenoptik Group is committed to the continuous improvement of its processes. One key aspect of this remains the implementation of an SAP Business Warehouse, combined with the SAP Analytics Cloud as the front-end, which will allow us to better reflect the markets' dynamic growth and thus obtain important control information both faster and more efficiently.

Explanation of the indicator base

EBITDA means earnings before interest, taxes, depreciation, and amortization, including impairment losses and reversals. The EBITDA margin is the ratio measuring EBITDA to revenue.

Adjusted EBITDA margin: The EBITDA margin is adjusted for expenses and income arising from site optimization/restructuring and cost reduction programs as well as costs related to M&A activities. More detailed information can be found in the chapter Earnings position in the Management Report on page 104.

EBIT means earnings before interest and taxes.

The free cash flow is calculated from the cash flows from operating activities before tax payments, less capital expenditure and receipts from the sale of intangible assets and property, plant, and equipment.

The ROCE (return on capital employed) is calculated by dividing income from operations (EBIT) by the average tied operating capital. The average tied operating capital comprises non-current non-interest-bearing assets (e.g., intangible assets including goodwill, property, plant, and equipment, and investment property) and current non-interest-bearing assets (essentially made up of inventories, receivables from the operating business, and other current receivables), less non-interest bearing borrowings (e.g., provisions – excluding pensions and taxes –, liabilities from the operating business, and other current liabilities). The calculation of averages uses the twelve month-end balances in the period under review and the opening balance at the start of the year.

The cash conversion rate is the ratio measuring free cash flow to EBITDA.

Structural and portfolio measures can be found on page 104

For more information on the non-financial information parameters, see the Non-Financial Report from page 60 on

For the development of the key performance indicators please see Forecast Report (page 151)

Research and Development

As a technology group, research and development (R+D) is of key importance to Jenoptik. Our products and services give us competitive advantages which determine our performance and thus our economic success. One of our key strategic aims is therefore to expand our innovative capabilities in the photonics growth markets and to be a driver of innovations. We also develop market-oriented products and platforms with unique selling points, protecting them where possible by means of industrial property rights. With our products and solutions, not only do we want to improve our customers' performance and profitability, but also contribute to greater energy efficiency and the responsible use of resources.

Innovation management is an important tool used by Jenoptik to systematically identify and implement promising ideas. With networked processes, its primary intention is to generate capital from knowledge by objectively uniting market and company viewpoints. Our innovation management has a uniform group-wide process landscape which is adapted within the divisions to meet the requirements of the respective industry. These framework conditions help to drive developments forward in order to make positive value contributions for the entire Group. Innovation management at Jenoptik lies within the remit of the Chairman of the Executive Board. By appointing a Chief Innovation Officer from within the company, Jenoptik has further reinforced its innovation focus on photonics in 2020. In addition to evaluating the group-wide research and development portfolios, new stimulus activities such as exciting tech talks, creative co-working, discussions in digital best practice communities, a new innovation workshop and the promotion of projects by means of an innovation budget are intended to identify innovators, accelerate innovation and communicate it more strongly externally. The innovation team therefore works closely with various areas of the company, such as controlling and investment management, and is intensively involved in the rolling strategy and planning processes.

Innovation process

Innovation is one of the three pillars of Strategy 2022. As part of the group initiative "Speed up Innovation", numerous process improvements were developed and implemented in a series of cross-divisional workshops. The first stage of the Jenoptik innovation process involves identifying growth potential based on a strategic analysis of global trends and the requirements of our customers. Innovation projects are then created in line with our core areas of expertise and often with the direct cooperation of key customers. Strategic development projects are planned in roadmaps and monitored on the basis of corresponding milestones. This applies to product, technology and process innovations. An accelerated implementation of innovation projects is now already noticeable in the early stages of development, allowing innovative solutions to reach the market earlier.

For strategic comparison, project portfolio meetings are held twice a year to report on the status of the most important development projects. In addition, the success of innovation activities is measured with the aid of the "Vitality Index", which indicates the share of revenue generated by products and platforms developed in the last three years in relation to total revenue. In the past fiscal year, this figure increased to 17.1 percent compared with the prior year (prior year: 16.2 percent). In order to be viable on the market and to target new markets, we must rely both on our own developments and on those with external cooperation partners in order to produce more agile innovations. By 2022, the Executive Board has set itself the goal of increasing revenue with new products to 20 percent. By 2025, the Vitality Index should be 22 percent.

Innovation culture

In addition to the creation of an optimal process-based innovation landscape, strengthening the innovation culture also plays an important role in exploiting the full potential of our company. To this end, a number of activities were initiated in 2020, including the establishment of best practice communities and the publication of an employee podcast for technology and innovation.

One major highlight saw the Innovation Workshop take place in a new format in cooperation with Optonet e.V., the local optics trade association, and the Kombinat01 co-working space. With international participation, Jenoptik employees and high-potential photonics students worked together to develop seven innovative ideas on three topics ("Smart City", "Industry 4.0", "Photonics in the Pandemic"). The results were presented and judged in the form of an investor pitch to a panel of internal and external experts. The winner of this year's Innovation Workshop was a team of Jenoptik employees who worked on photonic plug&play solutions for the mechanical and plant engineering market. In addition to the winning idea, other promising ideas are to be followed up and validated in the future. In addition to generating new innovative ideas, the

Innovation Workshop also identified intrapreneurs (i.e. entrepreneurs within the company) and future talents for Jenoptik. The fields of technology created were also further examined this year. Of particular note is the field of photonic integrated circuits, which has disruptive potential for the communications and medical diagnostics
markets. Jenoptik is already working on this in the semiconductor and communications segments. One panel identified particular potential for biophotonics.

Innovation budget

To generate stimulus, innovation management allocates additional budget for promising but also more risky projects with cooperation partners. Five projects were funded in total, targeting markets such as “Electromobility”, “Industry 4.0”, “Autonomous Driving” and “Smart Infrastructure”. In collaboration with the Fraunhofer Institute of Optronics, System Technologies and Image Exploitation (IOSB), for example, a new modular system architecture is being developed for the Metrology unit. The first positive results have already been recorded. There are plans to fund further projects in 2021.

Employees in research and development

The experience and expertise of our employees are essential to the success of our research and development work, and the qualification standards we expect of them are correspondingly high. Their knowledge is used both for specific tasks and across all divisions in corresponding development projects. In the fiscal year just past, we hired additional employees in the R+D area and acquired others through our acquisitions. T23

T23 Employees in R+D

	2020	2019*
Number of employees in R+D	692	548
Percentage of overall workforce	15.2	12.9

* Values not comparable with those published in the prior year: 516 FTE or 13.4 percent from the 2019 Annual Report correspond to 548 employees or 12.9 percent

Memberships in associations

Jenoptik procures additional external expertise with the help of targeted cooperation arrangements. Through research cooperations, projects can be realized in a market-driven manner, development times can be reduced, and specialist expertise can be successfully built up. Jenoptik works with both universities and non-university research institutions as well as with industrial partners and key customers. The Scientific Advisory Council is a committee of experts available to Jenoptik which supports the Group in the monitoring and evaluation of long-term technology trends. In order to accelerate communication and the transfer of knowledge, the plan is to continue the collaboration in a new, more agile and intensive manner in the future.

Information on the members of the Scientific Advisory Council can be found from page 246 on

Jenoptik is also active in numerous industry and technology-oriented associations. Examples include the Optonet Photonics Network at regional level, SPECTARIS at national level and the European Photonics Industry Consortium (EPIC) at European level. Here, the Group is committed to creating an innovation-friendly environment and promoting the image of photonic technologies. Examples here are the activities of the Executive Board of Optonet and the Executive Board of the Photonics division within SPECTARIS. In addition to active membership, the future aim is for more close interaction with the above networks in order to exploit the range and cooperation potential for disruptive innovations.

Development output

The R+D output of the Jenoptik Group, including developments on behalf of customers, was at 69.0 million euros at approximately the level of the prior year (prior year: 68.4 million euros). The R+D expenses fell slightly in comparison with the prior year to 43.7 million euros (prior year: 44.1 million euros). The costs for developments on behalf of customers amounted to 16.3 million euros and are included in the cost of sales (prior year: 20.4 million euros). Development services including patents were capitalized in the amount of 9.0 million euros in 2020 (prior year: 4.0 million euros). The increase resulted mainly from the capitalization of internal development projects at VINCORION and in the Light & Optics division. Hence, the capitalization ratio, i.e. the capitalized development costs divided by total R+D expenses, was 20.7 percent in 2020 (prior year: 9.1 percent). Information on the amortization of internally generated intangible assets can be found on page 185 of the Notes. T24

As shown in the table, R+D output is distributed among the divisions. T24

R+D output in the Light & Optics division includes expenses arising from developments on behalf of customers in the amount of 9.3 million euros (prior year: 13.2 million euros), which were down on the high figure of the prior year due to the development of a laser-optical subsystem for a particle sensor carried out in 2019. R+D expenses in 2020 totaled 19.2 million euros (prior year: 19.0 million euros).

The R+D output of the Light & Production division included developments on behalf of customers of 3.6 million euros (prior year: 3.4 million euros). The R+D expenses came to 7.2 million euros (prior year: 7.9 million euros).

In the Light & Safety division, the R+D output in 2020 was 13.8 million euros (prior year: 12.0 million euros). Of this, 0.6 million euros were developments on behalf of customers (prior year: 1.0 million euros).

VINCORION reported developments directly on behalf of customers amounting to 2.8 million euros in 2020 (prior year: 2.9 million euros). VINCORION is also a long-term partner for large systems companies and develops platform technologies in conjunction with its customers. The R+D expenses reduced to 4.2 million euros (prior year: 6.1 million euros), mainly due to capitalization of development costs to be carried out.

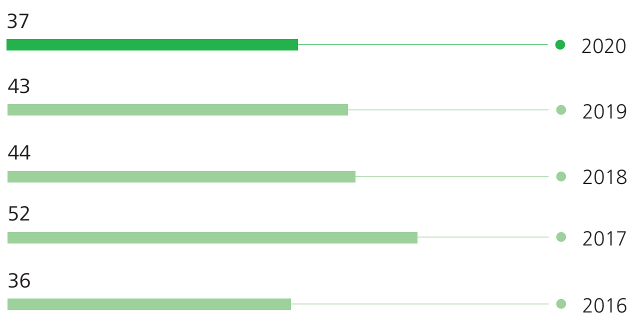
Patents

Our R+D investments is protected via central IP management in close cooperation with the operating areas. We accord particular importance to patent applications in dynamic growth markets such as China and the US. In 2020, a total of 37 patents were filed by Jenoptik subsidiaries (prior year: 43 patents), more than half of which were in the field of Optical Components and Optical Modules. The number of patents does not include registered designs, utility models or brand registrations. For competition reasons, Jenoptik does not publish information on the receipt and issue of licenses. G14

T24 R+D output by division (in million euros)

	2020	2019	Change in %
Group	69.0	68.4	0.9
Light & Optics	32.3	34.6	−6.6
Light & Production	10.8	11.3	−4.6
Light & Safety	13.8	12.0	15.0
VINCORION	12.1	10.5	15.1

G14 Number of patent registrations



T25 R+D output (in million euros)

	2020	2019	2018	2017	2016
R+D expenses	43.7	44.1	47.4	43.1	42.3
Capitalized development costs including patents	9.0	4.0	1.5	1.4	0.1
Developments on behalf of customers	16.3	20.4	20.2	22.2	15.0
R+D output	69.0	68.4	69.2	66.6	57.4
R+D ratio 1 (R+D output/revenue) in %	9.0	8.0	8.3	8.9	8.4
R+D ratio 2 (R+D expenses/revenue) in %	5.7	5.2	5.7	5.8	6.2

Key projects and results

Our aim is to offer our customers excellent solutions. We do this by combining our all-round expertise with a broad wealth of experience in managing innovation in photonic technologies to the benefit of our customers. The following solutions are some of those developed and brought to the market by Jenoptik in 2020:

In the semiconductor equipment area, significant investment continued to be made in the development of technologies required for the realization of products for the deep ultraviolet (DUV) and, in particular, the extreme ultraviolet (EUV) wavelengths range in order to expand the customer-specific product portfolio. For example, both manufacturing and assembly technologies have been developed for extended nanostructurable membranes which have a micro-optical functionality in the EUV wavelength range. The further development of manufacturing and coating technologies for high-precision flat, lens and freeform surfaces for the DUV wavelength range has also been possible, along with the adaptation of assembly and measurement technologies for optical modules and systems based on these components.

We also worked on the further development of technologies to support the next product generations and to improve the cost-of-ownership (COO) of selected products. Due to the extremely high demands regarding machine availability in semiconductor production and the fact that machine maintenance is only possible at increasingly high cost, the service life of the individual machine components plays a key role in the COO of machines for semiconductor lithography or inspection. The development and introduction of a novel and high-performance coating technology has made it possible to significantly lengthen the expected service life of high-precision micro-optical sensors, thereby meeting customer expectations.

In the field of information and communications technology (ICT), the innovative Ultra-Fast Opto-electronic Probecard for parallel testing of photonic integrated circuits (PICs) at wafer level has been further developed into a first industrial product platform. Applications for these PICs include optoelectronic transceivers, which are used today in their millions in data centers for conversion between electrical and optical signals and for which significant growth is expected in the next few years. One outstanding feature of this probecard when compared with competing solutions is that it can be used by customers within their existing test environment for electronic integrated circuits (IC), i.e. there is no need to purchase separate testing equipment in order to test PICs. Working with pilot customers, the industrial suitability of the Ultra-fast Opto-electronic Probecard has been successfully demonstrated in several high-volume tests on series products.

In the laser material processing market, the JENvelt (JENOPTIK Vision-enhanced laser-tool) system platform with AI-supported (artificial intelligence) image processing and intelligent software was transferred from the concept and prototype phase to pilot systems for customer-specific applications in close cooperation with pilot customers. The automatic position recognition and laser microprocessing of the component, supported by AI, enables the customer to directly increase production yields while simultaneously reducing the level of scrap. In parallel with this, industrialization of the system platform continued, with the goal of being able to cover the widest possible range of applications by means of only individual, ideally software-based adaptations to the existing system platform, while at the same time maintaining a high level of maintainability and system availability.

In the laser components area, Jenoptik was able to bring a new type of passive heat sink for diode lasers into series production in 2020. With unprecedented performance worldwide for passively cooled diode lasers combined with cost efficiency (€/W), Jenoptik was able to promote technology substitution among laser material processors. As the principle is applicable to different wavelengths, it can also be used for different end applications. An internal innovation budget has also been allocated to expand the laser components family for the electromobility area.

Jenoptik is seeking active networking with the scientific community in order to improve its understanding of applications in the life science field. To this end, the biophotonics unit is a cooperation partner at the InfectoGnostics Research Campus in Jena, which focuses on on-site diagnostics of infectious agents. Together with InfectoGnostics and other research companies, Jenoptik is also a leading industrial partner in the “ReHwIN” research project which is funded by the German Federal Ministry of Education and Research. It focuses on research into “Rapid resistance testing for urinary tract infections at the point of need”.

For the automotive industry, 2020 saw the continuation of work on the automation and integration of laser processing systems. On behalf of a Spanish automotive supplier, Jenoptik developed several production cells for cutting and welding car body components for the European e-vehicle market. In addition to development, Jenoptik is responsible for installation and commissioning of the automation line at the vehicle manufacturer’s premises. In doing so, Jenoptik is continuing its course to become an integrator of photonic solutions for applications with a promising future.

Polymer optics and opto-mechatronic assemblies are indispensable to industrial automation and for the provision of new driver assistance systems. While conventional optics has reached its limits, freeform optics enables what is physically feasible. Jenoptik is involved here as part of the fo+ (freeform optics plus) research hub, which intensively works on options for manufacturing freeform optics. Freeform optics opens up a wide range of opportunities for manufacturers in the life science, automation and sensor technology fields, such as LiDAR (Light Detection and Ranging) or virtual reality for head-mounted devices.

Work is being done to develop a new IR portfolio based on the latest microbolometer technology for the use of high-resolution and high-performance thermography, for example in production facilities or for security equipment. A new product family is being developed. Based on the latest infrared technology, it will be competitive on the market thanks to high performance, miniaturization and modularization.

In the traffic safety market, Jenoptik developed a new type of modular system platform in 2020 for the next generation of products. This is intended to support all new developments as well as current solutions, such as the ANPR cameras working with artificial intelligence or LiDAR. With the help of a completely redesigned application programming interface (API), and the modularity of the system, new features can be quickly integrated and configured into solutions, such as the real-time recording of data on air quality for emission-free zones. The flexibility of this system platform strengthens our market position in road user charging (toll enforcement) and also enables strategic entry into the safety market for connected autonomous vehicles. We are already cooperating with established international partners as a means of building up application knowledge.

In the market for security and defense technology, VINCORION has developed the next generation of stabilization systems – the GTdrive Modular. Behind this is a form of modular system enabling individual solutions that offer a particularly high degree of flexibility in both product design and the manufacturing process. A recent in-house development, GTdrive Modular combines hardware and software for modular control units with scalable power electronics and gyroscopes. Together with high-performance height and lateral directional drives, also developed by VINCORION, this can be integrated precisely into different system architectures as a platform-specific assembly. Many years of experience with stabilization systems for different platforms has helped with the development of the GTdrive Modular. VINCORION is responding with custom solutions to continuously growing customer requirements such as shortest possible development times, low costs, system availability over several decades as well as increasing energy requirements often due to additional integrated functions.

In the specialized energy systems sector, VINCORION developed portable power management modules, or P^2M^2 for short. In particular these enable public authorities, emergency personnel, security forces, and specialized industrial users to set up a modular mobile power supply depending on their requirements. Consequently, operations become more flexible and independent of costly logistics. The joint development of a fuel cell module with cooperation partner SFC Energy AG will ensure even greater self-sufficiency in the future.

VINCORION developed the P^2M^2 Portable Power Management Module for the flexible supply of power to mobile divisions. These can use all available energy sources and can also be supplied with memory modules independently of energy sources. Units can select the appropriate modular power supply for each mission, thus becoming independent of costly logistics.

In the aviation field, VINCORION developed a floor heating system for the entrance areas of airplanes, which modifies existing heating elements and expands the product portfolio. This heating system is extremely reliable and robust; It can neither overheat nor burn out and provides more comfort and safety in civil aviation. The first delivery of the innovative heated floor panels was made in the first quarter of 2019 for the A330 and the first quarter of 2020 for the A350. In addition, a further major Airbus program was won. Development began at the start of 2020. The development team also worked on the new “SkyHoist 800” electric helicopter rescue hoist, which, thanks to its innovative product features, exceeds the standard market parameters with a dead weight of less than 50 kg, tensile loads of up to 350 kg and a lifting speed of up to 2 meters per second. Its modular concept also reduces maintenance-related downtime and thus operating costs.

Employees

Development of employee numbers

As of December 31, 2020, with 4,472 employees (incl. trainees), Jenoptik recorded growth in its workforce of 8.5 percent or adjusted of 9.4% (31/12/2019: 4,122 employees; adjusted for the employees of HILLOS GmbH: 4,089). The number of Jenoptik employees abroad rose by 12.6 percent to 1,112 (31/12/2019: 988 employees). At 24.9 percent, the proportion of employees abroad is largely unchanged compared to the prior year (31/12/2019: 24.0 percent). T26

Temporary workers were also employed in the past fiscal year to cover production peaks and for major projects. They were employed mainly in the operating areas and the number fluctuated during the year. On the reporting date of December 31, 2020, 55 temporary workers were employed in the Group (31/12/2019: 101).

At 291.0 million euros, personnel expenses (wages, salaries, social security contributions, costs for retirement provision) were up 3.3 percent in 2020 compared with the prior year's figure of 301.1 million euros. The reduction is mainly due to savings from short-time working and temporary leaves of absence depending on statutory regulations in the regions. This mainly affected the Industrial Metrology area in the Light & Production division.

T26 Employees by region (incl. trainees)

	31/12/2020	31/12/2019	Change in %	Absolute change
Germany	3,360	3,134	7.2	227
Germany (adjusted)¹	3,360	3,101	8.4	259
Germany in %	75.1	76.0	−1.2	−1
Germany in % (adjusted)¹	75.1	75.8	−0.9	−1
Abroad	1,112	988	12.6	124
Abroad in %	24.9	24.0	3.7	1
Abroad in % (adjusted)¹	24.9	24.2	2.9	1
Europe (excl. Germany)	280	232	20.7	48
Americas	560	565	−0.9	−5
Asia / Pacific	272	191	42.4	81

¹ Prior-year figures without HILLOS GmbH

Revenue per employee (including temporary employees) measured in full time equivalent fell by 12.3 percent to 188.0 thousand euros in the 2020 fiscal year (prior year: adjusted 214.3 thousand euros or 216.6 thousand euros) which was attributable to the revenue decline and the ínclusion of TRIOPTICS during the year. T27

The employee age distribution, as can be seen in the table below, is balanced. The figures are largely unchanged compared with the prior year. T28

The proportion of women in the Group (in Germany and abroad) was 25.7 percent on December 31, 2020, a slight fall in comparison with the prior year (31/12/2019: 27.0 percent).

At 5.2 percent, the absenteeism rate among Jenoptik employees in Germany in 2020 remained at the level of the prior year (prior year: 5.6 percent). The fluctuation rate in the Group has fallen to 3.1 percent compared to the prior year (prior year: 4.1 percent). At the German sites, the fluctuation rate fell from 3.1 percent in 2019 to 1.9 percent in 2020. It is calculated by dividing the number of employees leaving the company in the fiscal year by the number of employees as of the reporting

T27 Revenue per employee (in thousand euros)

	2020	2019	Change in %
Revenue per employee (adjusted, incl. temporary workers)¹	188.0	214.3	−12.3
Revenue per employee (incl. temporary workers)	188.0	216.6	−13.2

¹ Prior-year figures without HILLOS GmbH

T28 Group age distribution (in percent)

	2020	2019
Under 30	15.50	14.15
30 – 39	27.36	26.61
40 – 49	22.87	22.84
50 – 59	24.04	25.18
60 – 65	8.85	9.88
More than 65	1.39	1.34

date of the prior year plus those who joined the company in the fiscal year. Temporary workers are not included in the calculation.

Training & HR development

As of December 31, 2020, 189 trainees and students of the Cooperative State University were employed by the Group (31/12/2019: 156). Of these, 52 were new hires. At the same time, 28 trainees and students of the Cooperative State University successfully completed their training in the year covered by the report.

At the Wedel, Villingen-Schwenningen, Jena and Triptis sites, the new trainees receive job-specific training for optical, precision engineering, electronic, and commercial occupations in training centers. Jenaer Bildungszentrum gGmbH – Schott, Zeiss, Jenoptik – in which Jenoptik is a partner, has also established itself as a training center for optics and photonics at a national level.

Further information on this can be found in the Non-financial Report from page 60

In 2020, Jenoptik invested around 2.2 million euros in the professional development of its employees (prior year: 2.6 million euros). These costs include both the expenses for trainees and students at the Cooperative State Universities and the costs for further training of our employees. The overall development needs in the Group are assessed in regular staff appraisals. Suitable qualification measures are then derived from these and implemented.

Economic Report

Macro-economic and Sectoral Developments

The coronavirus pandemic had a massive impact on the global economy. According to the International Monetary Fund (IMF), the world experienced an unprecedented crisis leading to the worst recession since the Great Depression appox. 90 years ago. Tough lockdown measures weakened the economy even more severely in the second quarter than in the first. As reported by the IMF, global economic output fell 3.5 percent for the year as a whole, which was slightly better than feared in October thanks to a modest recovery in the second half-year and the start of vaccination campaigns. Investment growth slowed or stalled entirely in many sectors, while consumer spending declined. Emerging countries were particularly devastated by the pandemic, according to the IMF. Corona-related production and work stoppages also had a knock-on effect on exports: according to the Federation of German Wholesale and Foreign Trade (BGA), border closures, disruptions in logistics, and interruptions in supply chains left deep scars, especially in trading between China, the US, Germany, and the Eurozone.

The US was plunged into a deep recession in the spring; in the second quarter, gross domestic product (GDP) fell by as much as 32.9 percent, the struggle to contain the pandemic resulting in extensive plant and business closures and economically crucial consumer spending falling significantly. Overall, economic output contracted 3.5 percent in 2020 compared to the prior year and thus at the same rate as the global economy. The economy recovered slightly in the second half-year, in part due to large stimulus packages and relatively relaxed measures to contain the pandemic.

T29 Change in gross domestic product (in percent)

	2020*	2019
World	−3.5	2.8
USA	−3.4	2.2
Eurozone	−7.2	1.3
Germany	−5.4	0.6
China	2.3	6.0
India	−8.0	4.2
Emerging countries	−2.4	3.6

Source: International Monetary Fund, World Economic Outlook, January 2021
* Estimate

The Chinese economy grew more slowly than at any time since 1976 but was still the only major economy not to contract in 2020: according to the Chinese National Bureau of Statistics, year-on-year GDP increased 2.3 percent. Driven by domestic demand, growth in industrial production and services, and government support measures, the economy rapidly returned to normal following the spring lockdown.

In Germany, the pandemic caused GDP to fall 5.0 percent in 2020 compared to the prior year, according to the German Federal Statistical Office. Although the economy initially recovered slightly following the sharp decline at the beginning of the pandemic, an upswing failed to materialize at the end of the year, with GDP growing just 0.1 percent in the fourth quarter. Industrial order intakes declined by 7.2 percent in 2020, industrial production by 8.5 percent. Border closures, disruptions in logistics, and interruptions in supply chains also caused German exports to drop 9.3 percent to a value of 1,204.7 billion euros, the sharpest decline since the financial crisis of 2009; imports fell 7.1 percent. T29

Photonics is regarded as a key technology for future industries and revenue markets. In March 2020, the European Commission presented a new industrial strategy for a competitive, green, and digital Europe. This strategy explicitly names photonics as one of its key enabling technologies. The development of the industry is driven by topics such as autonomous driving, digital production, new developments in the medical sector, and initiatives for more sustainability. The coronavirus pandemic did have one positive effect, with light-based technologies increasingly being researched and developed in the fight against the virus. On the other hand, however, reduced or postponed investment in mechnical engineering, in the automotive industry, or in the healthcare sector due to the pandemic put considerable pressure on the photonics industry in the first half-year 2020, according to a survey conducted by the German industry association Spectaris in cooperation with Optecnet Germany. Many companies suffered from border and plant closures, especially in the first quarter of 2020. As the year progressed, the business outlook saw quarterly improvements following the spring slump, as reported by Spectaris in its world market index for Optical Technologies. Revenues of the 15 international firms assessed in the index were down on the prior-year figures in the first three quarters, in the third by 4.5 percent. More recent figures were not available by the editorial closing date for this report.

Following a fall in revenue in 2019, the global semiconductor industry recovered strongly in 2020. According to the Semiconductor Industry Association (SIA), global revenue amounted to 439.0 billion dollars, which was 6.5 percent up on the prior-year figure of 412.3 billion US dollars and a clear reflection of the demand for semiconductor technology in many sectors. For 2020, IT analysts Gartner also reported a good increase in industry revenue compared to the prior year, by 7.3 percent to 449.8 billion US dollars, as measures introduced during the pandemic such as working from home, e-learning, and remote medical care worked to boost demand, e.g., for server capacity and PC equipment. Merger and acquisition activities in the semiconductor industry again increased significantly in 2020: by the end of September, the prior-year's figure of 31.5 billion US dollars had already been exceeded by the value of two major transactions, and at 63.1 billion US dollars was the second-highest figure ever, according to the market analysts at IC Insights.

Compared to strong demand in the consumer electronics sector, car manufacturers reduced their semiconductors requirements in spring 2020 due to production stoppages. Demand, however, picked up again faster than expected starting in the summer, resulting in a shortage of some semiconductors for the automotive industry, which chip manufacturers, especially in Asia, have been slow to respond to by ramping up their production capacities. Overall, semiconductor equipment manufacturers achieved global revenue of 68.9 billion US dollars in 2020, according to the year-end forecast of the Semiconductor Equipment and Materials International (SEMI) industry association. This was 16 percent higher than the prior year and a new record. China, Taiwan, and South Korea were again the regions with the highest level of investment.

The German electronics industry experienced a severe slump in demand from the automotive industry in spring 2020 and was forced to reorganize its capacities or find new customers – with success, according to the German Electrical and Electronic Manufacturers' Association (ZVEI). There was an upturn in consumer electronics, in particular, but demand for semiconductors was also strong in medical technology or the core IT business.

In 2020, the German mechanical and plant engineering industry reported its worst figures since the financial crisis of 2009. According to provisional figures issued by the German Federal Statistical Office, production fell 12.1 percent compared to the prior year, while the order intake was down 11 percent. Domestic orders remained 6 percent down on the prior year, with orders from abroad a full 13 percent lower. According to the German Mechanical Engineering Industry Association (VDMA), the order situation gradually improved slightly in the last few months of 2020.

The German robotics and automation industry was unable to escape the economic impacts of the coronavirus pandemic, as reported by the VDMA's R+A sector group in a joint analysis with BayernLB Research. Over the first three quarters of 2020, order intakes in the German industry as a whole were down 11 percent on the prior year, with revenue falling 19 percent in the same period. For the year as a whole, VDMA R+A is expecting an unprecedented fall in revenue of around 20 percent, to a value of 11.8 billion euros. Despite this, Germany remains by far the biggest market for industrial robots in Europe, driven by demand and robot density in the automotive industry, according to the International Federation of Robotics (IFR). In North America, robotics orders saw a year-on-year increase of 3.5 percent in 2020, as reported by the Robotic Industries Association (RIA) in January 2021, with non-automotive sectors such as life science or food and consumer goods dominating for the first time. As seen by the RIA, growth was driven by two trends: automation expertise in the industry generally, and with it rising demand for technology, together with changes in consumer behavior, as industries outside the automotive sector increasingly employ robots and automation, for example in the medical sector and to comply with physical distancing requirements.

According to the German Association of the Automotive Industry (VDA), the coronavirus pandemic had a devastating impact on the automotive markets in 2020. The global passenger car market contracted 15 percent. New car registrations were down by a quarter on the prior year in Europe and fell around 15 percent in the US. The Chinese market recovered relatively quickly over the first half-year, resulting in an overall decline of just 6 percent. Automotive manufacturers and suppliers responded to lower demand and the temporary break in the supply chain with production stoppages, plant closures, cost-cutting measures, and job cuts. In terms of electromobility, Germany remained on a course of growth, according to the VDA: both electric car production and new registrations rose significantly in 2020, in part driven by the government's environmental bonus for electric car purchases in Germany.

In the traffic safety sector, the German Federal Statistical Office's accident statistics indicated that the number of road deaths in Germany was down 10.4 percent on the prior year by the end of November. As it states, this is partly due to lower volumes of traffic during the coronavirus pandemic. The European Transport Safety Council (ETSC) also reported lower traffic volumes on European roads resulting from less traffic. In Germany, the first section control radar, which operates using Jenoptik technology, recorded more than 1,000 speeding violations from the time it began operation in November 2019 through the end of June 2020, as reported by the Federal Ministry of the Interior in early July. With regard to driving behavior and accident incidence, the results show a significant increase in traffic safety; there were no serious accidents. In September, the German Federal Administrative Court definitively approved the section control radar, confirming its use as legal. Regarding the discussion relating to any raw measurement data, requested by German appraisers in addition to the reading from the standardized measuring method, the Physikalisch-Techische Bundesanstalt (PTB) in Braunschweig confirmed in spring 2020 that this data must not be made available in any speed measurement system. Software used in instruments that previously output raw measured data had to be revised. The Netherlands started issuing fines for using cellphones while driving in late 2020. Violations are identified using smart cameras and number plate recognition systems.

Consolidation continued in the rail industry as a method of countering competition from Chinese companies. In February 2020, French company Alstom announced its acquisition of Bombardier Transportation, which was completed in January 2021 to create a new railway technology group with revenue of around 15 billion euros.

The coronavirus pandemic unleashed an enormous crisis in the international aviation industry, among aircraft manufacturers, and their suppliers. Border closures and travel restrictions forced airlines to park finished aircraft; they ordered fewer new planes or canceled existing orders. Excess capacity, production stoppages, growing cost pressures, and an unsure outlook all weighed heavily on the overall industry, and especially its medium-sized suppliers. In late 2020, the German Aerospace Industries Association (BDLI) anticipated a year-on-year drop of 40 percent in revenue for civil aviation. Unlike in Germany, France established a fund financed by the government and industry – primarily the Airbus Group – to provide aid to the sector, for example by financing suppliers' inventories. Orders and deliveries developed at disparate rates at major aircraft manufacturers. Boeing posted a record loss and its weakest revenue for some 15 years. Just 157 deliveries of commercial aircraft were well short of the 806 in the company's record year of 2018. Boeing's business was also adversely affected by the flight ban on the 737-Max model in force since March 2019. Following a series of technical adjustments and software improvements, the plane was approved to fly again by the US Federal Aviation Administration in late 2020, in Europe in early 2021. By contrast, aircraft manufacturer Airbus benefited from the rapid recovery of air traffic in China and the need for smaller aircraft types, which only Airbus could supply as of late 2020. In total, Airbus delivered 566 aircraft, around a third less than in 2019. Despite the slump in demand, especially in the spring of 2020, Airbus received more new net orders than cancellations over the year as a whole.

Affecting the German security and defense technology industry, the German government extended for a further year and further tightened its ban on armaments exports to Saudi Arabia in December 2020. Licenses already issued, previously on hold, will be revoked, with the exception of supplies for European cooperation projects. The ban, which has been in effect since March 2018, has already been extended several times and aims to prevent deliveries to all countries directly involved in the war in Yemen, specifically Saudi Arabia. According to the German Federal Ministry for Economic Affairs and Energy, arms exports to countries involved in conflicts in Yemen or Libya, worth 1.16 billion euros, were nevertheless approved in 2020. Looking at the overall picture, it became apparent by mid-December 2020 that the value of approved arms exports for the year, at less than 6 billion euros, was sharply down on the record figure of 8.02 billion euros achieved in 2019. In January 2021, the US confirmed that Morocco would be acquiring the Patriot missile defense system.

Legal Framework Conditions

The legal framework conditions governing business operations essentially remained constant in 2020 and therefore had no significant impact on the business development of the Jenoptik Group.

77 Combined Management Report 152

Earnings, Financial, and Asset Position

Comparison of actual and forecast course of business

Thanks to good order intake growth in the fourth quarter of 2019 and sustained good performance of the semiconductor equipment business, the Jenoptik management forecast continued growth when it announced its preliminary results for the 2020 fiscal year in February 2020. This forecast was specified in the management report of the Annual Report 2019 which was prepared as of March 10, 2020. On publication of the final figures in March the management added a proviso to its outlook, as at this time it was not yet possible to reliably assess the extent to which the spread of coronavirus would impact on Jenoptik's business. At this point, the Executive Board expected the pandemic to have a significant impact on at least the first half-year.

Based on the countermeasures taken at the beginning of the pandemic and in view of an expected stronger second half-year, in early May the Executive Board expected to meet analysts' current average market expectations for the full year 2020, with revenue of around 800 million euros and a non-adjusted EBITDA margin of some 14.3 percent. In addition to this, the initiated structural adjustment, efficiency, and portfolio management projects were due to contribute to accelerated growth and improved profitability in the Group starting in 2021 at the latest.

On publication of earnings figures for the first half-year 2020, the management fleshed out its outlook for the year, forecasting revenue of between 770 and 790 million euros (not including the impacts arising from the pending acquisition of TRIOPTICS). This forecast was buttressed by the action taken to contain the impact of COVID-19 and an expected stronger second half-year. The EBITDA margin, adjusted for the impacts arising from the initiated structural and portfolio measures, was expected to be between 14.5 and 15.0 percent. Signs of recovery in the economy, at minimum, and no second wave of coronavirus were seen as prerequisites for a stronger second half-year.

Due to persistently weak overall economic development and the significantly increased risk of further drastic measures to contain the coronavirus pandemic, in mid-October the Executive Board then anticipated revenue, excluding TRIOPTICS, to come in at between 730 and 750 million euros in the 2020 fiscal year. Following a further improvement in the quality of earnings in the third quarter compared to the prior quarter, however, the adjusted EBITDA margin was now expected to be at the top end of the previously forecast range of 14.5 to 15.0 percent. Including TRIOPTICS' contribution to revenue of around 25 million euros, revenue of between 755 and 775 million euros and an adjusted EBITDA margin of between 15.0 and 15.5 percent (excluding PPA impacts arising from the acquisition of TRIOPTICS) was expected on publication of the 2020 nine-month earnings in mid-November.

In the year covered by the report, the Jenoptik Group generated revenue of 767.2 million euros, which was within the now expected range.

Extensive structural and portfolio measures were implemented over the course of the 2020 fiscal year. In order to ensure good transparency and easier comparability with prior-year figures, an adjusted EBITDA margin has been reported since publication of the first-quarter earnings. The margin was also decisive for internal control. The adjustments arise from expenses and income from site optimizations, restructuring, and cost-cutting programs, as well as from the costs related to M+A activities. To enable a better comparison, the prior-year figures have been similarly adjusted. Starting with publication of the half-year earnings, a forecast of an adjusted EBITDA margin has also been provided. Over the reporting year, the adjusted EBITDA margin, including PPA impacts, came to 17.0 percent, or 17.6 percent excluding PPA impacts of 4.6 million euros arising from the acquisition of TRIOPTICS, exceeding both the most recently forecast figure (excluding PPA impacts) and the prior-year figure of 16.5 percent. In the 2020 fiscal year, an EBITDA margin of 14.6 percent before adjustments was achieved (prior year: 15.7 percent).

Revenue and EBITDA of the divisions and their forecast development are shown in the following table. T30

At the beginning of 2020, the Executive Board expected to see a significant rise in order intake. In late March a proviso was also added to this assumption due to the COVID-19 pandemic. At the end of the year, the order intake was 6.7 percent down on the adjusted, 9.0 percent on the non-adjusted, prior-year figure.

Also affected by the pandemic, another proviso was added to the forecast cash conversion rate of slightly over 50 percent in March. By the end of 2020, the cash conversion rate was 55.8 percent (prior year: 57.7 percent) and thus above the 50-percent target.

It was expected that capital expenditure would be at around the same level as in the prior year in the 2020 fiscal year. This forecast was also issued as subject to a proviso in late March. Capital expenditure amounted to 47.3 million euros and was thus down on the 2019 figure.

T30 Actual and forecast course of business (in million euros / or as specified)

Indicator	Year-end 2019	2020 forecast		Year-end 2020	Change in %
Revenue	855.2	February: March: August: October: November:	further growth growth in the low single-digit percentage range [1] 770 to 790 million euros 730 to 750 million euros 755 to 775 million euros, incl. TRIOPTICS	767.2	−10.3
Light & Optics	350.0	March:	stable development	318.0	−9.2
Light & Production	228.9	March:	growth in the low double-digit percentage range [1]	178.9	−21.8
Light & Safety	108.7	March:	growth in the mid single-digit percentage range [1]	114.0	4.9
VINCORION	164.8	March:	growth in the mid single-digit percentage range [1]	151.7	−7.9
Adjusted EBITDA margin/ adjusted EBITDA margin excl. PPA TRIOPTICS	16.5 %	August: October: November:	14.5 to 15.0 % at top end of forecast range 15.0 to 15.5 % excl. PPA impacts from acquisition of TRIOPTICS	17.0 % / 17.6 %	
EBITDA / EBITDA margin	134.0 / 15.7 %	March:	growth/margin approx. 16 percent [1]	111.6 / 14.6 %	−16.7
Light & Optics	69.8	March:	marked increase [1]	68.6	−1.8
Light & Production	25.8	March:	growth stronger than revenue [1]	7.9	−69.4
Light & Safety	18.8	March:	slight increase [1]	22.3	18.8
VINCORION	24.2	March:	growth in line with revenue [1]	16.6	−31.2
Order intake	812.6	March:	markedly up on prior year [1]	739.4	−9.0
Cash conversion rate	57.7 %	March:	slightly above 50 percent [1]	55.8 %	
Capital expenditure [2]	55.6	March:	at prior-year level [1]	47.3	−15.0

[1] Subject to proviso
[2] without capital expenditure on financial investments

Earnings Position

The tables in the Management Report, which show a breakdown of the key indicators by segment, include the Corporate Center, real estate, and consolidation effects under "Other".

Impacts of structural and portfolio measures

As part of Jenoptik's scheduled strategic development, the Executive Board has initiated a series of structural and portfolio measures, to drive growth and increase profitability over the medium to long term. In the interest of greater transparency regarding these measures, adjusted EBITDA, EBIT, and free cash flow figures are additionally reported for both the Group and the segments. The adjustments for the structural and portfolio measures result from expenses and income arising from site optimizations (e.g. merger, consolidation or closing of sites), restructuring and cost-cutting programs, as well as from the costs related to M+A activities. To enable comparisons, the figures for the prior-year period have also been adjusted. The impacts of the COVID-19 pandemic on operating business performance, including the impacts arising from the actions taken to contain it, are not included in the EBITDA, EBIT, or free cash flow adjustments.

Change to method of consolidation for HILLOS GmbH since 1/1/2020

HILLOS GmbH was qualified as a joint venture (formerly joint operation) from the 2020 fiscal year on, and is therefore no longer proportionately consolidated. As a result, indicators such as order intake and contributions to revenue and earnings are no longer included pro rata in the various items of the Consolidated Financial Statements. Instead, the economic success of the joint venture is now reported in other operating income. In order nevertheless to ensure comparability of the information, the prior-year figures have been adjusted for the contributions of HILLOS GmbH with regard to revenue, order intake and backlog, and employees.

Earnings position. Even in these challenging times, Jenoptik has, in part, a crisis-resistant business model and is in a good financial and balance sheet position.

At the time this report was prepared in March 2021, all production sites were open and operating. The company's operating business performed as expected from January through early March 2020. Since the end of March, however, significant impacts arising from the coronavirus pandemic and increasing uncertainty in the automotive industry became apparent and compromised business performance in this sector in the second quarter. Ongoing weak overall economic development continued into the second half-year, particularly in the traditional automotive business, but also in parts of the aviation, biophotonics, and industrial solutions businesses. Business with our public-sector contractors in the field of traffic safety technology and with the semiconductor equipment industry saw good growth.

Momentum did, however, pick up marginally in the course of the year; the quarter with the highest revenue both in the 2020 fiscal year and the prior year was the fourth, with 262.2 million euros (prior year: adjusted 255.7 million euros). Growth in 2020 came from the Light & Safety division, while all the other divisions saw a decline in revenue compared to the prior year. In the Light & Optics division, demand in the semiconductor equipment area remained at a high level, even during the coronavirus pandemic, while the consolidation of TRIOPTICS in the fourth quarter also contributed positively to revenue, but weak

T31 Revenue by division (in million euros)

	2020	2019	Change in %
Group (adjusted) [1]	767.2	837.0	−8.3
Group	767.2	855.2	−10.3
Light & Optics (adjusted) [1]	318.0	331.8	−4.2
Light & Optics	318.0	350.0	−9.2
Light & Production	178.9	228.9	−21.8
Light & Safety	114.0	108.7	4.9
VINCORION	151.7	164.8	−7.9
Other	4.5	2.8	60.6

[1] prior-year figures without HILLOS GmbH

growth in the biophotonics and industrial solutions businesses resulted in lower revenue overall. The Light & Production division posted a significant decline due to the coronavirus pandemic and structural issues in the automotive industry. As expected, business with public-sector contractors in the Light & Safety division developed positively. Figures in the VINCORION division were down on the prior year, in particular due to a weaker aviation business.

In the 2020 fiscal year, the Jenoptik Group generated revenue of 767.2 million euros, which, due to the pandemic and despite the acquisition of TRIOPTICS, was 8.3 percent down on the high level of the prior year (prior year: adjusted 837.0 million euros). The companies acquired in 2020 contributed a total of 47.2 million euros euros of revenue. The total revenue of HILLOS GmbH of 18.2 million euros was adjusted in the prior-year revenue figures for the Light & Optics division. T31

On a regional level, revenue fell in almost all regions, with growth seen only in Asia/Pacific. Revenue in Europe (excluding Germany) fell by 1.5 percent due to weaker demand in all divisions except Light & Safety. With good demand in the market for traffic safety technology and the acquisition of INTEROB, the share of group revenue, however, exceeded the high level of the prior year at 29.5 percent (prior year: adjusted 27.4 percent). In the Americas, revenue fell by an adjusted 18.0 percent compared to the prior year, primarily due to weaker demand from the automotive industry in the coronavirus pandemic. Revenue in Asia/Pacific rose 8.8 percent, mostly as a result of greater contributions to revenue from the Light & Optics and Light & Safety divisions, but also in connection with the acquisition of TRIOPTICS. At 552.5 million euros, Jenoptik generated 72.0 percent of revenue abroad in the past fiscal year (prior year: adjusted 603.3 million euros / 72.1 percent). Revenue in Germany decreased by 8.1 percent, here again due to a slump in demand in the automotive, biophotonics, and aviation businesses, which could only be partially offset by sustained good demand for traffic safety solutions, automation solutions, and the consolidation of the TRIOPTICS Group in the Light & Optics division in the fourth quarter of 2020. T32 T33

More information on the development of revenue in the divisions can be found in the Segment Report

T32 Revenue by region (in million euros)

	2020	2019	Change in %
Group	767.2	855.2	−10.3
Germany	214.7	234.0	−8.2
Europe	226.1	246.0	−8.1
Americas	195.5	239.7	−18.4
Asia / Pacific	105.8	97.2	8.8
Middle East / Africa	25.2	38.3	−34.1

T33 Revenue by region adjusted[1] (in million euros)

	2020	2019	Change in %
Group	767.2	837.0	−8.3
Germany	214.7	233.7	−8.1
Europe	226.1	229.6	−1.5
Americas	195.5	238.3	−18.0
Asia / Pacific	105.8	97.2	8.8
Middle East / Africa	25.2	38.3	−34.1

[1] prior-year figures without HILLOS GmbH

Once again, in 2020 the Group generated its largest share of revenue of 29.7 percent in the automotive and mechanical engineering target market, although this figure was significantly down on the prior year (prior year: adjusted 35.5 percent). The share of revenue in the security and defense technology business (component business) remained at the prior-year level of 19.0 percent (prior year: adjusted 19.0 percent). Revenue generated with the semiconductor equipment industry increased to 21.8 percent (prior year: adjusted 20.1 percent). The medical technology market also had to battle the impacts of COVID-19, with hospitals postponing elective surgeries and therapeutic treatments as part of efforts to fight the pandemic. Revenue fell to 5.0 percent (prior year: adjusted 5.8 percent). The share of revenue in the new "consumer & electronics manufacturing" market segment, added in September 2020 following the consolidation of TRIOPTICS, came to 2.9 percent. In the 2020 fiscal year, our top three customers accounted for 19.2 percent of group revenue (prior year: adjusted 17.7 percent). T34 T35

The cost of sales fell by 10.4 percent to 505.0 million euros and thus at a slightly stronger rate than the revenue (prior year: 563.4 million euros). In addition to better utilization of manufacturing capacity in the photonics divisions and general cost savings, this was due to a lower cost of sales in the context of project settlements at the end of the year. This item also includes expenses arising from developments on behalf of customers, which totaled 16.3 million euros (prior year: 20.4 million euros), which were offset by corresponding revenues. T36

Owing to lower volumes, gross profit was down on the prior-year figure of 291.8 million euros and came to 262.2 million euros. With a lower cost of sales, the gross margin of 34.2 percent was slightly up on the prior year (prior year: 34.1 percent).

T34 Revenue by target market (in million euros and as percent of total revenue)

	2020		2019	
Automotive & mechanical engineering	227.8	29.7 %	296.8	34.7 %
Semiconductor equipment industry	167.6	21.8 %	168.2	19.7 %
Security and defense technology	145.8	19.0 %	159.3	18.6 %
Aviation & traffic	143.1	18.7 %	148.7	17.4 %
Medical technology	38.1	5.0 %	48.4	5.7 %
Consumer & electronics manufacturing	22.2	2.9 %	0.0	0.0 %
Other	22.7	3.0 %	33.7	3.9 %
Total	**767.2**	**100.0 %**	**855.2**	**100.0 %**

T35 Revenue by target market adjusted [1] (in million euros and as percent of total revenue)

	2020		2019	
Automotive & mechanical engineering	227.8	29.7 %	296.8	35.5 %
Semiconductor equipment industry	167.6	21.8 %	168.2	20.1 %
Security and defense technology	145.8	19.0 %	159.3	19.0 %
Aviation & traffic	143.1	18.7 %	148.7	17.8 %
Medical technology	38.1	5.0 %	48.4	5.8 %
Consumer & electronics manufacturing	22.2	2.9 %	0.0	0.0 %
Other	22.7	3.0 %	15.5	1.9 %
Total	**767.2**	**100.0 %**	**837.0**	**100.0 %**

[1] prior-year figures without HILLOS GmbH

Research and development expenses came to 43.7 million euros in 2020, at a similar level as in the prior year (prior year: 44.1 million euros). The share of R+D expenses as a proportion of revenue thus increased slightly to 5.7 percent (prior year: 5.2 percent). The R+D output, including developments on behalf of customers, was 69.0 million euros, remaining at approximately the level of the prior year (prior year: 68.4 million euros).

As a result of travel restrictions imposed due to the coronavirus crisis, canceled trade shows, and lower personnel expenses, the selling expenses fell 3.3 percent to 86.4 million euros in 2020 (prior year: 89.3 million euros). Due to fixed costs and lower revenue, the selling expenses ratio of 11.3 percent was slightly up on the prior year figure (prior year: 10.4 percent).

General administrative expenses came to 61.8 million euros (prior year: 60.5 million euros), this increase the result of first-time inclusion of TRIOPTICS and INTEROB. In organic terms, administrative expenses actually fell; increased personnel expenses following adjustments to pay rates were offset by short-time working allowances. The administrative expenses ratio rose to 8.0 percent (prior year: 7.1 percent).

Impairment gains and losses on trade receivables and contract assets were positive overall, with a value of 3.9 million euros (prior year: minus 2.7 million euros). This was essentially due to an increased focus on receivables management, which resulted in a sharp reduction in overdue receivables and thus also a reduction in general bad debt allowances.

At 20.6 million euros, other operating income was up on the prior-year figure of 16.8 million euros, in particular due to gains from the disposal of fixed assets and slightly higher currency exchange gains of 8.1 million euros (prior year: 7.0 million euros).

Other operating expenses came to 35.6 million euros (prior year: 23.0 million euros). They included expenses for group projects, structural and portfolio measures, costs in connection with corporate transactions, and impairment losses on fixed assets. At 10.1 million euros, currency losses were up on the prior year (prior year: 9.1 million euros).

Overall, other operating income and expenses came to minus 15.0 million euros (prior year: minus 6.2 million euros).

As a result of the drop in revenue, earnings before interest, taxes, depreciation, and amortization, incl. impairment losses and reversals (EBITDA) fell to an adjusted 130.7 million euros and were thus 5.3 percent down on the comparable prior-year figure of an adjusted 138.0 million euros. The impacts arising from structural and portfolio measures in the other operating expenses and functional costs items are worth a total of minus 19.1 million euros (prior year: minus 4.0 million euros). Of this figure, minus 11.4 million euros is attributable to restructuring/site optimization, minus 4.0 million euros to cost-cutting programs, and minus 3.6 million euros to costs for M+A activities. In total, these impacts, together with the decline in revenue, resulted in a significant year-on-year fall in non-adjusted EBITDA

More detailed information on research and development can be found on page 92

Detailed information on the composition of other operating income and expenses can be found on page 178 of the Notes and in the Statement of Total Other Comprehensive Income on page 154

T36 Key items in the Statement of Comprehensive Income (in million euros)

	2020	2019	Change in %
Cost of sales	505.0	563.4	−10.4
R+D expenses	43.7	44.1	−0.9
Selling expenses	86.4	89.3	−3.3
Administrative expenses	61.8	60.5	2.0
Impairment gains and losses on trade receivables and contract assets	3.9	−2.7	n.a.
Other operating income	20.6	16.8	22.4
Other operating expenses	35.6	23.0	54.5

T37 ROCE (in million euros)

	2020	2019
Long-term non-interest bearing assets	569.6	451.1
Short-term non-interest bearing assets	381.8	368.0
Non-interest bearing borrowings	−249.2	−213.3
Average tied capital	702.2	605.8
EBIT	59.3	88.9
ROCE (in percent)	8.4	14.7

Information on the segment EBITDA can be found in the Segment Report from page 119 on

to 111.6 million euros (prior year: 134.0 million euros). The companies acquired in 2020 contributed a total of 6.0 million euros to earnings, including PPA impacts of minus 4.6 million euros. Government grants, especially abroad, and short-time working allowances of 12.5 million euros were utilized. Primarily due to a lower cost of sales than expected in the photonics divisions, the adjusted EBITDA margin, including TRIOPTICS, increased to 17.0 percent, excluding PPA impacts to 17.6 percent (prior year: adjusted 16.5 percent). The EBITDA margin, including these adjustments and PPA impacts, came to 14.6 percent. T38 T39

EBITDA also saw sharply growing momentum over the course of the year. After 13.6 million euros in the first quarter of 2020 and 24.3 million euros in the second quarter, EBITDA rose to 28.8 million euros in the third quarter and an impressive 45.0 million euros in the fourth quarter (adjusted EBITDA Q1: 17.3 million euros; Q2: 24.9 million euros; Q3: 31.7 million euros; Q4: 56.8 million euros).

Adjusted for the impacts arising from structural and portfolio measures, worth a total of 19.4 million euros, EBIT (income from operations before interest and taxes) of 78.8 million euros was a significant 15.6 percent down on the prior-year figure (prior year: adjusted 93.4 million euros). The Group's adjusted EBIT margin consequently fell to 10.3 percent (prior year: adjusted 11.2 percent). The group EBIT item includes the operating result of the companies acquired in 2020 in the amount of minus 0.7 million euros, including impacts arising from the purchase price allocation of minus 10.2 million euros. T40 T41

As a result of the company acquisitions and the associated assets acquired, as well as the lower EBIT, the Group's ROCE (return on capital employed) also fell to 8.4 percent as of December 31, 2020 (prior year: 14.7 percent). Jenoptik shows this indicator inclusive of goodwill and before taxes. The calculation of the ROCE is explained in the Control System chapter on page 90 and shown in the following table. The average capital employed is calculated as the average of the month-end values in the reporting period. T37

T38 EBITDA (in million euros)

	2020	2019	Change in %
Group	111.6	134.0	−16.7
Light & Optics	68.6	69.8	−1.8
Light & Production	7.9	25.8	−69.4
Light & Safety	22.3	18.8	18.8
VINCORION	16.6	24.2	−31.2
Other	−3.8	−4.6	17.5

T39 EBITDA (adjusted)[1] (in million euros)

	2020	2019	Change in %
Group	130.7	138.0	−5.3
Light & Optics	72.7	71.7	1.4
Light & Production	15.8	25.8	−38.9
Light & Safety	22.7	18.8	20.9
VINCORION	20.6	24.2	−14.6
Other	−1.1	−2.5	54.1

[1] Figures adjusted for structural and portfolio measures (see explanation on page 104), including PPA impacts of minus 4.6 million euros

T40 EBIT (in million euros)

	2020	2019	Change in %
Group	59.3	88.9	−33.3
Light & Optics	52.1	57.9	−10.0
Light & Production	−4.8	14.5	n.a.
Light & Safety	15.2	11.7	30.3
VINCORION	9.7	17.4	−44.3
Other	−12.9	−12.5	−2.9

T41 EBIT (adjusted)[1] (in million euros)

	2020	2019	Change in %
Group	78.8	93.4	−15.6
Light & Optics	56.6	60.2	−6.0
Light & Production	3.1	14.5	−78.8
Light & Safety	15.6	11.7	33.8
VINCORION	13.7	17.4	−21.3
Other	−10.2	−10.4	1.7

[1] Figures adjusted for structural and portfolio measures (see explanation on page 104)

Higher interest expenses due to a higher level of debt and present value compounding of purchase price liabilities arising from company acquisitions, together with currency losses arising from the measurement of loans for group financing, were mainly responsible for the net balance of financial income and financial expenses decreasing, impacting on the financial result. Financial income included a dividend payment from a real estate firm. The financial result thus decreased to a total of minus 6.1 million euros (prior year: minus 3.7 million euros).

The lower EBIT was also reflected in the earnings before tax, which at a total of 53.2 million euros were a full 37.5 percent down on the prior year (prior year: 85.2 million euros).

The current income taxes of 8.4 million euros were also down on the level of the prior year (prior year: 11.4 million euros). Of these, 5.1 million euros (prior year: 8.4 million euros) are attributable to Germany and 3.3 million euros (prior year: 3.0 million euros) to other countries. The decline in Germany is due to the reduced domestic income in the reporting period.

The Jenoptik Group's cash effective tax rate, the relationship between the current income taxes and earnings before tax, rose due to the decreased domestic share of taxable income to 15.8 percent (prior year: 13.3 percent), but in view of the domestic earnings and the deductible tax losses carried forward in Germany was at a comparatively low level for a German company.

Non-cash deferred tax expenses came to 2.1 million euros in the past fiscal year (prior year: 6.2 million euros). The decrease is mainly due to a reduced utilization of the domestic tax losses carried forward and increased deferred tax income from effects of purchase price allocations of company acquisitions. The group tax rate thus amounted to 19.7 percent (prior year: 20.6 percent); income taxes totaled minus 10.5 million euros (prior year: minus 17.6 million euros).

See Notes for detailed information on the subject of taxes

77 Combined Management Report 152

T42 Order intake (in million euros)

	2020	2019	Change in %
Group (adjusted) [1]	739.4	792.7	−6.7
Group	739.4	812.6	−9.0
Light & Optics (adjusted) [1]	339.5	304.7	11.4
Light & Optics	339.5	324.7	4.6
Light & Production	157.8	199.3	−20.8
Light & Safety	92.3	107.9	−14.5
VINCORION	145.2	177.9	−18.4
Other	4.5	2.8	60.6

[1] Prior-year figures without HILLOS GmbH

T43 Order backlog (in million euros)

	2020	2019	Change in %
Group (adjusted) [1]	460.1	464.7	−1.0
Group	460.1	466.1	−1.3
Light & Optics (adjusted) [1]	178.0	143.5	24.0
Light & Optics	178.0	144.9	22.8
Light & Production	75.8	81.6	−7.1
Light & Safety	46.0	69.9	−34.2
VINCORION	160.3	169.7	−5.6

[1] Prior-year figures without HILLOS GmbH

T44 Frame contracts (in million euros)

	2020	2019	Change in %
Group	42.3	49.9	−15.3
Light & Optics	12.6	12.4	2.0
Light & Production	0	0	0
Light & Safety	8.9	12.6	−29.5
VINCORION	20.8	24.9	−16.7

T45 Book-to-bill ratio

	2020	2019
Group (adjusted) [1]	0.96	0.95
Group	0.96	0.95
Light & Optics (adjusted) [1]	1.07	0.92
Light & Optics	1.07	0.93
Light & Production	0.88	0.87
Light & Safety	0.81	0.99
VINCORION	0.96	1.08

[1] Prior-year figures without HILLOS GmbH

See page 119 of the Segment Report for detailed information on the order intake in the divisions

In 2020, Jenoptik generated earnings after tax of 42.7 million euros, a reduction of 36.8 percent (prior year: 67.6 million euros). At 41.8 million euros, earnings attributable to shareholders were down on the prior year's figure of 67.7 million euros, and earnings per share of 0.73 euros were also significantly lower than the prior year's figure of 1.18 euros per share.

Despite persistently weak overall economic development, demand picked up encouragingly, growing over the course of the year from 122.2 million euros in the second quarter to 177.0 million euros in the third and 228.5 million euros in the fourth quarter of 2020. For the full reporting period, however, the order intake fell 6.7 percent to a value of 739.4 million euros (prior year: adjusted 792.7 million euros) following the postponement of projects and one major cancellation, which were in part due to the coronavirus pandemic. Of this figure, 47.3 million euros were attributable to TRIOPTICS and INTEROB. The 2019 year included HILLOS GmbH orders worth an adjusted 19.9 million euros. T42

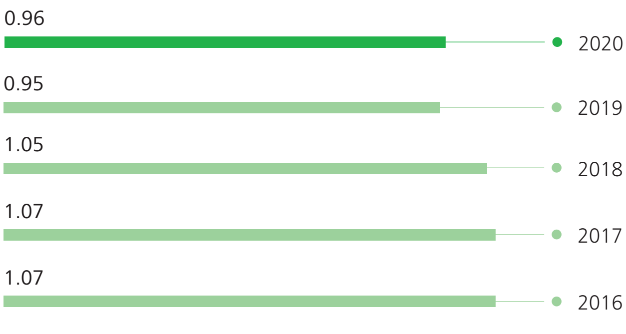
The order intake was also lower than the revenue generated in the fiscal year. The book-to-bill ratio increased marginally to 0.96 (prior year: adjusted 0.95/0.95). T45 G15

The Light & Optics division reported sustained good demand from the semiconductor equipment industry in 2020 and, as a result of the consolidation of TRIOPTICS in the fourth quarter, an order intake actually up on the prior year. Over the cumulative reporting period, the Light & Production division, which posted a major order from the automotive industry in September, was still down on the prior year due to continuing market uncertainty and the coronavirus pandemic, and despite the acquisition of INTEROB. Due to the project-related business, the Light & Safety division received fewer orders; VINCORION also posted an order intake down on the prior year, here due to weaker demand in the aviation business.

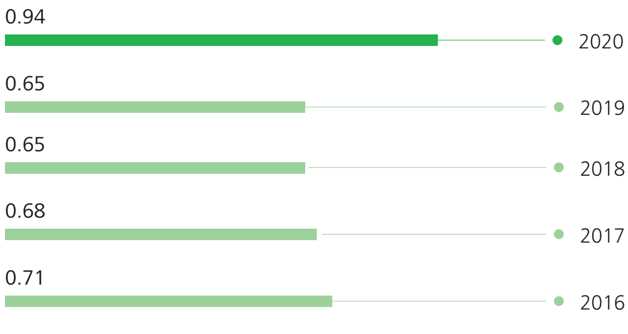
The order backlog reached a value of 460.1 million euros at the end of 2020, almost at the same good level as in the prior year (31/12/2019: adjusted 464.7 million euros). Of this order backlog, 78.5 percent (prior year: adjusted 68.0 percent) will be converted to revenue in 2021. Together with encouraging order intake growth in the fourth quarter of 2020, the well-filled order pipeline, and continued good performance in the semiconductor equipment business, this represents a solid basis for further growth in the 2021 fiscal year, to which organic growth and TRIOPTICS, which will be consolidated for the full year for the first time, will make a significant contribution. T43

Frame contracts reached an expected amount of 42.3 million euros (31/12/2019: 49.9 million euros). Frame contracts are contracts or framework agreements with customers, where the exact extent and time of occurrence cannot yet be specified precisely. The decline in the frame contracts is due to reclassifications in the order intake or adjustments. T44

G15 Development of the book-to-bill ratio



G16 Debt-to-equity ratio



Financial Position

Over the 2020 fiscal year, COVID-19 impacted on the operating activities of the Jenoptik businesses and thus on the Consolidated Statement of Financial Position and the consolidated Statement of Cash Flows. Despite the challenges posed by the pandemic and a higher level of debt arising from the acquisitions, the Group continues to ensure an ample supply of liquidity. As a result, Jenoptik succeeded in maintaining its free cash flow at a good level in fiscal year 2020 despite missing contributions to earnings.

Financial management principles

The central Treasury department plans for requirements and controls the provision of liquid resources within the Group. The Group's financial flexibility and solvency is guaranteed at all times on the basis of multi-year financial planning and quarterly forecasts. A cash pooling system also ensures the liquidity supply to all the major companies in Europe and North America. Companies not integrated in the cash pooling system are usually supplied with liquidity through internal group loans or, in exceptional cases, lines of credit from local banks. Since 2019, Jenoptik has also been utilizing a program to sell trade receivables (factoring), which gives the Group a further instrument to manage its liquidity and working capital. The volume of this instrument is limited to 25 million euros.

Primarily using currency forward transactions, Jenoptik hedges orders and internal loan receivables in foreign currencies, thereby reducing the impacts of exchange rate fluctuations on earnings and cash flow. Derivative financial instruments are used exclusively to hedge the operational business as well as financial transactions required for operational purposes.

As a result of the above measures, the existing syndicated loan, the remaining debenture bonds, the bridge financing mechanism concluded in the middle of the year, and existing cash and cash equivalents, the liquidity of all the group companies in the past fiscal year was sufficiently secured at all times.

See page 216 of the Notes for more information

Capital structure and financing analysis

With an excellent equity ratio of 51.5 percent as of December 31, 2020 and net debt of 201.0 million euros, the Group enjoys a solid and viable financing structure, as well as healthy balance sheet ratios. This gives Jenoptik the flexibility and financial latitude to finance future organic growth and potential acquisitions in the process implementing its international growth strategy.

The issued debenture bonds, worth 69.0 million euros, mature in April 2022. The Group is currently planning to issue new debenture bonds with a volume of at least 200 million euros and then to terminate the bridge financing of 300 million euros that has not been utilized to date. Jenoptik can also make use of a syndicated loan in the amount of 230.0 million euros through March 2022. Financial covenants have been agreed for this syndicated loan, of which around 120 million euros have been utilized as of the balance sheet date, and Jenoptik is in compliance with all their conditions. The syndicated loan is scheduled to be renewed and expanded in the second half-year 2021.

In addition to cash and cash equivalents of 63.4 million euros and current financial investment of 4.9 million euros, the Group also has unused capacity from the framework loan agreements mentioned above totaling 400 million euros to fall back on. This means that, as of the end of 2020, Jenoptik had over 450 million euros available for corporate development projects.

See page 196 of the Notes for more information on factoring

77 Combined Management Report 152

T46 Net and gross debt (in million euros)

	2020	2019	2018	2017	2016
Non-current financial debt	138.4	122.6	111.4	108.6	120.5
Current financial debt	130.9	37.0	10.1	19.3	4.1
Gross debt	**269.3**	**159.6**	**121.5**	**127.9**	**124.6**
minus current financial investments	4.9	69.7	59.5	64.6	50.5
minus cash and cash equivalents	63.4	99.0	89.3	132.3	92.0
Net debt	**201.0**	**−9.1**	**−27.2**	**−69.0**	**−17.9**

In 2020, the Group's non-current financial debt increased to 138.4 million euros (31/12/2019: 122.6 million euros). This item included financial liabilities to banks in the amount of 90.7 million euros (31/12/2019: 72.2 million euros) and lease liabilities of 47.7 million euros (31/12/2019: 50.4 million euros).

Current financial debt increased sharply due to utilization of the syndicated loan, to 130.9 million euros (31/12/2019: 37.0 million euros). At the end of 2020, non-current financial debt accounted for around 51 percent of Jenoptik's financial debt (31/12/2019: 77 percent).

The debt-to-equity ratio was 0.94 at the end of 2020 (31/12/2019: 0.65) due to a significant increase in borrowings in connection with the acquisition of the initial 75-percent stake in TRIOPTICS. The debt-to-equity ratio is defined as the ratio between borrowings (649.5 million euros) and equity (689.4 million euros). G16

At year-end 2020, the net cash position, defined as the total cash, cash equivalents, and current financial investments minus current financial debt, amounted to minus 62.6 million euros (31/12/2019: 131.7 million euros). The value of cash, cash equivalents, and current financial investments increased to 68.3 million euros (31/12/2019: 168.7 million euros); current financial debt rose to 130.9 million euros (31/12/2019: 37.0 million euros).

Cash, cash equivalents, and current financial investments fell as of December 31, 2020, in particular due to the acquisitions of TRIOPTICS and INTEROB and the repayment of a debenture bond. The sharp rise in financial debt following the acquisitions resulted in net debt increasing to 201.0 million euros as of December 31, 2020 (31/12/2019: minus 9.1 million euros).

T47 Capital expenditure and depreciation / amortization (in million euros)

	2020	2019	Change in %
Capital expenditure	47.3	55.6	−15.0
Intangible assets	17.3	11.7	48.2
Property, plant, and equipment	29.9	43.9	−31.8
Investment properties	0	0	n. a.
Depreciation / amortization / impairment losses and reversals	52.3	45.1	16.1
Intangible assets	15.8	11.6	36.4
Property, plant, and equipment	36.5	33.4	9.2
Investment properties	0.1	0.1	−2.6

T48 Capital expenditure by division – Intangible assets and property, plant and equipment (in million euros)

	2020	2019	Change in %
Group	47.3	55.6	−15.0
Light & Optics	18.6	18.4	1.0
Light & Production	4.9	13.9	−65.0
Light & Safety	4.6	4.1	13.8
VINCORION	9.2	8.8	4.2
Other	10.0	10.4	−4.0

Analysis of capital expenditure

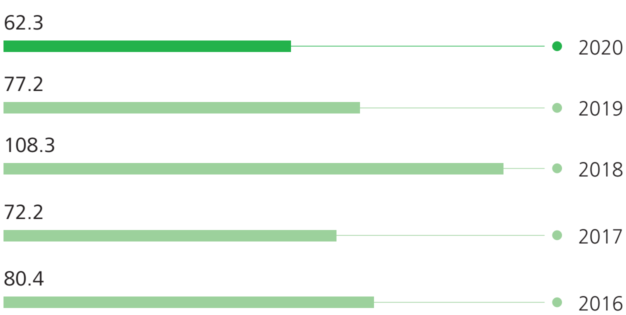
The focus of capital expenditure is derived from the group strategy and is in line with the planned growth targets and the asset structure of the Group. To ensure this, the individual investments are systematically reviewed with respect to sustainability or their value contribution on the basis of performance and financial indicators, and all risks and opportunities are thoroughly analyzed.

In 2020, the Group invested 47.3 million euros in intangible assets and property, plant, and equipment (prior year: 55.6 million euros). Capital expenditure was primarily deployed to create the conditions for growth and new customer orders, for example by increasing manufacturing capacity or investing in new technical equipment. T47

At 29.9 million euros, the largest share of capital expenditure was once again on property, plant, and equipment (prior year: 43.9 million euros). Due to business performance in the past year, capital expenditure declined significantly in the Light & Production division. A large share of capital expenditure in the prior year was attributable to the new build at the Villingen-Schwenningen site.

Capital expenditure for intangible assets (excluding additions to the group of consolidated entities) rose to 17.3 million euros (prior year: 11.7 million euros), in part due to the costs involved in setting up and launching an SAP S/4 HANA system and an increase in development services arising from internal projects which had to be capitalized and came to 8.6 million euros during the reporting period (prior year: 3.8 million euros). T48

G17 Free cash flow (in million euros)



Scheduled depreciation / amortization grew to 50.9 million euros (prior year: 43.8 million euros). This increase was mainly due to impacts arising from the purchase price allocation for the companies acquired in 2020. Impairment losses and reversals came to minus 1.4 million euros (prior year: minus 1.2 million euros).

Due to a higher level of capital expenditure in the 2019 fiscal year and the acquisitions in 2020, depreciation on property, plant, and equipment increased to 35.2 million euros (prior year: 33.0 million euros) and was thus above the figure for capital expenditure on property, plant, and equipment.

Amortization on intangible assets amounted to 15.6 million euros (prior year: 10.8 million euros), and, as in the prior year, primarily included depreciation of patents, trademarks, and software, as well as intangible assets identified in the course of company acquisitions.

Analysis of cash flows

Cash flows from operating activities fell to 89.7 million euros in the year covered by the report (prior year: 108.9 million euros). The operating cash flow was primarily affected by lower earnings before tax and the negative impacts arising from the change in provisions and working capital (working capital – see page 115). T49

In 2020, cash flows from investing activities amounted to minus 188.4 million euros (prior year: minus 54.4 million euros), Over the reporting period, they were largely influenced by payments amounting to 220.4 million euros, primarily for the acquisitions of TRIOPTICS in September and INTEROB in February. Other key items included the capital expenditure for intangible assets and property, plant, and equipment, and proceeds from and capital expenditure for short-term investments in connection with purchase price payments, where the net inflow was significantly higher than in the prior year. Proceeds exceeded capital expenditure by 69.9 million euros and thus had a positive impact (prior year: negative impact of 9.7 million euros).

Due to lower cash flows from operating activities before taxes and interest, the free cash flow of 62.3 million euros was down on the prior year (77.2 million euros). Adjusted for the cash impacts of structural and portfolio measures, the free cash flow came to 67.2 million euros (prior year: adjusted 79.3 million euros). The free cash flow is calculated as the cash flows from

More information on capital expenditure can be found in the Segment Report from page 119 on; on future investment projects in the Forecast Report from page 146 on

operating activities before payments for income tax in the amount of 102.3 million euros (prior year: 121.6 million euros), less expenditure for operating investment activities, i.e., minus proceeds from and capital expenditure for intangible assets and property, plant, and equipment, amounting to 40.0 million euros (prior year: 44.3 million euros). G17

The cash conversion rate, adjusted for the impacts arising from structural and portfolio measures, came to 51.4 percent in the 2020 fiscal year (prior year: adjusted 57.5 percent). On a non-adjusted basis, the figure was 55.8 percent (prior year: 57.7 percent).

The cash flows from financing activities amounted to 63.7 million euros in the period covered by the report (prior year: minus 46.1 million euros), and were particularly influenced by the use of the syndicated loan in connection with the acquisition of TRIOPTICS and the drawdown of a KfW loan for the new build in Villingen-Schwenningen. This was offset by repayments of bonds and loans, as, among other things, a debenture bond was repaid. Payments to acquire the 33.42 percent of shares in JENOPTIK Japan Co. Ltd. from the former minority shareholder are included in the "payments for the acquisition of non-controlling interests" item. Dividends worth a total of 8.4 million euros were also paid out in 2020 (prior year: 20.0 million euros), of which 7.4 million euros were paid to JENOPTIK AG shareholders and 1.0 million euros to TRIOPTICS minority shareholders.

Asset Position

Over the 2020 fiscal year, COVID-19 impacted on the operating activities of the Jenoptik businesses. First-time consolidation of TRIOPTICS on September 24, 2020 also resulted in significant changes to the Consolidated Statement of Financial Position. Despite the challenges posed by the coronavirus pandemic and a higher level of debt arising from the acquisitions, the Group continued to ensure healthy balance sheet ratios in the view of the Executive Board.

As of December 31, 2020, the Jenoptik Group's total assets increased to 1,338.8 million euros (31/12/2019: 1,083.3 million euros), a rise of 255.5 million euros. There were significant changes to individual items, in particular due to first-time consolidation of TRIOPTICS and INTEROB.

On the assets side, the acquisitions primarily had the effect of boosting non-current assets to a value of 848.9 million euros (31/12/2019: 555.2 million euros). Intangible assets saw a particularly strong increase compared to year-end 2019, rising from 212.7 to 487.1 million euros, largely due to the goodwill recognized during first-time consolidation of the acquired companies. The "Goodwill" item increased to 390.2 million euros (31/12/2019: 165.9 million euros) and thus remained the largest item in intangible assets. The increase in intangible assets was also the result of an increase in acquired patents, trade-

T49 Cash flows (in million euros)

	2020	2019	2018	2017	2016
Cash flows from operating activities	89.7	108.9	135.5	96.3	100.1
Cash flows from investing activities	– 188.4	– 54.4	– 117.5	– 42.2	– 71.3
Cash flows from financing activities	63.7	– 46.1	– 60.9	– 12.9	– 20.7
Cash-effective change in cash and cash equivalents	– 35.0	8.4	– 42.9	41.3	8.0
Non-cash change in cash and cash equivalents	– 0.6	1.4	– 0.1	– 0.9	0.1
Change in cash and cash equivalents	**– 35.6**	**9.8**	**– 43.1**	**40.3**	**8.1**
Cash and cash equivalents at the end of the fiscal year	**63.4**	**99.0**	**89.3**	**132.3**	**92.0**

marks, and software, as well as advances for intangible assets. Property, plant, and equipment increased from 251.1 million euros at the end of 2019 to 263.5 million euros as of December 31, 2020, in part due to the real estate acquired in the course of the acquisitions. Advances/assets under construction were sharply down on the prior year following completion of the new plant in Villingen-Schwenningen. Financial investments grew in value to 16.3 million euros (12/31/2019: 8.3 million euros), in particular due to growth in the included shares in investments accounted for using the equity method. There were only minor changes in the remaining items under non-current assets.

Over the past fiscal year, current assets fell to 489.9 million euros (31/12/2019: 528.1 million euros), primarily due to the financing of the two acquisitions in 2020. The value of cash and cash equivalents decreased to 63.4 million euros (31/12/2019: 99.0 million euros); current financial investments fell to 4.9 million euros (31/12/2019: 69.7 million euros). The acquisition of TRIOPTICS was mainly responsible for the rise in inventories to 191.4 million euros (31/12/2019: 153.7 million euros). Trade receivables remained virtually unchanged, despite the TRIOPTICS and INTEROB receivables included in this item for the first time. This was in part due to active receivables management and lower revenue during the pandemic. Following the acquisition of INTEROB (project business), contract assets increased in value to 74.7 million euros (31/12/2019: 54.9 million euros).

The working capital rose as of December 31, 2020, also essentially due to the acquisitions, to 268.1 million euros (31/12/2019: 217.8 million euros). On the assets side, inventories and contract assets increased considerably more strongly than trade accounts payable and contract liabilities on the liabilities side. The working capital ratio, that of working capital to revenue based on the last twelve months, increased to 34.9 percent compared to year-end 2019 (31/12/2019: 25.5 percent) due to the fall in revenue and the increase in working capital. Reasons for this include the first-time consolidations; TRIOPTICS is included here on a pro rata basis with regard to revenue but in full in the balance sheet items and thus in working capital. T50

The positive earnings after tax, in particular, but also the recognition of the minority interests of the TRIOPTICS foreign subsidies in the "non-controlling interests" item, produced a 33.9-million-euro increase in equity, to 689.4 million euros (31/12/2019: 655.4 million euros). By contrast, equity was reduced by the dividend payment, currency differences, and the acquisition of shares in JENOPTIK Japan Co. Ltd. The equity ratio, that of equity to total assets, fell to 51.5 percent in the light of significantly higher total assets (31/12/2019: 60.5 percent). G18

Non-current liabilities were primarily affected by the financing for the acquisition of TRIOPTICS, and rose to 233.0 million euros (31/12/2019: 176.0 million euros). The taking up of a

More information on the intangible assets and property, plant, and equipment can be found in the Notes, points 5.1 and 5.2

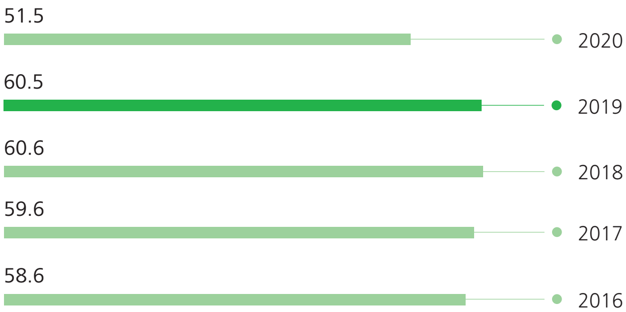
T50 Components of working capital (in million euros)

	2020	2019	Change in %
Inventories	191.4	153.7	24.6
Trade receivables	138.0	136.9	0.8
Contract assets	74.7	54.9	36.2
Trade payables	89.7	83.7	7.2
Contract liabilities	46.3	43.9	5.5
Total	**268.1**	**217.8**	**23.1**

KfW loan and the acquired companies' liabilities assumed during first-time consolidation produced a sharp rise in non-current financial debt, of 15.8 million euros to 138.4 million euros (31/12/2019: 122.6 million euros). Other non-current liabilities increased in connection with the acquisitions of TRIOPTICS and INTEROB, in part due to the recognition of other conditional purchase price components. Deferred taxes also increased as a result of the first-time consolidation of TRIOPTICS and INTEROB. Non-current liabilities also include the debenture bonds issued in 2015, currently totaling 69.0 million euros (31/12/2019: 69.0 million euros). A fall in interest rates caused pension provisions to increase slightly (see the Notes, chapter "Provisions for pensions and similar obligations" from page 201 on).

Current liabilities rose to 416.4 million euros (31/12/2019: 251.9 million euros). This was largely due to the increase in current financial debt to 130.9 million euros (31/12/2019: 37.0 million euros), primarily from the utilization of the syndicated loan. This was offset by the repayment of a debenture bond in the sum of 21.5 million euros. Following recognition of the purchase price liability for the acquisition of the remaining 25 percent in TRIOPTICS, other current financial liabilities increased from 12.5 million euros at the end of 2019 to 75.3 million euros at the end of 2020. As of the reporting date, current trade accounts payable increased in value to 89.7 million euros (31/12/2019: 83.7 million euros). First-time consolidation of TRIOPTICS and an increase in advances received for projects with revenue recognition at a point in time resulted in higher contract liabilities of 46.3 million euros (31/12/2019: 43.9 million euros).

G18 Equity ratio (in percent)



T51 Financial debt by due date (in million euros)

	Up to 1 year		1 to 5 years		More than 5 years		Total as of 31/12	
	2020	2019	2020	2019	2020	2019	2020	2019
Liabilities to banks	118.6	26.3	82.1	72.2	8.6	0	209.2	98.5
Lease liabilities	12.3	10.7	32.8	34.0	14.9	16.4	60.0	61.1
Total	**130.9**	**37.0**	**115.0**	**106.2**	**23.4**	**16.4**	**269.3**	**159.6**

T52 Components of interest-bearing debt (in million euros)

	2020	2019	Change in %
Current	130.9	37.0	253.7
Liabilities to banks	118.6	26.3	351.1
Lease liabilities	12.3	10.7	14.9
Non-current	138.4	122.6	12.9
Liabilities to banks	90.7	72.2	25.6
Lease liabilities	47.7	50.4	−5.3

Acquisitions and disposals

The following acquisitions and disposals were made in the 2020 fiscal year.

In February 2020, Jenoptik acquired the Spanish INTEROB Group, consisting of INTEROB, S.L. and INTEROB RESEARCH AND SUPPLY, S.L. The group of companies specializes in projects relating to the plant planning, design, manufacture, and integration of automation solutions, as well as robotics applications with a focus on the automotive industry. The acquisition allows the Jenoptik Group to boost its position as a turnkey provider of automated production solutions. In 2019, INTEROB posted some 22 million euros of revenue; its profitability was above the average in the Jenoptik Group. Revenue and earnings for 2020, including the impacts arising from the purchase price allocation, were consolidated on a pro rata basis.

In March 2020, Jenoptik acquired 33.42 percent of shares in JENOPTIK Japan Co. Ltd. from its partner Kantum Ushikata Co., Ltd. and converted the company into a wholly-owned group subsidiary. Jenoptik Japan's business covers sales of Jenoptik photonic components, systems, and equipment – in addition to diode lasers, primarily laser processing machines, optics, and industrial metrology. Jenoptik will chiefly focus its investment on sales structures and thus its local presence.

On the closing date of September 24, 2020, Jenoptik completed the acquisition of an initial 75-percent stake in Trioptics GmbH. The Group will acquire the remaining 25 percent from the owners on December 31, 2021 on terms already agreed. TRIOPTICS is a leading international supplier of measurement and production systems for optical components and sensors in the digital world. In 2019, the company generated revenue of around 80 million euros, with an EBITDA margin of some 27 percent. The acquisition of TRIOPTICS allows Jenoptik to further sharpen its focus on high-growth cutting-edge photonics industries and will contribute to the further internationalization of the Group. The TRIOPTICS business is being integrated in the Light & Optics division. The company, based in Wedel near Hamburg, has over 400 employees around the world. More than half of its revenue is generated in Asia. Revenue and earnings for 2020, including the impacts arising from the purchase price allocation, were consolidated on a pro rata basis.

There were no other acquisitions or disposals in 2020.

Assets and liabilities not included in the statement of financial position

The value of the Jenoptik brand is one of the main assets we do not include in the statement of financial position. Jenoptik operates in the highly fragmented photonics market, which is characterized by a multitude of highly-specialized companies. We aim to further boost awareness of our brand, especially on the international stage, in the coming years. Since February 2019, Jenoptik has been on the market with new brand positioning and a new corporate design. With "Strategy 2022," the Group is concentrating on the core photonics areas of light and optics under the Jenoptik brand. The independent VINCORION brand for the mechatronics business was launched in 2018 to take better account of specific market requirements.

Non-capital tax losses carried forward. Tax losses carried forward arise from losses in the past that have not yet been offset against taxable profits. They represent potential future cash flow benefits, since actual tax payments can be reduced by these losses being offset against taxable profits.

For non-usable tax losses carried forward, deferred tax assets are not recognized for corporation tax purposes in the amount of 23.8 million euros (prior year: 29.3 million euros) and trade tax purposes in the amount of 81.3 million euros (prior year: 129.0 million euros), as they are unlikely to be used within a determined planning time frame. Equally, no deferred tax assets were recognized for deductible timing differences in the amount of 6.6 million euros (prior year: 7.3 million euros).

Off-balance sheet financing instruments for the financial and asset position. Since the end of 2019 Jenoptik has been using a factoring program limited to 25 million euros, a further instrument for managing its liquidity and working capital, in order to sell trade receivables from selected customers to a factoring company. Although customers' payment terms have in some cases been significantly extended, this has allowed Jenoptik to convert some long-term receivables into liquidity at short notice. This additional liquidity is then available to the Group for various operational purposes, e.g. investment and acquisitions. Since the economic opportunities and risks associated with the receivables are transferred to the buyer when the receivables are sold, those receivables are no longer recognized on Jenoptik's Statement of financial position ("real factoring"). Jenoptik does not use any other off-balance sheet financing instruments.

77 Combined Management Report 152

See page 167 of the Notes for more information on the acquisition of INTEROB, JENOPTIK Japan, and TRIOPTICS

With regard to off-balance sheet obligations, we refer to the section "Other Financial Obligations" on page 223 of the Notes.

Information on contingent assets and liabilities can be found in the Notes, from page 223 on.

Clauses in contracts concluded by JENOPTIK AG, which apply in the event of a change of control within the ownership structure of JENOPTIK AG following a takeover bid, exist for financing agreements with a total utilized volume of approximately 190.5 million euros (prior year: 104.4 million euros). More information can be found in the Remuneration Report, from page 51 on, and in the Information on Takeover Law, from page 47 on.

General Statement by the Executive Board on the Development of Business

The coronavirus pandemic had varying impacts on revenue performance in the different divisions within the Jenoptik Group. The pandemic had little to no impact on business with public-sector contractors and the semiconductor equipment industry, with both areas actually posting growth. Overall economic development was still weak, however, particularly in the traditional automotive business, but also in parts of the aviation and biophotonics industries. In the 2020 fiscal year, the Jenoptik Group posted an overall fall in revenue, primarily due to the pandemic. By contrast, Jenoptik managed to increase the EBITDA margin, adjusted for the impacts arising from structural and portfolio measures, to 17.0 percent, or an even higher 17.6 percent including TRIOPTICS and excluding PPA impacts. TRIOPTICS, acquired in September 2020, made a positive contribution to revenue and earnings performance.

In the fourth quarter, the Group achieved a sharp increase in the order intake compared to prior quarters. Overall, the Group received orders worth 739.4 million euros in the past fiscal year, thus falling short of the 2019 figure. The 2020 order intake also includes new orders at the companies acquired this year. The Group's order backlog was almost on a par with the good level of the prior year and thus represents a solid basis for further profitable growth.

Thanks to the initiated measures and good working capital management, the Executive Board maintained the free cash flow at a good level. Jenoptik was not only able to further boost profitability (adjusted) but also to secure the liquidity, finance two acquisitions and other investments, thereby creating a good basis for further investment in our growth.

The balance sheet and financing structure remained highly robust, despite the challenging environment caused by the COVID-19 pandemic and financing for two acquisitions. Due to the significant increase in total assets resulting from the acquisitions, the equity ratio came to 51.5 percent.

In view of the difficult environment caused by the coronavirus, the Executive Board was very satisfied overall with the company's performance.

Segment Report

The three photonics divisions, Light & Optics, Light & Production, and Light & Safety, together with VINCORION represent the segments as defined in IFRS 8.

The range of services and competitive positioning of the divisions and VINCORION are set out in greater detail in the Group Business Model chapter, from page 80 on.

The revenue, order intake, and order backlog numbers provided in the segment report are external figures.

Light & Optics Division

In interpreting the business performance of the Light & Optics division, it should be noted that HILLOS GmbH is qualified as a joint venture (formerly joint operation) from the 2020 fiscal year on as a result of the scheduled reduction in production capacity used by the company itself, and is therefore no longer proportionately consolidated. As a result, indicators such as order intake and contributions to revenue and earnings are no longer included pro rata in the various items of the Consolidated Financial Statements. Instead, the economic success of this joint venture is now reported in other operating income. In order nevertheless to ensure comparability of the information, we have adjusted the prior-year contributions of HILLOS GmbH with regard to revenue, order intake and backlog, and employees.

On the closing date of September 24, 2020, Jenoptik successfully completed the acquisition of an initial 75-percent stake in Wedel-based optics specialist TRIOPTICS. The company specializes in measurement and production systems for optical components. The TRIOPTICS business was integrated as a business field into the Light & Optics division. Jenoptik will acquire the remaining 25 percent of TRIOPTICS from the owners on December 31, 2021 on terms already agreed. Based on the existing control and present ownership relating to the remaining 25 percent of the shares, the company was consolidated at 100 percent of the shares. The company was included in the financial statements from the time of closing; contributions to revenue, earnings, and order intake are set out below.

Information on the various markets can be found in the Sector Report, from page 99 on, and on future developments in the Forecast Report, from page 146 on

The Light & Optics division supports as an OEM partner its customers with a broad technology portfolio covering everything from development to volume production. Cooperation as a development and production partner with numerous international companies was again an important part of the business in the 2020 reporting year.

Despite the spread of the coronavirus, business with the semiconductor equipment industry remained robust over the period covered by the report, but the division posted sharp declines due to the pandemic in its biophotonics and industrial solutions businesses. Light & Optics generated revenue of 318.0 million

77 Combined Management Report 152

T53 Light & Optics at a glance (adjusted) (in million euros)

	2020	2019	Change in %
Revenue [1]	318.0	331.8	−4.2
EBITDA [2]	72.7	71.7	1.4
EBITDA margin in % [2,3]	22.8	21.5	
EBIT [2]	56.6	60.2	−6.0
EBIT margin in % [2,3]	17.8	18.1	
Free cash flow [2]	44.1	57.1	−22.7
Cash conversion rate in % [2]	60.7	79.6	
Order intake [1]	339.5	304.7	11.4
Order backlog [1]	178.0	143.5	24.0
Employees [1]	1,814	1,383	31.2

[1] Prior-year figures without HILLOS GmbH
[2] Figures adjusted for structural and portfolio measures (see explanation on page 104)
[3] Based on total revenue (prior year: based on adjusted revenue)

euros in 2020 (prior year: adjusted 331.8 million euros). The fourth quarter was the strongest, with 108.2 million euros in revenue (prior year: adjusted 95.5 million euros). TRIOPTICS contributed revenue of 27.8 million euros following the closing date in September 2020. In addition, there was also increasing revenue recognition over time based on the progress of projects. The Light & Optics division's share of group revenue rose to 41.4 percent (prior year: adjusted 39.6 percent).

In total, around 84 percent of the division's revenue was generated abroad in 2020 (prior year: adjusted 78 percent). Europe remained stable, enjoying the greatest share at 119.3 million euros (prior year: adjusted 118.3 million euros), followed by the Americas, still in second place despite a fall in revenue. Thanks to the revenue contribution from TRIOPTICS, Asia saw the strongest increase in 2020, from an adjusted 52.3 million euros to 70.4 million euros.

Adjusted earnings before interest, taxes, depreciation, and amortization (EBITDA) were up 1.4 percent on the prior year, to 72.7 million euros (prior year: adjusted 71.7 million euros), including negative PPA impacts of 4.6 million euros. Despite the minor fall in revenue, earnings increased, primarily due to a lower cost of sales and active cost management. TRIOPTICS contributed 4.3 million euros of these earnings. In terms of EBITDA, the fourth quarter was also the most profitable of the year, with an adjusted 24.7 million euros. The adjusted EBITDA margin of 22.8 percent in 2020 exceeded the prior-year figure of an adjusted 21.5 percent.

The division generated an adjusted EBIT of 56.6 million euros (prior year: adjusted 60.2 million euros), including PPA impacts of minus 8.3 million euros arising from the acquisition of TRIOPTICS. The adjusted EBIT margin came to 17.8 percent (prior year: adjusted 18.1 percent).

With a value of 339.5 million euros, the order intake exceeded the prior-year figure of an adjusted 304.7 million euros, primarily due to sustained good demand from the semiconductor equipment industry and new orders from TRIOPTICS worth 26.9 million euros. By contrast, the biophotonics business, in particular, received fewer orders as a result of the COVID-19 pandemic. Set against revenue, this resulted in a book-to-bill ratio of 1.07 for the reporting period (prior year: adjusted 0.92/non-adjusted 0.93). In the fourth quarter, the division saw a significant intra-year increase in its order intake thanks to orders from several different industries and the contributions from TRIOPTICS.

T54 Light & Optics at a glance (in million euros)

	2020	2019	Change in %
Revenue	318.0	350.0	−9.2
EBITDA	68.6	69.8	−1.8
EBITDA margin in % [1]	21.5	19.8	
EBIT	52.1	57.9	−10.0
EBIT margin in % [1]	16.3	16.5	
Capital expenditure	18.6	18.4	1.0
Free cash flow	40.5	57.1	−29.1
Cash conversion rate in %	59.0	81.7	
Order intake	339.5	324.7	4.6
Order backlog	178.0	144.9	22.8
Frame contracts	12.6	12.4	2.0
Employees	1,814	1,416	28.2

[1] Based on total revenue

Due to the higher order intake, the division's order backlog rose by 34.5 million euros in value, to 178.0 million euros, at the end of 2020 (31/12/2019: adjusted 143.5 million euros), mainly buoyed by acquisitions. TRIOPTICS' order backlog was worth 27.1 million euros. The Light & Optics division also has frame contracts worth 12.6 million euros (31/12/2019: 12.4 million euros).

Due to a noticeable increase in working capital, and a reduction in provisions, the division achieved an adjusted free cash flow of 44.1 million euros before interest and income taxes in 2020 (prior year: 57.1 million euros). The division continued to utilize factoring as a financing instrument in 2020, but the factoring volume remained practically unchanged. By contrast, the working capital increased sharply for the reasons set out above, from 77.9 million euros at the end of 2019 to 114.3 million euros as of December 31, 2020.

As of December 31, 2020, Light & Optics had a total of 1,814 employees, 431 more than in the prior year (prior year: adjusted 1,383), primarily due to the acquisition of TRIOPTICS. At the end of 2020, the division had 86 trainees (prior year: 56).

R+D expenses in the past fiscal year totaled 19.2 million euros (prior year: 19.0 million euros). Including development services on behalf of customers, the division's R+D output came to 32.3 million euros, slightly down on the prior-year figure of 34.6 million euros. The share of total R+D costs in division revenue was 10.2 percent (prior year: 9.9 percent).

The division's capital expenditure in property, plant, and equipment and intangible assets remained virtually unchanged at 18.6 million euros (prior year: 18.4 million euros). This was offset by depreciation / amortization in the sum of 16.1 million euros (prior year: 10.7 million euros), up due to PPA impacts in connection with the acquisition of TRIOPTICS. Key areas of investment in the 2020 fiscal year included the expansion of capacities and the technical development of the manufacturing infrastructure, e.g., for the semiconductor equipment and automotive sectors. These investments aim to help secure the long-term competitiveness of the Light & Optics division in its core business of photonics. As an example, the division is investing a two-digit million sum in a new electron-beam lithography tool (e-beam), which will go into operation at its Dresden site in mid-2022. It will be a core element for the development and production of the most sophisticated next-generation precision sensors, which are essential for the further development of DUV and establishing high-precision EUV wafer exposure in semiconductor production processes.

Acquisitions. In addition to acquiring TRIOPTICS, Jenoptik invested in Japan, acquiring the remaining 33.42 percent of shares in JENOPTIK Japan Co. Ltd. from its longstanding partner and minority shareholder Kantum Ushikata Co., Ltd in the first quarter.

Production and organization. The Global Operations area in the Light & Optics division again consistently improved its quality and on-time delivery performance around the world in 2020. An extensive package of site optimization measures was also successfully put in place. It covers the closure of a small site in Berlin and consolidation of its activities at two other sites, the restructuring of the Triptis plant, the merger of two production units within the imaging and sensor systems business in Jena, and the conversion of the Mühlhausen site into a center of development excellence for a strategic customer. In the future, Global Operations aims to further expand its global reach and better pool expertise at locations.

For more information on the key development topics, see the Research and Development chapter from page 92 on

Light & Production Division

The Light & Production division particularly focuses on solutions for the automotive industry in its Industrial Metrology, Laser Processing, and Automation & Integration business areas. With the acquisition of the Spanish company INTEROB in January 2020, the Light & Production division strengthened its position as a turnkey provider of automated production solutions. To achieve this goal, the division took an important step on the road to becoming an integrated supplier of high-tech production environments when it acquired Prodomax back in 2018.

Light & Production was the division most severely affected by the COVID-19 pandemic in the Jenoptik Group. This was exacerbated by the ongoing reluctance to invest and considerable uncertainty within the automotive industry, as well as the increasing shift from combustion engines to alternative, particularly electric, drive systems.

Revenue in the Light & Production division fell sharply, by 21.8 percent to 178.9 million euros in 2020 (prior year: 228.9 million euros), although it achieved the highest quarterly revenue in the reporting year of 60.0 million euros in the fourth quarter. All three units – Industrial Metrology, Laser Processing, and Automation & Integration – reported sharp declines in 2020, especially due to postponed projects, one major order cancellation, and the temporary closure of two Jenoptik plants in the division due to the coronavirus in the first half of the year. INTEROB (first-time consolidation on February 4, 2020) contributed revenue of 19.4 million euros over the reporting period. The division's share of group revenue fell to 23.3 percent (prior year: share of adjusted group revenue 27.3 percent).

T55 Light & Production at a glance (adjusted) (in million euros)

	2020	2019	Change in %
EBITDA[1]	15.8	25.8	−38.9
EBITDA margin in %[1,2]	8.8	11.3	
EBIT[1]	3.1	14.5	−78.8
EBIT margin in %[1,2]	1.7	6.3	
Free cash flow[1]	0.2	19.5	−99.2
Cash conversion rate in %[1]	1.0	75.6	

[1] Figures adjusted for structural and portfolio measures (see explanation on page 104)
[2] Based on total revenue

T56 Light & Production at a glance (in million euros)

	2020	2019	Change in %
Revenue	178.9	228.9	−21.8
EBITDA	7.9	25.8	−69.4
EBITDA margin in %[1]	4.4	11.3	
EBIT	−4.8	14.5	k. A.
EBIT margin in %[1]	−2.7	6.3	
Capital expenditure	4.9	13.9	−65.0
Free cash flow	0.3	19.5	−98.5
Cash conversion rate in %	3.6	75.6	
Order intake	157.8	199.3	−20.8
Order backlog	75.8	81.6	−7.1
Employees	1,071	1,093	−2.0

[1] Based on total revenue

At around 72 percent, the division again generated most of its revenue abroad in 2020 (prior year: 79 percent). Germany was the only region in which division revenue saw a minor rise in 2020. By contrast, the Americas saw a sharp decline as a result of the pandemic, with revenues falling from 106.5 million euros in the prior year to 68.8 million euros.

As a consequence of the fall in revenue, adjusted EBITDA contracted 38.9 percent to 15.8 million euros (prior year: 25.8 million euros), despite a significantly lower cost of sales. The adjusted EBITDA margin came to 8.8 percent, compared with 11.3 percent in the prior year. To counter these developments, structural and portfolio adjustment projects were started at the beginning of the year, together with measures to contain the impact of the COVID-19 pandemic. The impacts arising from structural and portfolio measures affecting EBITDA amounted to 7.9 million euros in the period covered by the report which was attributable in particular to the restructuring expenses.

The adjusted EBIT in the Light & Production division came to 3.1 million euros (prior year: 14.5 million euros), with INTEROB contributing minus 0.4 million euros. The EBIT item includes impacts arising from the purchase price allocation for INTEROB, worth minus 1.9 million euros. The adjusted EBIT margin fell to 1.7 percent (prior year: 6.3 percent).

In 2020, the division's order intake was worth 157.8 million euros, also down on the prior-year figure of 199.3 million euros, and includes orders from INTEROB worth around 20.4 million euros. The book-to-bill ratio in 2020 reached a figure of 0.88 (prior year: 0.87).

The Laser Processing area achieved a minor increase in its order intake. In the Automation & Integration area, the impacts of a larger order cancellation in June and project postponements could not be fully offset by the larger order from Gestamp, an international specialist for the manufacture of metal components. The division will design and manufacture three fully automated production cells for body components for Gestamp. The cells used to produce complex car body parts for electric vehicles at a plant in Germany will also be equipped with Jenoptik laser processing machines.

Including INTEROB orders, the order backlog at year-end 2020 was worth 75.8 million euros, 7.1 percent down on the year-end figure for 2019 (31/12/2019: 81.6 million euros).

A sharp drop in EBITDA and the increase in working capital (prior year: decrease) were key reasons for the reduction in the division's adjusted free cash flow (before interest and income taxes) to 0.2 million euros (prior year: 19.5 million euros). The working capital increased from 50.1 million euros at the end of 2019 to 66.9 million euros at the end of the reporting year, chiefly due to the rise in contract assets.

As of December 31, 2020, the Light & Production division had 1,071 employees (31/12/2019: 1,093 employees). 28 were in trainee positions in the division as of the reporting date (31/12/2019: 29 trainees).

The division's R+D output fell to a value of 10.8 million euros (prior year: 11.3 million euros). This included developments on behalf of customers in the amount of 3.6 million euros (prior year: 3.4 million euros). R+D expenses came to 7.2 million euros (prior year: 7.9 million euros). In 2020, the share of R+D output in total revenue in the Light & Production division was 6.0 percent (prior year: 5.0 percent).

For more information on the key development topics, see the Research and Development chapter

Capital expenditure on property, plant, and equipment and intangible assets fell sharply, by 65.0 percent to 4.9 million euros (prior year: 13.9 million euros). The prior year included around 13 million euros for the new build at the Villingen-Schwenningen site, and business operations at this new site commenced in the spring of 2020.

In 2020, capital expenditure was offset by depreciation/amortization in the sum of 12.5 million euros (prior year: 11.3 million euros).

Acquisitions. In January 2020, the Light & Production division acquired the Spanish company INTEROB, which specializes in the design, construction, and integration of custom automation solutions and robotics applications.

For more information on the INTEROB acquisition, see the Notes, page 167

Light & Safety Division

The Light & Safety division is responsible for the Group's business with systems and services related to road traffic, such as speed and red light monitoring systems and custom solutions for identifying other traffic violations, and for the fields of public safety and road user charging.

Over the reporting year, largely stable capital spending patterns by public-sector clients ensured good business performance despite the COVID-19 pandemic in the Light & Safety division. In 2020, the division generated revenue of 114.0 million euros (prior year: 108.7 million euros), an increase of 4.9 percent. The division's share of group revenue in the past fiscal year came to 14.9 percent (prior year: share of adjusted group revenue 13.0 percent).

At around 70 percent, the share of revenue generated abroad in 2020 remained below the prior-year figure of 73 percent for project-related reasons. Light & Safety posted growth in all regions except the Middle East/Africa, with the sharpest rises in the Americas and Asia.

Primarily following the rise in revenue, adjusted EBITDA improved to 22.7 million euros (prior year: 18.8 million euros). A considerable contribution to earnings of an adjusted 8.8 million euros was generated in the fourth quarter. The adjusted EBITDA margin increased significantly to 19.9 percent in 2020 (prior year: 17.3 percent).

T57 Light & Safety at a glance (adjusted) (in million euros)

	2020	2019	Change in %
EBITDA[1]	22.7	18.8	20.9
EBITDA margin in %[1,2]	19.9	17.3	
EBIT[1]	15.6	11.7	33.8
EBIT margin in %[1,2]	13.7	10.7	
Free Cashflow[1]	21.8	11.3	93.0
Cash conversion rate in %[1]	95.9	60.1	

[1] Figures adjusted for structural and portfolio measures (see explanation on page 104)
[2] Based on total revenue

T58 Light & Safety at a glance (in million euros)

	2020	2019	Change in %
Revenue	114.0	108.7	4.9
EBITDA	22.3	18.8	18.8
EBITDA margin in %[1]	19.6	17.3	
EBIT	15.2	11.7	30.3
EBIT margin in %[1]	13.3	10.7	
Capital expenditure	4.6	4.1	13.8
Free cash flow	21.4	11.3	89.6
Cash conversion rate in %	95.9	60.1	
Order intake	92.3	107.9	−14.5
Order backlog	46.0	69.9	−34.2
Frame contracts	8.9	12.6	−29.5
Employees	489	496	−1.4

[1] Based on total revenue

At 15.6 million euros, adjusted EBIT was considerably up on the prior-year figure of 11.7 million euros; the corresponding EBIT margin rose to 13.7 percent (prior year: 10.7 percent).

The division's order intake is subject to typical fluctuations in project business and, at 92.3 million euros for the full year, was down on the prior-year figure of 107.9 million euros. The book-to-bill ratio was 0.81 (prior year: 0.99).

Light & Safety secured a number of new projects in 2020. As an example, the division received further orders for traffic safety technology from the US and Canada at the beginning of the year. These orders are intended to support "Vision Zero", a multinational traffic safety project that aims to drastically reduce the number of traffic accidents and deaths or serious injuries on motorways and highways. Jenoptik further secured an order for section control systems from TfL (Transport for London) in Great Britain.

As of December 31, 2020, the order backlog, worth 46.0 million euros, was down on the prior-year figure (31/12/2019: 69.9 million euros) as a result of the increase in revenue and a lower project-related order intake. The division also has frame contracts worth 8.9 million euros (31/12/2019: 12.6 million euros).

With a total of 489 employees, the number of people employed in the Light & Safety division at the end of 2020 was virtually unchanged (31/12/2019: 496 employees). At the end of December, the division had 14 trainees (31/12/2019: 13 trainees).

In 2020, the division's R+D expenses of 13.1 million euros were up on the prior-year figure of 11.0 million euros. The development costs on behalf of customers fell to 0.6 million euros (prior year: 1.0 million euros). Overall, the division's R+D output increased to a value of 13.8 million euros (prior year: 12.0 million euros).

In the year covered by the report, the division invested 4.6 million euros in property, plant, and equipment and intangible assets (prior year: 4.1 million euros), primarily in connection with traffic service provision (TSP) projects. The traffic safety technology employed on these projects is installed and operated by Jenoptik on behalf of the customer. As a result, the level of capital expenditure was 13.8 percent higher than in the prior year. Capital expenditure was offset by depreciation/amortization totaling 7.1 million euros (prior year: 7.2 million euros).

The free cash flow (before interest and income taxes) saw a sharp increase from 11.3 million euros in the prior year to an adjusted 21.8 million euros in the 2020 fiscal year, the result of improved earnings, active receivables management, and also the increase in trade payables. As of December 31, 2020, the working capital was reduced to 12.1 million euros, down on the prior-year figure of 14.8 million euros, primarily due to a reduction in trade receivables and increase in trade payables.

Production and organization. One particular challenge in a year marked by the pandemic involved close monitoring of the entire supply chain and initiating containment actions, such as two-shift operation in some areas of production, so as to minimize risks to and impacts on day-to-day business. In addition, the process in the manufacturing areas to increase the reliability of on-time delivery and quality was consistently improved. In preparation for Brexit, potential risks were analyzed and countermeasures (e.g., to safeguard supply chains on the procurement side) were initiated.

For information on the key development topics, see the Research and Development chapter from page 92 on

VINCORION

VINCORION is responsible for the Jenoptik Group's range of mechatronics solutions for the aviation, security and defense technology, and rail markets, and is a partner for systems companies and customers who require custom solutions for components or modules. Over the year covered by the report, public-sector business in the field of security and defense technology remained stable, but significant losses were posted for the aviation market, primarily due to the COVID-19 pandemic. In 2020, VINCORION continued to expand its international sales and service structures and to apply its technology and expertise to civil fields.

In the 2020 fiscal year, VINCORION generated revenue of 151.7 million euros, thereby falling short of the prior-year figure of 164.8 million euros. Demand in the Power Systems unit remained good throughout the year, while the aviation business saw an appreciable decline. The Energy & Drive area also posted lower revenue. As in prior years, VINCORION's fourth-quarter revenue of 60.7 million euros was sharply up on the prior quarters. Over the reporting year, its share of group revenue came to 19.8 percent (prior year: share of adjusted group revenue 19.7 percent).

Of the revenue, 30.6 million euros (prior year: 41.3 million euros) are attributable to the civil sector and 121.1 million euros (prior year: 123.5 million euros) to the defense sector.

T59 VINCORION at a glance (adjusted) (in million euros)

	2020	2019	Change in %
EBITDA[1]	20.6	24.2	−14.6
EBITDA margin in %[1,2]	13.6	14.7	
EBIT[1]	13.7	17.4	−21.3
EBIT margin in %[1,2]	9.0	10.5	
Free cash flow[1]	9.8	1.0	848.8
Cash conversion rate in %[1]	47.6	4.3	

[1] Figures adjusted for structural and portfolio measures (see explanation on page 104)
[2] Based on total revenue

T60 VINCORION at a glance (in million euros)

	2020	2019	Change in %
Revenue	151.7	164.8	−7.9
EBITDA	16.6	24.2	−31.2
EBITDA margin in %[1]	11.0	14.7	
EBIT	9.7	17.4	−44.3
EBIT margin in %[1]	6.4	10.5	
Capital expenditure	9.2	8.8	4.2
Free Cashflow	9.8	1.0	848.8
Cash conversion rate in %	59.1	4.3	
Order intake	145.2	177.9	−18.4
Order backlog	160.3	169.7	−5.6
Frame contracts	20.8	24.9	−16.7
Employees	775	795	−2.5

[1] Based on total revenue

At around 52 percent, the share of revenue generated abroad was almost unchanged from the prior-year figure of 51 percent. While revenue generated in Germany, Europe, and the Middle East/Africa fell, VINCORION increased its revenue in the Americas from 32.8 million euros to 34.9 million euros. Nevertheless, the majority of products are still sold to German buyers, whose end customers, however, are largely active on the international sales market.

In view of the fall in revenue, lower utilization due to the coronavirus pandemic, particularly in the aviation business, and a lower margin in the product mix, VINCORION's adjusted EBITDA, fell from 24.2 million euros to 20.6 million euros, despite a lower cost of sales. Restructuring measures were also put in place here. As a result of the increase in revenue, a significant contribution to revenue of an adjusted 13.8 million euros was generated in the fourth quarter. The adjusted EBITDA margin fell to 13.6 percent in 2020 (prior year: 14.7 percent).

At 13.7 million euros, the adjusted EBIT was also down on the prior-year figure of 17.4 million euros; the adjusted EBIT margin came to 9.0 percent (prior year: 10.5 percent).

In the fourth quarter, VINCORION increased its order intake compared to the two prior quarters, posting new orders worth around 40.0 million euros. At 145.2 million euros, the order backlog for the full year was, however, down on the prior-year figure of 177.9 million euros. Key orders received by VINCORION were for the Patriot missile defense system's diesel engines and, from a further US customer, to supply more than 700 generators for military ground vehicles. The aviation business and Energy & Drive unit posted significantly fewer orders than in the prior year. The book-to-bill ratio fell to 0.96 (prior year: 1.08).

As of December 31, 2020, the order backlog was worth 160.3 million euros (31/12/2019: 169.7 million euros). In view of the lower revenue figure, the decline here was far less marked than in the order intake. The division also had frame contracts worth 20.8 million euros (31/12/2019: 24.9 million euros).

With a total of 775 employees, the number of people employed in VINCORION at the end of the year was slightly down (31/12/2019: 795 employees). By the end of December, the number of trainees came to 51, unchanged from year-end 2019 (31/12/2019: 51 trainees).

R+D expenses fell to 4.2 million euros in 2020 (prior year: 6.1 million euros). The development costs on behalf of customers remained almost constant, at 2.8 million euros (prior year: 2.9 million euros), and are primarily due to joint development projects with systems companies. In view of the project-related increase in development services to be capitalized, e.g., for the rescue hoist or the heatable floor panel, VINCORION's R+D output increased to a total of 12.1 million euros (prior year: 10.5 million euros).

For information on the key development topics, see the Research and Development chapter from page 92 on

VINCORION invested 9.2 million euros in property, plant, and equipment and intangible assets (prior year: 8.8 million euros). As a result, the level of capital expenditure was 4.2 percent higher than in the prior year due to capitalized development costs. Capital expenditure was offset by depreciation/amortization totaling 6.9 million euros (prior year: 6.8 million euros).

The free cash flow (before interest and income taxes) improved considerably in the year covered by the report – from 1.0 million euros in the prior year to 9.8 million euros in the 2020 fiscal year. This increase was chiefly due to higher customer payments in the first quarter of 2020 following a significant build-up of receivables in the fourth quarter of 2019, as well as to the first-time use of factoring with a volume of 4.7 million euros. As of December 31, 2020, the working capital came to 82.9 million euros, down on the prior-year figure of 84.1 million euros.

Production and organization

On January 17, 2020, the Executive Board of JENOPTIK AG decided to stop the sales process for the mechatronics business operated under the VINCORION brand name. The Board had come to the conclusion that none of the offer submitted met the potential of VINCORION.

General Statement by the Executive Board on the Development of the Segments

The COVID-19 pandemic affected business performance and growth in the Jenoptik Group's three photonics divisions and VINCORION in very different ways. The Light & Optics division benefited from good revenue with the semiconductor equipment industry, and the acquisition of TRIOPTICS made a positive contribution to growth. By contrast, the biophotonics and industrial solutions businesses were adversely affected by the impacts of the pandemic. Light & Production was the division most severely affected by the COVID-19 pandemic in the Jenoptik Group, with revenue and earnings well down on prior-year figures. Structural issues in the field of industrial metrology contributed to this development, and relevant initiatives have been taken to address them. An order from Gestamp further showed that the integrated sales approach for automation and laser processing machines is beginning to bear fruit. Largely stable capital spending patterns by public-sector customers ensured good business performance in the Light & Safety division, with revenue and earnings increasing compared to the prior year. VINCORION remained at a stable level with regard to security and defense technology, but overall revenue and earnings were still down on 2019 figures due to the difficult situation in the aviation industry caused by the pandemic. Restructuring measures were also put in place here.

The reporting segments also developed disparately in terms of free cash flow. The Light & Safety division and VINCORION generated growth. The development of the free cash flow in the Light & Optics division was positively influenced by the acquisition of TRIOPTICS. A sharp drop in EBITDA and higher working capital were key reasons for the reduction in the Light & Production division's adjusted free cash flow.

Over the course of the past fiscal year, Jenoptik boosted its capital expenditure on expanding international sales structures, in efficient processes, and the development of new products.

In 2020, we also managed to establish a broader range of systems and secure both international projects and new customers. Demand varied considerably by market and division as a result of the COVID-19 pandemic. The Light & Optics division increased its order intake due to good demand in the semiconductor equipment market and the acquisition of TRIOPTICS. The other three divisions posted a lower 2020 order intake than in the prior year, due both to the pandemic and project-related reasons.

Management Report of JENOPTIK AG

(Abridged Version According to HGB)

Supplementary to the reports on the Jenoptik Group, the development of JENOPTIK AG is set out below.

JENOPTIK AG is the parent company of the Jenoptik Group and based in Jena. Its asset, financial, and earnings position is fundamentally defined by its capacity as the holding company of the Jenoptik Group. The operating activities of JENOPTIK AG primarily cover the provision of services for subsidiary companies and the subleasing of commercial premises.

The Annual Financial Statements of JENOPTIK AG are prepared in accordance with German commercial law (HGB) and the supplementary regulations of the German Stock Corporation Act (AktG). The Consolidated Financial Statements are prepared in accordance with the International Financial Reporting Standards (IFRS) valid on the reporting date and the interpretations of the International Financial Reporting Interpretations Committee (IFRIC) whose application is mandatory within the European Union. This gives rise to differences in the accounting and measurement methods, chiefly concerning fixed assets, derivatives, provisions, deferred taxes, leases, and revenue recognition.

The Group's strategic policy entails a greater focus on photonics growth markets and thus its transformation into a globally positioned photonics company. In implementing this strategy, Jenoptik is primarily concentrating on internationalization and innovation.

T61 Abbreviated Income Statement of JENOPTIK AG (in thousand euros)

	1/1 to 31/12/2020	1/1 to 31/12/2019
Revenue	50,234	36,221
Cost of sales	45,589	32,640
Gross profit	4,645	3,580
Selling expenses	1,504	1,634
General administrative expenses	15,004	12,448
Research and development expenses	125	266
Other operating result	−1,613	−2,422
Income and expenses from profit and loss transfer agreements and income from investments	61,954	73,277
Financial result	−6,627	3,742
Income taxes	4,566	8,210
Earnings after tax	37,161	55,622
Net profit	37,161	55,621
Retained profits from prior year	30,000	30,000
Accumulated profit	67,161	85,621

Asset, Financial, and Earnings Position

Earnings Position

Revenue was up 14.0 million euros on the prior year, at 50.2 million euros, which was mainly the result of postponed invoicing of incidental rental costs beyond the cut-off date of December 31, 2019 to the 2020 fiscal year.

Administrative expenses were 2.6 million euros up on the prior year. In addition to digitization projects, they are mainly the result of the introduction of the ERA collective wage agreement in Thuringia, which saw many employees reclassified in higher pay scales.

JENOPTIK AG posted research and development expenses amounting to 0.1 million euros (prior year: 0.3 million euros), primarily covering expenditure for innovation management and the coordination of R+D work in the Jenoptik Group.

Selling expenses of 1.5 million euros (prior year: 1.6 million euros) concerned expenses for strategic brand projects, the web applications for the overall Group, communication, advertising, and sponsorship.

The other operating result included other operating income of 13.9 million euros (prior year: 10.7 million euros), which was offset by 15.5 million euros of other operating expenses (prior year: 13.1 million euros).

Other operating income primarily included currency gains worth 4.5 million euros (prior year: 3.6 million euros), intra-group cost allocations of 5.4 million euros (prior year: 4.0 million euros), and income arising from the reversal of provisions in the sum of 3.3 million euros (prior year: 1.2 million euros).

Key items in the other operating expenses were currency losses of 3.5 million euros (prior year: 3.8 million euros), expenses for intra-group cost allocations of 5.6 million euros (prior year: 4.0 million euros), 2.1 million euros for an internal group project to optimize business processes and introduce an SAP S/4 system, and 1.1 million euros for a project to restructure the organization and introduce efficient administrative processes.

The financial result of minus 6.6 million euros (prior year: 3.7 million euros) included earnings from securities and loans, depreciation on financial investments, and the interest result. The fall of 10.3 million euros is primarily attributable to unscheduled depreciation on existing financial investments of 8.9 million euros.

Income taxes were 3.6 million euros below the figure for the prior year due to lower taxable income of the companies consolidated for tax purposes in the fiscal year.

JENOPTIK AG's annual net profit fell by 18.4 million euros, or 33.2 percent, to 37.1 million euros (prior year: 55.6 million euros). The company's earnings position was mainly influenced by the subsidiaries' earnings, which are paid to JENOPTIK AG on the basis of existing control and profit and loss transfer agreements. The net earnings contribution of the subsidiaries fell compared to the prior year, by 24.8 million euros to 48.1 million euros. Increasingly challenging conditions in the automotive industry as a result of the move towards electromobility and impacts caused by the pandemic further reduced the contribution to earnings from the Metrology, Laser Processing, and Automation & Integration areas. To counter these developments, structural and portfolio adjustment projects were started at the beginning of the year, together with measures to contain the impact of the COVID-19 pandemic. Furthermore, the pandemic-related fall in revenue due to lower utilization in the aviation business, which is a supplier to the civil aviation sector, produced a loss from the transfer of profits by the company. Despite the spread of the coronavirus, business with the semiconductor equipment industry and with systems and services related to road traffic remained stable thanks to largely stable capital spending by public-sector customers.

Asset and Financial Position

At 898.0 million euros, JENOPTIK AG's total assets were 14.9 percent up on the figure for the prior year (prior year: 781.8 million euros).

The assets side of the Statement of financial position reflects JENOPTIK AG's status as a holding company. Alongside an asset intensity of 88.3 percent, of which 79.7 percent was attributable to financial investments and 8.6 percent to other fixed assets (in particular real estate), the total assets are also dominated by a high level of loans to affiliated companies (9.5 percent).

T62 JENOPTIK AG Statement of Financial Position (in thousand euros)

	31/12/2020	31/12/2019
Assets		
Intangible assets, property, plant, and equipment	76,753	76,605
Financial investments	715,940	459,471
Non-current assets	**792,693**	**536,076**
Inventories, trade receivables, and other assets	85,923	87,233
Cash and cash equivalents	17,334	154,903
Current assets	**103,257**	**242,136**
Accurals und deferrals	2,137	3,589
	898,087	**781,801**
Equity and liabilities		
Share capital	148,819	148,819
(Conditional capital 28,600 thousand euros)		
Capital reserves	180,756	180,756
Revenue reserves	264,249	216,070
Accumulated profit	67,161	85,621
Equity	**660,986**	**631,266**
Provisions	**11,937**	**20,166**
Liabilities to banks	179,646	90,500
Trade accounts payable	7,270	7,806
Other liabilities	35,440	32,061
Liabilities	**225,164**	**130,369**
	898,087	**781,801**

The increase of 256.5 million euros in financial investments was predominantly the result of 246.6 million euros of capital contributions to finance acquisitions by subsidiaries.

Receivables from associates, worth 85.9 million euros (prior year: 86.3 million euros) were mainly due to the issue or settlement of cash and cash equivalent transfers to and from group companies, and chiefly affected the settlement accounts for cash pool balances and the short-term loan to Prodomax, which was valued at 8.0 million euros as of the reporting date.

The reduction in cash and cash equivalents by 137.6 million euros, from 154.9 to 17.3 million euros, was chiefly due to the purchase price payments to acquire TRIOPTICS and INTEROB in Spain.

Accruals and deferrals essentially comprised accrued costs for IT service and maintenance contracts, as well as incidental rental costs for 2020.

JENOPTIK AG's financing function as the holding company for the Jenoptik Group is reflected on the liabilities side. Equity came to 661.0 million euros (73.6 percent of total assets), liabilities to banks 179.6 million euros (20 percent of total assets).

Thanks to the positive annual result of 37.2 million euros, equity improved by 29.7 million euros, rising from 631.3 to 661.0 million euros. This was countered by the payment of dividends worth a total of 7.4 million euros for the 2019 fiscal year. The equity ratio fell from 80.7 percent to 73.6 percent.

Tax provisions at the companies consolidated for tax purposes fell due to a payment for tax arrears of 4.3 million euros for the years 2018 and 2019.

The increase in liabilities to banks of 89.1 million euros, from 90.5 to 179.6 million euros, was the result of acquisitions by the subsidiaries. This was countered by the repayment of a debenture bond worth 21.5 million euros.

Other liabilities comprised 22.5 million euros of cash pool holdings and 10.1 million euros to offset earnings at subsidiaries.

Over the reporting year, JENOPTIK AG's debt-to-asset ratio changed due to the increase in liabilities to banks, from a 19.3-percent to a 26.4-percent share of total assets.

As of December 31, 2020, JENOPTIK AG had 257 employees, of which 19 were temporary workers and 10 were trainees (prior year: 258 employees, of which 18 temporary workers and 7 trainees).

Risks and Opportunities

Due to its function as a holding company, JENOPTIK AG's development of business is subject to the same risks and opportunities as the Jenoptik Group. It generally participated in the risks of equity holdings and subsidiaries in line with their equity interests and financial investments. The risks and opportunities of the Group and the segments are set out in the Risk and Opportunity Report from page 133 on.

Forecast Report

The annual result of JENOPTIK AG is largely dependent on the development of contributions to earnings by the subsidiaries.

Based on the development of business set out in the Group Forecast Report, JENOPTIK AG is also expecting revenue from holding company services to remain at the prior-year level in the 2021 fiscal year. Due to lower rental income, JENOPTIK AG anticipates an overall decline in revenue.

JENOPTIK AG's earnings – prior to transfer of subsidiaries' earnings contributions – is expected to remain stable compared to the past fiscal year. For a detailed presentation of the expected future development of the Jenoptik Group and its segments, we refer to the Forecast Report from page 146 on.

Report on Post-Balance Sheet Events

The JENOPTIK AG Executive Board approved the submission of the present Consolidated Financial Statements to the Supervisory Board on March 16, 2021. The Supervisory Board is responsible for reviewing and approving the Consolidated Financial Statements at its March 24, 2021 meeting.

Dividend. According to the Stock Corporation Act, the amount available for a dividend payment to the shareholders is based on the accumulated profit of the parent company JENOPTIK AG, as determined by the regulations of the HGB. For the 2020 fiscal year, JENOPTIK AG's accumulated profit totaled 67,161,476.79 euros, comprising net profit for the 2020 fiscal year in the amount of 37,161,476.79 euros plus retained profits of 30,000,000.00 euros.

The Executive Board recommends to the Supervisory Board that for the 2020 fiscal year a dividend of 0.25 euros per qualifying no-par value share be proposed to the 2021 Annual General Meeting (prior year: 0.13 euros). This means that an amount of 14,309,528.75 euros of JENOPTIK AG's accumulated profit in the 2020 fiscal year will be distributed. Of JENOPTIK AG's remaining accumulated profit, a sum of 22,851,948.04 euros will be allocated to revenue reserves, and a sum of 30,000,000.00 euros will be carried forward to new account.

The Executive Board is maintaining its consistent dividend policy with this recommendation. Despite the impacts of the COVID-19 pandemic, the acquisition of two companies, and a high level of capital expenditure, it is important that the shareholders of JENOPTIK AG appropriately participate in the company's success. With earnings per share of 0.73 euros (prior year: 1.18 euros), the payout ratio comes to 34.2 percent (prior year: 11.0 percent) and is thus considerably higher than in prior years.

No further events of significance occurred after December 31, 2020.

Risk and Opportunity Report

Principles of Risk and Opportunity Management at Jenoptik

For Jenoptik, the responsible evaluation of risks and opportunities within the corporate environment is one of the principles of responsible corporate governance. To ensure implementation of our strategy, it is necessary to identify risks and opportunities at an early stage, to evaluate them appropriately, and to control them efficiently. This is done by promoting an open risk culture and regularly examining the established risk management system. Jenoptik's risk and opportunity management system is annually reviewed for appropriateness and effectiveness at an internal risk workshop. Reporting processes employ centrally available software.

Risks are defined as potential developments and events that may result in a negative divergence from objectives and forecasts in the company and involve uncertainty regarding the occurrence of an event. Correspondingly, opportunities are events that may result in a positive divergence from our expected targets.

Jenoptik's risks and opportunities are assessed with the help of the probability of occurrence and extent of damage factors using a key matrix (see the "Structure and Processes of the Risk and Opportunity Management System" paragraph). The risks and opportunities described here are the result of the aggregation of locally identified risks and opportunities that were each allocated to defined categories. G19

Organizational integration of the risk and opportunity management

The Executive Board is responsible for the risk and opportunity management system in the Jenoptik Group. The group-wide approach is set out in a risk manual.

Central Compliance & Risk Management organizes and manages the system, working closely with the other central departments and the risk officers in the divisions, who in turn are responsible for implementing the risk and opportunity management system in the risk reporting units. The risk reporting units are defined reporting units that are employed to accurately identify and allocate risks and opportunities, and can be both business units and individual subsidiaries.

77 Combined Management Report 152

G19 Risk assessment

Metrics	Probability of occurence	Consequences / extent of damage		
		Qualitative		Quantitative EBIT deviation
5 = High	up to 50%	The goal of the Group or the risk reporting unit is jeopardized	or	> 20%
4 = Medium-high	up to 40%	The goal of the Group or the risk reporting unit has to be adapted immediately	or	> 15 to 20%
3 = Medium	up to 30%	The goal of the Group or the risk reporting unit has to be adapted in the medium term	or	> 10 to 15%
2 = Low	up to 20%	Further measures are necessary in order to achieve the goals of the Group or the risk reporting unit	or	> 5 to 10%
1 = Very low	up to 10%	Minor consequences	or	> 0 to 5%

Internal Audit monitors the effectiveness of the risk and opportunity management system, while the Audit Committee of the Supervisory Board takes up the external monitoring function for or in conjunction with the Supervisory Board.

The Risk Committee consolidates all aggregated reporting results to form a top-level evaluation of the Group's risk position, and consists of the members of the Executive Board and the head of central Compliance & Risk Management. G20

The consolidation companies exposed to risk correspond to those included in the consolidated balance sheet.

Structure and processes of the risk and opportunity management system

The Jenoptik risk and opportunity management system is based on the ISO 31000 standard.

The definition and ongoing development of the system takes place with the close cooperation of central Compliance & Risk Management, the Executive Board, and the Audit Committee of the Supervisory Board. The Executive Board is responsible for the system and approves it. The Central Compliance & Risk Management communicates the current requirements of the risk management system to the Board, and advises on its practical implementation and monitors the measures and results of the risk management processes.

A core process of risk management are risk assessments, which are carried out using a combination of top-down and bottom-up elements. In order to ensure the most in-depth risk identification and comparability possible within the company, a risk register was developed to support management in the evaluation of risks. It comprises several specified categories to which potential risks and opportunities are allocated by the risk reporting units. This is to ensure that each risk reporting unit deals with the entire risk landscape and that, simultaneously, an aggregation of the results is guaranteed across the specified categories. While operational and financial targets are analyzed over a time frame of up to two years, strategic topics are considered for periods of up to four years. Under the current system, sustainability risks are not determined in a separate risk category. However, they are in part covered by the existing risk categories.

Within the scope of the risk analysis, the risk reporting units determine the risks and opportunities in order to be able to undertake a valid risk assessment in the next stage regarding the assessment methods (qualitative or quantitative) and the measures already taken or still required. This takes place in accordance with the net method, i.e. mitigating measures are already included in the assessment so that only the assessed residual risk is reported and aggregated. The assessment of a risk is the product of the probability of occurrence and the quantitative amount of loss or the qualitative extent of damage. The opportunities are evaluated in the same way. G22

G20 Process of risk reporting

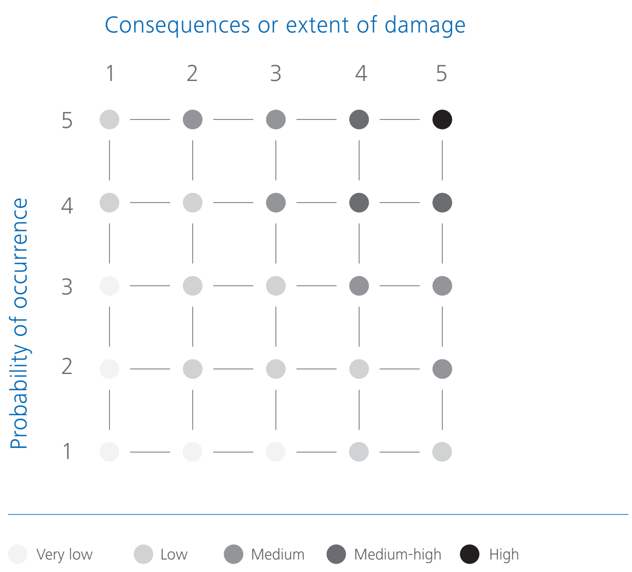
Risk Officers in the divisions and central departments	Assessment of single risks
Central Functions	Review of aggregated risks
Corporate Compliance & Risk Management department	Review and analysis of group risks
Risk Committee	Analysis of group risks
Executive Board	Final assessment of group risks
Audit Committee Supervisory Board	Evaluation of group risks

There is a scale of 1 to 5 for both assessment factors mentioned – probability of occurrence and extent of damage – with 1 being the smallest and 25 the greatest possible risk indicator. G21

Every six months, the results of the assessments are requested by central Compliance & Risk Management at the risk reporting units and aggregated to the Group Risk and Opportunity Report. The findings are then validated by the central Corporate Center prior to discussion on the Risk Committee. The Executive Board undertakes a general evaluation and, as necessary, approves required further action. The Group Risk and Opportunity Report is then presented to and discussed by the Audit Committee of the Supervisory Board and the Supervisory Board itself.

In addition, any risks identified during the year that have a high probability of occurrence and significant potential for damage are communicated without delay to the Chief Compliance & Risk Officer and the Executive Board. Following joint analysis with the technical departments, they decide on further measures to be taken and, if necessary, the required communication.

G21 Calculation of risk scores



G22 Risk and opportunity categories

Operational Risks / Opportunities	Strategic Risks / Opportunities
Supply Chain Management / Safety and Environmental Protection / Production (incl. Quality Management) / Marketing & Sales / Patents & IP rights / Human Resources Management / IT / Compliance / Legal Affairs / Real Estate	Market Development / Product Development (incl. Research and Development) / Corporate Development (Portfolio and Structure) / Organizational Setup (Processes and Resources)
Financial Management Risks / Opportunities	
Accounting / Finance Management (Treasury) / Controlling / Taxes	

1st year 2nd year 3rd year 4th year

77 Combined Management Report 152

The above-mentioned reporting instruments also form the basis for the risk early warning system. This is reviewed by the auditor during the audit. The auditor confirms that it is designed in such a way that any developments that could jeopardize the continued existence of the Group can be identified in good time.

Risk prevention and ensuring compliance

Prevention is a key element of the risk management system, and an integral part of regular business operations and committee work. It essentially comprises risk monitoring as part of a range of assessments and special approval procedures. Consequently, risks and opportunities, as well as their impact on the company, are discussed during the monthly meetings of the Executive Board and at EMC and strategy meetings. At the same time, potential risks to achieving the strategic goals can be considered directly in the strategy development process and minimized by taking suitable measures.

Compliance with national and international compliance requirements is an integral part of risk prevention and of the processes of Jenoptik's risk management system. In order to improve employee awareness and achieve a company-wide uniform understanding of the compliance standards, regular training is provided on subjects relevant to compliance, such as anti-corruption or anti-trust law, as well as data protection issues. Online training on key compliance issues is obligatory for all employees. More information can be found in the Corporate Governance Statement on page 36. A help desk is available on the intranet to assist employees on any risk or compliance issues they may have. The guidelines implemented within the Group with regard to important company processes are regularly reexamined, expanded, and updated. They are published on the intranet. Together with our Code of Conduct, they act as a further aspect of risk prevention.

In accordance with international standards, a supplier code of conduct requires Jenoptik's suppliers to comply with a number of different compliance requirements. Central business partner screening (third-party due diligence) is used to check whether cooperation with a high-risk business partner is viable from a compliance perspective.

Jenoptik therefore has a system of regulations, processes and controls that enable it to identify any possible deficits in the company and to minimize them using appropriate measures at an early stage.

Alongside the risk and compliance management systems, the Internal Control System (ICS) is a key element of corporate governance. It covers technical and organizational regulations and control steps to ensure compliance with guidelines and prevent losses, as well as clear responsibilities and separation of functions, in adherence to the principle of double-checking. In particular, its intention is to ensure the security and efficiency of transactions as well as the reliability of financial reporting, and it is regularly reviewed by Internal Audit. ICS self-assessments, to be completed by the management of all subsidiaries and JENOPTIK AG in the form of questionnaires, were also carried out in the past fiscal year. Monitoring and evaluation of the completed questionnaires is carried out by Internal Audit. Reported deficits are analyzed and appropriate countermeasures are defined to ensure they are lastingly eliminated.

Internal Audit is permanently incorporated into the ongoing further assessment and development of the internal control and risk management system through process-independent audits and separate consulting projects. As a staff department, it reports to the Chief Financial Officer and acts on his behalf. Employees in Internal Audit are not subject to any instructions in their work. This includes the choice of audit items, the setting of priorities and the procedures used, the frequency and scheduling of audits, and reporting. The organizational units of the Jenoptik Group are analyzed and audited on the basis of a risk-oriented audit plan. The compliance with and proper implementation of the applicable guidelines form integral parts of the audit. This not only identifies errors, infringements, or process weaknesses and the most expedient remedial action, but also potential process improvements in the sense of a "best practice approach". The recommendations are prioritized, categorized, and reported directly to the persons responsible for the audited units, the respective central departments, and to the Executive Board. The audited unit then submits a report to the Executive Board, indicating the measures and deadlines for implementation of the stated recommendations. This is followed by follow-up audits that review the implementation of the recommendations, with information on the results being sent to the respective management levels and central departments as well as the Executive Board. Internal Audit submits a report containing its key findings since the last report to the Audit Committee of the Supervisory Board at least once a year. Eleven audits were carried out in 2020, including, for the first time, a preliminary audit of non-financial reporting, the systemic development of which had previously been monitored during the year.

Jenoptik has a centralized financial management system. The central Treasury department coordinates the financing needs of the Group, ensures liquidity and monitors the currency, interest rate, and liquidity risks on the basis of a group-wide rules and relevant process descriptions. These regulations include provisions for the clear separation of transaction and corporate oversight functions as well as trading within predetermined limits.

The purpose of financial risk management is to limit financial risks arising from changes in market rates, for example interest and exchange rates. Financial instruments are used exclusively for the purpose of securing underlying transactions and not for speculative purposes. They are only concluded with banks with an investment grade rating (at least BBB on Standard & Poor's rating scale).

Key features of the Internal Control and Risk Management System with regard to the consolidated accounting process of the Group and JENOPTIK AG (§ 289 (4) and § 315 (4) of the German Commercial Code [HGB])

The accounting-related internal control system is part of the overall ICS of the Jenoptik Group. Its purpose, in part, is to ensure a due and proper process in preparing the Consolidated Financial Statements, guaranteeing compliance with statutory regulations, accounting rules, and internal guidelines for uniform accounting and valuation principles, which are binding for all companies included in the Consolidated Financial Statements. New regulations and changes to existing rules are analyzed promptly and implemented. All employees involved in the accounting process receive regular training.

Access restrictions in the respective IT systems protect the financial systems against abuse. Centralized control and regular backup of the IT systems reduce the risk of data loss.

In order to prepare the Consolidated Financial Statements, data from the companies is recorded directly by them in the LucaNet consolidation tool. The transferred data from the statements and financial statements of consolidated companies is verified by manual and technical system inspections. All the consolidation processes required for the preparation of the Consolidated Financial Statements are documented. These processes, systems, and controls enable Jenoptik to ensure a group accounting process that complies with both the IFRS and statutory requirements. The group auditor audits JENOPTIK AG's Consolidated Financial Statements and Annual Financial Statements in accordance with the IFRS regulations in compliance with § 317 of the German Commercial Code (HGB) and the EU Audit Regulation (537/2014), giving consideration to the generally accepted German audit principles defined by the Institute of Public Auditors in Germany (IDW).

The Corporate Governance Statement in accordance with §§ 289 f, 315 d of the German Commercial Code can be found on page 36 ff of the Annual Report and on our website at www.jenoptik.com by going to Investors/Corporate Governance. In accordance with § 317(2)(6) of the German Commercial Code, the information required under §§ 289 f, 315 d is not considered by the auditor.

The Group's Risk and Opportunity Profile

The Group's risk profile for 2020 and subsequent years was determined using the risk and opportunity assessments of the respective segments. Part of the risk assessment of the segments is a review by the central functions of the Corporate Center, whose risk assessments are then included in the segment reporting and in the final group assessment. Our risk and opportunity management allows to directly compare the individual risk profiles down to the level of risk symptons. The risk assessment at the level of the risk and opportunity categories in the individual subcategories is shown in more detail in the following chart. T63

Overall, the risk to which the Group is exposed remains at the lower end of the medium risk range. No significant changes on the prior year were identified.

Once again, strategic risks and opportunities for the overall Group were on average assessed as the most important, compared to operational and finance management risks, in 2020. Our focus on photonic market segments represents both an opportunity and a risk to the Group.

The continuing and even increased spread of COVID-19 in the fall and winter of 2020/21, now also involving mutations of the virus, is resulting in higher rates of infection than in the first wave of the pandemic in spring 2020. The actions taken by governments and authorities to contain the COVID-19 pandemic are also having an impact on Jenoptik's business operations.

Since the end of the first quarter, these impacts on our business have become increasingly noticeable in the form of extended project lead times, postponements, and supply chain issues. Restrictions on international travel and access to our customers' plants are also impacting on our ability to plan installations, technical acceptance procedures for systems, and our service business.

T63 Risk profile of the Jenoptik Group 2020

	Group risk assessment	
	Current (2020)	Prior year (2019)
Strategic risks		
Market development	Medium	Medium
Product development (incl. R+D)	Medium	Medium
Corporate development (portfolio and structure)	Medium	Low
Organizational setup (processes and resources)	Medium	Medium
Operational risks		
Supply chain management	Medium high	Medium
Safety and environmental protection	Low	Low
Production (incl. quality management)	Medium	Low
Marketing and sales	Medium	Medium
Patents and IP rights	Low	Low
Human resources management	Medium	Medium
IT	Medium	Medium
Compliance	Medium	Low
Legal affairs	Low	Low
Real estate	Low	Low
Financial management risks		
Accounting	Low	Low
Finance management	Medium	Low
Controlling	Low	Low
Taxes	Low	Low
Total risk	Medium	Medium

Jenoptik has set up task forces and crisis teams in a number of functional areas and the divisions to carefully monitor and mitigate the different impacts of COVID-19. Our primary concern is to ensure the health and safety of our employees and safeguard our operating business. A central task force at group level is responsible for making overall decisions and coordinating their communication. Established emergency plans and measures are continuously reviewed, and management in the various businesses and countries is authorized to take appropriate action in line with local circumstances.

Continuing uncertainties arising from trade and geopolitical conflicts may have a decisive influence on overall economic development in Jenoptik's growth markets, for example in China.

At the time this report was prepared, the trade policy agenda of the new US government could not yet be fully reflected in the assessment of risks and opportunities. We nevertheless assume that the transatlantic relationship will be strengthened and accompanied by more binding communication of trade measures (e.g., tariffs), which will enable better planning. The new US administration will continue to prioritize domestic production ("Buy American") and preferably award public contracts to US firms. With its established and, in the case of VINCORION, expanded US sites, Jenoptik is already well prepared for this eventuality.

The Partnership Agreement negotiated by the EU and the UK is a set of rules that provisionally came into force on January 1, 2021 and comprehensively reorganizes the future relationship between the EU and the UK. Uncertainties regarding the exact regulations will be ironed out over the course of the 2021 fiscal year. Having taken preemptive action, Jenoptik is prepared for the various possible scenarios. We analyzed our supply chains and supplier management, evaluated alternative suppliers, made adjustments to working capital management, and adapted our systems and processes to account for the export and customs issues applicable to Brexit.

High levels of public debt in parts of Europe, which existed even before the COVID-19 crisis and have been further exacerbated by the economic and social policy measures taken to contain it, may inhibit investment by both public-sector customers and consumers, as budgetary consolidation is likely to be the main priority in the short to medium term once the pandemic subsides. In the course of active risk management, we also develop suitable measures to counter these political uncertainties within our business processes wherever possible.

Jenoptik is dependent on the economic development of specific industries. On the one hand, we are particularly affected by the continuing weakness of the automotive markets, which is due to both cyclical and structural factors. At the same time, acute market changes resulting from the COVID-19 crisis are also impacting on the company's success. To take an example, measures introduced by governments to counter the impact of COVID-19, such as travel restrictions, are exacerbating the negative impacts on our business with the aviation industry, at the same time as they promote the global trend towards digitization, in turn driving demand for optical technologies.

Jenoptik is exposed to intense competition throughout its business. The company counters the risk of being squeezed out by competitors with, for example, innovative USPs, specific and flexible changes to its product range, or customization options for existing products and solutions. In addition, mergers and acquisitions in the markets we target may intensify the competitive environment, and potentially improved cost structures at competitor companies, and the resulting increase in pricing pressure, may have negative effects on group earnings. We counter this risk by continuously analyzing our portfolio, i.e., by determining whether and how specific acquisitions may usefully complement our product range and generate lasting profitable growth. M&A activities and the integration of acquisitions pose a fundamental risk to the Group. We proactively counter this risk with extensive due diligence and a structured integration process tailored to the acquired company.

Operational risks and opportunities were assessed with low to medium-high risk indicators for the overall Group. They have increased slightly compared with the prior year and are now in the lower range of medium risks overall.

The increasing number of complex international projects, particularly those of a technically challenging nature, place enormous operational demands on all parts of the business. Supplier management and production are predominantly responsible for assuring the quality of our products. The use of individual single-source suppliers and the increased likelihood of insolvencies in the economy as a whole, for example, may increase the risk of dependency on or the loss of individual suppliers. Ongoing refinement of our purchasing and production organization aims to ensure that our customers continue to receive high-quality, tailored solutions when they need them.

Global IT systems and processes are of great significance to Jenoptik in all its divisions. The security and availability of these systems have top priority. Data is stored on redundant storage media and secured against data loss by means of a partially tiered archive and backup system to enable rapid data recovery in the event of a crisis situation. The world is seeing a rise in the number of IT threats, e.g., in the form of phishing attacks, in which sensitive corporate information is obtained by third parties by means of deception. Jenoptik actively takes both preventive and corrective action to reduce the risk of cyber attacks: All IT security issues are coordinated by the Chief Information Security Officer, existing processes are continuously scrutinized and adjusted, technical measures are implemented, and employees in positions of responsibility are provided with internal training.

Our employees make the most important contribution to the company's success. As an international technology company, we need dedicated and highly qualified colleagues – now and in the future. Due to the difficulties in attracting qualified employees, particularly in Germany, Jenoptik is also exposed to the risk of not being able to fill vacant positions as they arise. We counter this risk with a large range of targeted measures, including the establishment of a succession planning process for management positions, leadership and professional career programs, an employer branding campaign, and both attractive and personalized incentive and loyalty schemes.

In view of Jenoptik's international business operations, one general risk is non-compliance with legal, ethical, and contractual requirements. Successfully completed M&A activities, in particular, require careful integration and coordination processes to ensure full integration into the Group's control systems. The continuous improvement of our compliance structures and processes assists all departments and business units in this regard. As a company with customers and business partners in numerous countries, clients in the public sector and involvement in the US defense market, Jenoptik must grapple with many, partly evolving, compliance requirements in a wide range of different markets. Although the necessary organizational structures and measures to minimize potential compliance violations have been implemented with a group-wide export control and data protection organization, the central Compliance & Risk Management department, and corresponding processes, such violations cannot be entirely ruled out. Strict adherence to the compliance program and the continuous development of the compliance management system aim to close up any process gaps and ensure that processes comply with laws and regulations.

Financial management risks were assessed on average as low or medium throughout the Group in 2020. The issues cited below also include the segment-specific risks. One key task of the central Treasury department is to safeguard and coordinate the financing of all group companies over the long term. Jenoptik has good internal financing and access to alternative, external financing options. Currency-related risks arise from the Group's international activities. These risks are identified by the central Treasury department in collaboration with the group companies and are controlled with appropriate measures such as the conclusion of currency forward transactions.

The risk of changing interest rates is in part reduced by the conclusion of fixed interest loans. In addition, interest rate swaps are used to reduce the risk of changing interest rates for loans with variable interest. A variable interest rate was consciously agreed for the majority of the loans in order to profit from the current low interest rate environment.

Group-wide liquidity planning aims to identify liquidity risks at an early stage and systematically minimize them. Regular Treasury reports and quarterly planning updates have been established for liquidity control and monitoring.

With regard to the use of financial instruments, we refer to the Notes, section 3.9 from page 172 on

In the Controlling and Accounting departments, opportunities predominantly arise from the continuing expansion and optimization of the standardized ERP system, and from the centralization of accounting activities for continuous quality improvement. Thanks to the establishment of new controlling instruments based on modern IT solutions, we counter the risk of lacking business-critical information in internal reporting.

Risk and Opportunity Profiles of the Segments

The risk and opportunity profile of the Jenoptik Group was derived from the various risk profiles of the photonics divisions and VINCORION. Financial management risks are aggregated in the Group risk and opportunity profile. T64

Light & Optics

Strategic risks and opportunities primarily arise on the basis of demand in the semiconductor equipment industry. They may have a significant positive or negative effect on results. Beyond this, the focus on larger customers is generally associated with the risk that poor business performance or the loss of customers may impact severely on revenue and earnings. On the other hand, the loyalty of such customers enables profitable revenue growth due to economies of scale. Although there is always an inherent threat posed by the growing number of mainly Asian competitors and the trend among suppliers and customers toward forward and/or backward integration, it may still be achieved through the continuous expansion of existing competitive advantages, in-house development activities, and internationalization. In addition, the Light & Optics division addresses this risk by continuously reviewing vertical integration with the aim of supplying more system and service solutions to its customers.

The growing importance of digitization, further accelerated by the COVID-19 crisis, and the resulting increase in demand for applications and PC devices, both from private households and companies, presents Light & Optics with major opportunities both in the present situation and in coming years. The relentless progress being made in medical technology and demographic developments, especially in our core markets of Asia and the Americas, are also boosting demand for product solutions. Ongoing development of the product portfolio and Jenoptik's greater market orientation mean that we are better able to meet our customers' requirements. Increasing financial problems in healthcare systems, however, are resulting in growing price pressure among suppliers. The trend toward increasing complexity in the market environment makes clear and reliable forecasts more difficult, especially in innovative areas of application.

The acquisition of TRIOPTICS and its gradual integration into the Light & Optics division represents a key step in Jenoptik's ongoing strategic focus on photonics. TRIOPTICS' innovative test solutions ideally complement the Jenoptik Group's expertise and portfolio, thus sharpening our focus on high-growth cutting-edge industries. With its strong presence in Asian markets, the acquisition of TRIOPTICS also provides Light & Optics with additional market development opportunities in this region. Despite this, integrating an acquisition of this size and international importance into our existing structure also poses challenges. A fine balance needs to be struck between the requirements of the market and internal reporting, governance, and compliance requirements, for example.

The high technology and quality requirements placed on Jenoptik and our suppliers with regard to basic materials and production technology result in particular operational risks and opportunities in supplier management and production processes. For many components manufactured in the division, there is only a very limited number of qualified suppliers that are able to meet the necessary specifications in a timely manner. When such a supplier is lost or the customer changes specifications, this can result in corresponding problems in the development or production process. To ensure a stable base of suitable suppliers in the medium and long term, the division's partners are subject to ongoing qualification with the help of Strategic Purchasing. In addition, special supplier development teams support our suppliers where there is a need to evolve their organizational arrangements or business processes. Specific customer requirements, especially regarding the quality and growing number of complex high-end products, and the dynamic growth of some business areas, lead to increased demands on production technologies and capacities, which are met through targeted expansion or replacement investment. Delays in necessary investments may increase the risk of quality and performance requirements not being met to the agreed schedule, or at all, resulting in either delivery delays or non-acceptance by the customer.

Light & Production

The strategic risks and opportunities in the Light & Production division are strongly influenced by the development of the automotive industry and its investment schedule. In addition to current challenges the industry is facing, based on technological shifts and sales trends, which may pose risks to our success as a supplier to this industry, the COVID-19 pandemic presents additional business risks. These comprise extended project lead times, postponements, and significant impact on the supply chain, particularly in the automotive sector. We are proactively countering these risks with the aid of the division's ongoing strategic focus and a corresponding adjustment to its product range, in addition to selectively broadening our positions as a turnkey supplier of automated production solutions and a systems supplier for production metrology and industrial imaging applications. By addressing other branches of industry with our product portfolio, we aim to reduce our dependence on the automotive industry in the future. Similarly, the launch of operational improvement programs and structural adjustments to the product portfolio and workforce aim to reduce the risks arising from the challenging business situation.

T64 Risk profiles of the segments 2020

	Risk assessment							
	Light & Optics division		Light & Production division		Light & Safety division		VINCORION	
	2020	2019	2020	2019	2020	2019	2020	2019
Strategic risks								
Market development	Medium	Medium	High	Medium high	Medium	Medium	Medium high	Medium
Product development (incl. R+D)	Medium	Medium	Medium	Medium	Medium high	Medium high	Medium high	Medium
Corporate development (portfolio and structure)	Medium	Medium	Medium	Low	Medium	Low	Low	Medium
Organizational setup (processes and resources)	Medium	Medium	Medium	Medium	Low	Medium	Medium	Medium
Operational risks								
Supply chain management	Medium high	Medium	Medium high	Medium	Medium high	Medium	Medium	Medium
Safety and environmental protection	Low	Low	Low	Low	Medium	Low	Medium	Low
Production (incl. quality management)	Medium	Medium	Low	Low	Medium	Medium	Medium	Low
Marketing and sales	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Patents and IP rights	Low	Low	Low	Low	Medium	Medium	Very Low	Low
Human resources management	Medium	Medium	Medium	Medium	Low	Medium	Medium	Medium
IT	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Compliance	Medium	Low	Low	Medium	Medium	Medium	Medium	Medium
Legal affairs	Low	Low	Low	Very Low	Medium	Medium	Low	Low
Real estate	Medium	Low	Very Low	Very Low	Low	Low	Low	Low
Financial management risks								
Accounting	Low	Low	Low	Low	Low	Low	Low	Low
Finance management	Medium	Low	Medium	Low	Low	Low	Low	Low
Controlling	Low	Low	Low	Low	Low	Medium	Low	Low
Taxes	Low	Low	Medium	Medium	Medium	Medium	Very Low	Low
Total risk	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium

In terms of operational risks and opportunities, the increasing internationalization of projects and parts of the value chain is reflected in increased demands on supplier management, manufacturing, marketing, sales, and HR management. The systematic expansion of efficient service and sales structures is of crucial importance to achieving growth targets, particularly abroad. Here, too, however, actions to contain the COVID-19 crisis are currently impacting on our business. We have had to postpone a number of projects, while restrictions on international travel and access to car manufacturers' plants are impacting on our ability to plan installations, technical acceptance procedures for systems, and our service business.

Financial pressure on stakeholders throughout the automotive supply chain is increasing, and may result in increased risks to the division due to cash flow optimization on the part of customers as well as the loss of suppliers. To counter this, we have initiated a more efficient receivables management system and the further qualification of suitable suppliers.

By building up a broad sales partner organization, we have consistently worked to increase our access to customers and markets in Asia over recent years. This network and the establishment of digital marketing and sales channels aim to make up for the loss of established forms for communicating with customers, such as trade shows and conferences, in the wake of the corona pandemic.

Light & Safety

Uncertain economic and political developments around the world represent the main strategic risks and opportunities currently affecting the Light & Safety division. As a supplier to international public-sector customers in particular, Jenoptik is exposed to both the political and economic development of the respective countries. Particularly in the event of unrest or regime change, this may result in projects being delayed or even stopped entirely. There is currently very little evidence of the COVID-19 crisis affecting our project business with public-sector customers, but the risk, given the potential of cuts in public investment in traffic monitoring projects, cannot be ruled out entirely in the future. By contrast, improvements in the political situation in certain sales markets and the economic prosperity of the countries are opening up opportunities to better serve the evolving demand for traffic safety technology.

At the same time, the growing demand for safety technologies, intelligent traffic flow solutions ("smart cities"), the levying of toll charges for the use of inner-city traffic infrastructure, and compliance with emission values for air pollutants, especially in metropolitan areas, present good opportunities for the division. We want to improve our strategic competitive position by continuously optimizing our product range and develop a standardized platform to cover the above-mentioned future issues.

The operational risks and opportunities are dominated by Great Britain's withdrawal from the European Union and the associated potential regulatory gaps in continued economic cooperation. Brexit, which is now "done", could impact on the Light & Safety division, which maintains a production and development site in Great Britain. As stated above, we continue to analyze the potential consequences and have already implemented a range of measures. At the time the risk and opportunity report was prepared, not all of the impacts of the regulations contained in the new Partnership Agreement were quantifiable in full. We therefore cannot rule out the risk that unscheduled measures and necessary adjustments to our business processes could result in higher future costs, which would negatively impact on the division's earnings.

The products made by the Light & Safety division require technical approval, particularly in European countries. It is therefore not always an easy process to substitute purchased materials or modules or to apply for an updated operating license. In many cases, therefore, only a very limited number of companies are qualified as suppliers. If one of these suppliers is lost or products are discontinued, problems may arise due to the need for new approvals, modified production processes, delivery bottlenecks, and negative impacts on long-term sales. The division's partners are subject to qualification with the help of Strategic Purchasing to ensure a stable base of suitable suppliers in the medium and long term.

In addition, the Light & Safety division is compelled to meet strict compliance requirements, whether imposed by customers or legislation. They entail the risk of delays in our business processes or of additional costs that could adversely affect the business's earnings. In the field of traffic safety technology, the requirements of the General Data Protection Regulation are of particular significance. They can now be met thanks to the further expansion of a standardized group-wide data protection organization.

VINCORION

Strategic risks and opportunities. The defense market is strongly influenced by political decision-making, in particular by governments' budgetary positions, and by the export license policies of the German government.

This also applied to the restrictions in force in the 2020 fiscal year, particularly regarding the Middle East, which pose risks to our ability to deliver to customers at short notice. Associated with this is the risk that our customers will lose confidence in our reliability. By contrast, the requirement that NATO member states spend two percent of their gross domestic product on defense and the consideration being given by the European Union's member states to establishing a common armaments policy are both likely to stimulate the market environment. The planned increase in the defense budget and the associated growth in investment by the German government may result in higher order intakes for VINCORION. Public budgets, however, may also be endangered by the impacts of the pandemic in the future, limiting countries' ability to finance cutting-edge defense projects. In terms of corporate development, the potential risk of a dependency on political decisions and government budgets will continue to be countered by the targeted expansion of the product portfolio for civilian markets. The processes and resources required for this must be gradually adapted within the course of strategic organizational development. Marketing and sales activities are also being stepped up to fully exploit the relevant growth options. The VINCORION brand is helping us to better target our customers.

Since a large proportion of revenue generated by VINCORION is the result of project business, product developments and launches offer long-term growth prospects. VINCORION's development projects present great potential to generate future revenues. However, there are also inherent technological and market-specific risks here that may jeopardize the success of the development.

The COVID-19 pandemic will have a particularly strong impact on the civil aviation market over the short to medium term. In the wake of global travel restrictions, civil air traffic has declined significantly, with fleet utilization at times as low as 20 percent. This may, in particular, impact on our aviation and customer support business, given the reduced production of new aircraft and fewer sales of spare parts due to lower operating hours worldwide. Despite a still highly dynamic global situation that may present opportunities, e.g., in short-term changes to travel policies, advancing testing strategies, and the approval of vaccines, we do not expect the aviation market to fully recover before 2025 in our risk assessment. Due to the business model being focused on long-term customer relationships and long product life cycles, supplier performance is an important success factor. As a result, good cooperation to date also presents opportunities to establish VINCORION as a supplier for further Airbus aircraft.

The aforementioned uncertainty regarding future prospects of civil aviation determines the outlook in the Aviation area. While products developed and financed in-house are increasingly being integrated into more platforms (e.g., A350 and A32x family), OEMs have reduced their rates of production. There is thus a risk that our civil aviation business may not be able to offset the foreseeable decline in military business. However, there are also opportunities in product development, as higher production volumes will allow economies of scale to be realized once the business returns to growth, probably from the middle of the decade, as more platforms are equipped with the new products.

Operational risks and opportunities arise primarily from a strong dependency on single sources in a number of cases, which may endanger future business opportunities. We counter these risks through active supplier management.

The consolidation of VINCORION's ERP systems and an independent IT strategy that more closely integrates the specific IT requirements in the defense sector offer opportunities in terms of efficiency, improved control options, and compliance with other information security standards (e.g., NIST).

General Statement by the Executive Board on the Group's Risk and Opportunity Situation

Significant and controllable risks and opportunities were identified and assessed on the basis of our risk and opportunity management system. Overall, in terms of strategic, operational, and financial management risks, the Jenoptik Group's exposure to risk is marginally higher than in the prior year, and currently remains at the lower end of the medium risk range. The risks addressed are limited – as far as possible – by the initiation and follow-up of appropriate measures.

In addition to the specific risks set out in the Group Management Report, however, unforeseeable events may occur at any time that have a significant impact on market developments, our sales and production process, and the reputation of the company.

Overall, it can be said that the realignment of the Group's strategic market segments (with the help of "Strategy 2022") may gradually help to reduce the existing strategic risks. The growing importance of the photonics industry and the strong related demand for applications and systems, both from private households and companies, continues to offer Jenoptik with the potential for good further growth.

Overall, there is an acceptable relationship between risks and opportunities in the Jenoptik Group. No risks were identified that may jeopardize the continued existence of the Group.

Forecast Report

Framework Conditions: Future Development of the Economy as a Whole and the Jenoptik Sectors

Although the global economy remains in the grip of the coronavirus crisis, the International Monetary Fund (IMF) is moderately more positive about ongoing developments in its World Economic Outlook of January 2021 than it was in October, and has therefore raised its forecast for global economic growth in 2021 by 0.3 percentage points, to 5.5 percent, with the global economy due to grow 4.2 percent in 2022. Vaccines and vaccination campaigns, together with stimulus packages in many industrialized nations, are improving the outlook, according to the IMF. Although the IMF believes that Germany has managed the crisis well, it is less optimistic about future growth and has cut its forecast for 2021 (since the last forecast in October) by 0.7 percentage points, to 3.5 percent, followed by 3.1 percent in 2022. The IMF expects the eurozone to achieve growth of 4.2 percent this year, 1 percentage point down on its October forecast. The US will see stronger growth (5.1 percent), and in China, too, the IMF sees economic output growing by a good 8.1 percent.

Most analysts expect robust growth in the US economy in 2021, driven by stimulus packages and the advancing vaccination campaign. Experts see risks in the high levels of both corporate and household debt.

T65 Gross domestic product forecast (in percent)

	2021*	2022*
World	5.5	4.2
US	5.1	2.5
Eurozone	4.2	3.6
Germany	3.5	3.1
China	8.1	5.6
India	11.5	6.8
Emerging countries	6.3	5.0

Source: International Monetary Fund, World Economic Outlook, January 2021
* Estimate

China is expecting further growth impetus from a new Five-Year Plan, due to be officially adopted in March. A new economic policy aims to boost the domestic market and home-grown innovation. China wants to be less dependent on imports and foreign companies, with key technologies set to be manufactured by companies within the country. Wherever the use of foreign firms is indispensable, they will be expected to move their value chains to China.

For Germany, the Federal Government has cut back its growth forecast due to the extended lockdown, from 4.4 percent to 3.0 percent. Economic growth will be largely dependent on the course of the pandemic and the action taken to contain it, especially in the first quarter of 2021. A return to pre-crisis GDP and foreign trade levels is not expected until mid-2022 at the earliest. According to the German Federal Ministry for Economic Affairs and Energy, the outlook for industry remains muted in view of the pandemic and supply bottlenecks in the semiconductor industry. T65

Thanks to digitization, the photonics industry remains part of a growing field, according to the Spectaris industry association. The use of lighting technologies is making an essential contribution to global market growth and has become indispensable for many innovations, e.g., as a basic technology for autonomous driving, for industry 4.0 and big data applications, for the smart laboratory in analytical and biotechnology, and through the use of quantum technology, which may provide photonics with its next source of growth momentum. Further growth is expected in the photonics industry, according to Spectaris, in the pursuit of climate protection and sustainability. Light-based technologies deployed in the service of "green photonics" are key here. The use of photonic solutions will save 3 billion tons of CO_2 emissions by 2030, according to Spectaris. The market research company MarketsandMarkets expects the global photonics market to grow in value from 593.7 billion US dollars in 2020 to 837.8 billion US dollars by 2025, with an average annual growth rate of 7.1 percent.

The Photonics21 technology platform published a position paper on the promotion of optical technologies in June 2019. The paper details commitments by the European photonics industry to invest up to 100 billion euros in research and development throughout the next phase of the "Horizon Europe" research initiative (2021 to 2027) when the European Commission launches a new photonics PPP (public-private partnership). This PPP will double the Commission's annual commitment to

200 million euros, equating to a total of 1.4 billion euros in seven years. In the fall of 2020, however, the Commission announced a reduction of around 30 percent in this commitment, which was criticized by industry experts. Investment in photonics as a key technology is required to ensure competitiveness in the face of funding for photonics from China, South Korea, and the US, and to facilitate the digital transformation in Europe.

A major acquisition in the global laser market might take place in the second half of the year: photonics specialist Lumentum plans to buy laser manufacturer Coherent for 4.7 billion euros to help it meet the growing requirements of the shift to the 5G standard, modern microelectronics, and autonomous vehicles. Two other photonics companies (MKS Instrument and II-VI) also offered to acquire Coherent in February 2021.

Experts are anticipating another year of growth in the semiconductor industry. The Semiconductor Industry Association (SIA) expects year-on-year revenue growth of 8.4 percent. According to IT analyst Gartner, global revenue will increase 11.6 percent in 2021, equating to around 502 billion US dollars, partly driven by strong demand in connection with 5G and associated network equipment. Segments such as laptops could see lower growth than in the COVID-19 year 2020, and the trade dispute between the US and China remains a risk. Following the record year 2020, the semiconductor equipment market will continue to grow in the next two years, according to the Semiconductor Equipment and Materials International (SEMI) industry association. Revenue is expected to grow from 68.9 billion US dollars in 2020 to 71.9 billion US dollars in 2021, followed by 76.1 billion US dollars in 2022. Growth in the semiconductor industry and its equipment manufacturers will be driven by growing demand for cloud services, server capacity, PCs and laptops, and gaming and health technologies. New developments relating to the Internet of Things (IoT), artificial intelligence, and machine learning are also boosting demand for more connectivity, large data centers, and big data. After losing around half of its share of global chip production in the last two decades, the US industry is now due to be boosted with the help of government support such as the "American Foundries Act" or the "CHIPS for America Act". This includes, for example, a double-digit billion sum for the construction of new chip factories and for research funding. In Germany, the Federal Ministry for Economic Affairs and Energy plans to mobilize a huge investment of up to 50 billion euros in the semiconductor industry with an EU funding program known as the Important Project of Common European Interest (IPCEI) to reduce dependence on Asian and American companies.

In December, the German Mechanical Engineering Industry Association (VDMA) raised its production forecast for the German mechanical and plant engineering industry in 2021. Thanks to the slight upturn in the economy and a recent improvement in the order situation, the association expects real production growth of 4 percent instead of the previously expected 2 percent. This forecast, however, is significantly less certain than usual. In terms of revenue, the VDMA expects only minor growth, if any, which will primarily come from sales markets outside Germany and Europe. The high level of uncertainty in the global economy is particularly impacting on the export-oriented mechanical engineering industry. This problem is compounded by continuing protectionism, the structural change in the important customer sector of the automotive industry, and liquidity bottlenecks caused by the coronavirus crisis. Travel and residence restrictions, as well as health regulations, are also still hindering sales, installation, and service activities.

An initial recovery in the robotics industry following the coronavirus-related slump in demand in 2020 is not expected until the second half-year 2021, according to a joint analysis conducted by the VDMA and BayernLB Research. Pre-crisis levels will not be reached until 2022 at the earliest, and possibly not until 2023 if the lockdowns last longer. The industry will benefit from the coronavirus crisis in the medium and long term, because it is accelerating trends such as the smart, simplified user operability of robots, collaborative robotics – i.e., the cooperation between humans and robots –, and digitization, for example for remote maintenance and virtual commissioning of complex systems. This will help to advance the smart factory and provide important long-term growth momentum, according to the VDMA Robotics and Automation sector group. Alongside industrial robots, service robots will also grow in importance, e.g., for logistics in factories, warehouses, or medical facilities.

77 Combined Management Report 152

The German Association of the Automotive Industry (VDA) is expecting the market situation in the global automotive industry to slowly improve in 2021. Following the prior-year slump due to the pandemic, the global passenger car market could grow 9 percent, to 73.8 million vehicles. This sales volume, however, would still be well down on pre-pandemic levels. China is seen as the only country capable of exceeding pre-crisis levels in 2021; the other major markets of Europe and the US will only slowly return to their pre-crisis figures. At the beginning of 2021, the global automotive value chain is hindered by its dependence on chip manufacturers in Asia. Lacking semiconductors and semiconductor modules, which are required, for example, in electronic control units or for driver assistance systems, car manufacturers are reducing or stopping their production lines. It is unclear how long these supply issues will persist.

In its “Road Safety Market by Solution, Service, Region” report, US market research company MarketsandMarkets believes that the global traffic safety market will grow from 3.0 billion US dollars in 2020 to 4.9 billion dollars in 2025, an average annual increase of 9.3 percent. Key factors include the increase in numbers of people living in cities, growing mobility and motorization, a rising number of traffic accidents and deaths, and more government initiatives to promote road safety. On a regional level, the North American market will dominate, as it is home to the most advanced technology and many initiatives to increase safety. Many major cities in the US and Canada, for example, are looking to implement “Vision Zero” measures, under which fatalities in road traffic are considered unacceptable. Within the speed monitoring segment, automatic number plate recognition (ANPR) and section control systems, used to monitor speed limits not just at specific points but over a given stretch of road, are both growing in importance. Among manufacturers of traffic safety technology, the US company Verra Mobility will merge with the Australian supplier Redflex probably by May 2021. In Europe, the reduction in inner-city speeds to 30km/h is gaining traction in increasing numbers of regions and cities, among them Paris, Brussels, and Spain. In Great Britain, these initiatives for better road safety and noise protection are being promoted on the “twenty is plenty” campaign (20mph).

Following a sharp slump last year in the aviation industry due to COVID-19, the suppliers are also expecting a very weak 2021 fiscal year, and is concerned about an appreciable loss of jobs. Compared to 2019, revenue among suppliers is expected to fall 33 percent in 2021. Pre-crisis levels are unlikely to be reached until 2024 at the earliest. Both major aircraft manufacturers have announced job cuts. Airbus, however, states that no final assembly sites will be shut; all models will continue to be produced, albeit at a reduced speed, with the exception of the A380, which will be discontinued in 2021. Despite this, Airbus has changed its plans for ramping up production, reducing its aim to produce almost 60 aircraft a month from July 2021 on to just 50. In contrast short-haul and medium-haul routes, Airbus does not see demand increasing for long-haul models in the foreseeable future. A return to 2019 production levels will not be possible until 2023 to 2025 at the earliest.

In the security and defense technology industry, NATO announced in the summer of 2020 that it would build up its air defense capabilities against the backdrop of the tense relationship with Russia. One of the largest defense projects currently underway in Germany, the modernization of missile defense, might be delayed or even stopped if the budget for the “Technical Air Defense System” (TLVS) is not fully or partially approved by the Bundestag before the Bundestag elections in the fall. Experts estimate that the project will cost a total of 13 billion euros by 2030. The “Future Combat Air System” (FCAS) project, which is to be made operational by 2040 in cooperation with France, is also threatened by delays due to deficiencies in the financial planning and differences between the partner countries and companies involved regarding expertise and intellectual property rights arising from the innovations. Germany has extended until the end of 2021 and further tightened its ban on armaments exports to Saudi Arabia. Accordingly, no new applications for exports to Saudi Arabia would be approved; licenses that have already been issued but were only on hold will be revoked. Exceptions apply to companies involved in European cooperation projects, e.g., the Eurofighter or Tornado fighter jets, if it is guaranteed that the final assembled goods will not be delivered to Saudi Arabia or the United Arab Emirates.

Expected Development of the Business Situation

Planning assumptions for the Group and the divisions

The forecast for business growth in 2021 was based on the group planning. At the time the report was prepared, Jenoptik was still not able to make a conclusive quantitative assessment of possible negative economic influences associated with the spread of the coronavirus (effects of the lockdown at the beginning of the year and a possible third wave of the pandemic).

Jenoptik operates in the following reportable segments: the three photonic divisions Light & Optics, Light & Production, and Light & Safety as well as VINCORION.

Separate plans from the divisions, VINCORION, and the operational business units form the starting point, they are all harmonized and integrated in the group planning. Potential acquisitions, divestitures, and exchange rate fluctuations are not included in the planning.

The system of key performance indicators covers the revenue, EBITDA margin, order intake, cash conversion rate, and capital expenditure indicators. Other indicators will also be regularly compiled in the future and are used by top management for informational purposes.

In 2021, we will continue to pursue our "Strategy 2022" – which focuses on photonic technologies – and implement measures to realize its objectives. In the process, we are concentrating on three issues – focus, innovation, and internationalization.

Overall, the Jenoptik Group anticipates consistently good business performance in the Light & Optics division in 2021. We will enable this by stepping up our activities as a global OEM supplier of solutions and products based on photonic technologies, by focusing on key sales markets, by growing our global reach, and with innovative products and a larger range of integrated system solutions. In addition, TRIOPTICS, which will be consolidated for the full year for the first time, will also make a significant contribution to growth. Market observers and key customers expect continued high demand in the semiconductor equipment market in the current year. In this regard, the division should benefit from its range of optical and micro-optical system solutions for semiconductor production. In the field of biophotonics (medical technology and life science), existing cooperation arrangements with key international customers are to be further expanded, and new ones acquired in the current fiscal year. Following a corona-related decline in 2020, this field is expected to achieve growth in 2021 due to a renewed rise in demand. The division also expects an improvement in business growth in the Industrial Solutions area. The Test & Measurement unit, which in addition to TRIOPTICS has included OTTO as of January 1, 2021, also expects noticeable growth, primarily due to the first-time consolidation of TRIOPTICS. In order to support overall positive development in the Light & Optics division and to broaden our presence in our core markets, the range of optical solutions for information and communication technologies, along with applications in the field of virtual and augmented reality, is also growing in significance. In the current fiscal year, the Light & Optics division will also continue to invest in its operational performance and sales to promote future growth and continue the process of internationalization.

In 2020, business in the Light & Production division was clearly impacted by the effects of the COVID-19 pandemic, but also by structural changes in the automotive industry. Both the Automation & Integration and Laser Material Processing areas are expected to return to growth in the current fiscal year. We expect that the effects of the restructuring measures will already have a positive impact for Metrology in 2021. However, the measures will not take full effect until 2022.

Focusing on automated plastic and metal processing will support growth in the field of laser processing systems and automation. The acquisitions of INTEROB (2020) and Prodomax (2018) have also contributed to this. As an integrated supplier, Jenoptik is now able to offer end-to-end solutions for efficient production environments. In the metrology sector, we assume that the trend toward integrated production-related metrology will continue. The development from stand-alone machines to supplying modular systems and solutions for customer manufacturing in the B2B segment will continue, thereby boosting our customers' productivity. As the market for metrology is growing particularly rapidly in Asia, business is to be strengthened there.

See the "Control System" chapter for more information on the key performance indicators

See the "Business Model and Markets" and the "Targets and Strategy" chapters for more information on the strategy and the division structure

See the "Framework Conditions" chapter for more information on the future development of the Jenoptik sectors

The Light & Safety division is expecting a positive development in the 2021 fiscal year. This is to be supported by new products, investment in the expansion of the customer portfolio, and a promising project pipeline. In addition, local project management and service structures will be strengthened, thus further improving direct customer support.

The traffic service provision business model will continue to be expanded. The civil security business is another area that is growing in significance. In 2021, we will modernize our product portfolio, particularly in the area of traffic monitoring, and develop a new uniform product platform. Additional new functions are also being integrated into existing systems in order to reflect the required interdependence of applications such as law enforcement, traffic monitoring, or automatic number plate recognition (ANPR). Deep learning technology is due to be used to a greater extent in safety and civil security applications. On a regional level, Jenoptik is primarily expecting growth momentum benefiting the Light & Safety division to come from the Americas, Europe, and the Arab and Pacific regions.

While VINCORION's defense and security systems business showed stable development in 2020, and this is expected to continue, the aviation area saw a downturn due to the coronavirus. An upturn in business is also not expected for this area in 2021.

VINCORION's business is predominantly project-based and geared toward the long term. European defense spending is picking up again. Various major new procurement projects are also planned in Germany, key criteria being connectivity, automation, and energy efficiency. At the same time, a potentially more restrictive export policy under the present German government could impact on or delay projects. In the medium term, a significant increase in investment for the German armed forces has political support, but we do not expect this to have any effect on our business in the short term, as political decision-making processes are generally highly protracted. In the years ahead, this may contribute to higher revenues. Beyond this, VINCORION is looking to increase the share of its systems used in civilian fields as well as its spare parts business. We expect that new in-house developments, such as the heatable floor panel for passenger aircraft, will also contribute to growth in the coming years, but the situation in the aviation industry is currently still heavily impacted by the effects of the COVID-19 pandemic. Internationalization also remains a key topic in 2021; foreign business is due to expand steadily, particularly in North America and Asia/Pacific.

2021 earnings position forecast

Based on good order intake growth in the fourth quarter of 2020, a well-filled project pipeline, and the continued promising development in the semiconductor equipment business, the Executive Board expects further growth in the current fiscal year. In addition to the organic growth in the divisions, TRIOPTICS, which will be consolidated for the full year for the first time, will also make a contribution to positive development. Current uncertainties are caused by the renewed lockdown at the start of the year due to COVID-19, and the risk of a third wave of the pandemic. However, our scheduled growth also presupposes that political and economic conditions do not worsen. In particular, these include economic trends, the potential impact of Brexit, regulations at European level, export restrictions, and further policy developments in our sales markets.

Major portfolio changes were not considered in the forecast.

For 2021, Jenoptik is expecting revenue growth in the low double-digit percentage range, including TRIOPTICS (prior year: 767.2 million euros).

At present, the Group is expecting EBITDA (earnings before interest, taxes and depreciation, incl. impairment losses and reversals) to increase significantly in the current fiscal year (prior year: 111.6 million euros). The EBITDA margin should be between 16.0 and 17.0 percent (prior year: 14.6 percent). Due to the uncertainty generated by the COVID-19 lockdown at the beginning of the year and the risk of a third wave of the pandemic, a more precise forecast is currently not possible. However, we will endeavor to specify the forecast during the course of the year.

The order intake for a period is also affected by major orders, particularly at VINCORION and in the Light & Safety division, and increasingly also in the Light & Production division. In the past fiscal year, Jenoptik received new orders worth 739.4 million euros and had therefore built up a good order base by the close of 2020, particularly following a strong fourth quarter. For the current 2021 fiscal year, Jenoptik expects the order intake to grow in the low double-digit percentage range.

It should also be noted that Jenoptik had frame contracts worth 42.3 million euros at the end of 2020, which are not included in the order intake or backlog. 78.5 percent of the order backlog reported as of December 31, 2020 (31/12/2019: adjusted 68.0 percent) is expected to be converted to revenue in 2021.

In 2021, the Light & Optics division expects revenue, including the contributions from TRIOPTICS and OTTO, to grow in the clear double-digit percentage range. The EBITDA is expected to show a significantly stronger rate of growth than revenue.

The Light & Production division expects revenue growth in the upper single-digit percentage range. The EBITDA is expected to show a stronger rate of growth than revenue. In this division, too, the accuracy of forecasts is influenced by the rising share of international projects, which are increasingly subject to accounting over time as specified in IFRS 15.

The Light & Safety division also expects growth in 2021, with a revenue increase in the mid to upper single-digit percentage range. The EBITDA is expected to see slight growth.

Based on its robust order backlog at the close of 2020, VINCORION expects the 2021 fiscal year to show stable development in both revenue and EBITDA, dependent on the extent to which the coronavirus affects development in the aviation area.

T66 Targets for Group and divisions (in million euros)

	Actual 2020	Forecast 2021 (without major portfolio changes)
Revenue	767.2	Growth in the low double-digit percentage range (including TRIOPTICS)
Light & Optics	318.0/321.4 [1]	Growth in the clear double-digit percentage range [1]
Light & Production	178.9/175.5 [2]	Growth in the upper single-digit percentage range [2]
Light & Safety	114.0	Growth in the mid to upper single-digit percentage range
VINCORION	151.7	Stable development (dependent on developments in the aviation industry resulting from the pandemic)
EBITDA/EBITDA margin	111.6/14.6%	Significant EBITDA growth / margin between 16.0 and 17.0% [3]
Light & Optics	68.6/68.3 [1]	Growth significantly stronger than in revenue [1]
Light & Production	7.9/8.2 [2]	Growth stronger than in revenue [2]
Light & Safety	22.3	Slight rise
VINCORION	16.6	Stable development (dependent on developments in the aviation sector resulting from the pandemic)
Order intake	739.4	Growth in the low double-digit percentage range
Cash conversion rate	55.8%	Over 50%
Capital expenditure [4]	47.3	Above prior year

[1] incl. OTTO
[2] excl. OTTO
[3] Due to the uncertainty caused by the COVID-19 lockdown at the beginning of the year and the risk of a third wave of the pandemic, a more accurate forecast is not possible at this time. However, we will endeavor to clarify the forecast during the course of the year
[4] Without capital expenditure on financial investments

Group asset and financial position forecast

Jenoptik expects that capital expenditure in the 2021 fiscal year will be up on the prior year's figure (prior year: 47.3 million euros). Capital expenditure on property, plant, and equipment will focus on the growth areas within the divisions or take place within the scope of new customer projects. It aims to expand capacities, thereby ensuring future growth.

We expect the cash conversion rate (ratio of free cash flow to EBITDA) to be over 50 percent in 2021 (31/12/2020: 55.8 percent).

In addition to financing the continued growth of the company, the future aim of the Executive Board remains to ensure a dividend policy in line with corporate success. In the view of the Executive Board, a solid base of equity for sustainable organic growth to increase the company value as well as the exploitation of opportunities for acquisitions are also of crucial importance to the interests of the shareholders.

See the Report on Post-Balance Sheet Events for more information on the dividend

Important note. The actual results may differ significantly from the forecasts of anticipated development made above and summarized below. This may arise, in particular, if one of the uncertainties mentioned in this report were to materialize or worsen, or if the assumptions upon which the statements are based prove to be inaccurate in relation to the economic development, especially in association with the spread of the coronavirus.

General Statement by the Executive Board on Future Development

In the current 2021 fiscal year, the Jenoptik Group will continue to implement its "Strategy 2022", concentrating on photonic technologies. In terms of economic development, our key focus remains on profitable growth. We believe that revenue growth, resulting economies of scale, and more efficient and faster processes result in higher and sustainable earnings. It is the assessment of the Executive Board that the still good asset position and the viable financing structure give Jenoptik sufficient room for maneuver to finance both organic and inorganic growth.

Achieving our targets is dependent on the development of the economic and political environment. However, uncertainty currently exists with respect to the impact of the COVID-19 pandemic on business growth in the current year.

On the basis of encouraging order intake growth in the fourth quarter of 2020 and the current order backlog, a well-filled project pipeline, and continued good performance in the semiconductor equipment business, the Executive Board remains positive for the 2021 fiscal year and expects revenue growth to be in the low double-digit percentage range. In addition to organic growth in the divisions, TRIOPTICS, which will be consolidated for the full year for the first time, will also make a significant contribution to growth. The Group's EBITDA margin should be between 16.0 and 17.0 percent.

In 2021, we will again invest a significant portion of our funds in the expansion of the international sales network and the development of innovative products. As part of our active portfolio management, potential acquisitions are closely scrutinized; divestitures have still not been ruled out.

Based on the information available at the time this report was created, the Executive Board expects the Jenoptik Group to see positive business development in 2021.

Jena, March 16, 2021

JENOPTIK AG
The Executive Board

Consolidated Financial Statements

» In short «

With a continuously very good equity ratio of

51.5%

the Group has a solid and sustainable financing structure and healthy balance sheet ratios.

Consolidated Statement of Comprehensive Income

Consolidated Statement of Income

in thousand euros	Note No.	1/1–31/12/2020	1/1–31/12/2019
Revenue	4.1	767,196	855,235
Cost of Sales	4.2	505,005	563,435
Gross profit		**262,192**	**291,801**
Research and development expenses	4.3	43,655	44,052
Selling expenses	4.4	86,401	89,349
General administrative expenses	4.5	61,755	60,539
Impairment gains and losses	4.7	3,919	−2,746
Other operating income	4.8	20,616	16,846
Other operating expenses	4.9	35,604	23,045
EBIT		**59,312**	**88,915**
Financial income	4.10	5,458	5,345
Financial expenses	4.10	11,534	9,055
Financial result		**−6,077**	**−3,709**
Earnings before tax		**53,235**	**85,206**
Income taxes	4.11	−10,504	−17,565
Earnings after tax		**42,731**	**67,641**
Results from non-controlling interests	4.12	963	−11
Earnings attributable to shareholders		41,769	67,652
Earnings per share in euros (undiluted = diluted)	4.13	**0.73**	**1.18**

Consolidated Comprehensive Income

in thousand euros	Note No.	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings after tax		**42,731**	**67,641**
Items that will never be reclassified to profit or loss	5.16	– 2,620	5,923
Actuarial gains/losses arising from the valuation of pensions and similar obligations		– 2,096	6,704
Equity instruments measured at fair value through other comprehensive income		– 1,375	977
Income taxes		851	– 1,758
Items that are or may be reclassified to profit or loss	5.16	– 7,207	7,063
Cash flow hedges		3,987	– 169
Foreign currency exchange differences		– 11,328	8,353
Income taxes		134	– 1,121
Total other comprehensive income		**– 9,827**	**12,986**
Total comprehensive income		**32,904**	**80,627**
Thereof attributable to:			
Non-controlling interests		889	– 14
Shareholders		32,015	80,641

Consolidated Statement of Financial Position

Assets in thousand euros	Note no.	31/12/2020	31/12/2019
Non-current assets		**848,943**	**555,207**
Intangible assets	5.1	487,075	212,736
Property, plant and equipment	5.2/5.4	263,499	251,123
Investment property	5.3	4,175	4,263
Investments accounted for using the equity method	5.5	13,410	5,776
Financial investments	5.6	2,926	2,497
Other non-current assets	5.7	3,276	1,094
Deferred tax assets	5.8/4.11	74,583	77,718
Current assets		**489,900**	**528,126**
Inventories	5.9	191,406	153,678
Current trade receivables	5.10	138,010	136,881
Contract assets	5.11	74,735	54,875
Other current financial assets	5.12	6,492	5,449
Other current non-financial assets	5.13	10,958	8,557
Current financial investments	5.14	4,894	69,661
Cash and cash equivalents	5.15	63,405	99,025
Total assets		**1,338,843**	**1,083,333**

Equity and liabilities in thousand euros	Note no.	31/12/2020	31/12/2019
Equity	5.16	**689,391**	**655,444**
Share capital		148,819	148,819
Capital reserve		194,286	194,286
Other reserves		334,668	311,682
Non-controlling interests	5.17	11,618	657
Non-current liabilities		**233,029**	**176,008**
Pension provisions	5.18	35,178	31,643
Other non-current provisions	5.20	17,039	17,864
Non-current financial debt	5.22	138,410	122,562
Other non-current liabilities	5.23	29,545	2,254
Deferred tax liabilities	5.8/4.11	12,858	1,685
Current liabilities		**416,423**	**251,881**
Tax provisions	5.19	2,624	6,443
Other current provisions	5.20	52,482	51,887
Current financial debt	5.22	130,871	36,996
Current trade payables	5.24	89,747	83,730
Contract liabilities	5.27	46,274	43,882
Other current financial liabilities	5.25	75,327	12,520
Other current non-financial liabilities	5.26	19,098	16,423
Total equity and liabilities		**1,338,843**	**1,083,333**

Consolidated Statement of Cash Flows

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Earnings before tax	**53,235**	**85,206**
Financial income and expenses	7,716	3,786
Depreciation and amortization	50,879	43,809
Impairment losses and reversals of impairment losses	1,459	1,222
Profit/loss from asset disposals	−895	169
Other non-cash income/expenses	−651	−1,997
Change in provisions	−4,785	−7,765
Change in working capital	−3,736	−2,748
Change in other assets and liabilities	−934	−118
Cash flows from operating activities before income tax payments	**102,288**	**121,563**
Income tax payments	−12,540	−12,670
Cash flows from operating activities	**89,748**	**108,892**
Capital expenditure for intangible assets	−16,811	−11,473
Proceeds from sale of property, plant and equipment	3,312	627
Capital expenditure for property, plant and equipment	−26,489	−33,474
Acquisition of consolidated entities less acquired cash	−220,382	−774
Proceeds from sale for financial assets within the framework of short-term disposition	89,900	60,159
Capital expenditure for financial assets within the framework of short-term disposition	−20,000	−69,900
Proceeds from other financial investments	626	108
Capital expenditure for other financial investments	−405	0
Interest received and other income	1,805	346
Cash flows from investing activities	**−188,443**	**−54,381**
Dividends paid	−8,426	−20,033
Acquisition of non-controlling interests	−1,711	0
Proceeds from issuing bonds and loans	177,686	6,782
Repayments of bonds and loans	−86,073	−21,257
Payments for leases	−12,259	−9,875
Change in group financing	−537	2,003
Interest paid and other expenses	−4,964	−3,746
Cash flows from financing activities	**63,716**	**−46,127**
Change in cash and cash equivalents	**−34,980**	**8,384**
Effects of movements in exchange rates on cash held	−737	1,009
Change in cash and cash equivalents due to changes in the scope of consolidation and valuation adjustments	97	377
Cash and cash equivalents at the beginning of the period	99,025	89,255
Cash and cash equivalents at the end of the period	**63,405**	**99,025**

Statement of Changes in Equity

in thousand euros	Note no.	Share capital	Capital reserve	Retained earnings	Equity instruments measured through other comprehensive income
Balance at 1/1/2019		**148,819**	**194,286**	**281,938**	**197**
Changes in accounting policies [1]				−3,102	
Balance at 1/1/2019 [1]		**148,819**	**194,286**	**278,837**	**197**
Net profit for the period	4.12/4.13			67,652	
Other comprehensive income after tax	2.3/5.16/5.18/8.2				685
Total comprehensive income				**67,652**	**685**
Dividends				−20,033	
Other adjustments				1	
Balance at 31/12/2019		**148,819**	**194,286**	**326,456**	**882**
Balance at 1/1/2020		**148,819**	**194,286**	**326,456**	**882**
Net profit for the period	4.12/4.13			41,769	
Other comprehensive income after tax	2.3/5.16/5.18/8.2				−965
Total comprehensive income				**41,769**	**−965**
Changes in the scope of consolidation	2.1/2.4				
Acquisition of non-controlling interests	2.1			−1,565	
Dividends				−7,441	
Other adjustments				−23	
Balance at 31/12/2020		**148,819**	**194,286**	**359,196**	**−83**

[1] Adjusted due to initial application of IFRS 16

Cash flow hedges	Cumulative exchange differences	Actuarial effects	Equity attributable to shareholders of JENOPTIK AG	Non-controlling interests	Total	
−1,793	**795**	**−26,961**	**597,281**	**671**	**597,952**	**Balance at 1/1/2019**
			−3,102	0	−3,102	Changes in accounting policies [1]
−1,793	**795**	**−26,961**	**594,179**	**670**	**594,850**	**Balance at 1/1/2019 [1]**
			67,652	−11	67,641	Net profit for the period
−97	7,205	5,196	12,989	−3	12,986	Other comprehensive income after tax
−97	**7,205**	**5,196**	**80,641**	**−14**	**80,627**	**Total comprehensive income**
			−20,033		−20,033	Dividends
			1		1	Other adjustments
−1,890	**8,000**	**−21,765**	**654,788**	**656**	**655,444**	**Balance at 31/12/2019**
−1,890	**8,000**	**−21,765**	**654,788**	**656**	**655,444**	**Balance at 1/1/2020**
			41,769	963	42,731	Net profit for the period
2,787	−9,918	−1,658	−9,754	−73	−9,827	Other comprehensive income after tax
2,787	**−9,918**	**−1,658**	**32,015**	**889**	**32,904**	**Total comprehensive income**
				10,218	10,218	Changes in the scope of consolidation
			−1,565	−146	−1,711	Acquisition of non-controlling interests
			−7,441		−7,441	Dividends
			−23		−23	Other adjustments
897	**−1,918**	**−23,423**	**677,774**	**11,617**	**689,391**	**Balance at 31/12/2020**

Notes

1 Presentation of the Group Structure

1.1 Parent company

The parent company is JENOPTIK AG, Jena, Germany, and is registered in the Commercial Register of Jena in Department B under the number 200146. JENOPTIK AG is listed on the German Stock Exchange in Frankfurt and traded on the TecDax and SDax, amongst others.

The list of shareholdings of the Jenoptik Technology Group is published in the Federal Gazette in accordance with § 313 (2) Nos. 1 to 4 of the German Commercial Code (Handelsgesetzbuch [HGB]) and is disclosed from page 231 in the Notes under the heading "List of Shareholdings of the Jenoptik Group". The entities to which the simplification relief regulations were applied as specified in § 264 (3) or § 264b of the HGB, are disclosed in the section "Required and Supplementary Disclosures under HGB".

1.2 Accounting principles

The consolidated financial statements of JENOPTIK AG were prepared for the 2020 fiscal year in accordance with the International Financial Reporting Standards (IFRS) and the binding interpretations of the International Financial Reporting Interpretations Committee (IFRIC) in force at the reporting date for use in the European Union.

The consolidated financial statements were presented in euros. Unless otherwise specified, all amounts are presented in thousand euros. Please note that there may be rounding differences compared to the mathematically exact amounts (monetary units, percentages, etc.). The consolidated statement of income was prepared in accordance with the cost of sales method.

The fiscal year of JENOPTIK AG and of its subsidiaries included in the consolidated financial statements corresponds with the calendar year.

In order to improve the clarity of the presentation, individual items were aggregated in the statement of total other comprehensive income and the statement of financial position. The classifications used for these items are listed in the Notes.

Changes in accounting policies

The following IFRS were applied for the first time in the fiscal year 2020:

Amendments to IFRS 3: Definition of a business operation. The amendments to IFRS 3 regarding the definition of a business operation were published in October 2018. They are intended to help companies determine whether a transaction should be accounted for as a merger or acquisition of assets. They specify the minimum requirements for a business operation (existence of input factors and a substantial process that essentially enables outputs to be generated). The assessment previously required as to whether market participants are able to replace missing elements in this process, no longer applies. Additional guidance is intended to help assess whether an acquired process is substantial. In addition, the definitions of a business operation and output have been narrowed down to the extent that these must involve services to customers. An optional concentration test will also be introduced to facilitate a simplified assessment.

The changes did not affect the acquisitions of the company in the 2020 fiscal year but may affect future mergers of Jenoptik.

Amendments to IFRS 9, IAS 39 and IFRS 7: Interest Rate Benchmark Reform. – Phase 1 The amendments to IFRS 9, IAS 39 and IFRS 7 in relation to the Interest Rate Benchmark Reform were published in September 2019. The amendments represent the first phase of the IASB's work on the impact of the reform of the Interbank Offered Rates (IBOR). The internationally targeted reforms led to uncertainties regarding the long-term viability of the previous IBOR. The amendments provide for temporary reliefs both in IFRS 9 and IAS 39 that are intended to allow hedge accounting to be maintained in the period prior to the formal replacement of existing interest rate benchmarks through alternative, near risk-free rates (RFR). The reliefs apply to all hedging relationships directly affected by the reform of the interest rate benchmarks. When reviewing how a cash flow hedge can be recognized in the statement of financial position, the assumption is that the reforms will not lead to any changes to the interest rate benchmarks. The same applies to the assessment of the economic relationship under IFRS 9 or the effectiveness assessment in accordance with IAS 39.

The amendments are to be applied for fiscal years from January 1, 2020. There are no financial instruments in hedging transactions that are linked to the IBOR as the reference interest rate. To that extent, the changes have no impact on the consolidated financial statements for the fiscal year 2020.

Amendments to IFRS 16: Rental concessions in connection with COVID-19. In May 2020, the IASB published an amendment to IFRS 16 with an optional relief for lessees that allows for a waiver of the assessment as to whether a concession in conjunction with COVID-19 constitutes a modification of the lease under IFRS 16. Lessees can instead account for these rental concessions using the same method that would apply if this did not involve a modification of the lease contract.

The amendments are to be applied from June 1, 2020. As there were no rental concessions in the context of COVID-19 for the Jenoptik Group companies, the optional relief is not applicable, so the changes do not affect the consolidated financial statements.

Amendments to IAS 1 and IAS 8: Definition of materiality. The amendments to IAS 1 and IAS 8 in relation to the definition of materiality were published in October 2018. Information is deemed material if the omission, misrepresentation or obfuscation of such information could reasonably influence the decision of the primary addressees. For the first time, the new definition of materiality takes into account the concealment of information as a measure of materiality in terms of the information. It is aimed at the primary financial statement addressees as these have been defined in the conceptual framework since 2010. Furthermore, information must be reasonably able to influence their decisions in order to be deemed material. The amendments were made in order to adapt the definition to the statements on materiality in the 2018 framework concept and to make them generally more easily applicable.

The amendments are to be applied for fiscal years commencing January 1, 2020. The changes in content have already been taken into account in the context of previous materiality assessments, so these will not impact on the consolidated financial statements.

Changes in references to the IFRS framework concept. The amended framework concept was published by the IASB in March 2018. The published framework concept contained a revision of the basics of financial reporting and added topics that were previously not included in the regulations. As a result of the amendments in the framework concept, numerous references in individual standards and interpretations have been amended.

The amended references to the framework concept must be taken into account when applying the relevant standards and interpretations for fiscal years commencing January 1, 2020. The amendments to the references will have no material impact on the consolidated financial statements.

Standards which have been published but not yet adopted by the EU as mandatory

The application of the following standards and interpretations published by the IASB and adopted by the EU is not yet mandatory and were not taken into account by Jenoptik in the consolidated financial statements as of December 31, 2020. The Group has no plans to apply these standards early.

Amendments to IFRS 4: Extension of the temporary relief from the application of IFRS 9. IFRS 4 is not applicable to the Group. This amendment will therefore have no material impact on the consolidated financial statements.

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16: Interest Rate Benchmark Reform. – Phase 2. In August 2020 the IASB passed amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16 in respect of the reform of the reference interest rates. The amendments provide for temporary relief when a reference interest rate (IBOR) is replaced by an alternative near-risk-free interest rate (RFR) and this has an impact on the financial reporting.

The amendments are valid for fiscal years commencing on or after January 1, 2021 and are to be applied retrospectively. Early application is permitted. There is no requirement for any amendment to previous periods. There are no financial instruments that are linked to the IBOR as the reference interest rate. Therefore Jenoptik does currently not anticipate any impact on the consolidated financial statements. However, the amendments may affect the future financial reporting of the Jenoptik Group with regard to financial instruments and leases.

Standards which have been published but not yet adopted by the EU as mandatory

The following standards published by the IASB have not yet been adopted by the European Union.

IFRS 17: Insurance contracts. The standard is not applicable to the Group and will therefore have no impact on the consolidated financial statements:

Amendments to IFRS 3: Reference to the framework concept. The IASB published amendments to IFRS 3 in May 2020: The amendments replace the reference to the Framework Concept for the Preparation and Presentation of Financial Statements published in 1989 with a reference to the Financial Reporting Framework Concept published in March 2018, with no significant amendment to the existing rules of the Standard.

The amendments are valid for fiscal years commencing on or after January 1, 2022 and are to be applied prospectively. Jenoptik does not expect the amendments to have any significant impact on the consolidated financial statements.

Amendments to IAS 1: Categorization of liabilities as current or non-current. In January 2020, the IASB published amendments to IAS 1 in order to clarify the rules on the classification of liabilities as current or non-current. The rights of the reporting entity as at the reporting date are therefore definitive for the classification of liabilities. A liability is to be classified as non-current if the entity is entitled to postpone the settlement of the liability by at least 12 months after the balance sheet date taking into account the circumstances or expectations on the reporting date.

The amendments are valid for fiscal years commencing on or after January 1, 2023. Based on the amendments to the standard, a different classification and a related reclassification of existing liabilities in the Jenoptik Group may be required.

Changes to IAS 1 and IAS 8: Disclosures on accounting policies. In accordance with the amendments to IAS 1 and IAS 8 published by the IASB in February 2020, only essential accounting methods are to be presented in the notes in future. To be essential, the accounting policy must be related to material transactions or other events and there must be a reason for it to be presented. In the future, company-specific versions should be in the foreground instead of standardized versions. The amendment to IAS 8 also clarifies how changes in accounting methods can be better distinguished from changes in estimates.

The changes are to be applied to fiscal years beginning on or after January 1, 2023. The scope of the necessary notes on accounting methods in the Jenoptik consolidated financial statements will change accordingly.

Amendments to IAS 16: Generation of revenues before an asset is operationally ready. The IASB published amendments to IAS 16 in May 2020. Thereafter, entities will no longer be permitted to deduct proceeds from the sale of goods produced, whilst an item of property, plant and equipment is being brought to their location and in the operational readiness intended by management, from the acquisition and production costs of this item of property, plant and equipment. Instead, these revenues, together with the production costs of of these goods must be recorded in the income statement.

The amendments are valid for fiscal years commencing on or after January 1, 2022 and are to be applied retrospectively to property, plant and equipment that has been brought to operational readiness during the reporting period of its initial application. Jenoptik does not expect the amendments to have any significant effect on the consolidated financial statements.

Amendments to IAS 37: Onerous contracts – costs for the performance of a contract. In May 2020, the IASB published amendments to IAS 37 in order to specify the costs which an entity has to take into consideration when assessing whether a contract is onerous or loss-making. The amendments based on costs which relate directly to the contract (directly related cost approach). The costs associated with the performance of contracts for the supply of goods or the provision of services, include both the directly attributable (incremental) costs of the performance of the contract as well as overheads that relate directly to activities for the performance of the contract. General administrative expenses are not directly related to the contract and are therefore not covered by the contract performance costs, unless the contract makes express provision for these to be passed on to the customer.

The amendments are valid for fiscal years commencing on or after January 1, 2022. Based on current accounting and valuation methods, Jenoptik does not expect these amendments to have any impact since the actual accounting principle corresponds to the objectivication of IAS 37.

Annual improvement process (2018–2020) – Amendment to IFRS 1: Initial application by a subsidiary. As part of its annual improvement process to the IFRS for the 2018-2020 cycle, the IASB carried out an amendment to IFRS 1. The amendment allows subsidiaries applying paragraph D16(a) of IFRS 1 to value accumulated conversion differences based on the amounts reported by the parent company, based on the date on which the parent company starts applying IFRS. This amendment is also valid for associated entities and joint ventures which apply IFRS 1.D16(a).

The amendment is valid for fiscal years commencing on or after January 1, 2022. Early application is allowed. The Jenoptik Group does not expect any impact on the consolidated financial statements.

Annual improvement process (2018–2020) – Amendments to IFRS 9: The charges for the 10 percent current value prior to the derecognition of financial liabilities. As part of its annual improvement process to the IFRS for the 2018−2020 cycle, the IASB published an amendment to IFRS 9. The amendment clarifies which charges an entity has to take into account when assessing whether the terms of a new or modified financial liability differ materially from those of the original financial liability. This only includes those fees which have been paid or received between the borrower and the lender, including those fees which have been paid or received either by the borrower or by the lender on behalf of the other respectively. An entity must apply the amendment to financial liabilities which are modified or replaced on or after the commencement of the fiscal year in which the amendment is first applicable.

The amendment is valid for fiscal years commencing on or after January 1, 2022. Early application is allowed. Jenoptik does not expect the amendments to have any significant impact on the consolidated financial statements.

Annual improvement process (2018−2020) – Amendments to IAS 41: Taxation for valuations reported at fair value. IAS 41 is not applicable to the Group. This amendment will have no material impact on the consolidated financial statements.

1.3 Estimates

The preparation of the consolidated financial statements in accordance with IFRS, as are to be applied in the EU, requires that assumptions be made for certain items, affecting their recognition in the statement of financial position or in the consolidated statement of total other comprehensive income as well as the disclosure of contingent receivables and liabilities. All assumptions and estimates are made to the best of the Group’s knowledge and belief in order to provide a true and fair picture of the asset, financial and earnings situation of the Group.

The underlying assumptions and estimates are continually reviewed. This gives the author of the consolidated financial statements a certain amount of discretionary leeway. Against the background of the COVID-19 pandemic, there is increased uncertainty as to estimates and risks with regard to significant adjustments to carrying amounts. The assumptions and estimates made for the preparation of these consolidated financial statements relate mainly to:

- the assumptions and parameters for the valuation of intangible assets identified in the context of purchase price allocations (see section “Corporate acquisitions” from page 167)
- the valuation of contingent purchase price liabilities arising from mergers (see section “Corporate acquisitions” from page 167 as well as “Financial Instruments“ from page 172)
- the assessment of impairment to goodwill in particular in view on the COVID-19 pandemic (see section “Intangible assets” from page 185),
- the definition of useful lives for the assessment of intangible assets and property, plant and equipment (see section “Corporate acquisitions” from page 185 as well as section “Property, plant and equipment” from page 188),
- the assessment of impairment to non-current assets in accordance with IAS 36, in particular with regard to the forecast cash flows in view of the COVID-19 pandemic (see section “Impairment of property, plant, and equipment and intangible assets" from page 171),
- the assessment of the likelihood of extension, purchase or termination options for the valuation of the leasing liabilities in accordance with IFRS 16, being exercised (see section “Leasing” from page 190),
- the method for valuing inventories, as well as for defining valuation routines and discounts, (see section “Inventories” from page 194),
- the estimate of anticipated losses as part of the valuation of trade receivables, (see section “Trade receivables” from page 194),

153 232 Consolidated Financial Statements

- the actuarial parameters for the valuation of provisions for pensions and similar obligations (see section "Provisions for pensions and similar obligations" from page 201),
- the assumptions and methods for valuing other provisions – for example, warranty obligations and actuarial parameters of personnel provisions (see section "Other provisions" from page 204),
- the realizability of future tax breaks – in particular arising from losses carried forward – in the valuation of deferred tax assets (see section "Income taxes" from page 182).
- the identification of separate payment obligations and allocation of the transaction price (see section "Revenue" from page 176).

2 Consolidation Principles

2.1 The group of entities consolidated

Along with JENOPTIK AG, all significant subsidiaries have been included fully in the consolidated financial statements. The list of shareholdings is presented in the the section "List of Shareholdings in the Jenoptik Group" from page 231.

The consolidated financial statements of JENOPTIK AG include 49 (prior year: 37) fully consolidated subsidiaries. Of which 14 (prior year: 12) have their legal seat in Germany and 35 (prior year: 25) have theirs abroad. HILLOS GmbH, which was consolidated as a joint venture up to and including 31/12/2019, has been valued as an associated company with effect from 2020, consequently, 3 entities (prior year: 1) – together with an acquired joint venture – will now be included in the consolidated financial statements using the at-equity method.

In February 2020, Jenoptik acquired the Spanish INTEROB Group, consisting of INTEROB, S.L. and INTEROB RESEARCH AND SUPPLY, S.L. Further information is included in the section "Corporate Acquisitions" from page 167.

In March 2020, Jenoptik acquired the non-controlling interests of 33.42 percent in JENOPTIK Japan Co. Ltd. from its partner Kantum Ushikata Co., Ltd. and converted the company into a wholly-owned group subsidiary.

On the closing date of September 24, 2020, Jenoptik completed the acquisition of an initial 75-percent stake in Trioptics GmbH. The Group will acquire the remaining 25 percent from the owners at already firmly agreed conditions on December 31, 2021. On the basis of existing control and present ownership in relation to the remaining 25 percent of the shares, the company was consolidated to 100 percent. Further information is included in the section "Corporate acquisitions" from page 167.

Corporate mergers also took place in the year 2020. OVITEC GmbH, Jena, Germany, which had previously been consolidated in full, was merged with OTTO Vision Technology GmbH, Jena, Germany in the 1st half-year. RADARLUX Radar Systems GmbH, Leverkusen, Germany, which had previously been consolidated in full, was merged with JENOPTIK Robot GmbH, Monheim am Rhein, Germany in the 2nd half-year. In addition, the non-consolidated AD-Beteiligungs GmbH, Monheim am Rhein, Germany, was also merged with JENOPTIK Robot GmbH, Monheim am Rhein, Germany. All assets and liabilities, including all existing contractual relationships of the merged companies, have been transferred to OTTO Vision Technology GmbH and JENOPTIK Robot GmbH respectively.

A further 5 subsidiaries, 4 of which are non-operating entities, were not consolidated as their influence on the assets, financial and earnings position – both individually and in total – is of minor significance. The total revenue of the non-consolidated entities amounts to nearly 0.0 percent of group revenue; EBIT was around minus 0.1 percent of group EBIT. The estimated impact of a consolidation all the previously non-consolidated entities on the group's statement of financial position total is nearly 0.0 percent.

The subsidiaries in the table below have material investments held by non-controlling shareholders. Additional entities have insignificant investments held by non-controlling shareholders. The corresponding minority investments can be seen in the List of Shareholdings from page 231.

Name	Company's head office	Non-controlling interests
JENOPTIK Korea Corporation Ltd.	Korea	33.34
Trioptics Optical Test Instruments (China) Ltd.	China	49.00
Trioptics Hong Kong Limited (through Trioptics China)	Hong Kong	49.00
Trioptics Japan Co., Ltd.	Japan	38.75
Trioptics Korea Co., Ltd.	Korea	40.00
TRIOPTICS TAIWAN LTD.	Taiwan	49.00

The table on page 166 summarizes the financial information of subsidiaries with significant investments held by minority shareholders, based on their individual financial statements including IFRS adjustments and impacts arising from the purchase price allocation. Impacts of the consolidation were not taken into account. The revenue, earnings and cash flow figures of the TRIOPTICS companies represent contributions from the time of initial consolidation.

2.2 Consolidation procedures

The assets and liabilities of the domestic and foreign entities included fully in the consolidated financial statements are recognized in accordance with the uniform accounting policies and valuation methods applicable for the Jenoptik Group.

At the acquisition date, the capital consolidation is based on the acquisition method. In this context, the assets and liabilities of the subsidiaries are recognized at fair values. Furthermore, identifiable intangible assets are capitalized and contingent liabilities classified as liabilities as defined in IFRS 3.23. The remaining difference between the purchase price and the acquired net assets corresponds to the goodwill. This is subject to an annual impairment test in the subsequent periods in accordance with IAS 36.

Receivables and payables as well as expenses and income between the consolidated entities are eliminated. The Group's inter-company goods and services are delivered and rendered both on the basis of market prices as well as transfer prices and are determined on the basis of the "dealing-at-arm's-length" principle. Assets from inter-company deliveries included in the inventories and property, plant, and equipment are adjusted by interim results. Consolidation procedures recognized as profit or loss are subject to the delimitation of deferred taxes, with deferred tax assets and deferred tax liabilities being netted if there is a legally enforceable right to offset current tax refund claims against current tax liabilities and only if they concern income taxes levied by the same tax authority.

Changes in shareholdings in subsidiaries which reduce or increase the investment ratio without loss of control, are shown as transactions between equity investors, outside of profit or loss.

There was no change in the consolidation methods compared with the prior year.

2.3 Foreign currency conversion

Annual financial statements of the consolidated entities prepared in foreign currencies are converted on the basis of the functional currency concept as defined in IAS 21 "The Effects of Changes in Foreign Exchange Rates" by using the modified reporting date exchange rate method. Since the subsidiaries conduct their business activities independently from the financial, economic and organizational aspects, the functional currency of the entities is generally identical to that of their respective national currency.

Assets and liabilities are consequently converted at the exchange rate on the reporting date, whereas income and expenses are converted at the annual average exchange rate which is determined on a monthly basis. The resulting difference arising from the currency conversion is offset outside of profit or loss and shown separately in equity under foreign currency reserves.

If a consolidated entity leaves the group of consolidated entities, the corresponding difference arising from the foreign currency conversion is reversed through profit or loss.

in thousand euros	JENOPTIK Korea	Trioptics China	Trioptics Hong Kong	Trioptics Japan	Trioptics Korea	Trioptics Taiwan
Revenue	**6,417**	**4,292**	**5,567**	**2,241**	**1,226**	**4,434**
	(6,044)	n. a.	n. a.	n. a.	n. a.	n. a.
Earnings after tax	705	– 113	559	43	317	780
	(– 171)	n. a.	n. a.	n. a.	n. a.	n. a.
Earnings after tax from non-controlling interests	235	– 56	274	17	127	382
	(– 57)	n. a.	n. a.	n. a.	n. a.	n. a.
Other comprehensive income	– 6	12	– 133	– 28	80	11
	(– 16)	n. a.	n. a.	n. a.	n. a.	n. a.
Total comprehensive income	698	– 101	426	15	397	790
	(– 187)	n. a.	n. a.	n. a.	n. a.	n. a.
Total comprehensive income from non-controlling interests	233	– 50	209	6	159	387
	(– 62)	n. a.	n. a.	n. a.	n. a.	n. a.
Non-current assets	363	1,879	3,343	3,863	1,496	2,417
	(178)	n. a.	n. a.	n. a.	n. a.	n. a.
Current assets	3,030	8,856	10,631	3,386	3,253	4,304
	(2,522)	n. a.	n. a.	n. a.	n. a.	n. a.
Non-current liabilities	38	989	553	936	274	726
	(47)	n. a.	n. a.	n. a.	n. a.	n. a.
Current liabilities	1,252	5,247	6,906	1,523	370	1,897
	(1,219)	n. a.	n. a.	n. a.	n. a.	n. a.
Net assets	2,103	4,498	6,515	4,790	4,105	4,099
	(1,435)	n. a.	n. a.	n. a.	n. a.	n. a.
Net assets from non-controlling interests	701	2,204	3,193	1,856	1,642	2,009
	(479)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from operating activities	1,036	920	1,130	– 133	1,241	200
	(179)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from investing activities	– 9	1	0	– 58	5	309
	(– 4)	n. a.	n. a.	n. a.	n. a.	n. a.
Cash flows from financing activities	– 32	– 2,129	0	– 44	– 15	– 68
	(– 10)	n. a.	n. a.	n. a.	n. a.	n. a.
Change in cash and cash equivalents	995	– 1,207	1,130	– 235	1,231	442
	(165)	n. a.	n. a.	n. a.	n. a.	n. a.

The figures in brackets relate to the prior year.

Receivables and payables in the individual financial statements of consolidated entities prepared in a local currency which is not the functional currency of the subsidiary, are converted at the exchange rate on the balance sheet date in accordance with IAS 21. Differences arising from the foreign currency conversion are recognized through profit and loss under other operating income or other operating expenses and, if these are derived from financial transactions, are recognized under financial income or financial expenses (see details on the Income Statement from page 178) This excludes currency conversion differences arising from loans and advances which constitute a part of the net investment in a foreign operation. These differences from foreign currency conversions are recorded in other comprehensive income outside or profit or loss until the sale of the net investment; It is only at the time of their disposal that the cumulative amount is reclassified into the income statement.

The exchange rates used for the conversion are shown in the table below:

	1 EUR =	Annual average exchange rate 1/1 to 31/12/2020	1/1 to 31/12/2019	Exchange rate on the reporting date 31/12/2020	31/12/22019
Australia	AUD	1.6554	1.6106	1.5896	1.5995
Canada	CAD	1.5294	1.4857	1.5633	1.4598
Switzerland	CHF	1.0703	1.1127	1.0802	1.0854
China	CNY	7.8708	7.7339	8.0225	7.8205
Great Britain	GBP	0.8892	0.8773	0.8990	0.8508
Hongkong	HKD	9.2193*	n. a.	9.5142	n. a.
India	INR	84.5795	78.8501	89.6605	80.1870
Japan	JPY	121.7754	122.0564	126.4900	121.9400
Korea	KRW	1,345.1058	1,304.8987	1,336.0000	1,296.2800
Malaysia	MYR	4.7935	4.6372	4.9340	4.5953
Singapore	SGD	1.5736	1.5272	1.6218	1.5111
Taiwan	TWD	33.8093*	n. a.	34.2880	n. a.
US	USD	1.1413	1.1196	1.2271	1.1234

* Average exchange rate since initial consolidation of TRIOPTICS Group in September 2020

2.4 Acquisitions and sales of entities

Acquisition of INTEROB

With the signing of the contract on January 25, 2020 and the closing on February 4, 2020, Jenoptik acquired a 100 percent stake respectively in INTEROB, S.L., Valladolid, Spain and INTEROB RESEARCH AND SUPPLY, S.L., Valladolid, Spain (jointly referred to as INTEROB) via JENOPTIK Automatisierungstechnik GmbH. INTEROB specializes in the design, construction and integration of customized automation solutions as well as robotics applications. With the acquisition, the Jenoptik Group is tapping into additional regional and technological growth potential in the automotive industry and is continuing the development, begun with the acquisition of Prodomax and Five Lakes, towards becoming a full-service provider for automated production solutions.

The purchase price in the sum of 34,726 thousand euros comprises a fixed cash component (29,437 thousand euros) as well as a conditional component (nominal 7,113 thousand euros, current value 5,289 thousand euros) which is based on the attainment of agreed earnings figures in the years 2020 to 2022 and recognized at fair value on the date of the initial consolidation.

The conditional component of the purchase price includes a standard earn-out as well as an earn-out premium in the event that the targets are exceeded by the acquired companies. The actual EBITDA achieved and the deviation from the projected EBITDA in the respective fiscal years are the parameters by which the amounts of both components of the earn-out are measured. In this context, the level of the earn-out is not limited

The anticipated earn-out payments were discounted at an interest rate dependent upon maturity and risk.

In return, Jenoptik acquired the following net assets as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	**30,779**
Intangible Assets	27,805
Property, plant, and equipment	2,730
Other non-current assets	244
Current assets	**20,782**
Trade receivables	7,270
Contract assets	12,258
Other current assets	1,047
Cash and cash equivalents	207
Non-current liabilities	**5,000**
Financial liabilities	2,757
Deferred tax liabilities	2,178
Other non-current liabilities	65
Current liabilities	**11,835**
Financial liabilities	4,184
Liabilities from trade receivables	6,557
Other current liabilities	1,094

The acquired assets include receivables with a gross value of 7,396 thousand euros. The general default risk was taken into account through an impairment loss in the amount of the anticipated loss of 126 thousand euros. The acquired assets also included cash and cash equivalents amounting to 207 thousand euros.

In connection with the acquisition of shares in the INTEROB, in addition to the revaluation of property, plant and equipment, a customer base plus the order backlog were identified in particular as intangible assets as part of the purchase price allocation. The intangible assets are amortized over periods of between three and seven years. Goodwill in the sum of 19,841 thousand euros was also recorded for the acquisition of the skilled personnel as well as for synergy effects arising from additional applications in the field of automation solutions and robotics applications, the enlargement of the customer base and opening up of new markets, which is included in the intangible assets . The INTEROB goodwill is allocated to the group of cash-generating units “Light & Production” and is not tax-deductible.

Contingent liabilities were not identified during the corporate acquisition.

Costs incurred up to December 31, 2020 for the acquisition of INTEROB totaled 303 thousand euros. The costs in the sum of 139 thousand euros incurred in the year 2020 were shown under other operating expenses.

Acquisition of TRIOPTICS

On the closing date of September 24, 2020, Jenoptik successfully completed the acquisition of the initial 75-percent stake in the optics specialist Trioptics GmbH, Wedel, Germany. All conditions for the transaction have therefore been met and all the necessary regulatory approvals for the acquisition are in place. The Group will acquire the remaining 25 percent of Trioptics GmbH from the owners on December 31, 2021 at already agreed terms. On the basis of the existing control and present ownership in relation to the remaining 25 percent of the shares, the company was consolidated to 100 percent.

The acquisition of Trioptics GmbH also gave Jenoptik the controlling interest in its following subsidiaries:

- JENOPTIK Berlin GmbH, Berlin, Germany
- TRIOPTICS Singapore PTE. LTD., Singapore
- Trioptics Optical Test Instruments (China) Ltd., China
- Trioptics Hong Kong Limited, Hong Kong
- Trioptics Japan Co., Ltd., Shizuoka, Japan
- Trioptics Korea Co., Ltd., Suwon, Korea
- TRIOPTICS TAIWAN LTD., Taoyuan, Taiwan
- Trioptics, Inc., Rancho Cucamonga, California, USA

Jenoptik also acquired a 50 percent stake in Trioptics France S.A.R.L., Villeurbane, France, which will be included in the consolidated financial statements as an Joint Venture with effect from the closing date.

The acquisition of Trioptics GmbH allows Jenoptik to further sharpen its focus on high-growth cutting-edge industries. TRIOPTICS’ complementary portfolio allows for additional offerings of measuring systems and manufacturing facilities for sensor solutions and optical micro-components. TRIOPTICS employs more than 400 personnel worldwide and generates more than half its revenue in Asia.

The information below is based on provisional figures. The provisional aspect relates to the determination of the net assets acquired from the TRIOPTICS entities. The first-time consolidation is expected to be finalized in the first half-year 2021.

The purchase price in the sum of 308,151 thousand euros comprises a cash component for the acquisition of the 75 percent stake (220,701 thousand euros), a downstream purchase price for the remaining 25 percent of the shares (nominal 78,148 thousand euros, present value 76,939 thousand euros) as well as several conditional purchase price components (nominal 12,517 thousand euros, present value 10,511 thousand euros). The remaining purchase price liabilities were discounted at an interest rate dependent upon maturity and risk.

The conditional components of the purchase price, accounted for at fair value, include earn-out components dependent upon on the EBITDA for 2020 and 2021, as well as a revenue-dependent bonus/malus scheme based on the year 2021. The conditional components range between minus 15 million euros and plus 45 million euros.

In return, the following net assets were acquired as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	**283,904**
Intangible Assets	254,062
Property, plant, and equipment	24,164
Other non-current assets	5,678
Current assets	**86,555**
Inventories	39,070
Trade receivables	10,277
Other current assets	6,668
Cash and cash equivalents	30,540
Non-current liabilities	**28,809**
Financial debt	12,376
Deferred tax liabilities	13,431
Other non-current liabilities	3,002
Current liabilities	**23,281**
Other current provisions	3,124
Financial debt	2,572
Liabilities from trade receivables	2,928
Contract liabilities	10,610
Other current liabilities	4,048

The acquired assets include receivables with a gross value of 12,182 thousand euros. The general default risk was taken into account through an impairment loss in the amount of the anticipated loss of 1,905 thousand euros. The acquired assets also include cash and cash equivalents amounting to 30,540 thousand euros.

In connection with the acquisition of shares in Trioptics GmbH, in addition to the revaluation of inventories, in particular a customer base, technologies, a brand and an order backlog were identified as intangible assets as part of the purchase price allocation. The intangible assets are amortized over periods of between four and a half months and seven years. Goodwill in the sum of 211,304 thousand euros was also recorded for the acquisition of the skilled personnel as well as for synergy effects arising from areas of application for the optical components, the enlarged customer base and opening up of markets, which is included in the intangible assets. The group goodwill is allocated to the group of cash-generating units “Light & Optics” and is not tax-deductible.

Contingent liabilities were not identified during the corporate acquisition.

Minority shareholders hold investments in some Trioptics GmbH subsidiaries. The non-controlling interests of the entities were taken into account respectively with the share of the revalued net assets without recognition of goodwill. The total existing shareholdings of non-controlling shareholders at the date of the initial consolidation were valued at 10,218 thousand euros.

The costs incurred up to December 31, 2020 for the acquisition of TRIOPTICS totaled 2,686 thousand euros. The costs in the sum of 2,378 thousand euros incurred in the year 2020 were shown under other operating expenses.

With the inclusion of INTEROB, the consolidated financial statements contain revenue of 19,440 thousand euros and earnings after tax of 283 thousand euros. With the inclusion of TRIOPTICS the consolidated financial statements contains revenue of 27,806 thousand euros and earnings after tax of minus 34 thousand euros. Earnings after tax include the expenses from scheduled amortization of intangible assets identified as part of the purchase price allocation.

On the premise that all corporate acquisitions had already taken place as of January 1, 2020, the Jenoptik Group would show revenue of 815,837 thousand euros and consolidated earnings after tax of 42,131 thousand euros. In order to determine this information, it was assumed that the fair values and useful lives of the intangible assets identified in the context of the allocation of the purchase price as of January 1, 2020 are identical to those as at the initial consolidation date. These pro-forma figures were produced solely for comparison purposes. They do not provide a reliable indication either of the operating results that would actually have been achieved if the acquisition had been made at the beginning of the period or of future results.

There were no sales of companies in the 2020 fiscal year.

2.5 Notes on other entities

Jenoptik holds shares in 6 (prior year: 6) other entities with a maximum 50 percent investment quota respectively. These investments are of minor importance respectively and overall for the asset, financial and earnings situation of Jenoptik. Therefore, based on the principle of cost effectiveness and materiality, the equity valuation was not applied to these investments. The general disclosures on the investments are contained in the list of shareholdings of the Jenoptik Group from page 231.

3 Accounting Policies and Valuation Methods

3.1 Accounting and valuation effects related to COVID-19

With view on the influence of Covid-19 pandemic on the operational activity of Jenoptik companies, there is a continuous analysis of possible balance sheet effects and the impact on the net assets, financial position and results of operations of the Group.

A detailed explanation of the effects on the operational business is included in the management report.

Significant accounting and valuation effects arise in particular from public support benefits the Group has used around the economic consequences of COVID-19 and macroeconomic developments. These concern in particular short-time working allowance as well as abroad partly granted other government support services due to sales declines. If the country-specific prerequisites for the respective support measures are fulfilled as well as certainly, these claims are recognized in the balance sheet in other non-financial assets. In the 2020 financial year, the support benefits of 12,514 thousand euros were recognized, which led to lower personnel costs and thus a corresponding improvement of the earnings situation. At the balance sheet date, receivables from support services amounted to 2,462 thousand euros.

Further explanations on accounting and valuation effects are contained in the respective information on the income statement and in the balance sheet.

3.2 Goodwill

Goodwill as stated in IFRS 3 corresponds to the positive difference between the consideration for a corporate merger and the newly acquired, revalued assets and liabilities, including certain contingent liabilities remaining after a purchase price has been allocated. Within the framework of this purchase price allocation, the identifiable assets and liabilities are not recognized at their previous carrying amounts but at their fair value. During an acquisition of a controlling interest, non-controlling interests are valued according to their proportion of the identifiable net assets.

Goodwill is recognized as an asset and subject to an impairment test at least once a year on a defined date or whenever there is an indication that the cash-generating unit could be impaired. An impairment loss is recognized immediately through profit or loss and not reversed in later reporting periods.

3.3 Intangible assets

Intangible assets acquired in return for payment, primarily patents, trademarks, software and customer relationships, are capitalized at their acquisition costs. Intangible assets with finite useful lives are subject to scheduled amortization on a straight-line basis over their economic useful lives. This is generally a period of between three and ten years. The Group reviews whether its intangible assets with finite useful lives have suffered an impairment loss (see section “Impairment losses on property, plant, and equipment and intangible assets").

Internally generated intangible assets are capitalized if the recognition criteria specified in IAS 38 “Intangible Assets” have been fulfilled.

Internally generated intangible assets are subject to schedule amortization on a straight-line basis over their anticipated useful lives. This is generally a period of between five and ten years.

Development costs are capitalized if a newly developed product or process can be clearly identified, is technically realizable and if there plans for production, own use, or marketing. Furthermore, it is assumed that, if capitalized, there is sufficient probability that the development costs will be covered by future financial cash inflows and can be reliably determined. Finally, there must be adequate resources available to conclude the development and enable the asset to be used or sold.

Capitalized development costs are subject to scheduled amortization over the anticipated sales period of the products – in principle however no longer than five years. In this context, the acquisition and production costs cover all the costs directly attributable to the development process as well as appropriate portions of the overheads relating to the development. If the requirements for capitalization have not been fulfilled, the expenditures are recognized through profit or loss in the year they occurred.

Amortization on intangible assets is apportioned on the basis of the causer principle to the corresponding function areas in the statement of income.

Research costs are recorded as current expenses in research and development expenses in accordance with IAS 38.

3.4 Property, plant, and equipment

Property, plant, and equipment are valued at acquisition and production cost, less scheduled, straight-line depreciation. The depreciation method reflects the anticipated pattern of consumption of the future economic benefits. If the acquisition cost of individual components of an asset is material (particularly in the case of buildings), the depreciation is applied separately for each part of the property, plant and equipment. Where necessary, impairment losses reduce the amortized acquisition and production costs. In principle, government grants for non-current assets are deducted from the acquisition and production costs in accordance with IAS 20 “Accounting for and Presentation of Government Grants” (see section entitled “Government Grants”). Production costs are calculated on the basis of directly attributable specific costs as well as proportionate, directly attributable cost of materials and production overheads including depreciation. In accordance with IAS 23 “Borrowing Costs”, borrowing costs directly attributable to acquisition or production costs of a qualifying asset are capitalized as a portion of the acquisition or production costs.

Costs incurred for repairing property, plant, and equipment are generally treated as an expense. Subsequent acquisition costs for any components of property, plant, and equipment replaced at regular intervals, can be capitalized insofar as future economic benefits can be reasonably expected and the respective costs can be reliably measured.

Unchanged to the previous year, scheduled depreciation is essentially based on the following useful lives:

	Useful life
Buildings	12–80 years
Machinery and technical equipment	5–15 years
Other equipment, operating and office equipment	3–15 years

If any items of property, plant, and equipment are decommissioned, sold or relinquished, the gain or loss arising from the difference between the proceeds of the sale and the residual carrying amount are recorded under other operating income or other operating expenses.

3.5 Impairment of property, plant, and equipment and intangible assets

Property, plant, and equipment and intangible assets with finite useful lives are assessed at each reporting date to see if there are any indications of possible impairment losses for the corresponding assets in accordance with IAS 36 “Impairment of Assets”. If any such indications for specific assets or a cash-generating unit are identified, an impairment test will be performed on these assets.

The differentiation between the cash-generating units for goodwill purposes is carried out on the basis of the divisions, as well as for property, plant and equipment and other intangible assets at the business unit level.

As part of the impairment test, the recoverable amount of an asset or cash-generating unit is first determined and then compared with the corresponding carrying amount in order to identify if there is any need for an impairment to be applied.

The recoverable amount is the higher of an asset’s fair value less costs to sell and value in use of an asset or a cash-generating unit.

The amount designated as at fair value less costs to sell is that which could be achieved through the sale of an asset in a transaction at arm’s length between knowledgeable and willing parties.

Value in use is determined on the basis of discounted anticipated future cash inflows. This is based on a fair market interest rate before tax that reflects the risks of using the asset that are not yet considered in the estimated future cash inflows.

If the recoverable amount of an asset is estimated to be less than the carrying amount, it is depreciated to the recoverable amount. The impairment loss is recognized in other operating expenses, affecting profit or loss.

If an impairment loss is reversed in a subsequent accounting period, the carrying amount of the asset must then be adjusted to the recoverable amount determined. The maximum limit for the reversal of an impairment loss is determined by the amount of the amortized acquisition or production costs that would have been recorded if an impairment loss had not been recognized in prior periods. The impairment loss reversal is immediately recoded in other operating income, affecting profit or loss.

3.6 Government grants

IAS 20 distinguishes between grants related to acquiring non-current assets and grants related to income.

IAS 20 fundamentally provides for grants to be accounted for through profit or loss in the same period as the relevant expenses. In the reporting year this essentially relates to public subsidies to mitigate the economic consequences of COVID-19 as well as macroeconomic developments.

In the Jenoptik Group grants for non-current assets are deducted from the acquisition and production costs. Correspondingly, the amount to be written off is determined on the basis of the reduced acquisition and production costs.

3.7 Leases

On commencement of contract, the Group assesses whether a contract constitutes or contains a lease. This is the case if the contract provides the entitlement for the use of an identified asset in return for payment of a remuneration to be monitored for a specific period. As a lessee, Jenoptik fundamentally accounts for the rights of use of the lease items and the corresponding lease liabilities in accordance with IFRS 16.

Rights of use are valued at acquisition costs less all accumulated depreciation. The acquisition costs include the recognized lease liabilities, the initial direct costs incurred as well as the lease payments made at or before provision. Rights of use are subject to planned, straight-line depreciation over the shorter of the two periods of duration and anticipated useful life and for real estate class assets amount to one to 25 years and for machinery, technical equipment as well as other equipment, operating and office equipment class assets, one to five years. The rights of use are recognized in the statement of financial position in the item in which the underlying asset would be shown if it were the property of the Group.

The lease liabilities are recognized at the current value and include fixed payments, variable lease payments linked to an index or interest rate, payments arising from a contractually guaranteed residual value, payments from the exercising of renewal or purchase options deemed to be sufficiently secure and contractual penalties for the exercising of sufficiently secure termination options.

When calculating the current value of the lease payment, the Group applies its incremental borrowing rate on the date of provision if the interest rate underlying the lease cannot be readily determined. The Group's lease liabilities are shown in the items "Non-current financial debt" and "Current financial debt".

The Group makes use of the practical recognition exemption offered by IFRS 16 and recognizes the lease payments for short-term leases (excluding property) as well as small-value leased assets as expenses on a straight-line basis over the term of the lease.

3.8 Investment property

Investment property comprises plots of land and buildings held for gaining rental income or for the purpose of their value increasing. These properties are not held for the Group's own production, for supplying goods or rendering services, for administration purposes or for any sales in the ordinary course of business activities.

In accordance with the right of choice under IAS 40 "Investment property", such assets are to be accounted for at amortized acquisition or construction costs. The fair values to be stated are determined using the discounted cash flow method.

The straight-line depreciation method is based on a useful life of between 20 to 80 years.

In accordance with IAS 36, depreciation resulting from impairment losses on investment property is made if the value in use or fair value less costs to sell of the respective asset is less than the carrying amount. If the reasons for an impairment loss resulting from depreciation from a prior period cease to exist, corresponding write ups are recorded.

3.9 Financial instruments

Financial instruments are contracts giving rise to a financial asset of one entity and to a financial liability or an equity instrument of another entity. As defined in IAS 32, such instruments include on the one side primary financial instruments such as trade receivables and trade payables or financial receivables and financial payables. On the other side, they also include derivative financial instruments which are used for hedging risks arising from fluctuations in interest and foreign currency exchange rates.

Financial assets and financial liabilities are recognized in the consolidated statement of financial position from the date on which the Group becomes a contractual party in the a financial instrument agreement.

Depending upon the Group's business model for managing assets and the question as to whether the contractual cash flows of the financial instruments exclusively constitute repayments and interest payments on the outstanding nominal amount, the existing financial instruments are categorized in accordance with IFRS 9 either as "at amortized acquisition costs", "at fair value outside profit or loss in other comprehensive income", or "at fair value recorded through profit or loss" and valued accordingly.

The amortized acquisition costs of a financial asset or a financial liability is defined as the amount at which the financial asset or financial liability was valued at initial recognition:

- minus any repayments
- minus any impairment losses or potential inability to be recovered, as well as
- plus/minus the cumulative distribution of any difference between the original amount and the amount repayable on maturity (e.g. discount and transaction costs). Under the effective interest method, this difference is spread over the full contractual term of the financial asset or financial liability.

The amortized acquisition cost for current receivables and payables generally reflect the nominal amount or the repayment value.

Fair value generally corresponds to the market or stock market value. If there is no active market, the fair value is checked by using financial mathematical methods such as by discounting estimated future cash flows at market interest rates or by applying standard option price models and by confirmations issued by the banks that sold the instruments.

a) Primary financial instruments

Shares in entities

Initial recognition in the statement of financial position is based on the fair value.

In the Jenoptik Group, all long-term shareholdings in companies are classified as "outside profit or loss at fair value in other comprehensive income" based on the exercising of the voting right granted in accordance with IFRS 9 and valued at fair value. In the absence of any identifiable market prices, the fair values of these financial instruments are determined on the basis of discounted cash flows. Changes in value are recorded in other comprehensive income outside of profit or loss

Shares in entities wich are included at-equity

Shares in entities over which Jenoptik exerts key influence, are valued using the at-equity method under IAS 28. For this purpose, the original investment carrying amount is updated with the shares in the company's Consolidated statement of changes in equity to which the shareholders are entitled. Shares in the profit or loss are recognized under profit or loss, whilst shares in other comprehensive income are recorded outside profit or loss.

Loans

Loans involve credit granted by the Jenoptik Group and are to be valued at the amortized acquisition costs in accordance with IFRS 9.

Non-current, non-interest-bearing loans and low interest-bearing loans are accounted for at current value. If any objective, substantial evidence of impairment can be identified, then unscheduled depreciation is applied.

Trade receivables

Trade receivables are non-interest bearing due to their short term nature and are recognized at nominal value less impairment losses on the basis of anticipated bad debts (amortized acquisition costs). The anticipated bad debts are determined in accordance with IFRS 9 via the simplified method. In this context, consideration is given to both the individual default risk as well as an anticipated default risk derived from past events for a group of receivables with comparable default risks (portfolio-based impairment) through the recognition of a provision for risk in the amount of the bad debts anticipated over the entire period, using an impairment loss account. When the loss of a trade receivable is finally realized, the receivable is written off by using any impairment previously recognized. Similarly, the receivable is derecognized when the contractual rights relating to the cash flows arising from the receivable expire, or the rights to receive the cash flows are transferred in a transaction in which all the risks and opportunities associated with the ownership of the receivable are transferred. As part of the factoring, the receivables are held for collection of in some cases for resale.

Other financial assets

Other financial assets are recognized at amortized acquisition costs. All identifiable default risks are accounted for by a corresponding impairment.

Non-current, non-interest-bearing or low interest-bearing receivables are discounted.

Current financial investments
Current cash deposits and current financial receivables are classified “at amortized acquisition costs” in accordance with IFRS 9, securities are classified at fair value through profit or loss and valued accordingly.

Cash and cash equivalents
Cash and cash equivalents comprise cash on hand, checks and bank credit balances available on demand with an original maturity of up to three months. These are recognized at the nominal amount less a provision for the risk of anticipated loan defaults.

Financial liabilities and equity instruments
In principle, financial liabilities are valued at amortized acquisition costs by applying the effective interest method. This does not apply to financial liabilities which are accounted for at fair value through profit or loss.

An equity instrument is any contractual agreement containing a residual interest in the assets of the Group after all liabilities have been deducted. Shares which have been issued are classified as equity, whereby the costs (less related income tax benefits) directly attributable to the issue of treasury shares, have been deducted from equity.

Liabilities to banks
Interest-bearing bank loans and overdraft lines of credit are accounted for at the amounts received less any directly attributable disbursement expenses. Financing costs, including premiums due to be paid on repayment or redemption, are accounted for on an accrual basis by applying the effective interest method, and increase the carrying amount of the instrument insofar as they have not been settled at the date of its inception.

b) Derivative financial instruments
The Jenoptik Group uses derivative financial instruments for hedging risks arising from fluctuations in interest and foreign currency exchange rates. They serve to reduce earnings volatility resulting from interest and foreign currency exchange rate risks. Fair value is determined by taking into account the market conditions – interest rates, foreign currency exchange rates – at the balance sheet date and using the valuation methods shown below.

Derivative financial instruments are not used for speculation purposes. The use of derivative financial instruments is subject to a group guideline which governs the use of derivative financial instruments. In order to hedge risks from fluctuations in interest and foreign currency exchange rates, the Group uses cash flow hedges.

Changes in the fair value of derivative financial instruments which serve to hedge cash flow risks, are documented. If the hedge accounting has been classified as effective, the changes in fair value are recognized outside of profit or loss in other comprehensive income. Reclassifications from equity to profit or loss are carried out in the period during which the hedged underlying transaction affects profit or loss. Fluctuations in value arising from financial instruments which are classified as not effective are recorded directly in profit or loss.

3.10 Inventories

Inventories are recognized at the lower of acquisition or production costs and their net realizable value.

The net realizable value is the estimated proceeds from sale less the estimated production costs and any further costs incurred up to sale. For determining the net realizable value, devaluation routines are applied in addition to case-by-case assessment. The range, market price (based on existing orders) as well as marketability serves as indicators of lower net sales proceeds. In this context, the specific discount rates are regularly reviewed and, if necessary, adapted.

Acquisition costs also include any other costs incurred to restore the inventories to their current condition. These take into account any reductions such as rebates, bonuses or trade discounts.

Production costs include the full costs relating to production that have been determined on the basis of normal production capacity utilization. In addition to direct costs, these also include the appropriate portion of the necessary material and production overheads as well as production related depreciation which can be directly attributable to the production process. In this context, particular account is taken of the costs that are allocated to specific production cost centers. Administrative expenses are also taken into account insofar as they can be allocated to production. If carrying amounts at the reporting date have decreased owing to lower prices on the sales market, then these are recognized. In principle, the valuation of similar inventory assets is based on the average cost method. If the reasons that led to a write-down of inventories cease to exist and the net realizable value has consequently increased, the reversals of write-downs are recognized as a reduction in material expenses in the corresponding periods in which they occur.

3.11 Borrowing costs

Borrowing costs that can be directly attributed to the construction or production of a qualifying asset are capitalized as a portion of the acquisition or production costs of this asset.

3.12 Contract assets and contract liabilities

A contract asset is the not-yet-unconditional claim to the receipt of a consideration in return for goods or services transferred to a customer. If the Group meets its contractual obligations by transferring goods or services to a customer before the customer pays the consideration or before the payment is due, a contract asset will be recognized for the conditional claim to consideration in return. This gives rise to contract assets as the difference between the realized revenue from the respective order, less payments received and customer billings. Receivables from customers arising from invoices issued, are shown under trade receivables.

If the requested payments received and due, as well as the customer billings issued, exceed the realized revenue, a contract liability will be shown. A contract liability therefore constitutes the obligation of the group to transfer goods or services to a customer for which it, the group, has received a consideration from the customer or for which a requested payment is due. Contract liabilities are recognized as proceeds as soon as the Group fulfills its contractual obligations.

The contractual liabilities additionally include obligations arising from agreed contractual penalties which must be taken into account in order to reduce revenue.

Contract assets reported in accordance with IFRS 15 are valued at the nominal value, taking into account impairment losses in the default amounts anticipated over the entire useful life.

3.13 Deferred taxes

The accounting for and valuation of deferred taxes is performed in accordance with IAS 12 “Income taxes”. Deferred tax assets and deferred tax liabilities are shown as separate items in the statement of financial position in order to take into account future tax effects resulting from timing differences between the statement of financial position valuations of assets and liabilities and tax losses carried forward.

Deferred tax assets and deferred tax liabilities are computed in the amount of the anticipated tax burden or tax relief in subsequent fiscal years on the basis of the tax rate applicable on the date of realization. The effects of changes in tax rates on deferred taxes are recognized in the reporting period during which the legislative procedure on which the change in the tax rate is based has been completed.

Deferred tax assets on differences in the statement of financial position and on tax losses carried forward are only recognized if it is probable that these tax advantages can be realized in the foreseeable future.

Deferred tax assets and deferred tax liabilities are offset against each other insofar as taxes are levied by the same authority and relate to the same tax period. In accordance with the regulations of IAS 12, there is no discounting of deferred tax assets and liabilities.

3.14 Provisions for pensions and similar obligations

Pensions and similar obligations comprise the pension obligations of the Jenoptik Group arising from both defined benefit as well as defined contribution retirement schemes.

In accordance with IAS 19, pension obligations for defined benefit schemes are determined by applying the so-called projected unit credit method. An actuarial expert opinion for this procedure is obtained at least once a year.

In Germany, the mortality rates are determined in accordance with the Klaus Heubeck guideline mortality tables 2018 G. The BVG/LPP 2015 mortality tables apply in Switzerland and in France it’s the current tables of the INSEE. Actuarial gains and losses are recognized outside profit or loss in other comprehensive income. Past-service expenses are shown under personnel expenses and the interest portion of the addition to provisions is recorded in the financial result.

Assets that meet the requirements for plan assets under IAS 19.8 are recognized at their current value and offset against the pension obligations.

For defined contribution schemes, the contributions payable are recognized immediately as an expense.

3.15 Tax provisions

Tax provisions contain obligations arising from current income taxes. Deferred taxes are disclosed in separate items in the statement of financial position.

Tax provisions for corporation tax and business tax or similar income tax expenses are determined on the basis of the taxable income of the consolidated entities, less any prepayments made.

3.16 Other provisions

In accordance with IAS 37 “Provisions, Contingent Liabilities and Contingent Assets”, provisions are set aside insofar as there is any current liability to a third party resulting from a past event that is likely to lead to an outflow of resources in the future and the amount of which can be reliably estimated. Other provisions are only set aside for legal or de facto obligations to third parties that are more likely than not at the reporting date.

Provisions are recognized at their settlement value discounted at the reporting date, providing the interest effect is significant. The settlement value also includes the anticipated price or cost increases. The discounting is based on non-negative interest rates before taxes that reflect current market expectations with regard to the interest effect and which are dependent upon the corresponding term of the obligation. The interest portion arising from the compounded of the provision, as well as any effects of changes in interest rates, are recognized in the financial result.

Provisions are valued on the basis of empirical values, taking the circumstances at the balance sheet date into consideration. Provisions for guarantees and warranties are set aside for individual cases and on a lump-sum basis. The amount of the provision is based on the historical development of guarantees and warranties as well as on a consideration of all future potential guarantee or warranty claims, weighted by the probability of their occurrence.
Claims to the right of recourse are only taken into account if these claims are virtually certain.

3.17 Share-based payments

The members of the Executive Board and some senior management personnel of JENOPTIK AG receive multi-year variable remuneration in the form of long term incentives (LTI) or performance shares. Both types of these virtual shares are accounted for in accordance with IFRS 2 as share-based remuneration with settlement in cash. At the balance sheet date and depending upon the contractual provisions, a provision is set aside in the amount either of the pro rata temporis or full fair value of the payment obligation. Changes in fair value are recognized through profit or loss until they are realized.

3.18 Contingent liabilities

Contingent liabilities are potential obligations that are based on past events and whose existence is only confirmed by the occurrence of one or more uncertain future events, which are, however, outside the control of the Jenoptik Group. Moreover, current obligations can constitute contingent liabilities if there is insufficient certainty regarding the likelihood of outflows of resources to set aside a provision and/or the amount of the obligation cannot be reliably estimated. The valuations of the contingent liabilities correspond to the existing scope of liability at the balance sheet date. In principle, they are not accounted for in the statement of financial position but are explained in the Notes.

3.19 Revenue

Proceeds from contracts with customers are recognized in accordance with IFRS 15 if the control of the goods or services is transferred to the customer. These are recognized in the amount of the consideration in return that the Group is expected to receive in exchange for these goods or services. For sales transactions with multiple performance obligations, the revenues are determined based on stand-alone selling prices.

Proceeds from the sale of goods are generally recorded at the time when control of the asset passes to the customer. The determination of this timing takes into account, among other things, the transfer of the legal ownership, the physical transfer of possession and any potentially agreed acceptance of the products by the customer.

In certain cases, the goods produced by Jenoptik as part of a specific order process represent assets with no alternative benefit to the Group. Subject to a claim for payment for the service rendered to date, the revenue is realized over a specific period, whereby the degree of completion is determined according to the input-oriented cost-to-cost method. This applies both to the production of individual assets as well as to development projects with subsequent volume production (customer-specific volume production).

Proceeds from the rendering of services which represent separate performance obligations within the meaning of IFRS 15 and from which the customer can benefit at the same time as the service is rendered, are recognized over time according to the degree of completion as at the balance sheet date, whereby the degree of completion is generally determined according to the input-oriented cost-to-cost method.

The Group is usually subject to statutory warranties for the repair of defects that were present at the time of sale. These so-called assurance-type warranties are recognized under provisions for warranties in accordance with IAS 37. If agreed guarantees and warranty claims significantly exceed the usual framework (so-called service-type warranties), these are assessed and accounted for as a separate service obligation. In this case, the revenue for the applicable portion is realized on a straight-line basis over the agreed period of the service-type warranty.

Rental income received from property is recognized on a straight-line basis over the term of the corresponding rental contracts and disclosed in revenue.

If a contract contains a number of delimitable components (multi-component contracts), these will be implemented separately in accordance with the above principles.

In determining the consideration in return that Jenoptik receives for fulfilling a customer order, agreed variable components are estimated at the beginning of the contract and then included in the transaction price when it is highly likely that the elimination of the uncertainty associated with the variable components of the consideration in return will not lead to a cancellation of revenue which has already been recognized. At Jenoptik, this applies to both agreed discounts and bonuses as well as to possible contractual penalties.

Based on the fact that advances received from the customer are generally short-term, the Group takes advantage of the simplification relief offered by IFRS 15 and refrains from taking a financing component into account when determining the consideration in return.

3.20 Cost of sales

Cost of sales show the costs incurred to generate revenue. This item also includes the costs for setting aside provisions for warranties and guarantees. The scheduled depreciation/amortization on intangible assets and property, plant, and equipment is shown in accordance with the principle of cause and included in cost of sales insofar as they are attributed to the production process.

3.21 Research and development expenses

Research and development expenses include non-capitalizable research and development expenses, with the exception of research and development expenses for customer orders which are disclosed under cost of sales.

3.22 Selling expenses and general administrative expenses

Along with personnel expenses and cost of materials, selling expenses include the costs incurred for distribution, advertising, sales promotion, market research, and customer service. In addition, selling expenses also include the costs for contract initiation which are immediately recognized as an expense as a result of the application of the practical remedy under IFRS 15, since the period of depreciation for the asset that the Group would otherwise have recognized is not more than one year. Amortization of customer relationships and order backlogs acquired as part of corporate mergers are also recorded in the selling expenses.

General administrative expenses include personnel expenses and the cost of materials as well as administration-related depreciation.

3.23 Impairment gains and losses on trade receivables

Value adjustments and reversals for trade receivables and contract assets in accordance with IFRS 9 are reported in the consolidated statement of income for the first time in a separate item. In the prior year, for materiality reasons the corresponding amounts were reported in other operating income and other operating expenses.

3.24 Other operating income and expenses

Income from the reversal of provisions is recorded in the functional costs, insofar as the provision was also generated in the corresponding functional costs. If the provision was set aside in other operating expenses, the provision reversal will also be shown in other operating expenses. Furthermore, these items include currency exchange gains and losses arising from operational receivables and liabilities as well as net gains and losses arising from hedging instruments for these items. The items also include effects arising from the hedging of net positions. In addition to other taxes, restructuring expenses as well as expenses for group projects are also allocated to other operating expenses. Income and expenses from the measurement of the fair value of contingent considerations arising from corporate acquisitions are shown in these items if the contingent considerations are dependent upon financial parameters within the EBIT.

3.25 Financial income and financial expenses

The financial income and financial expenses of the Group mainly comprise interest income and interest expenses. In addition, the financial result includes currency exchange gains and losses arising from financial assets and liabilities as well as net gains and losses arising from hedging instruments for these financial assets and liabilities.

4 Disclosures on the Statement of Income

4.1 Revenue

In contrast to 2019, revenue reduced overall by 88,039 thousand euros or 10.3 percent to 767,196 thousand euros.

Detailed disclosures on revenue according to division and region are shown in the Segment report from page 119. An additional breakdown of revenues by target markets is included in the Management report on page 106.

A breakdown of revenue, recognized over time and at the point in time is shown in the table below. Despite the decline in revenue the increase in revenue recognized over time results on the one hand from the revenue contribution of the acquired INTEROB and on the other hand from a higher proportion of customer-specific products, which require realization over time.

The revenue recognized over time included revenue from customer-specific volume production in the sum of 144,161 thousand euros (prior year: 129,427 thousand euros). In addition, revenue for customer-specific individual production, services provided and arising from the Traffic Service Provision contracts were recorded over time.

Revenue in the Light & Safety division also included other revenue from embedded operating lease contracts in the sum of 11,139 thousand euros (prior year: 10,284 thousand euros).

Revenue for performance obligations that had already been fulfilled in previous years was realized in the fiscal year just passed in the sum of 482 thousand euros (prior year: 372 thousand euros), in particular on the basis of variable components of the consideration in return, the amounts of which were previously subject to uncertainty.

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Group
External revenue	**317,993 (350,037)**	**178,950 (228,907)**	**114,008 (108,681)**	**151,730 (164,798)**	**4,516 (2,812)**	**767,196 (855,235)**
thereof recognized over time	137,666 (128,275)	89,191 (74,840)	39,469 (30,236)	24,479 (23,443)	4,516 (2,812)	295,321 (259,607)
thereof recognized at a point in time	180,327 (221,762)	89,759 (154,067)	74,538 (78,445)	127,251 (141,354)	0 (0)	471,876 (595,629)

The figures in brackets relate to the prior year.

Revenue also included revenues arising from the so-called “bill and hold” agreements in the sum of 13,528 thousand euros (prior year: 7,639 thousand euros). The increase is attributable to agreements initiated by customers.

4.2 Cost of sales

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Cost of materials	292,595	340,914
Personnel expenses	156,913	168,966
Depreciation and amortization	28,099	28,264
Other expenses	27,398	25,290
Total	**505,005**	**563,435**

Compared with 2019, the cost of sales reduced overall by 58,430 thousand euros or 10.4 percent to 505,005 thousand euros. The decrease in the cost of sales is mainly due to the lower revenue.

4.3 Research and development expenses

In 2020, research and development expenses increased overall compared with the prior year, by 397 thousand euros to 43,655 thousand euros.

These cover all expenses attributable to research and development activities. These statement of income items did not include expenses paid by customers in connection with research and development services in the sum of 16,318 thousand euros (prior year: 20,408 thousand euros). Such expenditures were allocated to cost of sales.

In the fiscal year just past, costs in the sum of 8,641 thousand euros (prior year: 3,801 thousand euros) were capitalized in the intangible assets for internal development projects.

More detailed information on the Group’s research and development activities is provided in the Combined Management Report in the section “Research and development” from page 92.

4.4 Selling expenses

In 2020, selling expenses reduced overall compared to 2019 by 2,948 thousand euros or 3.3 percent to 86,401 thousand euros. This is attributable to general cost reductions in the course of COVID-19 which outweighed the addition of TRIOPTICS and INTEROB to the scope of consolidation.

Selling expenses essentially comprise material costs in the sum of 6,119 thousand euros (prior year: 4,356 thousand euros), personnel expenses in the sum of 48,980 thousand euros (prior year: 51,736 thousand euros) and depreciation and amortization in the sum of 12,173 thousand euros (prior year: 7,053 thousand euros).

4.5 General administrative expenses

In 2020, general administrative expenses increased compared to the prior year by 1,216 thousand euros to 61,755 thousand euros. This is due in particular to the addition of TRIOPTICS and INTEROB to the scope of consolidation.

General administrative expenses essentially comprise personnel expenses in the sum of 46,157 thousand euros (prior year: 43,884 thousand euros) and depreciation and amortization in the sum of 7,238 thousand euros (prior year: 5,542 thousand euros) and other expenses of 8,359 thousand euros (prior year: 11,112 thousand euros).

4.6 Expenses according to types of expense

The following main types of expenses are included in revenue, selling and administrative expenses as well as in the research and development expenses:

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Cost of materials	312,479	344,776
Personnel expenses	291,049	301,076
Depreciation and amortization	50,343	43,802
Other expenses	42,945	67,720
Total	**696,816**	**757,374**

The change in the types of expense is attributable in particular to the lower revenue. The increase in depreciation and amortization is mainly due to intangible assets identified as part of the purchase price allocations resulting from the acquisition of TRIOPTICS and INTEROB.

4.7 Impairment gains and losses on trade receivables

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Impairment gains	5,814	1,740
Impairment losses	1,895	4,486
Total	**3,919**	**−2,746**

The impairment gains and losses shown in this item are in accordance with IFRS 9 and relate to trade receivables and contract assets.

Impairment gains and losses from trade receivables show an overall positive result. Reversals of impairment losses significantly exceeded impairment expenses. This is mainly due to an increased focus on receivables management, which led to a significant decrease in longer-term overdue receivables and consequently to a decrease in generalized individual value adjustments.

Impairment losses fell by 2,591 thousand euros compared to the prior year (prior year: 4,486 thousand euros). This is primarily attributable to the significant improvement in the maturity structure of trade receivables. The improvement in the maturity structure of trade receivables was achieved through targeted measures aimed at increasing efficiency in receivables management.

Further information on income and expenses in connection with impairments to receivables is shown in Section 8.2 “Financial Instruments” (from page 172) as well as Section “Current trade receivables” (from page 194).

4.8 Other operating income

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Income from currency gains	8,299	7,042
Income from services, offsets and rental	2,062	2,527
Income from non-cash contributions	1,936	1,930
Income from sale of intangible assets and property, plant and equipment	1,587	136
Income from adjustment to fair values of earn-out liabilities	1,567	819
Income from government grants	1,259	988
Income from at-equity accounting	703	530
Income from damage claims/ insurance payments	651	508
Income from sale of materials	126	262
Others	2,425	2,104
Total	**20,616**	**16,846**

In 2020, other operating income increased by 3,770 thousand euros and consequently by 22.4 percent to 20,616 thousand euros.

Income from from foreign currency exchange gains mainly include gains arising from fluctuations in exchange rates between the transaction date and the payment date of receivables and payables in foreign currencies, as well as exchange rate gains arising from the valuation at the exchange rate on the reporting date.

Income from services, offsets and rentals which is not derived from the normal business activity of the entities, is shown under other operating income.

Income from government grants essentially related to grants for research and development projects that Jenoptik received from the Federal Ministry for Education and Research and other federal and European institutions.

The income from the adjustment to the fair values of contingent liabilities relates to variable purchase price components arising from the acquisition of OTTO and INTEROB.

Other operating income includes, among other things, income from the operation of staff canteens.

4.9 Other operating expenses

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Reorganization and restructuring	13,191	0
Foreign currency exchange losses	10,121	9,143
Acquisition costs	3,611	2,052
Expenses for group projects	3,300	3,696
Impairments of intangible assets and property, plant and equipment	1,733	1,248
Expenses for services and rentals	1,464	2,560
Income from fair value adjustment of contingent liabilities	1,091	0
Losses from disposals of intangible assets and property, plant and equipment	681	172
Other taxes	458	611
Amortization of intangible assets from a first-time consolidation	0	918
Additions/reversals of provisions	– 644	– 158
Others	597	2,801
Total	**35,604**	**23,045**

Other operating expenses rose compared with the prior year by 54.5 percent to 35,604 thousand euros.

The expenses incurred from foreign currency exchange losses primarily include losses from changes in currency exchange rates between the transaction date and the date of payment of foreign currency receivables or payables, as well as from the valuation at the exchange rate on the reporting date. In addition, the results from the hedging of net exposures in foreign currency led to a loss. Exchange rate gains resulting from these items are recognized under other operating income. Foreign currency gains and losses led to a net loss of 1,822 thousand euros in 2020 (prior year: net loss of 2,101 thousand euros).

Group projects mainly involve non-capitalizable expenses for the implementation of a new group-wide ERP system, as well as expenses for measures designed to increase the efficiency of Jenoptik's management processes and organization.

Impairment losses on intangible assets and property, plant and equipment, are in particular the result of a property write-down. The impairment loss was based on future realizable rental income, which was lower by comparison with prior years.

The transaction costs include, in particular, consultation costs in connection with the acquisition of INTEROB and TRIOPTICS as well as other costs for the auditing of potential corporate acquisitions.

The addition to and reversal of provisions included reversals of minus 644 thousand euros (prior year: minus 158 thousand euros) which could not be directly allocated to functional costs. More information on these items can be found in the section "Other provisions" from page 204.

Restructuring expenses include cost-cutting and efficiency improvement measures which were required mainly as a result of the structural shift in the automotive industry to electro-mobility and the ongoing COVID-19 pandemic. In addition, restructuring expenses for measures in the VINCORION division for process and structural streamlining to achieve the desired product focusing and greater independence.

The expenses from the adjustment to the fair values of contingent liabilities relate to variable purchase price components arising from the acquisition of TRIOPTICS.

Other operating expenses in the 2020 fiscal year include, amongst others, expenses for the operation of staff canteens.

4.10 Financial income and financial expenses

in thousand euros	1/1–31/12/2020	1/1–31/12/2019
Income from measuring financial instruments in foreign currency	3,227	4,295
Income from the reversal of impairment losses on current financial investments as well as cash and cash equivalents	337	631
Other interest and similar income	1,893	419
Total financial income	**5,458**	**5,345**
Expenses for measuring financial instruments in foreign currency	4,600	3,782
Financing costs for syndicated loans, promissory note loans and bridge financing	2,832	1,863
Accrued interest on other provisions and liabilities	1,214	702
Interest expenses for leases	1,507	1,617
Net interest expenses for pension provisions	264	585
Other interest and similar expenses	1,118	506
Total financial expenses	**11,534**	**9,055**
Total	**−6,077**	**−3,709**

The net balance of financial income and financial expenses reduced by 2,367 thousand euros or 63.8 percent to minus 6,077 thousand euros (prior year: minus 3,709 thousand euros).

Income from the foreign currency valuation of financial transactions in the sum of 3,227 thousand euros (prior year: 4,295 thousand euros) and countervailing expenses in the sum of 4,600 thousand euros (prior year: 3,782 thousand euros) led to a net loss of 1,373 thousand euros in fiscal year 2020 (prior year: net gain of 513 thousand euros). This result is attributable to currency exchange gains and losses arising from the group financing.

The change in the impairment loss set aside for current cash deposits as well as cash and and cash equivalents resulted in the income of 330 thousand euros in the 2020 fiscal year (income 337 thousand euros and expenses 7 thousand euros; prior year: income of 631 thousand euros), mainly due to the reduction in the cash deposits and cash equivalents as at the end of the fiscal year compared with the prior year.

The items financing costs for syndicated loans, debenture bonds and bridging loans include not only interest expenses but also the commitment fees and transaction fees paid to the banks.

Other interest and similar income primarily comprise investment income. In 2020, this item included in particular the payout from a former property-owning, limited partnership. This item also includes income from dividend payments from investment companies, income from current financial investments as well as impairments to and reversals of financial investments.

Interest expenses for leases reduced by 110 thousand euros to 1,507 thousand euros (prior year: 1,617 thousand euros).

The item other interest and similar expenses include, in particular, guarantee and bank charges, as well as interest expenses for other loans and interest rate derivatives.

4.11 Income taxes

Current income tax expenses (paid or owing), as well as deferred tax assets and deferred tax liabilities in the individual countries, are shown as income taxes. The current income tax expenses of the Jenoptik Group was calculated by applying the tax rates applicable at the balance sheet date.

The calculation of the deferred taxes for the domestic entities was based on a tax rate of 29.73 percent (prior year: 29.80 percent). In addition to the corporation tax at 15.0 percent (prior year: 15.0 percent) and the solidarity surcharge of 5.5 percent of the corporation tax charge (prior year 5.5 percent), an effective trade tax rate of 13.91 percent (prior year: 13.98 percent) was taken into account. The calculation of deferred taxes for foreign entities is based on the tax rates applicable in the respective country.

Deferred taxes are recognized as either tax expenses or tax income in the statement of income, unless these directly relate to items recognized outside of profit or loss in other comprehensive income. In this event, deferred taxes are also recognized outside of profit or loss in other comprehensive income.

Uncertainties regarding income tax treatment are analyzed on an ongoing basis. If it is probable that the tax authorities will not accept uncertain income tax treatment, an appropriate risk provision is made. The amount of risk provisioning corresponds to the amount that, taking into account any tax uncertainties, represents the most likely value or the expected value. Uncertain tax issues are not considered separately, but considered together.

Tax expenses were classified according to origin as follows:

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Current income tax expense		
Germany	5,094	8,406
Abroad	3,306	2,963
Total	**8,400**	**11,369**
Deferred taxes		
Germany	4,844	7,200
Abroad	−2,740	−1,004
Total	**2,104**	**6,196**
Total income taxes	**10,504**	**17,565**

The current income tax expense includes for 2020 an income in the sum of 307 thousand euros (prior year: expense of 568 thousand euros) for current taxes from earlier reporting periods. Deferred tax expenses include expenses relating to a different period in the sum of 417 thousand euros (prior year: income 18 thousand euros).

Deferred tax expenses include an expense resulting from the development of timing differences in the sum of 838 thousand euros (prior year: expense 2,838 thousand euros).

As at the balance sheet date, the Jenoptik Group had the following tax losses carried forward at its disposal for offsetting against future profits:

in thousand euros	31/12/2020	31/12/2019
Corporation tax	180,839	213,065
Trade tax	340,316	368,699

The reduction in tax losses carried forward mainly resulted from their being used in the fiscal year just past. Taking into consideration all currently known positive and negative factors influencing the future tax results of the Jenoptik Group, a utilization of the corporation tax loss carried forward of 157,021 thousand euros (prior year: 183,793 thousand euros) and the use of a trade tax loss carried forward of 259,049 thousand euros (prior year: 239,661 thousand euros) is probable. A deferred tax claim of 61,276 thousand euros (prior year: 63,108 thousand euros) was recognized for these available tax losses carried forward. Of which 36,019 thousand euros (prior year: 33,490 thousand euros) was attributable to trade tax losses carried forward.

For the remaining, non-utilizable losses carried forward, no deferred tax assets were recognized for corporation tax purposes in the sum of 23,818 thousand euros (prior year: 29,272 thousand euros) and for trade tax purposes in the sum of 81,267 thousand euros (prior year: 129,038 thousand euros).

A portion of the tax losses carried forward is subject to a time limit for carry forward purposes:

in thousand euros	31/12/2020	31/12/2019
1 year or less	112	618
2 years to 5 years	1,750	3,850
6 years to 9 years	2,602	2,823
More than 9 years	415	411
Total losses carried forward subject to a time limit	**4,879**	**7,702**

No deferred tax assets were shown for allowable time differences in the sum of 6,646 thousand euros (prior year: 7,336 thousand euros) as these will probably not be realized in the underlying reporting period.

The following recognized deferred tax assets and deferred tax liabilities were attributed to recognition and valuation differences in the individual statement of financial position items and to tax losses carried forward:

	Deferred tax assets		Deferred tax liabilities	
in thousand euros	31/12/2020	31/12/2019	31/12/2020	31/12/2019
Intangible Assets	3,774	3,825	19,019	5,332
Property, plant, and equipment	1,047	822	15,326	15,899
Financial investments	111	1,092	1,044	1,961
Inventories	7,202	6,775	293	98
Receivables and other assets	1,133	1,592	6,796	7,076
Provisions	13,877	13,766	836	3,974
Liabilities	14,671	17,209	741	28
Tax losses carried forward and tax refunds	63,965	65,320	0	0
Gross value	**105,780**	**110,401**	**44,055**	**34,368**
Offset	−31,197	−32,683	−31,197	−32,683
Value presented in statement of financial position	**74,583**	**77,718**	**12,858**	**1,685**

The net inventory of the asset surplus in deferred taxes reduced by 14,308 thousand euros. Taking into consideration the initial consolidations (minus 13,736 thousand euros), deferred taxes recognized outside of profit or loss (plus 1,825 thousand euros), as well as the foreign currency exchange conversions (minus 293 thousand euros) in the reporting year, this gave rise to deferred tax expenses of 2,104 thousand euros shown in the statement of income.

Temporary differences in the sum of 155,256 thousand euros (prior year: 122,739 thousand euros) related to shares in subsidiaries for which no deferred tax liabilities have been created due to IAS 12.39. Deferred tax liabilities in the sum of 222 thousand euros (prior year: 37 thousand euros) were set aside on outside basis differences in accordance with IAS 12.40.

The following table shows the tax reconciliation between the tax expense expected in the respective fiscal year and the actual tax expense recognized. To determine the anticipated tax expense, in the fiscal year 2020 the applicable group tax rate of 29.73 percent (prior year: 29.80 percent) was multiplied by the earnings before tax.

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings before tax	**53,235**	**85,206**
Income tax rate for the Jenoptik Group in %	29.73	29.80
Expected tax expense	**15,827**	**25,391**
Following tax effects resulted in the difference between the actual and the expected tax expense:		
Non-deductible expenses, tax-exempt income and permanent deviations	2,557	81
Change in the realizability of deferred tax assets and tax credits	−8,064	−8,387
Effects arising from differences in tax rates	−534	−246
Implications of changes in tax rates	520	−118
Taxes in prior years	110	550
Other tax effects	88	294
Total adjustments	**−5,323**	**−7,826**
Tax expenses according to the income statement	**10,504**	**17,565**

4.12 Earnings from non-controlling interests

The income/loss from non-controlling interests in the group earnings totaled 963 thousand euros (prior year: minus 11 thousand euros) and related to the non-controlling interests in various TRIOPTICS distribution companies, JENOPTIK Korea Corporation Ltd. and JENOPTIK Japan Co. Ltd. (up to the acquisition of the minority shareholder’s shares), as well as Asam Grundstücksverwaltungsgesellschaft mbH & Co Vermietungs KG.

4.13 Earnings per share

Earnings per share correspond to the earnings attributable to shareholders divided by the weighted average of outstanding shares.

	1/1 – 31/12/2020	1/1 – 31/12/2019
Earnings attributable to shareholders in thousand euros	41,769	67,652
Weighted average number of outstanding shares	57,238,115	57,238,115
Earnings per share in euros (undiluted = diluted)	**0.73**	**1.18**

5 Disclosures on the Statement of Financial Position

5.1 Intangible assets

in thousand euros	Development costs arising from internal development projects	Acquired patents, trademarks, software, customer relationships	Internally generated patents	Goodwill	Other intangible assets	Total
Acquisition/production costs Balance as of 1/1/2020	**19,335**	**104,011**	**2,436**	**175,806**	**4,622**	**306,210**
	(15,525)	**(101,326)**	**(2,226)**	**(169,646)**	**(1,041)**	**(289,763)**
Adjustment as a result of IFRS 16	0	0	0	0	0	0
	(0)	(– 542)	(0)	(0)	(0)	(– 542)
Foreign currency exchange effects	10	– 3,154	0	– 6,895	0	– 10,039
	(16)	(2,478)	(0)	(5,813)	(0)	(8,307)
Changes in the group of entities consolidated	0	50,167	0	231,146	17	281,330
	(0)	(– 463)	(0)	(348)	(0)	(– 116)
Additions	8,641	3,692	390	0	4,582	17,305
	(3,801)	(3,203)	(159)	(0)	(4,515)	(11,678)
Disposals	15	9,126	651	0	0	9,792
	(8)	(2,211)	(39)	(0)	(780)	(3,038)
Transfers (+/-)	0	1,652	0	0	– 1,652	0
	(0)	(220)	(90)	(0)	(– 154)	(157)
Acquisition/production costs Balance as of 31/12/2020	**27,971**	**147,241**	**2,176**	**400,057**	**7,569**	**585,013**
	(19,335)	**(104,011)**	**(2,436)**	**(175,806)**	**(4,622)**	**(306,210)**
Amortization and impairments Balance as of 1/1/2020	**13,748**	**68,769**	**1,061**	**9,895**	**0**	**93,474**
	(13,635)	**(59,872)**	**(807)**	**(9,895)**	**(0)**	**(84,209)**
Adjustment as a result of IFRS 16	0	0	0	0	0	0
	(0)	(– 30)	(0)	(0)	(0)	(– 30)
Foreign currency exchange effects	10	– 1,344	0	0	0	– 1,334
	(11)	(579)	(0)	(0)	(0)	(590)
Changes in the group of entities consolidated	0	– 527	0	0	0	– 527
	(0)	(0)	(0)	(0)	(0)	(0)
Additions	229	15,167	197	0	0	15,592
	(109)	(10,497)	(162)	(0)	(0)	(10,768)
Impairment losses	0	179	0	0	0	179
	(0)	(5)	(12)	(0)	(780)	(796)
Disposals	15	9,113	318	0	0	9,445
	(8)	(2,210)	(10)	(0)	(780)	(3,007)
Transfers (+/-)	0	0	0	0	0	0
	(0)	(57)	(90)	(0)	(0)	(147)
Amortization and impairments Balance as of 31/12/2020	**13,972**	**73,132**	**940**	**9,895**	**0**	**97,938**
	(13,748)	**(68,769)**	**(1,061)**	**(9,895)**	**(0)**	**(93,474)**
Net carrying amount as of 31/12/2020	**13,999**	**74,110**	**1,236**	**390,161**	**7,569**	**487,075**
	(5,586)	**(35,242)**	**(1,375)**	**(165,911)**	**(4,622)**	**(212,736)**

The figures in brackets relate to the prior year.

The marked increase in intangible assets is attributable in particular to the acquisitions of TRIOPTICS and INTEROB which, together with the revised inclusion of HILLOS GmbH, are shown as changes in the scope of consolidation. More detailed information on the acquisitions is shown in the Chapter "Corporate acquisitions" from page 167.

Assets acquired in return for payment which are still in development are shown as other intangible assets. Additions to these totaled 4,071 thousand euros (prior year: 4,253 thousand euros) arising from investments in the new ERP-system SAP S/4HANA which is under development and is being introduced as part of a process and data harmonization program. As a result of the successful Go-Live at JENOPTIK AG as the first company, completed modules were transferred to the category of software acquired in return for payment.

Additions to development costs from internal development projects relate in particular to the VINCORION and Light & Optics divisions. As of December 31, 2020, unfinished development projects in the amount of EUR 12,374 thousand euros were accounted for in this item.

Disposals of patents, trademarks, software, and customer relationships primarily relate to intangible assets that were recorded in prior years within the context of acquisitions and are written off in full at the end of their useful life.

As in the prior year, intangible assets were not subject to any disposal restrictions. The order commitments for intangible assets totaled 305 thousand euros (prior year: 46 thousand euros).

Other than goodwill, there were no intangible assets with an undefinable useful life.

As of December 31, 2020 the goodwill totaled 390,161 thousand euros (prior year: 165,911 thousand euros). Additions to goodwill in the sum of 231,146 thousand euros resulted from the initial consolidation of TRIOPTICS (211,304 thousand euros) and INTEROB (19,842 thousand euros). The further change in the carrying amounts in the sum of minus 6,895 thousand euros was attributable exclusively to currency effects (prior year: 5,813 thousand euros).

As in the prior year, no impairments to goodwill were required in the 2020 fiscal year.

The following table summarizes the goodwill for the cash-generating units which continued to correspond to the divisions:

in thousand euros	31/12/2020	31/12/2019
Light & Optics	255,658	44,598
Light & Production	88,163	72,900
Light & Safety	40,217	42,290
VINCORION	6,124	6,124
Total	**390,161**	**165,911**

The impairment test for goodwill was performed at the level of the cash-generating units benefiting from the synergies of the respective corporate merger and representing the lowest level at which goodwill is monitored for internal company management. If the carrying amounts of these cash-generating units exceeded their recoverable amounts, the goodwill allocated was correspondingly reduced. The determining factor for the impairment test was the recoverable amount, i.e. the higher of the two amounts derived from the fair value less costs to sell or value in use.

Jenoptik calculated the recoverable amount in the form of the value in use, based on a discounted cash flow method. The basis for this is the five-year corporate plan approved by the Management. This took past experience into consideration and was based on the management's best estimate of future development. The cash flows in the detailed planning phase were planned on the basis of differentiated growth rates. These took account of the development and dynamics of the relevant sectors and target markets.

However, against the background of the ongoing COVID-19 pandemic, there is increased uncertainty with regard to the forecasts of projected cash flows. Based on past experience, the five-year corporate plan has assumed that COVID-19 will not have any further significant negative impact in 2021 and that a marked recovery will begin in the medium term (e.g. thanks to available vaccines).

The following planning assumptions were used for divisions with significant goodwill:

Despite the strong contribution to revenue by TRIOPTICS, in the 2020 fiscal year the Light & Optics division was only partially successful in continuing its positive revenue performance in the semiconductor equipment industry. As a result of the Corona pandemic, the Biophotonics and Industrial Solutions business areas reported figures down on the prior year. Nevertheless, both the gross margin and the EBITDA margin could be increased through the cost savings implemented. For new revenue growth, the division is focusing on the areas of Semi & Advanced Manufacturing, Biophotonics, Industrial Solutions and Testing & Measurement. While the areas influenced by Corona benefit from the expected medium-term recovery, the newly acquired Testing & Measurement area focuses on consumer electronics, automotive and mechanical engineering in order to achieve significant growth of the division in the medium term through the targeted use of opportunities and synergies. A moderate increase in the EBITDA margin is associated with the division's planned significant growth in revenue.

In the fiscal year just past the Light & Production division posted a reduction in revenue, with profitability also lower. The reasons for this are the general structural shift, the trend towards e-mobility, uncertainties in the automotive sector plus the effects of the COVID-19 pandemic. Future growth will be driven by the continued focus on integrated production solutions and the processing of key industries such as engineering solutions or service for industrial customers (B2B) on an international level. The aim is to exploit the anticipated synergy effects arising from acquisitions over prior years. The corporate planning takes into account overall significant growth for the Light & Production division due to the expected revival of business. Supported by continuous structure and process optimization as well as the restructuring measures already initiated, an increase in profitability is expected in the medium term.

The Light & Safety division recorded a solid rise in revenue in the 2020 fiscal year, together with a slight increase in profitability. The focus of development over the coming years will be on the increasing level of internationalization, especially in the regions of America, the Middle East/North Africa, and other European countries. Here again, the on-going continuation of structural and process optimizations as well as the increase in the generation of local and international value added are expected to bring about a sustained increase in revenue and profitability over the medium term.

For determining the free cash flow the result of the respective planning year is adjusted for non-cash expenses and income such as depreciation.

This assumes a perpetual annuity, the amount of which is individually determined by management for each cash-generating unit from the fifth year of the planning time frame. The perpetual annuity includes a growth component in the form of a deduction on the capitalization interest rate of between 0.9 and 2.0 percentage points (prior year 0.9 and 1.1 percentage points). Non-recurring effects in the last year of the plan are eliminated prior to calculating the perpetual annuity.

The weighted average cost of capital after taxes required for the impairment tests is determined by using the capital asset pricing model for determining the cost of equity. The components for calculating the cost of equity are a risk-free interest rate, the market risk premium, a beta factor customary in our industry determined from division-specific peer groups as well as the average country risk of each cash-generating unit. Borrowing costs were determined by including a risk-free interest rate, the spread customary in our industry and the standard average tax rate. The weighted costs of equity and borrowing costs resulted from applying the capital structure customary in our industry.

Impairment testing was conducted assuming a weighted average cost of capital after taxes at a rate between 6.76 and 9.56 percent (prior year: 6.01 to 9.47 percent). This corresponded to the weighted average cost of capital before tax of between 8.52 and 12.61 percent (prior year 8.02 to 12.87 percent).

The assumptions used to determine the values in use of the cash-generating unit are shown in the following table:

	Growth components in the perpetual annuity	Weighted cost of capital after tax	Weighted cost of capital before tax
Light & Optics	1.00	9.56	12.61
	(1.10)	(9.47)	(12.87)
Light & Production	1.00	8.17	10.38
	(0.90)	(9.15)	(11.89)
Light & Safety	0.90	6.76	8.52
	(0.90)	(6.47)	(8.14)
VINCORION	0.90	6.80	9.63
	(0.90)	(6.01)	(8.02)

The figures in brackets relate to the prior year.

Sensitivity analyses were conducted for all cash-generating units to which goodwill was allocated as of December 31, 2020. A reduction in the cash flows or an increase in the weighted cost of capital within the range considered by the management as possible – including against the background of the current uncertainty surrounding COVID-19 – would not result in the recoverable amount being less than the carrying amount of the cash-generating units.

5.2 Property, plant, and equipment

in thousand euros	Land, buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Equipment under construction	Total
Acquisition / production costs Balance as of 1/1/2020	**231,452**	**205,344**	**115,278**	**24,714**	**576,787**
	(171,075)	**(194,631)**	**(107,491)**	**(15,438)**	**(488,635)**
Adjustment as a result of IFRS 16	0	0	0	0	0
	(50,788)	(303)	(3,752)	(0)	(54,842)
Foreign currency exchange effects	– 2,816	– 4,098	– 693	– 137	– 7,743
	(941)	(1,274)	(308)	(8)	(2,531)
Changes in the group of entities consolidated	20,477	1,290	– 436	193	21,524
	(0)	(0)	(0)	(0)	(0)
Additions	5,901	9,724	7,718	6,604	29,947
	(6,930)	(10,559)	(8,236)	(18,173)	(43,897)
Disposals	6,567	12,347	4,622	42	23,579
	(493)	(6,962)	(4,558)	(992)	(13,005)
Transfers (+/-)	12,728	7,361	905	– 20,996	– 2
	(2,212)	(5,539)	(49)	(–7,914)	(– 114)
Acquisition / production costs Balance as of 31/12/2020	**261,175**	**207,274**	**118,150**	**10,336**	**596,934**
	(231,452)	**(205,344)**	**(115,278)**	**(24,714)**	**(576,787)**
Depreciation and impairments Balance as of 1/1/2020	**83,184**	**154,909**	**87,571**	**0**	**325,664**
	(71,836)	**(148,064)**	**(82,805)**	**(0)**	**(302,705)**
Foreign currency exchange effects	– 613	– 2,898	– 387	0	– 3,897
	(121)	(832)	(99)	(0)	(1,052)
Changes in the group of entities consolidated	– 29	– 1,635	– 3,107	0	– 4,771
	(0)	(0)	(0)	(0)	(0)
Additions	12,664	13,156	9,378	0	35,198
	(11,512)	(12,029)	(9,409)	(0)	(32,950)
Impairment losses	1,138	353	59	0	1,550
	(205)	(113)	(134)	(0)	(452)
Impairment reversal	– 205	– 40	– 43	0	– 288
	(0)	(0)	(0)	(0)	(0)
Disposals	4,609	11,356	4,054	0	20,019
	(346)	(6,775)	(4,220)	(0)	(11,342)
Transfers (+/-)	0	0	– 2	0	– 2
	(– 143)	(647)	(– 656)	(0)	(– 152)
Depreciation and impairments Balance as of 31/12/2020	**91,531**	**152,490**	**89,415**	**0**	**333,436**
	(83,184)	**(154,909)**	**(87,571)**	**(0)**	**(325,664)**
Net carrying amount as of 31/12/2020	**169,644**	**54,784**	**28,734**	**10,336**	**263,499**
	(148,267)	**(50,435)**	**(27,707)**	**(24,714)**	**(251,123)**

The figures in brackets relate to the prior year.

The increase in property, plant and equipment was primarily attributable to the initial consolidation of TRIOPTICS.

Land and buildings of the Group in the amount of 169,644 thousand euros (prior year: 148,267 thousand euros) mainly comprised the Group's own production and administrative buildings in Jena, Altenstadt, Wedel, Bayeux (France), Huntsville (USA), Shanghai (China) and Rochester Hills (USA) as well as the leased production and administrative buildings in Wedel, Berlin, Monheim and Camberley (UK).

More detailed explanations on the investments made are contained in the Combined Management Report, under the section "Financial position" from page 111.

Order commitments for property, plant, and equipment in the sum of 17,037 thousand euros have increased significantly compared with the prior year (prior year: 6,958 thousand euros) and primarily resulted in replacement and new investment in technical equipment and machinery.

As in fiscal year 2019, as of the balance sheet date no property, plant and equipment was pledged.

5.3 Investment Property

in thousand euros	Investment property
Acquisition/production costs Balance as of 1/1/2020	**10,495** **(10,495)**
Additions	0 (0)
Disposals	0 (0)
Acquisition/production costs Balance as of 31/12/2020	**10,495** **(10,495)**
Depreciation Balance as of 1/1/2020	**6,232** **(6,141)**
Additions	89 (91)
Disposals	0 (0)
Depreciation Balance as of 31/12/2020	**6,321** **(6,232)**
Net carrying amount as of 31/12/2020	**4,175** **(4,263)**

The figures in brackets relate to the prior year.

The investment property as of December 31, 2020 primarily encompassed property in the Jena-Göschwitz Industrial Park.

The fair values totaled 4,549 thousand euros (prior year: 4,358 thousand euros). These were determined internally within the company on the basis of a discounted cash flow method. In this context, the net rents without utilities as well as the maintenance and other costs are estimated for the entire remaining useful lives of the properties and discounted over the remaining useful lives. Risk-adjusted interest rates are applied as the discount rate. As a result of the use of non-observable parameters such as interest rates, net rents without utilities, as well as maintenance and ancillary expenses, the level 3 fair value in the hierarchy of fair values is assigned.

For 2020, rental income from investment property as of the end of the fiscal year amounted to 552 thousand euros (prior year: 505 thousand euros).

In fiscal year 2020, the direct operating expenses for property and movables accounted for at the end of the year for rented space, totaled 175 thousand euros (prior year: 149 thousand euros) and for non-rented space 32 thousand euros (prior year: 39 thousand euros).

153 Consolidated Financial Statements 232

5.4 Leasing

The Group as lessee. The Group has concluded leasing contracts for real estate, technical equipment and machinery and other equipment, motor vehicles and for operating and business equipment.

The rights of use are shown in the statement of financial position under property, plant and equipment, in which the underlying assets would be presented if they were the property of the Group. A separate presentation of the rights of use as of January 1, 2020 and December 31, 2020, as well as additions and depreciation in the 2020 fiscal year, can be found in the following table.

Transfers of the rights of use for technical equipment and machinery relate to a transfer from advance payments, equipment under construction. After construction of the equipment by Jenoptik, it was sold to the future lessor and rented by Jenoptik.

in thousand euros	Rights of use to land, buildings	Rights of use to technical equipment and machinery	Rights of use to other equipment, operating and business equipment	Total rights of use
Acquisition/production costs, balance as of 1/1/2020	**54,922** **(50,788)**	**5,365** **(4,404)**	**7,203** **(4,420)**	**67,490** **(59,612)**
Foreign currency exchange effects	−1,060 (487)	−28 (4)	−85 (32)	−1,174 (523)
Changes in the scope of consolidation	2,541 (0)	87 (0)	371 (0)	2,999 (0)
Additions	3,511 (3,858)	2,409 (963)	2,105 (3,038)	8,025 (7,859)
Disposals	1,872 (206)	0 (6)	1,475 (261)	3,347 (473)
Transfers (+/-)	0 (−5)	2,443 (0)	14 (−27)	2,457 (−31)
Acquisition/production costs, balance as of 31/12/2020	**58,041** **(54,922)**	**10,277** **(5,365)**	**8,132** **(7,203)**	**76,450** **(67,490)**
Depreciation, balance as of 1/1/2020	**7,770** **0**	**1,021** **(444)**	**2,330** **(111)**	**11,121** **(554)**
Foreign currency exchange effects	−237 (31)	−12 (0)	−45 (2)	−294 (33)
Changes in the scope of consolidation	0 (0)	0 (0)	−7 (0)	−7 (0)
Additions	8,066 (7,596)	1,015 (581)	2,784 (2,329)	11,866 (10,506)
Impairment losses	259 (205)	0 (0)	27 (29)	286 (233)
Reversal of impairment losses or impairment gains	−205 (0)	0 (0)	0 (0)	−205 (0)
Disposals	383 (61)	0 (3)	1,261 (135)	1,643 (200)
Transfers (+/-)	0 (−1)	0 (0)	0 (−6)	0 (−7)
Depreciation, balance as of 31/12/2020	**15,271** **(7,770)**	**2,024** **(1,021)**	**3,828** **(2,330)**	**21,124** **(11,121)**
Carrying amount as of 31/12/2020	**42,770** **(47,152)**	**8,253** **(4,344)**	**4,303** **(4,873)**	**55,326** **(56,369)**

The figures in brackets relate to the prior year.

Lease liabilities are shown in the statement of financial position under "Non-current financial liabilities" or "Current financial liabilities" and can be taken from the following table:

in thousand euros	31/12/2020	31/12/2019
Non-current financial debt	47,726	50,380
Current financial debt	12,306	10,712

Interest expenses for leases in the fiscal year 2020 totaled 1,507 thousand euros (prior year: 1,617 thousand euros).

In addition to depreciation and interest expenses, the following expenses were recognized in the consolidated financial statement in the fiscal year:

Expenses for lease contracts (in thousand euros)	2020	2019
from short-term lease agreements	752	1,079
from low-value lease contracts	1,226	726
from variable lease payments	1,152	1,358
Total lease expenses	**3,130**	**3,163**

The variable lease payments mainly include payments for non-leasing components of lease contracts that have been accounted for in accordance with IFRS 16.

Liabilities arising from fixed lease payments are listed according to their maturity in the table below:

Liabilities from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	14,188	11,423
1 year to 5 years	35,323	32,943
More than 5 years	15,745	21,886
Total	**65,256**	**66,252**

Extension and termination options included in the leases are negotiated by Management. The assessment as to whether there is sufficient certainty regarding the exercise of these extension and termination options has been assessed and evaluated accordingly by the Management.

The non-discounted potential future lease payments for periods after the exercise date for extension and termination options, not included in the term of the lease, totaled 5,706 thousand euros (prior year: 6,809 thousand euros) as of the balance sheet date.

Further details (in thousand euros)	2020	2019
Payment obligations for short-term lease contracts	415	41
Potential cash outflows arising from extension and termination options which were not shown in the statement of financial position	5,706	6,809

In the 2020 fiscal year, the total cash outflow arising from leasing contracts (including short-term and small-value lease contracts as well as variable lease payments) with interest portion amounted to 16,896 thousand euros (prior year: 14,655 thousand euros).

In the 2020 fiscal year, income from subletting of legal assets for the use of fixed assets amounted to 173 thousand euros (prior year: 137 thousand euros).

The Group as lessor. Leases will continue to be classified as operating or finance leases.

The anticipated deposits arising from minimum lease payments are listed in the tables below according to their maturity:

Finance leases

Anticipated deposits arising from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	137	0
1 year to 2 years	57	0

Operating leases

Anticipated deposits arising from fixed lease payments (in thousand euros)	2020	2019
Up to 1 year	1,444	1,182
1 year to 2 years	1,048	368
2 years to 3 years	704	310
3 years to 4 years	77	190
4 years to 5 years	48	38
More than 5 years	48	20

Lease agreements without a termination date were only recorded in the amount of the rental income up to the earliest possible date of termination. The probability of a continuation of the lease or of granting extensions to the lease agreements, was not included in the calculation.

5.5 Investments accounted for using the equity method

The following entities were included in the consolidated financial statements as associate companies respective joint venture in accordance with the at-equity method:

TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea

The company is a long-standing partner for Jenoptik in the Korean market and sources components, amongst other things, from the Light & Production division.

HILLOS GmbH, Jena, Germany

The company, which had been included as a joint operation up to and including 2019, was accounted for as a joint venture with effect from January 1, 2020 as a result of the reduction in production capacities for own use by the partners. The company, which specializes in the production of laser measurement, ranging and positioning equipment, is a supplier to the Light & Optics and Light & Safety divisions, amongst others.

Trioptics France S.A.R.L., Villeurbane, France

This joint venture, acquired as part of the acquisition of Trioptics GmbH, is an integral part of the TRIOPTICS international sales network. In addition to TRIOPTICS product range, the company has concluded several partnership arrangements with European and American entities in order to offer further product solutions in the optical sector.

The following table contains summarized financial information on the companies. The share of the companies' profit due to Jenoptik is shown under other operating income.

	TELSTAR-HOMMEL Corporation, Ltd.		HILLOS GmbH	Trioptics France S.A.R.L.
in thousand euros	2020	2019	2020	2019
Disclosures on the Statement of income [1]				
Revenue	26,903	31,268	40,912	2,385
Profit/loss arising from continuing operations	101	1,590	1,401	−229
Other comprehensive income	205	164	0	0
Total comprehensive income	306	1,754	1,401	−229
Share in %	33.33%	33.33%	50.00%	50.00%
Group share of total comprehensive income [1]	**102**	**585**	**701**	**−114**
Disclosures on the statement of financial position and reconciliation to the at-equity carrying amount				
Non-current assets	18,524	18,329	20,260	0
Current assets	19,743	19,461	1,584	1,294
Non-current liabilities	1,385	2,747	138	116
Current liabilities	19,756	17,714	6,480	1,000
Equity	17,126	17,330	15,225	178
Share in %	33.33%	33.33%	50.00%	50.00%
Proportional equity = at-equity carrying amount	**5,708**	**5,776**	**7,613**	**89**

[1] Figures for Trioptics France S.A.R.L. relate to the calendar year

5.6 Financial investments

in thousand euros	31/12/2020	31/12/2019
Shares in non-consolidated, associates	347	352
Investments	494	2,135
Loans to non-consolidated, associates and investments	10	10
Other loans	2,074	0
Total	**2,926**	**2,497**

Investments

The decrease in investments is attributable to the write-down, outside of profit or loss, of the minority interest in a former property-owning limited partnership after the sale proceeds were paid out.

Other loans

Other loans are mainly derived from an escrow account which will be paid out at the end of a pending dispute over construction defects.

The table below reflects the changes in the impairments to financial investments:

in thousand euros	2020	2019
Impairments as of 1/1	**8,163**	**10,523**
Additions	17	110
Utilization	0	2,444
Reversal / derecognition	0	26
Reclassification	152	0
Impairments as of 31/12	**8,332**	**8,163**

5.7 Other non-current assets

Other non-current assets include both financial assets as well as non-financial assets.

Other non-current financial assets include the following:

in thousand euros	31/12/2020	31/12/2019
Derivatives	626	312
Receivables from lease contracts	57	0
Other non-current financial assets	1,902	334
Total	**2,585**	**646**

Other non-current financial assets essentially include claims from an insurance policy of a TRIOPTICS subsidiary.

Other non-current financial assets were not subject to any disposal restrictions (prior year: 84 thousand euros).

The aggregated item, derivative financial instruments, is explained in more detail in section 3.9 from page 172.

Other non-current, non-financial assets in the sum of 690 thousand euros (prior year: 448 thousand euros) mainly included non-current accruals, amongst others, fees for the existing syndicated loan.

5.8 Deferred taxes

The development of deferred taxes shown as an item in the statement of financial position is shown in section 8.2 from page 216.

5.9 Inventories

in thousand euros	31/12/2020	31/12/2019
Raw materials, consumables and supplies	80,336	68,459
Unfinished goods, work in progress	79,076	65,323
Finished goods and merchandise	29,659	17,648
Advance payments on inventories	2,335	2,247
Total	**191,406**	**153,678**

As of the end of the fiscal year 2020, accumulated impairment losses in the sum of 46,182 thousand euros (prior year: 41,465 thousand euros) were taken into account in the carrying amount. The net sale value of these inventories was 35,142 thousand euros (prior year: 27,728 thousand euros).

In 2020, additions and reversals totaling minus 5,939 thousand euros (prior year: 647 thousand euros) were recorded for value adjustments. This included reversals in the sum of 2,359 thousand euros (prior year: 5,430 thousand euros) as the reason for the impairment loss applied in prior years no longer existed.

The consumption of inventories affected expenses in the fiscal year in the sum of 234,937 thousand euros (prior year: 258,469 thousand euros), with the table below showing the distribution:

in thousand euros	31/12/2020	31/12/2019
Cost of sales	232,251	255,411
Research and development expenses	1,919	2,490
Selling expenses	327	329
Administrative expenses	440	239
Total	**234,937**	**258,469**

At the reporting dates there were no restrictions on the disposal of inventories.

5.10 Current trade receivables

Trade receivables

in thousand euros	31/12/2020	31/12/2019
Trade receivables from third parties	132,456	129,094
Receivables from due requested advance payments	5,277	7,583
Trade receivables from non-consolidated associates and investments	277	204
Total	**138,010**	**136,881**

The fair values of trade receivables correspond to their carrying amounts as of the reporting date. Trade receivables are not interest-bearing and generally have a due date of 30 to 60 days.

The table below shows the composition of the trade receivables:

in thousand euros	31/12/2020	31/12/2019
Gross amount of trade receivables due from third parties	138,487	137,730
Receivables from due requested advance payments	5,277	7,583
Gross amount of trade receivables from non-consolidated associates and investments	277	273
Total gross amount of trade receivables	**144,041**	**145,585**
Cumulative impairments	−6,031	−8,704
Carrying amount of trade receivables	**138,010**	**136,881**

Default risks were determined through the assessment of clients' creditworthiness by means of a scorecard, taking into account specific regional and individual company characteristics. In addition to internal company data, this includes credit assessments through external reporting agencies. Based on the rating of customers' creditworthiness, lines of credit are granted to ensure the active management of business transactions. This means for example, amongst other things, that certain payment methods can be agreed with customers depending on their creditworthiness. In addition, outstanding claims against customers are regularly monitored and measures taken to mitigate overdue claims.

The default risk is taken into account through individual impairments and flat-rate individual impairments. The following table shows the changes in impairments to outstanding trade receivables:

in thousand euros	2020	2019
Impairments as at 1/1	**8,704**	**8,208**
Changes in the group of entities consolidated	2,030	0
Additions	1,865	4,205
Consumption	572	2,004
Reversal/derecognition	5,814	1,740
Foreign currency exchange effects	−182	35
Impairments as at 31/12	**6,031**	**8,704**

The impairment requirement is analyzed at each closing date in order to determine the anticipated loan losses. If there are any objective indications of impairment losses, an individual impairment is applied. In addition, flat-rate individual impairments for receivables grouped into categories are recognized in days, on the basis of the overdue period. Finally, a flat-rate impairment is created to take into account the existing default risk for receivables not yet due and for which no impairment has been created.

Due to developments resulting from the impact of COVID-19, additional individualized valuation adjustments (post-model adjustments) are made in addition to the system-side assessment routines for determining the anticipated default risk. The valuation takes into account, in particular, geographic location, industry, support measures from public institutions as well as individual agreements with the respective customers.

The amount of the impairment to trade receivables due from third parties totaled 6,031 thousand euros (prior year: 8,635 thousand euros). The remaining impairment requirement relates mainly to receivables due from an unconsolidated investment in liquidation.

Overdue but unimpaired receivables were owed mainly by public sector contractors. As of December 31, 2020 there were no sureties for unimpaired receivables in the form of bank guarantees (prior year: 0 thousand euros).

in thousand euros	Expected credit loss rate	Expected total gross carrying amount at default	Expected credit loss
not due	0.44%	95,645	421
	0.48%	(93,397)	(448)
overdue < 30 days	0.62%	17,189	107
	0.69%	(14,461)	(99)
overdue 30–60 days	3.90%	8,988	350
	14.63%	(8,728)	(1,277)
overdue 61–120 days	16.11%	4,326	697
	20.66%	(8,115)	(1,677)
overdue 121–240 days	13.45%	2,727	367
	26.82%	(4,211)	(1,130)
overdue 241–360 days	15.65%	4,370	684
	28.60%	(3,613)	(1,033)
overdue > 360 days	64.98%	5,242	3,406
	57.09%	(5,204)	(2,971)
Total	**4.36%**	**138,487**	**6,031**
	6.27%	**(137,730)**	**(8,635)**

The table below shows the determined default risk position for trade receivables due from third parties with the help of an impairment matrix:

Payment was collected for a higher proportion of receivables with longer overdue periods as part of the stricter receivables management, consequently reducing the outstanding balances. The addition of TRIOPTICS had a contrary impact. Its receivables have been recognized at a lower expected credit loss rate in order to ensure an accurate valuation during the course of the initial consolidation. In the fiscal year 2020 the case-related individual impairments to receivables totaled 2,100 thousand euros (prior year: 2,028 thousand euros). These primarily related to receivables with an overdue date of more than 360 days.

Factoring

As a result of extended payment deadlines for customers, inputs for customer-specific projects and changes in billing modalities, Jenoptik has been utilizing factoring since the 2019 fiscal year. Within the framework of a genuine and confidential factoring program, existing receivables are sold to a factoring company (hereafter referred to as the "Factor") - together with the transfer of the default or del credere risk - in return for a consideration. The payments from the original customer to the Group shown as income (due to their confidential nature) are classified as "other current financial liabilities" and then forwarded to the Factor. Furthermore, additional receivables were sold within the framework of an open factoring program without security retention.

In the statement of financial position, sold trade receivables are derecognized on transfer of the economic ownership to the Factor in accordance with IFRS 9 and, until receipt of payment, are recognized as receivables due from the Factor under the item "Other current financial assets". The asset is finally derecognized on payment by the Factor.

Factoring charges are shown in the consolidated statement of income, under administrative expenses.

In the cash flow statement, the Factor's payments to the Group are shown under cash flows from operating activities. The payment received from the original customer and the subsequent payment as a result of the transfer to the Factor, are recognized under cash flows from financing activities.

Up to December 31, 2020, receivables to the value of 18,355 thousand euros (prior year: 20,140 thousand euros) were sold within the framework of the confidential factoring. After allowing for a surety retention by the Factor of 5 percent, payment receipts totaled 17,437 thousand euros (prior year: 19,133 thousand euros). Open factoring in the sum of 4,738 thousand euros was also carried out. The security deposit is shown under other current financial assets.

5.11 Contract assets

The statement of financial position item includes conditional claims of the Group against customers for the receipt of a consideration in return, in exchange for goods or services that have already been transferred. These are grouped as follows:

in thousand euros	31/12/2020	31/12/2019
Contract assets	**74,735**	**54,875**
Realization within one year	68,685	54,875
Realization within more than one year	6,049	0

The default risk of contract assets is basically taken into account through corresponding impairments. As of December 31, 2020, no indicators for an individual impairment were identified. The general default risk was recognized by an impairment loss equal to the amount of the anticipated loss of 0.15 percent of the balance of contract assets. The impairment loss was 112 thousand euros (prior year: 82 thousand euros).

5.12 Other current financial assets

in thousand euros	31/12/2020	31/12/2019
Receivables from Pensions-treuhandvereine (pension trust associations)	1,950	1,875
Derivatives	1,622	1,530
Indemnification claims from business combinations	1,010	40
Receivable arising from surety retention for factoring	901	840
Other current financial assets	1,008	1,164
Total	**6,492**	**5,449**

As in the prior year, in 2020 there were no restrictions on disposals of other current financial assets.

Default risks are taken into account through impairments. The composition of the carrying amount of other current financial assets is as follows:

in thousand euros	31/12/2020	31/12/2019
Gross amount of other financial assets	7,780	6,737
Accumulated impairment loss	−1,288	−1,288
Carrying amount of other financial assets as at 31/12	**6,492**	**5,449**

5.13 Other current non-financial assets

in thousand euros	31/12/2020	31/12/2019
Accruals	4,678	4,792
Receivables from grants	2,462	104
Receivables from other taxes	2,721	1,951
Receivables from income taxes	674	1,484
Other current non-financial assets	423	226
Total	**10,958**	**8,557**

As in the prior year, in 2020 there were no restrictions on disposals of other current non-financial assets.

5.14 Current financial assets

in thousand euros	31/12/2020	31/12/2019
Fair value	4,894	69,661

Short-term financial investments are mainly listed shares and bonds acquired as part of the acquisition of TRIOPTICS. The fair value is determined on the basis of the stock market prices on the qualifying date. Changes in the fair value between procurement and balance sheet date are recognized in the financial result through profit or loss.

Current cash deposits accounted for in the prior year were reversed as part of the acquisition of TRIOPTICS.

For further information on the financial instruments we refer to the Notes, section 8.2 from page 216.

153 232 Consolidated Financial Statements

5.15 Cash and cash equivalents

in thousand euros	31/12/2020	31/12/2019
Checks, cash on hand, bank balances and demand deposits or deposits with a maturity of < 3 months	63,405	99,025

For information on the change in cash equivalents we refer to the section entitled "Details on the cash flow statement" from page 209. In addition, in application of IFRS 9, an impairment of 78 thousand euros (prior year: 123 thousand euros) was recorded on the bank deposits in fiscal 2020 as provision for a default risk.

5.16 Equity

The development of the equity of Jenoptik is shown in the consolidated statement of changes in equity.

Share capital

The share capital amounts to 148,819 thousand euros and is divided into 57,238,115 no-par value registered shares.

At the beginning of July 2011 Thüringer Industriebeteiligungs GmbH & Co. KG, Erfurt, Thüringer Industriebeteiligungsgeschäftsführungs GmbH, Erfurt, bm-t beteiligungsmanagement thüringen GmbH, Erfurt, Stiftung für Unternehmensbeteiligungen und -förderungen in der gewerblichen Wirtschaft Thüringens (StUWT), Erfurt, Thüringer Aufbaubank Erfurt and the Free State of Thüringia, Erfurt, disclosed that they had exceeded the thresholds of 3, 5, and 10 percent of the voting rights in JENOPTIK AG on June 30, 2011 and that they had held 11.00 percent of the voting rights (6,296,193 voting rights) on that day. Thüringer Industriebeteiligungs GmbH & Co. KG acquired the voting rights from ECE Industriebeteiligungen GmbH.

On March 6, 2020, Allianz Global Investors GmbH, Frankfurt am Main, Germany, notified us it had exceeded the threshold of 10 percent of the voting rights in JENOPTIK AG on March 5, 2020. Accordingly, on that day Allianz Global Investors GmbH held 10.11 percent of the voting rights (5,788,418 voting rights) as attributed to it in accordance with § 34 (1) (No. 6) of the WpHG. Allianz Asset Management GmbH and Allianz SE also hold an indirect stake via Allianz Global Investors GmbH.

On March 5, 2020, Allianz SE informed us, with a voluntary Group notification with triggered threshold, that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG on March 2, 2020. Accordingly, on that day Allianz SE indirectly held 5.40 percent of the voting rights (3,092,867 voting rights) as attributed to it in accordance with § 34 (1) (No. 1) of the WpHG. All holdings included in this notification are managed by Allianz Global Investors GmbH . The shareholdings of Allianz Global Investors GmbH, which are subject to notification, are entirely derived from the Voting Rights Notification below dated January 16, 2020.

On April 3, 2020, DWS Investment GmbH, Frankfurt am Main, Germany, notified us it had fallen below the threshold of 10 percent of the voting rights in JENOPTIK AG on April 2, 2020. Accordingly, on that day DWS Investment GmbH held 9.82 percent of the voting rights (5,620,671 voting rights) indirectly in accordance with § 34 WpHG.

The Ministry of Finance, Oslo, Norway, notified us on October 28, 2020 on behalf of the Norwegian state that although it had continued to exceed the threshold of 3 percent of the voting rights in JENOPTIK AG on October 27, 2020, this was below the number of indirectly held voting rights in accordance with § 34 WpHG. Accordingly, the Ministry of Finance held 3.55 percent of the voting rights (2,033,454 voting rights) on that day. Of this, 2.94 percent of the voting rights (1,682,311) were held by it indirectly in accordance with § 34 WpHG and 0.61 percent of the voting rights (351,143 voting rights) as instruments via stock borrowing in accordance with § 38 (1), (No. 1) WpHG. The voting rights are held directly by the Norges Bank, Oslo, Norway.

SMALLCAP World Fund, Inc., Lutherville, Maryland, USA, notified us most recently on March 6, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG on March 3, 2020. Accordingly, on that day SMALLCAP World Fund, Inc. held 2.89 percent of the voting rights (1,654,146 voting rights) which were attributable to it directly in accordance with § 33 WpHG. Capital Group Companies, Inc., Los Angeles, California, USA, notified us most recently on March 30, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG on March 25, 2020. Accordingly, on that day Capital Group Companies, Inc. held 2.42 percent of the voting rights (1,382,304 voting rights) which were attributable to it indirectly in accordance with § 34 WpHG. The voting rights are directly held by Capital Research and Management Company.

AIM International Mutual Funds (Invesco International Mutual Funds), Wilmington, Delaware, USA, issued us with multiple notifications on voting rights in the fiscal year 2019, most recently on January 13, 2020 that it had fallen below of the threshold of 3 percent of the voting rights in JENOPTIK AG on January 7, 2020. Accordingly, on that day AIM International Mutual Funds (Invesco International Mutual Funds), Inc. held 2.79 percent of the voting rights (1,595,202 voting rights) which were attributable to it directly in accordance with § 33 WpHG. Invesco Ltd., Bermuda indirectly holds 2.80 percent of the voting rights (1,602,383 voting rights) via AIM International Mutual Funds in accordance with § 34 WpHG. Invesco Ltd. merged with the Oppenheimer International Small-Mid Company Fund in 2019 which notified us most recently on January 25, 2018 that it had exceeded the 3 percent threshold.

BlackRock, Inc., Wilmington, USA, notified us on June 24, 2020 that it had fallen below the threshold of 3 percent of the voting rights in JENOPTIK AG, on June 19, 2020. Accordingly, BlackRock, Inc., held 2.56 percent of the voting rights (1,464,206 voting rights) on that day. 2.42 percent of the voting rights (1,384,195 voting rights) were attributable to BlackRock, Inc. indirectly in accordance with § 34 of the WpHG. 0.14 percent of the voting rights (80,011 voting rights) were attributable to instruments in accordance with § 38 (1), (No. 1) WpHG.

The voting right notifications of recent years and the notifications of shareholders that had closed out their investments, are also published on our Internet site www.jenoptik.com under Investors/Share/Voting rights announcements.

Authorized capital

An “Authorized Capital 2019” was created with the resolution passed by the Annual General Meeting on June 12, 2019 as follows: The Executive Board is authorized through June 11, 2024, with the consent of the Supervisory Board, to increase the nominal capital of the company by up to 44,000 thousand euros through one or multiple issues of new, no-par value registered shares against cash and/or property, plant, and equipment (“Authorized Capital 2019”). The new shares can be taken up by one or more banks with the obligation to offer these to shareholders (indirect subscription rights). With the consent of the Supervisory Board, the Executive Board is authorized to preclude subscription rights for shareholders in certain cases: a) fractional amounts; b) capital increases against contributions in-kind in particular also within the framework of business combinations or the acquisition of companies, units of companies or investments in companies (including increasing existing investments) or other contributable assets in conjunction with such an intended acquisition as well as claims against the entity; c) capital increases against cash contributions, under the condition that the percentage of any new shares in the share capital does not in total exceed 10 percent of the share capital at the time the authorized shares are registered or in total 10 percent of the share capital at the time the new shares are issued, taking into consideration resolutions of the AGM or the use of other authorizations to preclude subscription rights in a direct or corresponding application of § 186 (3) (4) AktG [German Stock Corporation Act] since the effective date of this authorization and the issuance price of the new shares is not significantly lower than the stock market price; d) issuances of new shares to employees of the entity and to associates in which the entity holds a majority interest.

All aforementioned authorizations to exclude subscription rights are limited to a total of 10 percent of the share capital available at the time this authorization became effective – or, if this value is lower - to 10 percent of the share capital at the time this authorization is exercised. This limit of 10 percent includes shares that (i) are sold for the purpose of servicing warrants and/or convertibles that were or could still be issued during the period of validity of authorized capital to the exclusion of subscription rights or (ii) are sold by the entity as treasury shares during the period of validity of authorized capital to the exclusion of subscription rights.

Decisions on the details of the issuance of new shares, in particular their conditions and the content of rights of the new shares, are taken by the Executive Board, with the consent of the Supervisory Board. The Authorized Capital 2019 has not yet been utilized.

Conditional capital

The shareholder resolution passed at the Annual General Meeting (AGM) held on June 7, 2017, to contingently raise the share capital of the entity by up to 28,600 thousand euros through the issue of up to 11,000,000 new no-par value shares (“Conditional Capital 2017”). The conditional capital increase will only be executed to the extent that

- the creditors / owners of option and / or conversion rights arising from option and/or convertible bonds issued up to June 6, 2022 by the company or a domestic or foreign incorporated company in which the company has a direct or indirect majority stake, pursuant to the authorization resolution of the Annual General Meeting dated June 7, 2017, exercise their option or conversion rights and / or
- the creditors of the issued convertible bonds obliged to exercise their conversion rights which were issued by the company or a domestic or foreign incorporated company in which the company has a direct or indirect majority stake, on the basis of the resolution of the Annual General Meeting on June 7, 2017, fulfill their conversion obligation by June 6, 2022 and/or tenders for shares are issued

and neither are treasury shares used nor payment made in cash. The new shares participate in profits from the start of the fiscal year for which, on the date of their issue, no resolution has yet been passed by the Annual General Meeting in respect of the appropriation of the accumulated profit.

The Executive Board is authorized, with the consent of the Supervisory Board, to specify additional details on the issuance of the conditional capital increase. If the authorization to issue option and/or convertible bonds to the exclusion of subscription rights is exercised, this authorization is limited in the sense that the pro rata amount of nominal capital corresponding to those shares that must be issued after exercising conversion and/or option rights/obligations may not account for more than 20 percent of nominal capital existing at the time this authorization takes effect or – if the figure is lower – at the time use is made of the authorization. This 20 percent limit also applies to the sale of treasury shares that are excluded from subscription rights during the period of this authorization, and to shares issued during the period of this authorization under authorized capital and for which subscription rights are excluded.

The Executive Board is authorized to set out the further details relating to the increase in conditional capital (e.g. terms of the bonds, interest rate, form of interest, specific period, denomination, issue price, option / conversion price, option / conversion period) in the bond terms and conditions.

Reserves

Capital reserve. The capital reserve contains the adjustments recognized within the framework of the first-time adoption of IFRS as well as the differences resulting from the capital consolidation being offset against reserves up to December 31, 2002.

Other reserves. A component of other reserves is retained earnings realized in the past by companies included in the consolidated financial statements less dividends paid.

Other reserves also contain value adjustments to be accounted for outside of profit or loss for

- equity instruments that are valued outside profit or loss at fair value in other comprehensive income,
- cash flow hedges,
- accumulated foreign currency exchange differences and
- actuarial gains / losses arising from the valuation of pensions and similar obligations.

In the 2020 fiscal year, the changes in value for equity instruments valued outside profit or loss totaled 1,375 thousand euros (prior year: 977 thousand euros). The applicable income taxes totaled 410 thousand euros (prior year: minus 292 thousand euros). The effective portions of the change in the value of derivatives to be taken into account outside of profit or loss within the framework of the cash flow hedges are recognized at minus 3,987 thousand euros (prior year: minus 169 thousand euros) less applicable income taxes in the sum of 1,200 thousand euros (prior year: 72 thousand euros). Accumulated foreign currency exchange differences encompass the effects arising from foreign currency conversions of the separate financial statements of subsidiaries whose functional currency deviates from that of the Group, as well as effects arising from foreign currency conversions of assets and liabilities held in foreign currencies in the total sum of minus 11,328 thousand euros (prior year: 8,353 thousand euros). The applicable income taxes changed by 1,333 thousand euros (prior year: minus 1,193 thousand euros).

Actuarial gains arising from the valuation of pensions are recognized in the sum of minus 2,096 thousand euros (prior year: 6,704 thousand euros). The applicable income taxes totaled 441 thousand euros (prior year: minus 1,466 thousand euros).

In the 2020 fiscal year the change in income taxes recognized outside of profit or loss led to an increase in the reserves in the total sum of 985 thousand euros (prior year: reduction of 2,879 thousand euros).

Treasury Shares

On the basis of a resolution passed by the Annual General Meeting on June 5, 2018, the Executive Board is authorized up to June 4, 2023 to purchase treasury no-par value shares not exceeding a proportion of ten percent of the nominal capital existing at the time the resolution is adopted or – if this amount is lower – of the nominal capital existing at the time the resolution is exercised for purposes other than trading in treasury shares. The purchased treasury shares together with treasury shares that the entity had already purchased and still holds (including the attributable shares in accordance with §§ 71a ff. AktG [German Stock Corporation Act]) may not exceed 10 percent of the share capital of the entity. The authorization may be exercised in whole or in part, on a one-off or repeat basis and for one or more authorized purposes. The purchase and sale of treasury shares may be exercised by the entity or, for specific authorized purposes, also by dependent companies, by companies in which the entity holds a majority interest, or by third parties for its or their account. At the decision of the Executive Board, acquisition is by purchase, subject to compliance with the principle of equal treatment (§ 53a of the Stock Corporation Act), on the stock exchange or by means of a public offering or a public invitation to the shareholders to submit an offer for sale.

For the purpose of protecting shareholders against a dilution of their shares, the proposed resolution expressly provides for a restriction of the use of acquired treasury shares in such a way that the total of the acquired shares together with shares issued or sold by the Company during the term of this authorization under another authorization to the exclusion of shareholders' subscription rights or which enable or oblige the subscription of shares is limited to a notional interest in the nominal capital of no more than a total of 20 percent of the nominal capital at the time the authorization becomes effective or – if the following value is lower – at the time this authorization is exercised.

Further details regarding the buyback of treasury shares are described in agenda item 9 in the invitation to the 2018 Annual General Meeting, accessible to the general pubic on our website at www.jenoptik.com under the heading Investors/Annual General Meeting. As of December 31, 2020, the company had no treasury shares.

5.17 Non-controlling interests

This item in the statement of financial position contains reconciliation items for shares of non-controlling shareholders in the capital to be consolidated, arising from the capital consolidation, as well as the profits and losses allocated to them.

The increase is attributable in particular to the acquisition of TRIOPTICS (see section "Corporate acquisitions" from page 167).

5.18 Provisions for pensions and similar obligations

Provisions for pension obligations are set aside on the basis of pension plans for retirement, disability and survivor benefit commitments and exist in Germany and Switzerland. In addition, there are commitments in France to one-off payments on retirement which will be shown for the first time in 2020 under provisions for pensions and similar obligations. In the prior year these were shown under other non-current provisions. Additional pension commitments were taken on in 2020 through the acquisition of TRIOPTICS.

The benefits provided by the Group vary according to the legal, tax, and economic circumstances of the respective country and, as a rule, depend on the duration of employment and on the remuneration of the employee on commencement of retirement. The existing pension plans in Germany are closed, with the exception of the reinsured group provident fund.

Within the Group, the occupational pension provision is provided both on the basis of defined contribution as well as defined benefit plans. In the case of defined contribution plans, the company pays contributions in accordance with statutory or contractual provisions, or voluntarily makes contributions to public or private pension insurers. Upon payment of the contributions, the company has no further benefit obligations.

Defined benefit plans

Most retirement schemes within the Group are based on defined benefit plans, wherein a distinction is made between pension schemes financed through provisions or externally financed pension schemes.

The company is exposed to various risks in conjunction with defined benefit plans. Along with general actuarial risks such as longevity risks and the risk of changes in interest rates, the company is exposed to foreign currency exchange as well as investment risks.

Pension plans in the form of a reinsured group provident fund are treated as defined benefit plans due to the ongoing low interest rate phase and the associated claim risk arising from the subsidiary liability.

In accordance with IAS 19, pension provisions for the benefit commitments are determined in accordance with the projected unit credit method. In this context, the future obligations are valued on the basis of benefit claims acquired pro rata as of the balance sheet date, taking into account trend assumptions for the valuation parameters which affect the level of benefits. All benefit schemes require actuarial calculations.

Jenoptik determines the net interest expense (net interest income) by multiplying the net liability (net asset) at the commencement of the period by the underlying interest rate on commencement of the period, used for discounting the benefit-oriented gross pension obligation.

The actuarial effects cover, on the one side, the actuarial profits and losses arising from the valuation of the benefit-oriented gross pension obligation and on the other, the difference between the actual yield realized on plan assets and the typical yield assumed on commencement of the period.

The benefit obligations of the Group included 1,202 entitled persons, including 428 active employees, 177 former employees as well as 597 retirees and survivors.

The assets held by the Mitarbeitertreuhand e.V., Jena, and as a result of a restructuring in 2020, also by the JENOPTIK Pensiontreuhänder Verein e.V., Jena, will be offset against the pension obligations in accordance with IAS 19 as Plan Assets. The pension obligations of JENOPTIK Industrial Metrology Switzerland SA, JENOPTIK Advanced Systems GmbH, Trioptics GmbH as well as the commitments via the group provident fund, are also covered by means of plan assets and are accordingly shown as a net amount. These plan assets are primarily managed by AXA Lebensversicherung AG and AXA Winterthur, Switzerland.

The change in the defined benefit obligations (DBO) is shown as follows:

in thousand euros	2020	2019
DBO on 1/1	**79,964**	**73,644**
Foreign currency exchange effects	53	256
Current service cost	593	524
Contributions to the pension plans	789	612
Thereof by employees	789	612
Interest expenses	671	1,177
Past service expenses	0	135
Actuarial gains (-) and losses (+)	2,602	5,949
Empirical gains and losses	−840	−251
Changes from demographic assumptions	42	−1,080
Changes from financial assumptions	3,400	7,280
Changes in the scope of consolidation	202	0
Other changes	804	0
Pension payments	−2,470	−2,332
DBO at 31/12	**83,207**	**79,964**

Actuarial losses resulting from the change in financial assumptions arose in particular as a result of the further reduction in the discount rate in 2020.

Other changes relate to the reclassification of pension commitments in France arising from other non-current provisions.

The effects of the expense recognized in the statement of income are summarized as follows:

in thousand euros	1/1 – 31/12/2020	1/1 – 31/12/2019
Current service costs	593	659
Net interest costs	264	584
Total expenses	**857**	**1,243**

The current and past service expenses are included in the personnel expenses costs of the functional areas. The interest charged on the obligation as well as the interest received on plan assets are recorded in the interest result.

The changes in the plan assets are as follows:

in thousand euros	2020	2019
Plan assets as at 1/1	**48,320**	**36,304**
Foreign currency exchange effects	24	171
Interest income from plan assets	407	592
Return on plan assets less interest income	506	12,572
Contribution	912	740
Employers	123	129
Employees	789	612
Changes in the scope of consolidation	−63	0
Administrative expenses	−17	−16
Pension payments	−2,058	−2,043
Plan assets at 31/12	**48,031**	**48,320**

The yield from the plan assets in the fiscal year 2020 was determined in accordance with the discounting factor for calculation of the DBO for the prior year, at 407 thousand euros (prior year: 592 thousand euros). The actual yield from the plan assets was 913 thousand euros (prior year: 13,164 thousand euros), with the valuation of a shareholding in a property-owning limited partnership in particular having a significant positive effect in the prior year.

The net obligation as of the balance sheet date is as follows:

in thousand euros	31/12/2020	31/12/2019
Present value of the obligation covered by the fund	76,974	74,321
Plan assets	−48,031	−48,320
Net liability of the obligation covered by plan assets	28,943	26,001
Net liability of the obligation not covered by plan assets	6,235	5,643
Total	**35,178**	**31,643**

The portfolio structure of the plan assets is as follows:

in TEUR	31/12/2020	31/12/2019
Insurance contracts	21,033	20,098
Stocks and other securities	19,892	9,305
Cash equivalents	8,971	3,337
Investments	85	15,126
Loans rendered (loans and receivables)	0	2,330
Other assets and liabilities	−1,950	−1,875
Total	**48,031**	**48,320**

The insurance contracts in the sum of 14,337 thousand euros relate to pension insurance policies with AXA Lebensversicherung AG. The insurance company’s investments were mainly in equities and investment assets, bearer bonds and fixed-interest bearing securities, as well as other loan receivables. There are also existing insurance contracts in the sum of 5,533 thousand euros as a result of the pension plan of AXA Fondation LPP (Switzerland). Its assets are mainly invested in debt and equity instruments as well as real estate.

There is an active market for the stocks and other securities held in plan assets. The decrease in investments is the result of an adjustment to the fair value valuation following a profit distribution within the plan assets.

153 232 Consolidated Financial Statements

Other liabilities relate to repatriation obligations due to pension payments from the plan assets made in 2020 to JENOPTIK AG as well as JENOPTIK Advanced Systems GmbH.

The key actuarial assumptions are shown in the following table. Where applicable, the above-mentioned assumptions allow for anticipated inflation.

in percent	2020	2019
Discount rate		
Germany	0.60	0.90
Switzerland	0.00	0.25
France	0.60	n/a
Future increases in salary		
Switzerland	1.50	1.50
France	2.00	n/a
Future increases in pension		
Germany	1.57	1.56

n/a = not applicable

Due to the structure of the existing pension commitments or the status of beneficiaries, assumptions regarding the amount of future salary increases in Germany have no influence on the DBO.

Actuarial gains or losses are the result of changes in pension beneficiaries and deviations from actual trends (e.g. increases in income or pensions) vis-á-vis calculation assumptions. In accordance with the regulations stated in IAS 19, this amount is offset against other comprehensive income in equity.

A change in the key actuarial assumptions as of the balance sheet date would influence the DBO as follows:

	Change in the DBO	
in thousand euros	Increase	Reduction
Discount rate – change by 0.5 percentage points	−5,664 (−5,432)	6,487 (6,138)
Expected salary increases – change by 1.0 percentage points	359 (294)	−345 (−273)
Expected pension increases – change by 1.0 percentage points	8,821 (8,646)	−6,470 (−6,328)
Mortality rates – change by 1 year	4,632 (4,191)	−4,583 (−4,166)

The figures in brackets relate to the prior year.

The sensitivity analysis shows the change in a DBO in the event of a change in an assumption. Since the changes do not have a straight-line effect on the calculation of DBO due to actuarial effects, the cumulative change in the DBO resulting from changes in a number of assumptions cannot be directly determined.

As of December 31, 2020, the weighted average remaining service period was 9 years and the weighted average remaining maturity of the obligation was 15 years.

The financing of the pension plans of JENOPTIK Advanced Systems GmbH, Wedel, and individual beneficiaries of JENOPTIK SSC GmbH, Jena, is performed by using a CTA model. The pension plan of JENOPTIK Industrial Metrology Switzerland SA provides for risk participation by the beneficiaries on transfer to retirement. In this context, the pension plan is financed by contributions from both the employer and the employee.

The anticipated pension payments arising from the pension plans as of December 31, 2020 for the following fiscal year are in the sum of 2,841 thousand euros (prior year: 2,882 thousand euros) and for the subsequent four fiscal years a total of 12,900 thousand euros (prior year: 12,110 thousand euros).

Defined contribution plans

Within the framework of the defined contribution plans, expenses for 2020 totaled 20,875 thousand euros (prior year: 21,781 thousand euros), this figure including contributions to statutory pension insurance providers in the sum of 16,968 thousand euros (prior year: 16,153 thousand euros).

5.19 Tax provisions

in thousand euros	31/12/2020	31/12/2019
Provisions for income taxes	2,624	6,443

Details on income tax expenses are provided in Note 4.11 from page 182.

5.20 Other provisions

The development of other provisions is shown in the table below.

Key items in the personnel provisions relate to performance premiums, profit sharing, and similar commitments, as well as to the share-based payments for the Executive Board and some senior management personnel. Personnel provisions also include anniversary bonuses in the sum of 5,094 thousand euros (prior year: 4,159 thousand euros) and partial retirement obligations in the sum of 1,696 thousand euros (prior year: 2,171 thousand euros). Actuarial expert opinions were obtained for the partial retirement obligations with the assumption of income increasing at 2.94 percent (prior year: 2.69 percent). The amount of the liability for top-up payments already earned as of December 31, 2020 was 838 thousand euros (prior year: 815 thousand euros).

The provision for guarantee and warranty obligations included expenses for individual guaranty cases as well as for flat-rate warranty risks. The calculation of the provision for flat-rate warranty risks is based on empirical values which were determined as a guarantee cost ratio of revenue on a company or product group-specific basis and applied to revenues which are liable to guarantees. The amounts that were reversed in the 2020 fiscal year chiefly comprise guarantee and warranty provisions for specific individual cases for which the underlying obligations no longer existed as a result of agreements with customers for remedial action.

The provision for pending losses essentially includes the liability overhang for individual customer projects and was set aside in the amount of the difference between anticipated unavoidable costs and economic benefit. The unavoidable costs take into account all costs directly related to the performance of the contract but not any general administrative and selling expenses.

Provisions for price adjustments existed for customer contracts that were subject to the risk of subsequent changes in selling prices. Additions and reversals were made to revenue.

Provisions for restructuring include cost-cutting and efficiency improvement measures in the Light & Production division which were required mainly as a result of the structural shift in the automotive industry to electro-mobility and the ongoing COVID-19 pandemic. In addition, provisions for restructuring measures were set aside in the VINCORION division for process and structural streamlining to achieve the desired product focusing and independence.

Other provisions included, amongst others, provisions for claims for damages. Other provisions also made allowance for numerous identifiable specific risks as well as contingent liabilities which were accounted for in the amount of the best possible estimate of the settlement sum. Additions in the 2020 fiscal year included, among others, new indemnification obligations as well as expenses arising from decommissioning obligations.

The anticipated claims by maturity are shown below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	2020
Personnel	16,382	4,410	3,099	23,891
Guarantee and warranty obligations	17,700	4,654	0	22,353
Impending losses	1,028	40	0	1,068
Price adjustments	539	936	0	1,475
Restructuring	11,898	0	0	11,898
Others	4,937	1,312	2,587	8,836
Total	**52,482**	**11,352**	**5,686**	**69,521**

in thousand euros	Balance as at 1/1/2020	Changes in the scope of consolidation	Foreign currency exchange effects	Additions	Discounting	Utilization	Reversals	Balance as at 31/12/2020
Personnel	32,154	3,838	−186	13,461	−59	−22,014	−3,302	23,891
Guarantee and warranty obligations	24,310	392	−59	11,368	0	−7,404	−6,254	22,353
Impending losses	1,596	0	−5	537	0	−70	−990	1,068
Price adjustments	1,834	0	0	101	0	0	−459	1,475
Restructuring	1,345	0	−6	11,640	0	−607	−475	11,898
Others	8,513	772	−121	3,077	14	−1,581	−1,838	8,836
Total	**69,751**	**5,002**	**−377**	**40,184**	**−46**	**−31,676**	**−13,318**	**69,521**

5.21 Share-based payments

As of December 31, 2020, the Jenoptik Group had at its disposal share-based remuneration instruments in the form of virtual shares for both Executive Board members and some senior management personnel. In this context, a distinction must be drawn between Long Term Incentives of the Executive Board remuneration system that was applicable for Hans-Dieter Schumacher up to the end of 2017 and the remuneration system for some senior management personnel ("LTI") as well as the Performance Shares in accordance with the currently applicable Executive Board remuneration system.

The effects of the share-based payment with settlement in cash on the statement of income as well as the statement of financial position in the 2020 fiscal year, were as follows:

	Income statement		Statement of financial position	
in thousand euros	2020	2019	2020	2019
Virtual shares for the current year	−467	−429	467	429
Virtual shares for prior years	519	78	1,701	3,171
Total	**52**	**−352**	**2,168**	**3,600**

The valuation basis used for determining the fair value of the LTI is the daily and volume-weighted, average share price of JENOPTIK AG over the last twelve months. The fair value of the performance shares is determined on the basis of an arbitrage-free valuation according to the Black/Scholes option pricing model.

Payment for the virtual shares granted to the Executive Board is generally made at the end of their four-year, contractually-defined term. However, this only applies to the performance shares if multi-annual targets have been achieved on completion of the term. Also in the event of the departure of a member of the Executive Board before the end of the term, the LTI is paid out early in cash. In the event of a departure, performance shares will only be valued, allocated and then paid out at the end of the respective performance period, depending on whether the targets have been achieved. In the 1st quarter 2020 Performance Shares in a total of 32,620 units were allocated provisionally to the members of the Executive Board. The virtual shares allocated for the members of the Executive Board for fiscal years 2016 to 2020 were valued at the fair value as of the 2020 balance sheet date and recognized in provisions.

The development of the Executive Board members' virtual shares is shown in the following tables:

in units	Number for 2020	Number for 2019
Dr. Stefan Traeger (Chairman of the Executive Board)		
1/1	37,998	25,486
Granted for period	18,933	12,512
31/12	56,931	37,998
Hans-Dieter Schumacher		
1/1	76,259	66,166
Granted for period	13,687	9,384
Granted for protection of existing shares in case of dividend payment*	186	709
Paid out*	−22,362	0
31/12	67,770	76,259

* according to the executive compensation scheme valid until 2017

Of the total expenses arising from share-based payments, recognized in fiscal year 2020 for the current fiscal year and prior years, Dr. Stefan Traeger accounted for 77 thousand euros (prior year: 241 thousand euros) whilst Hans-Dieter Schumacher accounted for income in the sum of 99 thousand euros (prior year: expenses 15 thousand euros).

For all further disclosures, we refer to the chapter on Corporate Governance in the Remuneration Report which forms part of the Combined Management Report.

Virtual shares are also granted to some members of the top management. The number of virtual shares is determined on the basis of target achievement as well as on the volume-weighted average closing price of the Jenoptik share over the last 12 months of the reference year. Payment is made at the end of the fourth subsequent year after allocation, based on the volume-weighted average closing price of the Jenoptik share in the full fourth subsequent year. In the event of a departure before the end of the term, the virtual shares may be forfeit, depending on the reasons for the departure.

The development of these virtual shares is shown in the following table:

in units	Number for 2020	Number for 2019
Members of the Top Management		
1/1	60,347	75,834
Granted for the period	12,901	11,174
Granted for adjusted achievement of prior year objectives	– 3,514	1,690
Claims expired	– 4,049	0
Paid out	– 30,557	– 28,351
31/12	35,128	60,347

5.22 Financial liabilities

The maturity periods for the financial liabilities are shown in the table below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Liabilities to banks	118,565 (26,285)	82,133 (72,182)	8,552 (0)	209,250 (98,467)
Liabilities arising from leases	12,306 (10,712)	32,828 (33,974)	14,897 (16,405)	60,031 (61,091)
Total	**130,871** **(36,996)**	**114,961** **(106,156)**	**23,449** **(16,405)**	**269,281** **(159,558)**

The figures in brackets relate to the prior year.

Liabilities to banks with a maturity of up to one year consist mainly of a money market draw-down under the syndicated loan agreement in the sum of 110,000 thousand euros due in 2021.

Liabilities to banks with a term of one to five years consist mainly of debenture bonds with a nominal value of 69,000 thousand euros.

Liabilities to banks with a term of more than five years mainly relate to real estate financing in Germany.

As at the balance sheet date, the syndicated loan was utilized in the form of money market loans in the sum of 110,000 thousand euros and guarantees in the sum of 10,886 thousand euro (prior year: 13,874 thousand euros). Taking into account the additional lines of financing not fully utilized, as of the balance sheet date, 417,319 thousand euros (prior year: 222,204 thousand euros) of the guaranteed, existing lines of credit were unused.

5.23 Other non-current liabilities

Other non-current liabilities comprise the following:

in thousand euros	31/12/2020	31/12/2019
Liabilities from aquisitions	27,159	0
Non-current financial liabilities to clients	495	990
Derivatives	84	1,264
Non-current trade payables to third parties	826	0
Other non-current financial liabilities	980	0
Total	**29,545**	**2,254**

Liabilities arising from corporate acquisitions are the result of conditional purchase price components of the acquisitions of INTEROB and TRIOPTICS, as well as a final payment for the contractually agreed acquisition of the remaining 25 percent of the shares in Trioptics GmbH.

Further information on derivatives are provided in Note 8.2 from page 216.

5.24 Current trade payables

This item includes:

in thousand euros	31/12/2020	31/12/2019
Trade payables to third parties	89,681	83,618
Trade payables to non-consolidated associates and investments	66	113
Total	**89,747**	**83,730**

5.25 Other current financial liabilities

This item includes:

in thousand euros	31/12/2020	31/12/2019
Liabilities from acquisitions	66,621	771
Other liabilities to investments	2,800	1,700
Liabilities from interest payments	1,364	815
Liabilities from remuneration for the Supervisory Board	694	759
Derivatives	439	3,661
Payments received from sales of receivables	312	3,179
Other current financial liabilities	3,098	1,634
Total	**75,327**	**12,520**

As of December 31, 2020, liabilities from acquisitions include agreed variable purchase price components arising from the acquisition of TRIOPTICS. In the prior year, liabilities included conditional purchase price payment obligations arising from the acquisition of the OTTO Group.

The item derivative financial instruments is explained in more detail under Note 8.2 from page 216.

The payments received from sales of receivables in the sum of 312 thousand euros resulted from payments by customers on trade receivables that were sold under a genuine and confidential factoring program (see the disclosures in Section 5.10 Current trade receivables from page 194).

Liabilities to investments included cash pool liabilities to HILLOS GmbH now recognized in the consolidated financial statements using the at-equity method (prior year: 1,700 thousand euros). Standard market interest rates were agreed for liabilities from not proportionality consolidated share.

5.26 Other current non-financial liabilities

This item includes:

in thousand euros	31/12/2020	31/12/2019
Liabilities from other taxes	8,394	4,974
Liabilities to employees	6,888	7,669
Liabilities from social security	1,624	1,714
Liabilities to employer's insurance association	1,335	1,312
Accruals	467	343
Miscellaneous current non-financial liabilities	389	410
Total	**19,098**	**16,423**

Liabilities to employees included, amongst others, vacation entitlements and flextime credits.

Liabilities from other taxes essentially comprise liabilities arising from value added tax and real estate transfer tax.

5.27 Contract liabilities

Under IFRS 15, this statement of financial position item constitutes the obligations of the Group , to transfer goods or services to a customer for which it, the Group, has received a consideration in return from the customer or for which a requested advance payment is due.

The status of the contract liabilities as of the balance sheet date of December 31, 2020 is shown in the table below:

in thousand euros	31/12/2020	31/12/2019
Contract liabilities	**46,274**	**43,882**
Realization within one year	44,768	41,996
Realization within more than one year	1,506	1,886

The non-current portion essentially includes advance payments from customers of VINCORION for long-running contracts. There were no significant financing components.

The transaction price for all customer orders that have not yet been completed in full is shown as the order backlog. This shows the following due dates:

in thousand euros	31/12/2020	31/12/2019
Transaction price of performance obligations not yet completely fulfilled	**460,064**	**466,121**
Realization within the next fiscal year	360,946	317,410
Realization within the next but one fiscal year	54,355	78,715
Realization in later fiscal years	44,764	69,996

6 Disclosures on Cash Flows

Liquid funds comprise the cash and cash equivalents recognized in the statement of financial position in the sum of 63,405 thousand euros (prior year: 99,025 thousand euros) after taking into account an impairment loss of 78 thousand euros (prior year: 123 thousand euros) as provision for a default risk. Liquid funds are defined as the sum of cash on hand and demand deposits at banks with an initial maturity of less than three months.

The statement of cash flows explains the flow of payments, divided between the inflows and outflows of cash from the current business, from investing and financing activities. Changes in the statement of financial position items used for preparing the statement of cash flows cannot be directly derived from the statement of financial position because the effects arising from the foreign currency conversion and changes in the group of entities consolidated are non-cash transactions and are therefore eliminated. Cash flows from operating activities are indirectly derived from earnings before tax. Earnings before tax are adjusted for non-cash expenses and income. The cash flows from operating activities are determined by taking into account the changes in working capital, provisions and other operating statement of financial position items.

The cash flows from operating activities in the fiscal year just past totaled 89,748 thousand euros (prior year: 108,892 thousand euros). The lower operating result was the main reason for the change compared to the previous year.

Cash flows from investing activities totaled minus 188,443 thousand euros (prior year: minus 54,381 thousand euros), and in fiscal year 2020 were characterized primarily by the acquisition of TRIOPTICS and INTEROB. More detailed information on the investments is provided in the section Earnings, Financial and Asset Position in the Combined Management Report from page 102.

In addition, the cash flows from investing activities included net payments from current cash deposits in the sum of 69,900 thousand euros. By contrast, in the prior year, net payments to cash deposits in the sum of 9,741 thousand euros had a negative impact on the cash flow.

Cash flows from financing activities totaled 63,716 thousand euros (prior year: minus 46,127 thousand euros). Cash outflows from the dividends paid in the sum of 8,426 thousand euros (prior year: 20,033 thousand euros), were lower than in the prior year as a result of the decreased dividend payment compared with 2019 of 0.13 euros per share (prior year: 0.35 euros per share). Total dividends paid in the sum of 8,426 thousand euros included dividends paid to minority shareholders in the sum of 985 thousand euros. The proceeds from issuing loans in the amount of 165,000 thousand euros are in particular attributable to taking out loans for the acquisition of TRIOPTICS. The repayments of bonds and loans in the year under review essentially included the cash outflows arising from the repayment of a financing for the acquisition of TRIOPTICS in the sum of 55,000 thousand euros, plus partial the scheduled repayment of a tranche of the debenture bond in the sum of 21,500 thousand euros. Payments for leases totaled 12,259 thousand euros (prior year: 9,875 thousand euros). The change in the group financing included in particular payments from or to affiliated, non-consolidated companies and investments.

The changes in financial liabilities that will lead to cash flows from financing activities in the future, are shown in the following table:

The non-cash additions and disposals include changes in the scope of consolidation in the amount of 21,889 thousand euros.

The reconciliation shown above exclusively takes into account financial debt, consequently the payments collected from the original customer and forwarded to the Factor in the context of factoring, are not taken into account (see section "Current trade receivables" from page 194). In the statement of cash flows these are included as a net amount in the item repayment of bonds and loans amounting 3,012 thousand euros (deposits prior year: 3,347 thousand euros). Information regarding the allocation of free cash flows to the segments is provided in the Segment Report from page 119.

Additional information on the consolidated statement of cash flows is provided in the Combined Management Report in the section Financial Position.

			Non cash-effective change					
in thousand euros	Balance as of 1/1/2020	Cash-effective change	Foreign currency exchange effects	Addition/ Disposal	Adjustment as a result of IFRS 16	Change in the fair value	Change in maturity	Balance as of 31/12/2020
Non-current financial debt	122,562 (111,405)	121,771 (1)	−895 (532)	20,613 (5,617)	0 (50,528)	100 (121)	−125,740 (−45,644)	138,410 (122,562)
Non-current liabilities to banks	72,182 (108,227)	121,823 (0)	−86 (87)	12,902 (0)	0 (0)	100 (170)	−116,236 (−36,302)	90,685 (72,182)
Non-current liabilities from leases	50,380 (3,178)	−52 (1)	−808 (446)	7,711 (5,617)	0 (50,528)	0 (−49)	−9,504 (−9,342)	47,726 (50,380)
Current financial debt	36,996 (10,123)	−39,405 (−31,132)	−299 (255)	7,804 (3,947)	0 (8,352)	35 (−192)	125,740 (45,644)	130,871 (36,996)
Current liabilities to banks	26,285 (9,294)	−27,198 (−19,552)	−149 (198)	5,821 (0)	0 (0)	35 (43)	113,771 (36,302)	118,565 (26,285)
Current liabilities from leases	10,712 (829)	−12,207 (−9,875)	−150 (57)	1,982 (2,242)	0 (8,352)	0 (−235)	11,969 (9,342)	12,306 (10,712)
Total	**159,558** **(121,528)**	**82,366** **(− 29,426)**	**−1,194** **(787)**	**28,417** **(7,859)**	**0** **(58,880)**	**134** **(−70)**	**0** **(0)**	**269,281** **(159,558)**

The figures in brackets relate to the prior year.

7 Disclosure on the Segment Report

The segments are shown in accordance with the regulations of IFRS 8 "Operating Segments".

IFRS 8 follows the management approach. Accordingly, the external reporting is carried out for the attention of the chief operating decision makers on the basis of the internal group organizational and management structures as well as the internal reporting structure. The Executive Board analyzes the financial information using the key performance indicators which serve as a basis for decisions on allocating resources and assessing performance. The accounting policies and principles for the segments are the same as those described for the Group in the basic accounting principles.

More information on the organizational structure of the Jenoptik Group is provided in the Combined Management Report in the section "General group information" from page 78.

The Light & Optics division is a global OEM supplier of solutions and products based on photonic technologies. Jenoptik offers a wide range of products and services in this field, combining comprehensive expertise in optics, laser technology, digital imaging, optoelectronics, and software. Jenoptik offers optical measuring and manufacturing systems for quality control of lenses, objectives and camera modules under the TRIOPTICS brand. The systems, modules, and components help customers to tackle the challenges they face using photonic technologies. Customers include plant and machinery manufacturers, equipment manufacturers in areas such as semiconductor equipment, laser material processing, medical technology and life science, industrial automation, automotive and mobility as well as security and research institutions.

The Light & Production division is a global specialist in the optimization of manufacturing processes, and increasingly also offers integrated solutions (complex production lines utilizing a range of technologies) from a single source. With many years of experience and expertise in industrial metrology and optical inspection, modern laser-based material processing and highly flexible robotic-based automation, the division develops manufacturing solutions for customers in the automotive, aerospace and medical technology fields as well as other manufacturing industries.

The Light & Safety division operates in three areas of business: traffic law enforcement, civil security and road user charging. Here, Jenoptik develops, produces, and sells various components, systems, and services used by public sector customers to monitor compliance with applicable road traffic regulations and consequently make the world's roads safer.

VINCORION develops, produces, and sells mechatronic products for civil and military markets, in particular for security and defense technology, aviation as well as rail and transport industries. Its portfolio ranges from individual assemblies to solutions for customers which will be integrated into their systems. The division specializes in energy systems, drive and stabilization systems as well as aviation systems.

The activities of the holding company (Corporate Center) and real estate management are summarized under Others.

The "Consolidation" column comprises the business relationships to be consolidated between the segments as well as the required reconciliations.

The business relationships between the entities of the Jenoptik Group segments are fundamentally based on prices that are also agreed with third parties.

Revenue in excess of 10 percent of the total revenue of the Jenoptik Group was generated with one customer of the Light & Optics division (104,156 thousand euros; prior year: 103,713 thousand euros). There were no other customer relationships with individual customers whose share of revenue is of significant importance when measured against group revenue.

The analysis of revenue by region is conducted according to the country in which the customer has its legal seat.

7.1 Segment report

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Revenue	318,950	179,053	114,034	151,740	51,024	– 47,605	767,196
	(351,941)	(228,990)	(108,696)	(164,858)	(47,338)	(– 46,587)	(855,235)
of which intra-group revenue	957	103	26	10	46,509	– 47,605	0
	(1,904)	(83)	(15)	(60)	(44,525)	(– 46,587)	(0)
of which external revenue	317,993	178,950	114,008	151,730	4,516	0	767,196
	(350,037)	(228,907)	(108,681)	(164,798)	(2,812)	(0)	(855,235)
Germany	52,114	50,749	34,670	72,633	4,516	0	214,681
	(71,655)	(49,029)	(29,561)	(80,919)	(2,812)	(0)	(233,977)
Europe	119,345	35,290	32,883	38,567	0	0	226,085
	(134,794)	(36,509)	(31,187)	(43,560)	(0)	(0)	(246,050)
of which Great Britain	1,138	4,303	19,500	7,265	0	0	32,207
	(1,646)	(3,614)	(19,789)	(4,368)	(0)	(0)	(29,417)
of which the Netherlands	96,344	126	3,184	194	0	0	99,849
	(93,861)	(69)	(2,949)	(1,066)	(0)	(0)	(97,944)
Americas	63,606	68,845	28,188	34,869	0	0	195,508
	(77,045)	(106,483)	(23,385)	(32,817)	(0)	(0)	(239,730)
of which the USA	61,118	39,839	20,753	34,569	0	0	156,278
	(71,806)	(73,871)	(16,403)	(32,176)	(0)	(0)	(194,255)
of which Canada	2,454	21,755	7,139	300	0	0	31,648
	(5,229)	(27,742)	(6,585)	(640)	(0)	(0)	(40,195)
Middle East/Africa	12,541	1,820	6,025	4,809	0	0	25,196
	(14,221)	(915)	(16,508)	(6,606)	(0)	(0)	(38,251)
Asia/Pacific	70,415	22,245	12,242	853	0	0	105,755
	(52,322)	(35,972)	(8,040)	(895)	(0)	(0)	(97,228)
of which China	24,168	16,900	373	104	0	0	41,545
	(12,223)	(24,191)	(694)	(194)	(0)	(0)	(37,302)
of which Singapore	19,486	134	163	24	0	0	19,807
	(27,017)	(117)	(543)	(108)	(0)	(0)	(27,785)
EBITDA	68,607	7,885	22,339	16,622	– 3,821	0	111,632
	(69,848)	(25,784)	(18,810)	(24,159)	(– 4,650)	(20)	(133,972)
EBIT	52,125	– 4,806	15,196	9,681	– 12,891	7	59,312
	(57,933)	(14,462)	(11,659)	(17,382)	(– 12,549)	(27)	(88,915)
Research and development expenses	– 19,191	– 7,154	– 13,083	– 4,249	– 125	148	– 43,655
	(– 19,015)	(– 7,921)	(– 11,000)	(– 6,120)	(– 179)	(182)	(–44,052)
Free cash flow (before income taxes)	40,508	284	21,424	9,816	– 4,811	– 4,921	62,300
	(57,101)	(19,491)	(11,301)	(1,035)	(– 11,993)	(307)	(77,242)
Working capital	114,270	66,903	12,064	82,914	– 7,795	– 227	268,130
	(77,915)	(50,104)	(14,818)	(84,149)	(– 8,969)	(– 194)	(217,822)
Order intake (external)	339,505	157,844	92,314	145,230	4,516	0	739,408
	(324,661)	(199,262)	(107,942)	(177,899)	(2,812)	(0)	(812,576)
Frame contracts	12,637	0	8,897	20,756	0	0	42,289
	(12,386)	(0)	(12,615)	(24,916)	(0)	(0)	(49,916)
Assets	618,220	315,824	114,888	199,898	1,008,142	– 918,129	1,338,843
	(273,204)	(274,235)	(114,993)	(192,443)	(887,458)	(– 659,000)	(1,083,333)

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Liabilities	260,309	228,261	71,187	147,658	266,200	– 324,164	649,452
	(121,585)	(200,162)	(99,142)	(145,579)	(160,814)	(– 299,393)	(427,889)
Capital expenditure for intangible assets, property, plant, and equipment and investment property	18,602	4,857	4,629	9,168	9,996	0	47,252
	(18,418)	(13,874)	(4,068)	(8,801)	(10,624)	(– 210)	(55,576)
Scheduled depreciation/amortization	– 16,101	– 12,509	– 7,143	– 6,942	– 8,191	7	– 50,879
	(– 10.667)	(– 11,322)	(– 7,151)	(– 6,778)	(– 7,899)	(7)	(– 43,809)
Impairment losses	– 672	– 183	0	0	– 879	0	– 1,733
	(– 1,248)	(0)	(0)	(0)	(0)	(0)	(– 1,248)
Number of employees on average excluding trainees	1,457	1,065	475	743	310	0	4,049
	(1,341)	(1,072)	(471)	(758)	(320)	(0)	(3,961)

EBITDA = Earnings before interest, taxes, depreciation and amortization
EBIT = Earnings before interest and taxes
The free cash flow (before income taxes) = cash flows from operating activities before payment of income taxes, less proceeds from and expenditure for intangible assets and property, plant, and equipment
The figures in brackets relate to the prior year.

153 – 232 Consolidated Financial Statements

7.2 Adjusted information by segment [1]

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Revenue [1]	318,950	179,053	114,034	151,740	51,024	−47,605	767,196
	(333,665)	(228,990)	(108,696)	(164,858)	(47,338)	(−46,499)	(837,048)
of which intra-group revenue [1]	957	103	26	10	46,509	−47,605	0
	(1,816)	(83)	(15)	(60)	(44,525)	(−46,499)	(0)
of which external revenue [1]	317,993	178,950	114,008	151,730	4,516	0	767,196
	(331,850)	(228,907)	(108,681)	(164,798)	(2,812)	(0)	(837,048)
Germany [1]	52,114	50,749	34,670	72,633	4,516	0	214,681
	(71,396)	(49,029)	(29,561)	(80,919)	(2,812)	(0)	(233,718)
Europe (without Germany) [1]	119,345	35,290	32,883	38,567	0	0	226,085
	(118,317)	(36,509)	(31,187)	(43,560)	(0)	(0)	(229,573)
Americas [1]	63,606	68,845	28,188	34,869	0	0	195,508
	(75,638)	(106,483)	(23,385)	(32,817)	(0)	(0)	(238,323)
Middle East/Africa [1]	12,541	1,820	6,025	4,809	0	0	25,196
	(14,221)	(915)	(16,508)	(6,606)	(0)	(0)	(38,251)
Asia/Pacific [1]	70,415	22,245	12,242	853	0	0	105,755
	(52,277)	(35,972)	(8,040)	(895)	(0)	(0)	(97,183)
EBITDA [2]	72,725	15,758	22,741	20,622	−1,146	0	130,699
	(71,695)	(25,784)	(18,810)	(24,159)	(−2,517)	(20)	(137,952)
EBIT [2]	56,623	3,066	15,598	13,681	−10,216	7	78,759
	(60,248)	(14,462)	(11,659)	(17,382)	(−10,415)	(27)	(93,363)
Free cash flow (before income taxes) [2]	44,135	156	21,817	9,816	−3,830	−4,921	67,173
	(57,101)	(19,491)	(11,301)	(1,035)	(−9,940)	(307)	(79,295)

EBITDA = Earnings before interest, taxes, depreciation and amortization
EBIT = Earnings before interest and taxes
The figures in brackets relate to the prior year.
[1] Prior-y without HILLOS GmbH
[2] Figures adjusted for structural and portfolio measures (see comments on page 104)

As a result of the decline in self-used production capacities by the partners, HILLOS GmbH qualifies as a joint venture (previously joint operation) from the 2020 fiscal year. The revenue contribution of HILLOS GmbH is therefore no longer recorded proportionately in the Jenoptik consolidated financial statements. In order to ensure comparability of the information, the prior year's figures have been adjusted for the revenue contributions from HILLOS GmbH.

As part of the planned strategic development of Jenoptik, the Executive Board has initiated a number of structural and portfolio measures. The aim of these measures is to accelerate growth and increase profitability in the medium and long term. In order to present these measures more transparently, EBITDA, EBIT and free cash flow are reported as adjusted figures for both the Group and the segments. The adjustments result from expenses and income as a result of site optimization / restructuring and cost reduction programs as well as costs in connection with M&A activities. For reasons of comparability, the values from the prior-y period have also been adjusted.

7.3 Reconciliation statements by segment

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Group
EBITDA	68,607	7,885	22,339	16,622	– 3,821	111,632
	(69,848)	(25,784)	(18,810)	(24,159)	(–4,630)	(133,972)
EBITDA effect	– 4,118	– 7,873	– 402	– 4,000	– 2,675	– 19,068
	(–1,847)	(0)	(0)	(0)	(–2,133)	(–3,980)
Restructuring and site optimization	– 34	– 7,410	0	– 4,000	0	– 11,444
	(–1,847)	(0)	(0)	(0)	(0)	(–1,847)
Cost reduction measures	– 1,422	– 190	– 402	0	– 1,998	– 4,013
	(0)	(0)	(0)	(0)	(–80)	(–80)
M&A costs	– 2,662	– 273	0	0	– 677	– 3,611
	(0)	(0)	(0)	(0)	(–2,053)	(–2,053)
EBITDA adjusted	72,725	15,758	22,741	20,622	– 1,146	130,699
	(71,695)	(25,784)	(18,810)	(24,159)	(–2,497)	(137,952)
EBIT	52,125	– 4,806	15,196	9,681	– 12,884	59,312
	(57,933)	(14,462)	(11,659)	(17,382)	(–12,521)	(88,915)
EBIT effect	– 4,498	– 7,873	– 402	– 4,000	– 2,675	– 19,448
	(–2,315)	(0)	(0)	(0)	(–2,133)	(–4,448)
Restructuring and site optimization	– 414	– 7,410	0	– 4,000	0	– 11,824
	(–2,315)	(0)	(0)	(0)	(0)	(–2,315)
Cost reduction measures	– 1,422	– 190	– 402	0	– 1,998	– 4,013
	(0)	(0)	(0)	(0)	(–80)	(–80)
M&A costs	– 2,662	– 273	0	0	– 677	– 3,611
	(0)	(0)	(0)	(0)	(– 2,053)	(– 2,053)
EBIT adjusted	56,623	3,066	15,598	13,681	– 10,209	78,759
	(60,248)	(14,462)	(11,659)	(17,382)	(– 10,388)	(93,363)

The figures in brackets relate to the prior year.

The reported effects of the restructuring and site optimization include measures to reduce costs and increase efficiency, which were primarily necessary due to the structural shift in the automotive industry towards electromobility and the ongoing COVID-19 pandemic. Furthermore, the restructuring costs relate to measures in the VINCORION division to streamline processes and structures for the desired product focus and greater independence.

The cost reduction programs include consulting costs for a project to increase efficiency as well as individual personnel measures in the divisions.

The M&A costs essentially include the company acquisitions of INTEROB and TRIOPTICS described in the Annual Report (see section "Company acquisitions" from page 167).

7.4 Non-current assets by region

in thousand euros	31/12/2020	31/12/2019
Group	755,438	468,571
Germany	538,046	271,221
Europe	79,711	55,938
of which Great Britain	44,923	49,427
Americas	119,547	134,287
of which the USA	43,961	48,175
of which Canada	75,586	86,111
Asia/Pacific	18,134	7,125

Non-current assets comprise intangible assets, property, plant, and equipment, investment property, as well as non-current non-financial assets. The assets are allocated to the individual regions according to the countries in which the consolidated entities have their legal seat. The increase in Germany and the Asia/Pacific region is primarily attributable to the initial consolidation of the TRIOPTICS entities.

8 Other Disclosures

8.1 Capital management

The aim of Jenoptik's capital management is to maintain a strong capital base in order to retain the trust of the shareholders, creditors and capital markets, as well as to ensure the sustained, successful development of the company. The Executive Board monitors in particular the equity ratio, the development of cash flows as well as the net debt as part of the regular management reporting. In the event of significant deteriorations in the key parameters, alternative courses of action are worked out and the corresponding measures implemented.

As of the balance sheet date of December 31, 2020, the Jenoptik Group has an outstanding syndicated loan in the sum of up to 230,000 thousand euros as well as two debenture bonds totaling 69,000 thousand euros as its key financing. Further details on these are shown in the Notes under Point Liquidity risk (see page 219). With regard to the existing debenture bonds, no agreements have been concluded on adherence to specific financial indicators. Adherence to specific financial indicators in respect of gearing (gross financial debt to equity) and equity was agreed for the syndicated loan. These financial indicators were adhered to at all times in the fiscal year 2020.

Bridging finance in the sum of 300,000 thousand euros was concluded in the 2020 fiscal year and has not yet been utilized. This will serve as a backup line for the acquisition of TRIOPTICS but can also be used for other inorganic growth opportunities.

In addition to the syndicated loan, debenture bonds and bridging finance, the JENOPTIK Group utilizes to a lesser extent other sources of financing consisting of bilateral credit lines, lease and rental financing as well as factoring. The Jenoptik Group uses these instruments in order to actively control the development of the cash flow. Detailed information on the factoring is shown in Chapter "Current trade receivables (see page 194).

8.2 Financial instruments

General

Within the framework of its operating activities, the Jenoptik Group is exposed to credit, default, liquidity and market risks. The market risks include in particular risks of fluctuations in interest rates and foreign currency exchange rates.

Detailed information on the risk management and control of risks is shown in the Combined Management Report in the Risk and Opportunity Report (see page 133). Additional information on capital management is provided in the Economic Report in the chapter Financial Position (see page 111).

The risks described above impact on the financial assets and liabilities which are shown below.

Financial assets:

in thousand euros	Valuation category in accordance with IFRS 9[1]	Carrying amounts 31/12/2020	Balance sheet valuation in accordance with IFRS 9: Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss
Financial investments					
Current financial investments (investments, stocks, bonds)	AC bzw. FVTPL	4,894 (69,661)	197 (69,661)		4,698 (0)
Shares in non-consolidated associates and investments	FVTOCI	841 (2,487)		841 (2,487)	
Shares in entities which are subject to the equity valuation	---[2]	13,410 (5,776)	13,410 (5,776)		
Loans and other financial investments	AC	2,084 (10)	2,084 (10)		
Trade receivables	AC	138,011 (136,881)	138,011 (136,881)		
Other financial assets					
Receivables from finance leases	---	192 (0)	192 (0)		
Derivatives with hedge relations					

in thousand euros	Valuation category in accordance with IFRS 9 [1]	Carrying amounts 31/12/2020	Balance sheet valuation in accordance with IFRS 9: Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss
Foreign exchange forward transactions/ foreign exchange swaps	---	1,956 (810)		1,956 (810)	
Derivatives without hedge relations					
Interest and currency swap	FVTPL	125 (79)			125 (79)
Foreign exchange forward transactions/ foreign exchange swaps	FVTPL	166 (953)			166 (953)
Other financial assets	AC	6,638 (4,252)	6,638 (4,252)		
Cash and cash equivalents	AC	63,405 (99,025)	63,405 (99,025)		
Total		**231,723** **(319,935)**	**223,936** **(315,606)**	**2,797** **(3,297)**	**4,989** **(1,032)**

The figures in brackets relate to the prior year.
[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
FVTOCI = Fair value through other comprehensive income
[2] Valuation in accordance with IAS 28

Financial liabilities:

in thousand euros	Valuation category in accordance with IFRS 9 [1]	Carrying amounts 31/12/2020	Balance sheet valuation in accordance with IFRS 9: Amortized costs	Fair value – through other comprehensive income	Fair value – through profit or loss	Valuation in accordance with IFRS 16
Financial debt						
Liabilities to banks	AC	209,250 (98,467)	209,250 (98,467)			
Liabilities from leases	---[2]	60,031 (61,091)				60,031 (61,091)
Liabilities from trade receivables	AC	90,573 (83,730)	90,573 (83,730)			
Other financial liabilities						
Contingent liabilities	FVTPL	16,595 (771)			16,595 (771)	
Derivatives with hedge relations						
Foreign exchange forward transactions/foreign exchange swaps	--- [2]	385 (4,078)		385 (4,078)		
Derivatives without hedge relations						
Foreign exchange forward transactions/foreign exchange swaps	FVTPL	138 (847)			138 (847)	
Other financial liabilities	AC	86,928 (9,078)	86,928 (9,078)			
Total		**463,900** **(258,062)**	**386,751** **(191,275)**	**385** **(4,078)**	**16,732** **(1,618)**	**60,031** **(61,091)**

The figures in brackets relate to the prior year.
[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
FVTOCI = Fair value through other comprehensive income
[2] Recognized according to IFRS 16

The classification of the fair values for the financial assets and liabilities is taken from the following overview:

in thousand euros	Carrying amounts 31/12/2020	Step 1	Step 2	Step 3
Current financial investments	4,698 (0)	4,698 (0)	0 (0)	0 (0)
Shares in non-consolidated associates and investments	841 (2,487)	0 (0)	0 (0)	841 (2,487)
Derivatives with hedge relations (assets)	1,956 (810)	0 (0)	1,956 (810)	0 (0)
Derivatives without hedge relations (assets)	291 (1,032)	0 (0)	291 (1,032)	0 (0)
Contingent liabilities	16,595 (771)	0 (0)	0 (0)	16,595 (771)
Derivatives with hedge relations (liabilities)	385 (4,078)	0 (0)	385 (4,078)	0 (0)
Derivatives without hedge relations (liabilities)	138 (847)	0 (0)	138 (847)	0 (0)

The figures in brackets relate to the prior year.

Fair values available which are available as quoted market prices at all times, are allocated to level 1. Fair values determined on the basis of direct or indirect observable parameters, are allocated to level 2. Level 3 is based on measurement parameters that are not based upon observable market data.

The fair values of all derivatives are determined using the generally recognized cash value method. In this context, the future cash flows determined via the agreed forward rate or interest rate are discounted using current market data. The market data used in this context is taken from leading financial information systems, such as for example Refinitiv (formerly Reuters). If an interpolation of market data is applied, this is done on a straight-line basis.

The fair value of contingent liabilities is valued at the reporting date, taking into consideration the anticipated payment outflows, discounted at a period and risk-dependent interest rate.

The development of the financial assets and liabilities which are valued at fair value and assigned to Level 3, can be found in the table below:

in thousand euros	Shares in non-consolidated associates and investments	Contingent liabilities
Balance as at 1/1/2020	**2,487**	**771**
Additions	30	15,800
Disposals	– 313	– 374
Additions to scope of consolidation	22	0
Gains/losses recognized in the operating result	0	– 476
Gains/losses recognized in the financial result	0	874
Valuation outside profit/loss	– 1,375	0
Foreign currency exchange effects	– 10	0
Balance as at 31/12/2020	**841**	**16,595**

The additions to the contingent liabilities arise from the acquisition of the TRIOPTICS Group and INTEROB (see section “Corporate acquisitions” from page 167, for further details). Payment of these variable purchase price components arising from the acquisitions is expected to take place by 2023. Payment of the earn-out liabilities in connection with the acquisition of the OTTO Group was made in 2020. Fair value adjustments to contingent liabilities recorded through profit or loss are recognized in other operating income or expenses. Accumulated interest is recognized in the financial result

Credit and default risks

The credit or default risk is the risk of a customer or a contract partner of the Jenoptik Group failing to fulfill his contractual obligations. This results in both the risk of creditworthiness-related impairment losses to financial instruments as well as the risk of a partial or a complete default on contractually agreed payments.

Credit and default risks primarily exist for trade receivables. These risks are countered by active receivables management and, if required, taken into account by creating impairment provisions. In addition, the Jenoptik Group is exposed to credit and default risks for cash and cash equivalents as well as current cash deposits. These risks are taken into account through constant monitoring of the creditworthiness of our business partners. To this end, business partner credit ratings and Credit Default Swaps (CDS) are subject to regular evaluation. For risk management purposes, liquid funds, amongst other things, are distributed between a number of banks within fixed limits. In accordance with IFRS 9, impairments were also applied to cash and cash equivalents as well as to current cash deposits.

The maximum default risk corresponds to the carrying amount of the financial assets as of the reporting date in the sum of 231,723 thousand euros (prior year: 319,935 thousand euros). For further explanations we refer to Note 8.2 from page 216.

The following impairments were recorded for financial assets in the fiscal year:

in thousand euros	2020	2019
Financial investments	75	110
Trade receivables and contract assets	1,895	4,486
Other financial assets	25	0
Cash and cash equivalents	7	0
Total	**2,002**	**4,596**

These impairments are offset against the following reversals of write-downs on financial assets:

in thousand euros	2020	2019
Financial investments	239	280
Trade receivables and contract assets	5,814	1,740
Other financial assets	0	1
Cash and cash equivalents	98	377
Total	**6,151**	**2,398**

The impairments to or reversals of write-downs on financial assets as well as cash and cash equivalents are included in the financial result.

Liquidity risk

The liquidity risk entails the possibility of the Group being unable to meet its financial obligations. In order to ensure our ability to pay and financial flexibility at all times, the net cash and cash equivalents, as well as the lines of credit and level of utilization, are planned yearly by means of a five-year financial plan as well as via a quarterly forecast of the statement of financial position, earnings and cash flow. The liquidity risk is also limited by effective cash and working capital management.

The liquidity reserves were divided into cash and cash equivalents as of the balance sheet date in the sum of 63,405 thousand euros (prior year: 99,025 thousand euros) and current financial investments in the sum of 4,894 thousand euros (prior year: 69.661 thousand euros). In addition, the Group has a secured and unused line of credit available in the sum of 417,319 thousand euros (prior year: 222,204 thousand euros). This comprises mainly a syndicated loan in the sum of 230,000 thousand euros agreed up to March 2022 and bridge financing in the of 300,000 thousand euros. As at the balance sheet date of December 31, 2020, the syndicated loan was utilized in the form of money market loans in the sum of 110,000 thousand euros and to a minimal extent in the form of guarantees. There has been no draw-down of the bridge financing as of the balance sheet date of 31 December 2020. This is a limited term contract up to June 2021, with a one-year extension option.

In April 2020, a fixed-interest debenture bond tranche in the sum of 21,500 thousand euros was repaid on the planned date.

The outstanding debenture bonds in the sum of 69,000 thousand euros (prior year: 90,500 thousand euros) will be repaid in 2022.

Cash outflows up to one year mainly include the repayment of the money market loan plus interest, drawn down under the syndicated loan. This item also includes interest and redemption payments for real estate financing in the United States and Germany.

in thousand euros	Interest rates (Range in %)	Carrying amounts 31/12/2020	Cash outflows Total	Up to 1 year	1 to 5 years	More than 5 years
Variable interest-bearing liabilities to banks	0.8 – 1.15	15,264	15,368	879	14,489	0
	(0.8 – 1.00)	(14,053)	(14,355)	(142)	(14,213)	(0)
Fixed interest-bearing liabilities to banks	0.65 – 3.85	194,144	196,450	118,945	67,755	9,750
	(0.98 – 5.00)	(84,414)	(84,904)	(24,879)	(60,024)	(0)
Liabilities from leases	0.79 – 5.91	59,014	65,256	14,188	35,323	15,745
	(0.9 – 5.9)	(61,091)	(66,252)	(11,423)	(32,943)	(21,886)
Total		**268,423**	**277,074**	**134,012**	**117,567**	**25,495**
		(159,558)	**(165,511)**	**(36,444)**	**(107,180)**	**(21,886)**

The figures in brackets relate to the prior year.

The cash outflows in the time frame of between one to five years mainly include the repayments of the debenture bond with an original term of seven years. This also includes the repayment in full of real estate financing in the USA as well as interest and redemption payments for real estate financing in Germany and leasing.

Cash outflows over five years include interest and redemption payments for real estate financing in Germany and leasing.

Risk of fluctuations in interest rates

The Jenoptik Group is fundamentally exposed to the risks of changes in interest rates due to fluctuations in market interest rates for all interest-bearing financial assets and liabilities. In the fiscal year 2020, this essentially affected debenture bonds raised in the sum of 69,000 thousand euros (prior year: 90,500 thousand euros) and the utilization of the syndicated loan agreement in the amount of 110,000 thousand euros, respectively as of the balance sheet date.

in thousand euros	Carrying amounts 31/12/2020	31/12/2019
Interest-bearing financial assets	16,722	65,623
Variable interest	3,274	21,147
Fixed interest	13,448	44,476
Interest-bearing financial liabilities	268,423	159,558
Variable interest	15,264	14,053
Fixed interest	253,159	145,505

The calculated gains or and losses arising from a change in the market interest rate as of December 31, 2020 within a bandwidth of 100 basis points, are shown in the following table:

in thousand euros	31/12/2020	31/12/2019
Increase by 100 basis points		
Interest-bearing financial assets	167	656
Interest-bearing financial liabilities	– 2,685	– 1,596
Impact on earnings before tax	**– 2,518**	**– 940**
Reduction by 100 basis points		
Interest-bearing financial assets	– 167	– 656
Interest-bearing financial liabilities	2,685	1,596
Impact on earnings before tax	**2,518**	**940**

As part of the management of interest rate risks, Jenoptik relies on a mix of fixed and variable interest-bearing assets and liabilities, as well as on various interest rate hedging transactions. These include, for example, interest swaps, interest caps and floors, as well as combined interest and currency swaps. As of the balance sheet date on December 31, 2020, there was a combined interest rate and currency swap with the following structure.

Interest and currency swap	
Nominal amount	17,980 thousand CNY
Term	March 12, 2015 to March 12, 2025
Fixed interest rates for CNY to be paid	5.10 percent p.a.
Variable interest rate to EUR to receive	6-month Euribor

This hedging transaction is used to secure an intra-group loan for real estate financing in Shanghai (China). The increase of 46 thousand euros in its market value was recorded through profit or loss in the statement of income.

The following payments are anticipated from this interest rate hedging instruments:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Interest and currency swap	122 (123)	458 (492)	0 (83)	579 (699)

The figures in brackets relate to the prior year.

Foreign currency exchange risk

Foreign currency exchange risks are grouped into two types: translation risk and transaction risk.

The translation risk arises from fluctuations in value caused by changes in exchange rates resulting from the conversion of existing foreign currency financial assets and liabilities into the currency of the statement of financial position. Since this is not associated with any cash flows, no hedging is applied.

The transaction risk arises from the fluctuation in value of cash flows in foreign currencies caused by changes in currency exchange rates. Derivative financial instruments, primarily currency forward transactions and currency swaps, are used to hedge this risk.

Hedging is provided for significant cash flows in foreign currencies arising from its operational business (revenue). Contractually agreed cash flows are hedged 1:1 via so-called micro-hedges. Planned cash flows are hedged on a pro rata basis in the context of anticipatory hedging, securing both groups of similar transactions (revenues) as well as net positions of individual companies.

JENOPTIK AG also hedges the anticipated cash flows from intra-group loans in foreign currencies which have not been declared as a “Net Investment in a foreign operation”, using derivative financial instruments. As of December 31, 2020, intra-group loans in foreign currencies are hedged as follows:

Borrowers of intra-group loans	Outstanding amount of intra-group loans (excluding “Net investment in a foreign operation”)	Hedging amount
Prodomax Automation Ltd. Canada	13,500 TCAD 3,500 TUSD	15,000 TCAD
JENOPTIK Holdings UK Ltd., Great Britain	6,000 TGBP	4,640 TGBP
JENOPTIK JAPAN Co. Ltd., Japan	160,000 TJPY	110,000 TJPY

As of the balance sheet date, existing forward exchange transactions and currency swaps totaled a nominal 84,234 thousand euros (prior year: 118,670 thousand euros). A so-called cash flow hedge relationship with the respective underlying transaction was documented for the vast majority of these transactions. Where this is proven effective, its changes in value do not have to be recorded through profit or loss. In order to measure the effectiveness, a prospective, quality-related effectiveness test is conducted, on the designation date as well as on an ongoing basis, normally as of the balance sheet dates, on the basis of the IFRS 9 “Financial Instruments” accounting standard.

Foreign exchange forward transactions and foreign exchange swaps are grouped according to sales and purchases in foreign currencies as follows:

153 232 Consolidated Financial Statements

in thousand euros	31/12/2020	31/12/2019
USD – sale for EUR	57,375	69,641
USD – purchase for EUR	1,731	0
GBP – sale for EUR	5,003	26,752
USD – purchases for CHF	0	904
USD – sale for CAD	9,086	19,990
USD – purchase for GBP	0	675
CNY – sale for EUR	391	195
JPY – sale for EUR	862	513
CAD – sale for EUR	9,715	0
SGD – sale for EUR	70	0
Total foreign currency sales	**82,503**	**117,091**
Total foreign currency purchases	**1,731**	**1,579**

Foreign exchange forward transactions and swaps give rise to the following market values:

in thousand euros	31/12/2020	31/12/2019
Positive market values		
Derivatives with hedging relations		
non-current	500	233
current	1,456	577
Derivatives without hedging relations		
current	166	953
Total positive market values	**2,122**	**1,763**
Negative market values		
Derivatives with hedging relations		
non-current	0	1.031
current	385	3.047
Derivatives without hedging relations		
non-current	84	584
current	54	263
Total negative market values	**523**	**4,926**
Balance	**1,599**	**−3,163**

The market values for hedging transactions for intra-group loans are included in the derivatives without hedge relationships as the underlying transaction comprising intra-group receivables and liabilities is deconsolidated. The positive market values of these derivatives totaled 164 thousand euros (prior year: 958 thousand euros) as of the balance sheet date, whilst the negative market values totaled 138 thousand euros (prior year: 800 thousand euros). The change led to an overall loss of 132 thousand euros (prior year: loss of 34 thousand euros) which was recognized in the financial result through profit or loss.

Cumulative losses in derivatives with a hedging relationship in the sum of 1,262 thousand euros (prior year: 2,724 thousand euros) were recognized in equity outside profit or loss as of December 31, 2020. Of the profits and losses recognized in equity outside profit or loss as of December 31, 2019, a reclassification from equity to profit or loss was carried out in the sum of minus 2,278 thousand euros in 2020 (prior year: minus 1,191 thousand euros). This type of reclassification is normally associated with the recognition of the underlying transaction (for example, recognition of revenue and booking of the corresponding receivable on billing) through profit or loss so the targeted balancing effect of concluding the hedge transaction is reflected in the statement of income.

The foreign currency hedging transactions hedge against foreign exchange currency risks in the sum of 56,679 thousand euros with a time frame up to the end of 2021. Foreign currency exchange risks are hedged in the sum of 27,555 thousand euros with a time frame up to the end of 2023.

The main foreign currency exchange transactions of the Jenoptik Group involve US dollars. The table below shows a breakdown of the USD-based translation and transaction risks, as well as the Group's net risk position:

in thousand euros	31/12/2020	31/12/2019
Financial assets	24,355	35,427
Financial liabilities	5,052	3,435
Translation risk	**19,303**	**31,992**
Planned cash flows	197,958	153,444
Cash flows hedged through derivatives	64,731	88,052
Transaction risk	**133,227**	**65,392**
Net risk item	**152,530**	**97,384**

The decrease in the financial assets held in US dollars compared to the prior year is mainly due to the lower level of cash and cash equivalents. The increase in planned cash flows in US dollars compared to the prior year is attributable to the JENOPTIK Group's continual focus on targeted international growth.

As of the balance sheet date there was a US dollar-based net risk item in the sum of 152,530 thousand euros (prior year: 97,384 thousand euros). A change in the US dollar exchange rate would have the following consequences:

	EUR/USD rate	Change in the net risk item (in thousand euros)
Reporting date exchange rate 31/12/2020	1.2271 (1.1234)	
Increase by 5 percent	1.2885 (1.1796)	7.263 (4.637)
Reduction by 5 percent	1.1657 (1.0672)	– 8.028 (– 5.125)
Increase by 10 percent	1.3498 (1.2357)	13.866 (8.853)
Reduction by 10 percent	1.1044 (1.0111)	– 16.948 (– 10.820)

The figures in brackets relate to the prior year.

8.3 Other financial obligations

As of December 31, 2020 obligations existed in the sum of 116,297 thousand euros (prior year: 102,332 thousand euros), in particular order commitments for inventories in the sum of 61,942 thousand euros (prior year: 75,259 thousand euros) and for intangible assets and property, plant and equipment in the sum of 17,342 thousand euros (prior year: 7,003 thousand euros) as well as other financial obligations of 36,966 thousand euros (prior year: 20,022 thousand euros).

The increase in order commitments for intangible assets and property, plant and equipment of 10,339 thousand euros to 17,342 thousand euros is mainly attributable to the order for a new production plant for the manufacture of future generations of sensors for the semiconductor industry.

The increase in other financial obligations by 16,944 thousand euros to 36,966 thousand euros is mainly the result of the conclusion of an electricity supply contract up to 2023 in the VINCORION division. A contract was also concluded for the provision of consulting and software services up to 2025 in connection with the measures in the VINCORION division for process and structural streamlining to achieve the desired product focus and greater independence.

Other financial obligations also include a service contract concluded for building management services which has been in force for all German Jenoptik sites since April 2018 and has a contract term of four years.

Loan commitments to non-consolidated, associated entities in the sum of 47 thousand euros (prior year: 47 thousand euros) were not taken up in full.

8.4 Legal disputes

JENOPTIK AG and its group entities are involved in few court or arbitration proceedings. Provisions for litigation risks, respectively litigation expenses, were set aside in the appropriate amounts in order to meet any potential financial burdens resulting from current court or arbitration proceedings (see Section 5.20 from page 204).

153 232 Consolidated Financial Statements

8.5 Related party disclosures in accordance with IAS 24

Related parties are defined in IAS 24 "Related Party Disclosures" as being entities or persons that have control over or are controlled by the Jenoptik Group if they have not already been included in the consolidated financial statements as consolidated entities as well as entities or persons that, on the basis of the Articles of Association or by contractual agreements, are able to significantly influence the financial and corporate policies of the Management of JENOPTIK AG or participate in the joint management of JENOPTIK AG. Control applies if a shareholder holds more than half of the voting rights in JENOPTIK AG. The largest single shareholder of JENOPTIK AG is Thüringer Industriebeteiligungs GmbH & Co. KG, Erfurt, which directly holds in total 11 percent of the voting rights and thus does not have control over JENOPTIK AG.

Members of the Executive Board and of the Supervisory Board of JENOPTIK AG also qualify as related parties. In the 2020 fiscal year, as in the prior year, no exchange of goods or of services was transacted between the entity and members of these two bodies.

The breakdown of the total remuneration of the members of the management in key positions (Executive Board and Supervisory Board), recorded in 2020 through profit or loss, is shown in the following table.

in thousand euros	2020	2019
Short-term benefits	2,397	2,331
Post-employment benefits	360	360
Share-based payment	– 23	256
Total	**2,734**	**2,947**

As at the balance sheet date, there were outstanding obligations to members of management in key positions in the total sum of 3,094 thousand euros (prior year: 3,605 thousand euros).

Detailed information on the disclosure of the remuneration of the members of the Executive Board and the Supervisory Board as required by IAS 24.9 has been published in the Remuneration Report as part of the Combined management report in the section Corporate governance on pages 51 ff. as well as in the section Required and supplementary disclosures under HGB in the Notes on pages 227 and 230.

The following table shows the composition of the business relationships with non-consolidated associates and financial investments as well as with the joint venture that still existed in the prior year as a further related party is shown in the table below.

		of which	
in thousand euros	Total	non-consolidated associates and financial investments and joint ventures	joint operation
Revenue	997	997	0
	(1,869)	(1,326)	(543)
Purchased services	947	947	0
	(1,301)	(757)	(543)
Receivables from operations	277 (204)	277 (181)	0 (22)
Liabilities from operations	66 (113)	66 (112)	0 (0)
Financial liabilities	2,800	(2,800)	0
	(1,700)	(1)	(1,700)
Loans	10	10	0
	(10)	(10)	(0)

The figures in brackets relate to the prior year.

9 Events after the Balance sheet date

The JENOPTIK AG Executive Board approved the submission of these Consolidated Financial Statements to the Supervisory Board on March 16, 2021. The Supervisory Board is responsible for reviewing and approving the Consolidated Financial Statements at its meeting on March 24, 2021.

Dividends. In compliance with the German Stock Corporation Act, the amount for a dividend payment to shareholders is based on the accumulated profit of the parent company, JENOPTIK AG, which has been determined in accordance with provisions of German commercial law (HGB). For the 2020 fiscal year, JENOPTIK AG's accumulated profit totaled 67,161,476.79 euros, comprising net profit for the 2020 fiscal year in the amount of 37,161,476.79 euros plus retained profit of 30,000,000.00 euros.

The Executive Board recommends to the Supervisory Board that for the 2020 fiscal year a dividend of 0.25 euros per qualifying no-par value share be proposed at the 2021 Annual General Meeting (prior year: 0.13 euros). This would mean that a sum of 14,309,528.75 euros from JENOPTIK AG's accumulated profits in the 2020 fiscal year would be distributed. Of JENOPTIK AG's remaining accumulated profits, a sum of 22,851,948.04 euros will be allocated to other revenue reserves, and a sum of 30,000,000.00 euros will be carried forward to new account.

With this recommendation, the Executive Board is continuing its ongoing dividend policy. Despite the effects of the COVID-19 pandemic, the acquisition of two companies and the investments at a high level, the shareholders of JENOPTIK AG should participate appropriately in the company's success. With earnings per share of 0.73 euros (prior year: 1.18 euros), the payout ratio is 34.2 percent (prior year: 11.0 percent) and is thus significantly higher than in previous years.

No further events of significance occurred after December 31, 2020.

10 Required Disclosures and Supplementary Information under HGB

10.1 Required disclosures in accordance with § 315e and § 264 (3) or § 264b of the HGB

The consolidated financial statements of JENOPTIK AG were prepared in accordance with § 315e of the HGB, exempting an entity from preparing consolidated financial statements under HGB in accordance with the guidelines of the IASB. At the same time, the consolidated financial statements and combined management report are in conformity with the European Union Consolidated Accounts Directive (2013/34/EU). In order to achieve comparability with a set of consolidated financial statements prepared in accordance with the commercial regulations of the HGB, all of the required disclosures and explanations under the HGB as well as any required disclosures above and beyond those needed to be in compliance with IFRS are to be published.

Through having been included in the consolidated financial statements of JENOPTIK AG, the following fully consolidated German associates have made use of the simplification relief measures defined in § 264 (3) or § 264b of the HGB:

- JENOPTIK Advanced Systems GmbH, Wedel
- JENOPTIK Automatisierungstechnik GmbH, Jena
- JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen
- JENOPTIK Optical Systems GmbH, Jena
- JENOPTIK Power Systems GmbH, Altenstadt
- JENOPTIK Robot GmbH, Monheim am Rhein
- OTTO Vision Technology, Jena
- SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, in liquidation, Pullach im Isartal

10.2 Number of employees

The breakdown of the average number of employees is presented in the following table:

153 Consolidated Financial Statements 232

Employees	2020	2019
Light & Optics	1,457	1,341
Light & Production	1,065	1,072
Light & Safety	475	471
VINCORION	743	758
Other	310	320
Total	**4,049**	**3,961**

In the 2020 fiscal year an average of 161 trainees (prior year: 123) were employed.

10.3 Cost of materials and personnel expenses

in thousand euros	2020	2019
Cost of materials		
Expenditures for raw materials, consumables and merchandise	251,263	277,799
Expenditure for services purchased	61,216	66,977
Total	**312,479**	**344,776**
Personnel expenses		
Wages and salaries	248,339	261,744
Social security, pension contributions and retirement benefits	42,710	39,332
Total	**291,049**	**301,076**

10.3 Financial statement auditor fees

The fees for the services rendered by our auditor, as well as by its affiliates and network companies, amounted to:

in thousand euros	2020	2019
Financial statement audit services	1,377	833
Other services	22	380
Other attestation services	29	40
Tax consulting services	8	15
Total	**1,436**	**1,269**

The fees for the audit services relate to expenses for the audit of the consolidated financial statements of the Jenoptik Group and the audits of the subsidiaries included in the consolidated financial statements. The increase is mainly due to the auditing services in the USA and at TRIOPTICS.

The other services of the auditor relate to permissible consulting services in connection with questions of accounting according to IFRS and transaction consulting services. The previous year included in particular consulting services in connection with the sales process of the VINCORION division. The prior year included in particular consulting services in connection with the VINCORION division's sales process. Other confirmation services were provided in the context of the certification of financial indicators, certificates according to the Renewable Energy Sources Act, according to the European Market Infrastructure Regulation (EMIR) and in connection with an IT migration test.

Of the total expenses, financial statement audit services accounted for 862 thousand euros (prior year: 697 thousand euros), other services 22 thousand euros (prior year: 380 thousand euros) other attestation services 29 thousand euros (prior year: 40 thousand euros), with the tax consulting services rendered by the auditors of the consolidate financial statements Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Germany, accounting for 8 thousand euros (prior year: 15 thousand euros).

11 Corporate Governance

11.1 German Corporate Governance Code

In December 2020, the Executive Board and Supervisory Board of JENOPTIK AG submitted a declaration of conformity in accordance with § 161 of the German Stock Corporation Act as required by the recommendations of the Government Commission's German Corporate Governance Code in the version dated December 16, 2019. The declaration of conformity is reproduced in the Corporate Governance statement from page 36 and has been made permanently available to shareholders on the JENOPTIK AG website under www.jenoptik.com in the section Investors/Corporate Governance. The declaration is available for inspection in the offices of JENOPTIK AG (Carl-Zeiss-Straße 1, 07743 Jena, Germany).

11.2 Executive Board

The following persons were appointed as members of the Executive Board in the 2020 fiscal year:

	Other mandates with:
Dr. Stefan Traeger President & CEO of JENOPTIK AG	JENOPTIK North America, Inc., USA (GI, Chairman, CCB) JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., China (GI; Chairman, CCB) JENOPTIK (Shanghai) International Trading Co., Ltd., China (GI, Member, CCB) Prodomax Automation Ltd., Kanada (GI, Chairman, CCB) JENOPTIK Korea Corp., Ltd., Korea (GI, Member, CCB) JENOPTIK JAPAN Co. Ltd., Japan (GI, Member, CCB) TELSTAR-HOMMEL Co., Ltd., Korea (GI, Member, CCB)
Hans-Dieter Schumacher Member of the Executive Board of JENOPTIK AG	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd; China (GI; Member, CCB) JENOPTIK (Shanghai) International Trading Co., Ltd., China (GI, Member, CCB) JENOPTIK Traffic Solutions Switzerland, Switzerland (GI, Chairman, CCB) JENOPTIK North America, Inc., USA (GI, Member, CCB, since January 1, 2021)

Abbreviations: CCB – comparable controlling body, GI – Group internal appointment

The following overview shows the remuneration of the Executive Board for the 2020 fiscal year. In addition to direct or indirect remuneration components earned, this overview includes the fair value of the share-based remuneration instruments (performance shares). A detailed description of the remuneration system can be found in the Remuneration Report on pages 51 of the Combined Management Report in the chapter Corporate Governance.

Fringe benefits consist of contributions to the accident insurance as well as the provision of company cars.

Retirement benefits paid to former Executive Board members or their survivors amounted to 218 thousand euros (prior year: 185 thousand euros). As of the balance sheet date, the pension provisions for former Executive Board members totaled 3,371 thousand euros. The expenses recorded for these existing provisions in the 2020 fiscal year comprised interest costs in the sum of 26 thousand euros (prior year: 50 thousand euros).

In the 2020 fiscal year – as in the preceding years – no loans or advances were granted to the members of either the Executive Board or the Supervisory Board. Consequently, there were no loan redemption payments.

Components of the remuneration for the Executive Board

	Dr. Stefan Traeger (President & CEO)		Hans-Dieter Schumacher (Member of the Executive Board)	
in thousand euros	2020	2019	2020	2019
Fixed remuneration	600.0	600.0	450.0	450.0
Variable remuneration	301.6	185.8	194.6	123.8
Performance shares for the fiscal year *	199.7	376.2	144.4	282.2
LTI granted for dividend protection of existing shares	n. a.	n. a.	4.0	19.4
Retirement benefits	200.0	200.0	160.0	160.0
Fringe benefits	18.5	18.0	21.0	18.4
Total remuneration	**1,319.8**	**1,380.0**	**974.0**	**1,053.8**

* shown at fair value on the date of the provisional allocation

11.3 Supervisory Board

The following persons were appointed members of the Supervisory Board in the 2020 fiscal year:

	Member of	Other mandates with
Matthias Wierlacher (Chairman) Chairman of the Board of the Thüringer Aufbaubank Appointed in 2012, Chairman since July 2015	• Personnel Committee (Chairman) • Investment Committee (Chairman) • Nomination Committee (Chairman) • Mediation Committee (Chairman)	• Mittelständische Beteiligungsgesellschaft Thüringen mbH (SB member) • bm-t beteiligungsmanagement thüringen GmbH (GI, SB Chairman) • ThüringenForst – Public Body – (CCB)
Michael Ebenau [1] (Vice Chairman up to October 15, 2020) Secretary of the IG Metall Union, District Management Mitte Appointed since 2007, up to October 15, 2020	• Personnel Committee (up to October 15, 2020) • Investment Committee (up to October 15, 2020) • Mediation Committee (up to October 15, 2020)	None
Stefan Schaumburg [1] (Vice Chairman since October 16, 2020) Union secretary and functional area manager at the IG Metall Union, Frankfurt Appointed in 2012	• Personnel Committee • Investment Committee (since November 12, 2020) • Mediation Committee (since October 16, 2020)	• GKN Driveline International GmbH (Vice Chairman SB; CCB; up to December 31, 2020
Astrid Biesterfeldt [1] Vice President Business Unit Energy & Drive at JENOPTIK Advanced Systems GmbH Appointed in 2014	• Audit Committee	None
Evert Dudok Executive Vice President Connected Intelligence, Airbus Appointed in 2015		• EURASSPACE Gesellschaft für Raumfahrttechnik mbH (GI, SB Member)
Elke Eckstein CEO Enics AG, Switzerland Appointed in 2017	• Investment Committee	• Enics Eesti AS, Estonia (GI, CCB, Chairman) • Enics Electronics (Beijing) Ltd., China (GI, CCB) • Enics Electronics (Suzhou) Ltd., China (GI, CCB) • Enics Finland Oy, Finland (GI, CCB, Chairman) • Enics Hong Kong Ltd., Hong Kong (GI, CCB) • Enics Raahe Oy, Finland (GI, CCB, Chairman) • Enics Schweiz AG, Switzerland (GI, CCB, Chairman) • Enics Slovakia s.r.o., Slovakia (GI, CCB) • Enics Sweden AB, Sweden (GI, CCB, Chairman) • Saferoad SRH Holding AS, Norway (CCB) • KK Wind Solutions A/S, Denmark (CCB, Member since April 1, 2020)

	Member of	Other mandates with
Thomas Klippstein [1] Chairman of the Group Advisory Board of Jenoptik Appointed in 1996	• Personnel Committee • Audit Committee	None
Dörthe Knips [1] Local Works Committee Chairman of the Light & Optics Division Jena & Dresden Appointed since 2017	• Investment Committee • Mediation Committee	None
Dieter Kröhn [1] Production planner at JENOPTIK Advanced Systems GmbH Appointed October 1999 to June 2007, reappointed in December 2010	• Investment Committee • Mediation Committee	None
Doreen Nowotne Independent corporate management consultant Appointed in 2015	• Audit Committee (Vice Chairman) • Investment Committee	• Brenntag AG (SB member since June 10, 2020 (SB Chairman) • Lufthansa Technik AG (SB member) • Franz Haniel & Cie. GmbH (SB member, since April 1, 2020 SB Chairman)
Heinrich Reimitz Member of the Management of HPS Holding GmbH, Austria Appointed in 2008	• Audit Committee (Chairman) • Personnel Committee, • Nomination Committee	• Ühinenud Farmid AS, Estonia (CCB, member)
Frank-Dirk Steininger [1] District Secretary IG Metall Mitte in Frankfurt am Main Appointed since October 16, 2020	• Personnel Committee (since November 12, 2020)	None
Prof. Dr. rer. nat. habil., Master's in Physics Andreas Tünnermann Director of the Institute for Applied Physics and university lecturer in applied physics at the Friedrich Schiller University Jena, and Head of the Fraunhofer Institute for Applied Optics and Precision Mechanics, Jena Appointed in 2007	• Personnel Committee • Mediation Committee • Nomination Committee	• Docter Optics SE (CCB, member) • ARRI AG (SB member)

[1] Employee representative
Abbreviations: SB – Supervisory Board, CCB – Comparable Controlling Body, GI – Group internal appointment, Dep. – Deputy

Supervisory Board remuneration

For the 2020 fiscal year the members of the Supervisory Board received the following remuneration in total:

		of which		
in thousand euros	Total earnings	Fixed annual remuneration 2020	Meeting allowances (plus reimbursement of expenses)	Sales tax[1]
Matthias Wierlacher (Chairman)	121.6	109.5	12.2	19.3
	(132.3)	(119.0)	(13.3)	(21.1)
Michael Ebenau	66.8	58.6	8.2	9.3
(Vice Chairman until 15/10/2020)	(95.8)	(83.3)	(12.5)	(15.3)
Stefan Schaumburg	60.1	54.1	6.0	9.5
(Vice Chairman since 16/10/2020)	(65.4)	(53.6)	(11.8)	(10.4)
Astrid Biesterfeldt	61.8	54.7	7.0	9.8
	(72.7)	(59.5)	(13.2)	(11.6)
Evert Dudok	45.8	42.8	2.9	7.3
	(54.9)	(47.6)	(7.3)	(8.7)
Elke Eckstein	55.8	48.8	7.0	8.8
	(66.1)	(53.6)	(12.6)	(10.2)
Thomas Klippstein	72.4	60.7	11.7	11.4
	(82.1)	(65.5)	(16.6)	(13.1)
Dörthe Knips	57.0	48.8	8.2	9.0
	(63.7)	(53.6)	(10.1)	(10.2)
Dieter Kröhn	56.4	48.8	7.6	8.9
	(63.1)	(53.6)	(9.5)	(10.1)
Doreen Nowotne	76.0	66.6	9.4	12.0
	(88.9)	(71.4)	(17.5)	(14.2)
Heinrich Reimitz	69.7	61.0	8.7	–
	(90.1)	(65.0)	(25.1)	–
Frank-Dirk Steininger	11.6	9.8	1.7	1.8
(since 16/10/2020)	–	–	–	–
Prof. Dr. rer. nat. habil.	55.8	48.8	7.0	8.8
Andreas Tünnermann	(63.2)	(53.6)	(9.6)	(10.1)
Total	**810.8**	**713.0**	**97.6**	**115.9**
	(938.3)	**(779.3)**	**(159.1)**	**(135.0)**

[1] Included in total remuneration, fixed remuneration and attendance fees; Due to his place of residence abroad, Mr. Mag. Heinrich Reimitz has limited tax liability in Germany; Since a tax withholding was paid on his remuneration in accordance with § 50a (1) No. 4 EStG, no sales tax was due.
The values in brackets relate to the prior year

For a more detailed explanation of the Supervisory Board remuneration system we refer to the Remuneration Report in the Corporate Governance chapter which forms part of the Combined Management Report.

12 List of Shareholdings in the Jenoptik Group as at December 31, 2020 in accordance with § 313 (2) HGB

No.	Name and registered office of the entity	Share of Jenoptik or the direct shareholder in %	Equity 31/12/2020 in thousand euros [7]	Result for 2020 in thousand euros [7]
	1.1. Consolidated associates – direct investments			
1	JENOPTIK Robot GmbH, Monheim am Rhein, Germany	100		
2	JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen, Germany	100		
3	JENOPTIK Automatisierungstechnik GmbH, Jena, Germany	100		
4	JENOPTIK Advanced Systems GmbH, Wedel, Germany	100		
5	JENOPTIK Optical Systems GmbH, Jena, Germany	100		
6	SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, Jena, Germany, i.L. [5]	100		
7	JENOPTIK North America, Inc., Jupiter (FL), USA	100		
8	JENOPTIK Asia-Pacific Pte. Ltd., Singapore, Singapore	100		
	– indirect investments			
9	JENOPTIK Traffic Solutions Switzerland AG, Uster, Switzerland	100		
10	JENOPTIK ROBOT MALAYSIA SDN BHD, Kuala Lumpur, Malaysia, i.L. [5]	100		
11	ROBOT Nederland B.V., Riel, Netherlands	100		
12	JENOPTIK Holdings UK Ltd., Milton Keynes, Great Britain	100		
13	Vysionics ITS Holdings Ltd., Milton Keynes, Great Britain	100		
14	JENOPTIK Traffic Solutions UK Ltd., Camberley, Great Britain	100		
15	Domestic and Commercial Security Ltd., Saltesh, Great Britain	100		
16	JENOPTIK Industrial Metrology Switzerland SA, Peseux, Switzerland	100		
17	JENOPTIK Industrial Metrology France SAS, Bayeux Cedex, France	100		
18	OTTO Vision Technology GmbH, Jena, Germany	100		
19	JENOPTIK Power Systems GmbH, Altenstadt, Germany	100		
20	PHOTONIC SENSE GmbH, Eisenach, Germany	100		
21	PHOTONIC SENSE, INC., Nashua (NH), USA	100		
22	Asam Grundstücksverwaltungsgesellschaft mbH & Co. Vermietungs KG, Mainz, Germany	94		
23	Traffipax, LLC, Jupiter (FL), USA	100		
24	JENOPTIK Automotive North America, LLC, Rochester Hills (MI), USA	100		
25	JENOPTIK INDUSTRIAL METROLOGY DE MEXICO, S. DE R.L. DE C.V., Saltillo, Mexico	98		
26	Five Lakes Automation, LLC, Novi (MI), USA	100		
27	JENOPTIK Optical Systems, LLC, Jupiter (FL), USA	100		
28	JENOPTIK Advanced Systems, LLC, El Paso (TX), USA	100		
29	Prodomax Automation Ltd., Barrie, Canada	100		
30	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., Shanghai, China	100		
31	JENOPTIK (Shanghai) International Trading Co., Ltd., Shanghai, China	100		
32	JENOPTIK Australia Pty Ltd, Sydney, Australia	100		
33	JENOPTIK Korea Corporation, Ltd., Pyeongtaek, Korea	66.66		
34	JENOPTIK JAPAN Co. Ltd., Yokohama, Japan	100		

No.	Name and registered office of the entity	Share of Jenoptik or the direct shareholder in %	Equity 31/12/2020 in thousand euros [7]	Result for 2020 in thousand euros [7]
35	JENOPTIK India Private Limited, Bangalore, India	100		
36	BROXBURN, S.L., Madrid, Spain	100		
37	INTEROB, S.L., Valladolid, Spain	100		
38	INTEROB RESEARCH & SUPPLY, S.L., Valladolid, Spain	100		
39	Trioptics GmbH, Wedel, Germany	75 [8]		
40	Mellifera Dreizehnte Beteiligungsgesellschaft mbH, Berlin, Germany	100		
41	Mellifera Zwölfte Beteiligungsgesellschaft mbH, Berlin, Germany	100		
42	TRIOPTICS Berlin GmbH, Berlin, Germany	100		
43	TRIOPTICS SINGAPORE PTE. LTD., Singapore	100		
44	Trioptics Optical Test Instruments (China) Ltd., Bejing, China	51		
45	Trioptics Hong Kong Limited, Hong Kong	100 [9]		
46	Trioptics Japan Co., Ltd., Shizuoka, Japan	61.25		
47	Trioptics Korea Co., Ltd., Suwon, Korea	60		
48	TRIOPTICS TAIWAN LTD., Taoyuan, Taiwan	51		
49	Trioptics, Inc., Rancho Cucamonga, California, USA	100		
	1.2 Unconsolidated associates – direct investments			
50	FIRMICUS Verwaltungsgesellschaft mbH, Jena, Germany, i.L. [5]	100	33	2
51	SAALEAUE Immobilien Verwaltungsgesellschaft mbH, Jena, Germany, i.L. [5]	100	33 [10]	2 [10]
52	KORBEN Verrwaltungsgesellschaft mbH, Grünwald, Germany, i.L. [5]	100	30 [1]	1 [1]
	– indirect investments			
53	JENOPTIK do Brasil Instrumentos de Precisão e Equipamentos Ltda., Sao Paulo, Brazil	100	–647 [1]	120 [1]
54	JENOPTIK Saudi Arabia, LLC, Jeddah, Saudi-Arabia, i.L. [5]	100	51 [2]	–44 [2]
	2. Investments accounted for using the equity method			
55	TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea	33.33	17.658 [1]	1.903 [1]
56	HILLOS GmbH, Jena, Germany	50	14.787	1.144
57	Trioptics France S.A.R.L., Villeurbane, France	50	178	–229
	3. Investments – direct investments			
58	JENAER BILDUNGSZENTRUM gGmbH SCHOTT CARL ZEISS JENOPTIK, Jena, Germany	33.33	1.325 [1]	698 [1]
	– indirect investments			
59	JT Optical Engine Verwaltungs GmbH, Jena, Germany, i.L. [5]	50 [4]	23	0
60	JT Optical Engine GmbH + Co. KG, Jena, Germany, i.L. [5]	50 [4]	507	–1
61	JENOPTIK Robot Algérie SARL, Algier, Algeria	49	256 [1]	159 [1]
62	HOMMEL CS s.r.o., Teplice, Czech Republic	40	1.001 [1]	108 [1]
63	Zenteris GmbH, Jena, Germany, i.I. [6]	24.9 [4]	[3]	[3]

[1] Details for 2019 financial statements
[2] Details for 2017 financial statements
[3] Details not available
[4] Deviating fiscal year as of June 30
[5] i. L. = in liquidation
[6] i. I. = in insolvency
[7] Information from annual financial statements in foreign currency converted at the closing rate or the average rate for the respective year
[8] Consolidation to 100% due to present ownership
[9] Indirect participation through Trioptics Optical Test Instruments (China) Ltd.
[10] Short fiscal year from January 1 to September 30, 2020

Jena, March 16, 2021
JENOPTIK AG

The Executive Board

Further information

» In short «

Jenoptik will invite its shareholders

on June 9, 2021

to the virtual Annual General Meeting.

Assurance from the Legal Representatives

We give our assurance that, to the best of our knowledge and in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group and that the course of business, including the business result and the position of the Group, are portrayed in such a way in the Combined Management Report that a true and accurate picture is conveyed and that the significant opportunities and risks of the Group's future development are fairly described.

Jena, March 16, 2021

Dr. Stefan Traeger
President & CEO

Hans-Dieter Schumacher
Chief Financial Officer

Independent auditor's report

To JENOPTIK AG

We issued the following auditor's report on the consolidated financial statements and the group management report, which was combined with the management report of the Company and on the ESEF documents:

Report on the audit of the consolidated financial statements and of the combined management report

Opinions

We have audited the consolidated financial statements of JENOPTIK AG, Jena, and its subsidiaries (the Group), which comprise the consolidated statement of comprehensive income for the fiscal year from 1 January to 31 December 2020, the consolidated statement of financial position as of 31 December 2020, the consolidated statement of cash flows and the consolidated statement of changes in equity for the fiscal year from 1 January to 31 December 2020, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of JENOPTIK AG, which was combined with the management report of the Company, for the fiscal year from 1 January to 31 December 2020. In accordance with the German legal requirements, we have not audited the content of the declaration on corporate governance pursuant to Sec. 289f HGB ["Handelsgesetzbuch": German Commercial Code] and Sec. 315d HGB in the group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities and financial position of the Group as at 31 December 2020, and of its financial performance for the fiscal year from 1 January to 31 December 2020, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of the corporate governance statement referred to above.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 January to 31 December 2020. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Testing goodwill for impairment

Reasons why the matter was determined to be a key audit matter

Goodwill recognized in the consolidated financial statements of JENOPTIK AG is subject to an annual impairment test pursuant to IAS 36.

The result of the tests depends particularly on the executive directors' estimate of the future cash inflows, also taking into account the effects of the COVID-19 pandemic and the discount rate used. The impairment test is therefore associated with exceptional uncertainty and judgment, which is why it was determined to be a key audit matter.

Auditor's response

We discussed the method used to perform the impairment test with the Company's executive directors and assessed its compliance with the requirements of IAS 36. We verified the individual components used to determine the discount rate with the support of our internal valuation experts, in particular by analyzing the peer group, comparing market data with external evidence and examining the calculation. We examined the clerical accuracy of the valuation model on a sample basis.

We checked on a test basis that the planning assumptions used in the detailed forecasts of each of the cash-generating units are in line with the business plan of the Company prepared by the Executive Board and assessed them critically for the effects relating to the COVID-19 pandemic and taking into account our findings from the audit. In addition, we verified the growth rates for income and expenses used to roll forward the budget by comparing internal and external data. We also analyzed the forecasts with regard to adherence to the budget in the past, compared it with the prior-year forecast, discussed it with the Company's executive directors and obtained evidence substantiating the individual assumptions of the forecasts.

We verified the significant assumptions used in the sensitivity calculations prepared by the executive directors of the Company in order to estimate any potential impairment risk associated with a change in one of the significant assumptions used in the valuation.

We do not have any reservations regarding the impairment of goodwill.

Reference to related disclosures

Additional disclosures on the impairment of goodwill as well as the associated judgments are contained in point 5.1 “Intangible Assets” of the Company’s notes to the consolidated financial statements.

2. Write-downs of inventories

Reasons why the matter was determined to be a key audit matter

The complex and heterogeneous production processes as well as a rapidly changing market on account of the technical progress result in increased inventory risks and uncertainties surrounding the measurement of inventories.

Corresponding valuation allowances take into account inventory risks arising from the period of storage and/or reduced usability. In particular, the calculation of the write-down rates using the IT-supported write-down procedures as well as the additional manual adjustments to write-downs, where necessary, which are not taken into account in this write-down procedure, are subject to the estimates made by the executive directors of the Company.

Against the background of the underlying complexity and the judgment exercised during valuation, the write-downs of inventories was one of the key audit matters.

Auditor’s response

In our audit, we first examined the procedures for determining write-downs recognized for slow-moving goods and marketability and verified them in comparison to prior fiscal years. Here, we compared the forecast accuracy of the underlying assumptions on a sample basis by checking against the actual write-downs realized upon disposal of the corresponding inventories. The result of our comparison was used as a basis for our assessment of write-downs in the current fiscal year.

In addition, we verified the system-based implementation of write-down routines in SAP by involving corresponding IT specialists.

We discussed manual write-downs with the Company’s executive directors, obtained supporting evidence and performed further audit procedures in particular cases.

Our audit procedures did not lead to any reservations concerning the write-downs of inventories.

Reference to related disclosures

Additional disclosures by the Company on the measurement of inventories are contained in point 5.9 “Inventories” of the notes to the consolidated financial statements.

3. Measurement of deferred tax assets on loss carryforwards

Reasons why the matter was determined to be a key audit matter

The deferred tax assets recognized in the consolidated financial statements of JENOPTIK AG primarily relate to tax loss carryforwards in Germany. The measurement of deferred tax assets on loss carryforwards mainly depends on the estimation of the projected future taxable income, also taking into account the effects of the COVID-19 pandemic. The measurement is therefore inherently subject to judgment and uncertainties, which is why we determined this to be a key audit matter.

Auditor's response

We discussed the method used to measure deferred tax assets on loss carryforwards with the executive directors and assessed its compliance with the rules of IAS 12.

We discussed the assumptions used in the forecast of the expected future taxable income with the executive directors, checked on a test basis with the internal forecasts prepared by the Executive Board and assessed them critically for the effects relating to the COVID-19 pandemic taking into account our findings from the audit. We also engaged internal tax specialists to assist us with assessing the reconciliation of planned earnings to the expected taxable income. In addition, we verified the growth rates for income and expenses used to roll forward the budget by comparing internal and external data. We also analyzed the forecasts with regard to adherence to the budget in the past, compared them with the prior-year forecasts and obtained evidence substantiating the individual assumptions of the forecasts.

Furthermore, we confirmed the assumptions of the tax planning based on the taxable income generated in the past.

We do not have any reservations regarding the deferred tax assets on loss carryforwards.

Reference to related disclosures

Additional disclosures on the recoverability of deferred tax assets on loss carryforwards are contained in point 4.11 "Income Taxes" of the notes to the consolidated financial statements.

4. Accounting treatment of the acquisition of shares in TRIOPTICS GmbH

Reasons why the matter was determined to be a key audit matter

On 24 September 2020, Jenoptik Optical Systems GmbH, Jena, acquired 75 % of the shares in TRIOPTICS GmbH, Wedel. The acquisition of the remaining 25 % of the shares in TRIOPTICS GmbH, Wedel, was firmly agreed as of 31 December 2021.

In accordance with IFRS 3 "Business Combinations", the identifiable assets acquired and liabilities assumed have been recognized at the fair value on the acquisition date. The consideration paid to TRIOPTICS GmbH for the acquisition comprises, in addition to a fixed purchase price component, contingent purchase price liabilities. They are performance-based and are linked to the achievement of agreed earnings and revenue targets.

Both the identification and measurement of assets and liabilities acquired and the calculation of the contingent purchase price liabilities are complex and are based on judgment-based assumptions made by the executive directors. The assumptions relevant for the measurement affect the revenue and margin forecast and the calculation of cost of capital.

Against this background, the accounting treatment of the acquisition of shares in TRIOPTICS GmbH was a key audit matter.

Auditor's response:
With the involvement of our valuation specialists, we assessed the method and calculation used for the identification and valuation processes applied for their agreement with the relevant financial reporting standards.

We compared the purchase price components on the basis of the underlying purchase agreement, particularly with regard to the presence of a possible remuneration component as defined by IFRS 3.

We verified the underlying assumptions of the executive directors to determine the contingent purchase price liabilities by comparing them with the business plans provided. Furthermore, we verified the method used to calculate the contingent purchase price liabilities.

We compared the assumptions and parameters underlying the cost of capital, particularly the risk-free interest rate, the market risk premium and the beta factor, with own assumptions and publicly available data. In connection with the revenue and margin forecast, we analyzed the developments forecast against the background of market expectations for the individual segments and observing the historical developments.

We also reviewed the disclosures on the acquisition of shares in TRIOPTICS GmbH in the notes to the consolidated financial statements.
Our audit procedures did not lead to any reservations concerning the accounting treatment of the acquisition of shares in TRIOPTICS GmbH.

Reference to related disclosures:
Additional disclosures on the acquisition of shares in TRIOPTICS GmbH are contained in point 2.4 "Entities acquired and sold" of the notes to the consolidated financial statements.

Other information
The Supervisory Board is responsible for the Report of the Supervisory Board contained in section "2 Management" of the annual report. The executive directors and the Supervisory Board are responsible for the declaration pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act] on the German Corporate Governance Code, which is part of the statement on corporate governance. In all other respects, the executive directors are responsible for the other information. The other information comprises the declaration on corporate governance in section "3 Corporate Governance", the combined non-financial report (section 4) as well as other parts of the annual report, particularly the sections

- 1 More Light,
- 2 Management
- 3 Corporate Governance
- 7 Other information (including the Assurance by the Legal Representatives) and
- The imprint

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the Supervisory Board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the assurance in accordance with Sec. 317 (3b) HGB on the electronic reproduction of the consolidated financial statements and the group management report prepared for publication purposes

Opinion

We have performed assurance work in accordance with Sec. 317 (3b) HGB to obtain reasonable assurance about whether the reproduction of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the attached electronic file "Jenoptik_AG_KA+KLB_ESEF-2020-12-31.zip" and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance only extends to the conversion of the information contained in the consolidated financial statements and the group management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor to any other information contained in the abovementioned electronic file.

In our opinion, the reproduction of the consolidated financial statements and the group management report contained in the abovementioned attached electronic file and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the abovementioned file beyond this reasonable assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report for the fiscal year from 1 January 2020 to 31 December 2020 contained in the "Report on the audit of the consolidated financial statements and of the group management report" above.

Basis for the opinion

We conducted our assurance work on the reproduction of the consolidated financial statements and the group management report contained in the abovementioned attached electronic file in accordance with Sec. 317 (3b) HGB and Exposure Draft of IDW Assurance Standard: Assurance in Accordance with Sec. 317 (3b) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410) and the International Standard on Assurance Engagements 3000 (Revised). Our responsibilities under that standard are further described in the "Group auditor's responsibilities for the assurance work on the ESEF documents" section. Our audit firm applied the standards for the quality assurance system set forth in IDW Quality Control Standard: "Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis" [Requirements for Quality Control in the Practice of Public Auditors] (IDW QS 1).

Responsibilities of the executive directors and the Supervisory Board for the ESEF documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic reproduction of the consolidated financial statements and the group management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB and for the tagging of the consolidated financial statements in accordance with Sec. 328 (1) Sentence 4 No. 2 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of Sec. 328 Abs. 1 HGB for the electronic reporting format, whether due to fraud or error.

The executive directors of the Company are also responsible for the submission of the ESEF documents together with the auditor's report and the attached audited consolidated financial statements and the audited group management report as well as other documents to be published to the operator of the Bundesanzeiger [German Federal Gazette].

The Supervisory Board is responsible for overseeing the preparation of the ESEF documents as part of the financial reporting process.

Group auditor’s responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of Sec. 328 (1) HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the engagement. We also

- Identify and assess the risks of material non-compliance with the requirements of Sec. 328 (1) HGB, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of Delegated Regulation (EU) 2019/815, in the version valid as of the reporting date, on the technical specification for this electronic file.
- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited group management report.
- Evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) enables an appropriate and complete machine-readable XBRL copy of the XHTML reproduction.

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the Annual General Meeting on 7 August 2020. We were engaged by the Supervisory Board on 21 August 2020. We have been the group auditor of JENOPTIK AG without interruption since fiscal year 2016.

We declare that the opinions expressed in this auditor’s report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Mr. Steffen Maurer.

Stuttgart, 16 March 2021

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Blesch	Maurer
Wirtschaftsprüfer	Wirtschaftsprüfer

Executive Board

Dr. Stefan Traeger

President and CEO

Dr. Stefan Traeger has been the Chairman of the Executive Board of JENOPTIK AG since May 1, 2017. He is responsible for the divisions (operational business) and the regions as well as for the areas of Corporate Development (Strategy, Mergers & Acquisitions, Innovation), Corporate Communications and Marketing, Investor Relations and Sustainability, Legal and IP, Compliance & Risk and, as Human Resources Director, for HR.

Hans-Dieter Schumacher

Chief Financial Officer

Hans-Dieter Schumacher has been Chief Financial Officer (CFO) of JENOPTIK AG since April 1, 2015. He is responsible for the areas of Finance & Controlling (Corporate & Divisional), General Procurement, Treasury, Tax, IT & Data Security as well as Corporate Real Estate Management and Internal Audit.

Executive Management Committee

(as at December 2020)

Dr. Stefan Traeger

President & CEO

Hans-Dieter Schumacher

Chief Financial Officer

Kevin Chevis

Executive Vice President
Light & Safety

Maria Koller

Executive Vice President
Head of Global Human Resources

Martin Kuhnhen

Executive Vice President
Light & Production

Dr. Ralf Kuschnereit

Executive Vice President
Light & Optics

Albert Miranda

President Jenoptik North America
up to 31/12/2020

Steffen Müller

Executive Vice President
Head of Corporate Development

Jonathan Qu

President Jenoptik Asia

Dr. Stefan Stenzel

Executive Vice President
VINCORION

Markus Weber

Executive Vice President
Head of Corporate Controlling & Accounting

Scientific Advisory Council – External Members

(as at February 2021)

Prof. Dr. Jürgen Beyerer
Fraunhofer Institute IOSB, Karlsruhe
Karlsruhe Institute of Technology (KIT), Chair of Vision and Fusion Laboratory (IES), Institute for Anthropomatics and Robotics, Department of Informatics

Prof. Dr. Joachim Denzler
Friedrich Schiller University Jena, Chair of the Computer Vision Group, Department of Mathematics and Computer Science

Prof. Dr. Gerhard P. Fettweis
Technische Universität Dresden, Vodafone Chair Mobile Communications Systems, Institute of Communication Technology, Faculty of Electrical and Computer Engineering

Prof. Dr. Karsten Lemmer
German Aerospace Center (DLR)

Prof. Dr. Jürgen Popp
Leibniz Institute of Photonic Technology IPHT, Jena
Friedrich Schiller University Jena, Chair of Physical Chemistry II, Institute of Physical Chemistry, Faculty of Chemistry and Earth Sciences

Prof. Dr. Michael Schefczyk
Technische Universität Dresden, Chair of Entrepreneurship and Innovation, Faculty of Business and Economics

Prof. Dr. Martin Schell
Fraunhofer Heinrich Hertz Institute HHI,
Institute for Telecommunications

Prof. Dr. Johannes Heinrich Schleifenbaum
Fraunhofer Institute for Laser Technology ILT, Aachen
RWTH Aachen University, Chair of Digital Additive Production (DAP), Faculty of Mechanical Engineering

Prof. Dr. Patrick Spieth
University of Kassel, Chair of Technology, Innovation Management and Entrepreneurship, Institute of Management and Business Studies, Institute of Management and Business Studies, Faculty of Economics and Management

Prof. Dr. Günther Tränkle
Ferdinand Braun Institute, Leibniz Institute for High-Frequency Technology, Berlin
Technische Universität Berlin, Institute of High-Frequency and Semiconductor System Technologies,
Faculty Electrical Engineering and Computer Science

Prof. Dr. Andreas Tünnermann
Fraunhofer Institute for Applied Optics and Precision Engineering IOF, Jena
Friedrich Schiller University Jena, Institute of Applied Sciences, Faculty of Physics and Astronomy

Glossary

B

Book-to-bill ratio – Ratio of order intake to revenue for a fiscal year. A ratio of over 1.00 indicates that the order intake surpassed revenue for the fiscal year, likely leading to an increase in order backlog.

C

Cash conversion rate – The percentage ratio of free cash flow to EBITDA for the respective year.

D

Debenture bond – In addition to bank loans and bonds, another form of (long-term) external financing for companies. The borrower is granted a loan against a debenture by large financial intermediaries (in general credit institutions) without having to access the organized capital market.

E

EBITDA – Earnings before interest, taxes, depreciation and amortization (including impairment losses and reversals of impairment losses).

Equity ratio – Indicator used in capital structure analysis stating the relative proportion of equity in total assets.

F

Frame contracts – These are contracts or framework agreements the amount and probability of which cannot yet be determined exactly.

Free cash flow – Available cash flow. The free cash flow is regarded by financing institutions as an indicator of the ability to repay loans and is therefore often used as a basis to calculate financing capacity. It is calculated from the cash flows from operating activities before income tax payments less capital expenditure in and income from the sale of property, plant, equipment and intangible assets.

G

Gross margin – The gross margin indicates how much (in percent of revenue) a company is earning after deducting cost of sales. The indicator helps to assess how efficiently a company is operating.

I

Innovation – a novelty or development that is based on a conscious and targeted process of change and is accompanied by social, technical and economic change. It can refer to products, services, structures or processes.

N

Net debt – Calculated by deducting cash and securities from the total of non-current and current financial debt.

P

Performance Shares – Share-based, performance-related remuneration which is based, on the one hand, on the achievement of certain operational targets, and on the other hand on the share price as an indicator for the increase in the company's value. It is paid out in cash after the end of the performance period.

PPA impacts – Amortization of the additional intangible assets identified in the course of purchase price allocation (e.g. customer base, order backlog, technologies), amortization effects from the revaluation of property, plant and equipment, and from the consumption of remeasured inventories (inventory step-up) recognized in profit or loss.

R

Relative total shareholder return – Difference in percentage points between the change in the share price of the Jenoptik share including reinvested dividends and the change in the TecDax Performance Index.

ROCE (Return on Capital Employed) – is calculated by dividing EBIT by the average tied operating capital. The total tied operating capital is calculated on the basis of the non-current non-interest-bearing assets (such as intangible assets including goodwill, property, plant and equipment and investment properties) plus the current non-interest-bearing assets (primarily inventories, receivables from the operating business activities and other current receivables) less non-interest-bearing borrowings (such as provisions – excluding pensions and taxes, liabilities from the operating business activities and other current liabilities). The calculation of the average takes into account twelve month-end balances in the period under review, and the opening balance at the start of the year.

S

Syndicated loan – The syndicated loan is a loan granted jointly by several banks (the "syndicate members") to a borrower. The lead bank may be one or more banks.

V

Vitality index – puts the revenue of products younger than three years in relation to total revenue.

W

Working capital – The total of trade receivables and contract assets as well as inventories minus trade payables and contract liabilities.

Historical Summary of Financial Data

		2014	2015	2016	2017	2018	2019	2020
Statement of Income								
Revenue	million euros	590.2	668.6	684.8	747.9	834.6	855.2	767.2
Light & Optics [1]	million euros	n/a	n/a	n/a	n/a	337.0	350.0	318.0
Light & Production [1]	million euros	n/a	n/a	n/a	n/a	210.7	228.9	178.9
Light & Safety [1]	million euros	n/a	n/a	n/a	n/a	116.9	108.7	114.0
VINCORION [1]	million euros	n/a	n/a	n/a	n/a	166.4	164.8	151.7
Foreign revenue	million euros	379.1	450.8	458.3	525.3	594.1	621.3	552.5
of revenue	%	64.2	67.4	66.9	70.2	71.2	72.6	72.0
Cost of sales	million euros	384.7	442.5	446.9	484.0	541.5	563.4	505.0
Gross profit	million euros	205.5	226.2	237.9	263.9	293.1	291.8	262.2
Gross margin	%	34.8	33.8	34.7	35.3	35.1	34.1	34.2
R+D expenses	million euros	39.4	41.8	42.3	43.1	47.4	44.1	43.7
Selling expenses	million euros	67.5	72.6	73.6	80.3	87.0	89.3	86.4
Administrative expenses	million euros	51.1	54.0	57.6	55.8	56.1	60.5	61.8
EBITDA	million euros	76,1	88.8	96.9	106.9	127.5	134.0	111.6
Light & Optics	million euros	n/a	n/a	n/a	n/a	74.1	69.8	68.6
Light & Production	million euros	n/a	n/a	n/a	n/a	24.6	25.8	7.9
Light & Safety	million euros	n/a	n/a	n/a	n/a	15.9	18.8	22.3
VINCORION	million euros	n/a	n/a	n/a	n/a	20.1	24.2	16.6
EBITDA margin	%	12.9	13.3	14.2	14.3	15.3	15.7	14.6
Light & Optics [2]	%	n/a	n/a	n/a	n/a	21.8	19.8	21.5
Light & Production [2]	%	n/a	n/a	n/a	n/a	11.7	11.3	4.4
Light & Safety [2]	%	n/a	n/a	n/a	n/a	13.6	17.3	19.6
VINCORION [2]	%	n/a	n/a	n/a	n/a	12.1	14.7	11.0
EBIT	million euros	51.6	61.2	68.5	78.0	94.9	88.9	59.3
EBIT margin	%	8.7	9.2	10.0	10.4	11.4	10.4	7.7
EBT	million euros	46.1	57.4	64.7	80.1	91.4	85.2	53.2
EBT margin	%	7.8	8.6	9.5	10.8	11.0	10.0	6.9
Earnings after tax	million euros	41.6	49.9	57.5	72.7	87.4	67.6	42.7
EPS	EUR	0.73	0.87	1.00	1.27	1.53	1.18	0.73
Cost of materials (incl. external services)	million euros	253.6	281.5	284.6	309.3	356.1	344.8	312.5
Material intensity	%	41.3	40.4	40.2	40.2	41.6	39.5	39.7
R+D output	million euros	50.4	53.1	57.4	66.6	69.1	68.4	69.0
R+D ratio	%	8.5	7.9	8.4	8.9	8.3	8.0	9.0
Financial result	million euros	−5.5	−3.8	−3.7	2.0	−3.5	−3.7	−6.1
Cash Flows and Capital Expenditure								
Cash flows from operating activities	million euros	46.3	85.1	100.1	96.3	135.5	108.9	89.7
Free cash flow (before income tax)	million euros	22.5	71.8	80.4	72.2	108.3	77.2	62.3
Capital expenditures	million euros	29.9	24.7	27.5	37.9	42.5	55.6	47.3
Personnel								
Employees on average	Head count	3,375	3,421	3,404	3,500	3,714	3,961	4,049
Revenue per employee	thousand euros	174.9	195.4	201.2	213.7	224.7	215.9	189.5
Personnel expenses	million euros	219.7	239.6	246.1	258.3	278.3	301.1	291.0
Personnel intensity	%	37.2	35.8	35.9	34.5	33.4	35.2	37.9

		2014	2015	2016	2017	2018	2019	2020
Statement of Financial Position								
Non-current assets	million euros	389.5	382.8	371.9	376.2	491.8	555.2	848.9
Intangible assets and property, plant and equipment	million euros	274.0	278.4	269.2	285.7	391.5	463.9	750.6
Investment property	million euros	16.4	4.5	4.4	4.4	4.4	4.3	4.2
Financial investments	million euros	21.1	21.7	19.0	4.4	6.8	8.3	16.3
Other non-current assets	million euros	1.8	4.5	5.0	2.9	2.9	1.1	3.3
Deferred tax assets	million euros	76.3	73.6	74.2	78.9	86.3	77.7	74.6
Current assets	million euros	382.2	386.3	441.2	512.9	494.1	528.1	489.9
Inventories	million euros	179.0	167.1	159.3	168.6	175.6	153.7	191.4
Trade and other receivables	million euros	133.4	135.0	139.3	147.4	169.8	205.8	230.2
Current financial assets and cash	million euros	69.8	84.2	142.5	196.9	148.7	168.7	68.3
Equity	million euros	386.6	435.1	476.4	529.9	598.0	655.4	689.4
Share capital	million euros	148.8	148.8	148.8	148.8	148.8	148.8	148.8
Non-current liabilities	million euros	216.6	169.5	175.4	162.1	170.3	176.0	233.0
Pension provisions	million euros	41.0	36.1	37.6	37.1	37.3	31.6	35.2
Other non-current provisions	million euros	10.0	10.3	12.3	15.9	16.3	17.9	17.0
Non-current financial liabilities	million euros	156.8	113.2	120.5	108.6	111.4	122.6	138.4
Other non-current liabilities	million euros	7.0	7.9	4.8	0.4	2.8	2.3	29.5
Deferred tax liabilities	million euros	1.7	2.0	0.1	0.1	2.5	1.7	12.9
Current liabilities	million euros	168.5	164.5	161.3	197.1	217.7	251.9	416.4
Tax provisions	million euros	5.7	3.3	3.4	8.9	9.0	6.4	2.6
Other current provisions	million euros	37.7	42.7	46.2	51.2	58.7	51.9	52.5
Current financial liabilities	million euros	5.1	14.9	4.1	19.3	10.1	37.0	130.9
Trade payables and other liabilities	million euros	120.0	103.6	107.7	117.6	139.9	156.6	230.4
Total equity and liabilities	million euros	771.7	769.2	813.1	889.1	985.9	1,083.3	1,338.8
Balance sheet ratios								
Equity ratio	%	50.1	56.6	58.6	59.6	60.6	60.5	51.5
Asset coverage		256.5	279.5	301.7	321.7	321.6	261.0	261.6
Gross debt	million euros	161.9	128.1	124.6	127.9	121.5	159.6	269.3
Net debt	million euros	92.1	43.9	−17.9	−69.0	−27.2	−9.1	201.0
Working capital	million euros	217.5	215.5	209.9	214.8	216.8	217.8	268.1
Working capital ratio	%	36.9	32.2	30.7	28.7	26.0	25.5	34.9
Debt to equity ratio		1.0	0.8	0.7	0.7	0.6	0.7	0.9
Total return on investment based on EBT	%	6.0	7.5	8.0	9.0	9.3	7.9	4.0
Return on equity based on EBT	%	11.9	13.2	13.6	15.1	15.3	13.0	7.7
ROCE	%	13.0	13.5	15.6[3]	18.2[3]	20.2	14.7	8.4
Dividend key figures								
Dividend per share	euros	0.20	0.22	0.25	0.30	0.35	0.13	0.25[4]
Pay out ratio on earnings attributable to shareholders	%	27.5	25.4	24.9	23.7	22.9	11.0	34.2[4]
Dividend yield based on year-end stock exchange price	%	1.9	1.5	1.5	1.1	1.5	0.5	1.0[4]

[1] External revenue
[2] Based on total revenue
[3] Continued operations
[4] Subject to approval by the annual general meeting

Key figures of Jenoptik by segment

		1/1–31/12/2020	1/1–31/12/2019	Change in %
Revenue	**million euros**	**767.2**	**855.2**	**–10.3**
Light & Optics [1]	million euros	318.0	350.0	–9.2
Light & Production [1]	million euros	178.9	228.9	–21.8
Light & Safety [1]	million euros	114.0	108.7	4.9
VINCORION [1]	million euros	151.7	164.8	–7.9
EBITDA	**million euros**	**111.6**	**134.0**	**–16.7**
Light & Optics	million euros	68.6	69.8	–1.8
Light & Production	million euros	7.9	25.8	–69.4
Light & Safety	million euros	22.3	18.8	18.8
VINCORION	million euros	16.6	24.2	–31.2
EBITDA margin	**%**	**14.6**	**15.7**	
Light & Optics [2]	%	21.5	19.8	
Light & Production [2]	%	4.4	11.3	
Light & Safety [2]	%	19.6	17.3	
VINCORION [2]	%	11.0	14.7	
EBIT	**million euros**	**59.3**	**88.9**	**–33.3**
Light & Optics	million euros	52.1	57.9	–10.0
Light & Production	million euros	–4.8	14.5	–133.2
Light & Safety	million euros	15.2	11.7	30.3
VINCORION	million euros	9.7	17.4	–44.3
EBIT margin	**%**	**7.7**	**10.4**	
Light & Optics [2]	%	16.3	16.5	
Light & Production [2]	%	–2.7	6.3	
Light & Safety [2]	%	13.3	10.7	
VINCORION [2]	%	6.4	10.5	
Order intake	**million euros**	**739.4**	**812.6**	**–9.0**
Light & Optics [1]	million euros	339.5	324.7	4.6
Light & Production [1]	million euros	157.8	199.3	–20.8
Light & Safety [1]	million euros	92.3	107.9	–14.5
VINCORION [1]	million euros	145.2	177.9	–18.4

		1/1–31/12/2020	1/1–31/12/2019	Change in %
Order backlog	**million euros**	**460.1**	**466.1**	**–1.3**
Light & Optics [1]	million euros	178.0	144.9	22.8
Light & Production [1]	million euros	75.8	81.6	–7.1
Light & Safety [1]	million euros	46.0	69.9	–34.2
VINCORION [1]	million euros	160.3	169.7	–5.6
Employees	**Head count**	**4,472**	**4,122**	**8.5**
Light & Optics	Head count	1,814	1,416	28.2
Light & Production	Head count	1,071	1,093	–2.0
Light & Safety	Head count	489	496	–1.4
VINCORION	Head count	775	795	–2.5

[1] External figure
[2] Based on total revenue

Key figures of Jenoptik by segment adjusted

		1/1–31/12/2020	1/1–31/12/2019	Change in %
Revenue	**million euros**	**767.2**	**837.0**	**−8.3**
Light & Optics [1]	million euros	318.0	331.8	−4.2
Light & Production [1]	million euros	178.9	228.9	−21.8
Light & Safety [1]	million euros	114.0	108.7	4.9
VINCORION [1]	million euros	151.7	164.8	−7.9
EBITDA	**million euros**	**130.7**	**138.0**	**−5.3**
Light & Optics	million euros	72.7	71.7	1.4
Light & Production	million euros	15.8	25.8	−38.9
Light & Safety	million euros	22.7	18.8	20.9
VINCORION	million euros	20.6	24.2	−14.6
EBITDA margin	**%**	**17.0**	**16.5**	
Light & Optics [2]	%	22.8	21.5	
Light & Production [2]	%	8.8	11.3	
Light & Safety [2]	%	19.9	17.3	
VINCORION [2]	%	13.6	14.7	
EBIT	**million euros**	**78.8**	**93.4**	**−15.6**
Light & Optics	million euros	56.6	60.2	−6.0
Light & Production	million euros	3.1	14.5	−78.8
Light & Safety	million euros	15.6	11.7	33.8
VINCORION	million euros	13.7	17.4	−21.3
EBIT margin	**%**	**10.3**	**11.2**	
Light & Optics [2]	%	17.8	18.1	
Light & Production [2]	%	1.7	6.3	
Light & Safety [2]	%	13.7	10.7	
VINCORION [2]	%	9.0	10.5	
Order intake	**million euros**	**739.4**	**792.7**	**−6.7**
Light & Optics [1]	million euros	339.5	304.7	11.4
Light & Production [1]	million euros	157.8	199.3	−20.8
Light & Safety [1]	million euros	92.3	107.9	−14.5
VINCORION [1]	million euros	145.2	177.9	−18.4

		1/1–31/12/2020	1/1–31/12/2019	Change in %
Order backlog	**million euros**	**460.1**	**464.7**	**−1.0**
Light & Optics [1]	million euros	178.0	143.5	24.0
Light & Production [1]	million euros	75.8	81.6	−7.1
Light & Safety [1]	million euros	46.0	69.9	−34.2
VINCORION [1]	million euros	160.3	169.7	−5.6
Employees	**Head count**	**4,472**	**4,089**	**9.4**
Light & Optics	Head count	1,814	1,383	31.2
Light & Production	Head count	1,071	1,093	−2,0
Light & Safety	Head count	489	496	−1.4
VINCORION	Head count	775	795	−2.5

[1] External figure
[2] Based on total revenue

Summary by Quarter 2020

		1st quarter 1/1 – 31/3	2nd quarter 1/4 – 30/6	3rd quarter 1/7 – 30/9	4th quarter 1/10 – 31/12
Revenue	**million euros**	**164.4**	**164.6**	**176.1**	**262.2**
Light & Optics [1]	million euros	68.8	68.9	72.1	108.2
Light & Production [1]	million euros	39.5	34.9	44.6	60.0
Light & Safety [1]	million euros	26.5	29.2	26.3	31.9
VINCORION [1]	million euros	28.1	30.6	32.3	60.7
EBITDA	**million euros**	**13.6**	**24.3**	**28.8**	**45.0**
Light & Optics	million euros	14.9	15.4	16.1	22.2
Light & Production	million euros	−4.5	−0.3	9.1	3.5
Light & Safety	million euros	4.9	5.7	2.9	8.8
VINCORION	million euros	1.0	3.2	2.7	9.8
EBITDA margin	**%**	**8.3**	**14.7**	**16.4**	**17.2**
Light & Optics [2]	%	21.5	22.3	22.3	20.5
Light & Production [2]	%	−11.3	−0.8	20.4	5.8
Light & Safety [2]	%	18.6	19.4	11.0	27.6
VINCORION [2]	%	3.4	10.3	8.5	16.1
EBIT	**million euros**	**2.5**	**13.1**	**17.1**	**26.7**
Light & Optics	million euros	12.1	12.9	13.1	14.0
Light & Production	million euros	−7.4	−3.5	6.0	0.1
Light & Safety	million euros	3.2	3.9	1.2	6.9
VINCORION	million euros	−0.7	1.4	1.0	8.0
EBIT margin	**%**	**1.5**	**7.9**	**9.7**	**10.2**
Light & Optics [2]	%	17.5	18.6	18.1	12.9
Light & Production [2]	%	−18.8	−10.0	13.4	0.2
Light & Safety [2]	%	12.0	13.5	4.5	21.6
VINCORION [2]	%	−2.7	4.6	3.1	13.2
Order income	**million euros**	**211.7**	**122.2**	**177.0**	**228.5**
Light & Optics [1]	million euros	73.4	66.2	75.0	124.9
Light & Production [1]	million euros	61.2	3.8	56.8	36.1
Light & Safety [1]	million euros	22.3	19.6	24.3	26.2
VINCORION [1]	million euros	53.4	30.9	20.9	40.0

[1] External figures
[2] Based on total revenue

Summary by Quarter adjusted 2020

		1st quarter 1/1 – 31/3	2nd quarter 1/4 – 30/6	3rd quarter 1/7 – 30/9	4th quarter 1/10 – 31/12
Revenue	**million euros**	**164.4**	**164.6**	**176.1**	**262.2**
Light & Optics [1]	million euros	68.8	68.9	72.1	108.2
Light & Production [1]	million euros	39.5	34.9	44.6	60.0
Light & Safety [1]	million euros	26.5	29.2	26.3	31.9
VINCORION [1]	million euros	28.1	30.6	32.3	60.7
EBITDA	**million euros**	**17.3**	**24.9**	**31.7**	**56.8**
Light & Optics	million euros	15.9	14.8	17.4	24.7
Light & Production	million euros	−3.5	0.1	9.2	9.9
Light & Safety	million euros	5.0	5.9	3.0	8.8
VINCORION	million euros	1.0	3.2	2.7	13.8
EBITDA margin	%	**10.5**	**15.2**	**18.0**	**21.7**
Light & Optics [2]	%	23.0	21.3	24.1	22.8
Light & Production [2]	%	−8.9	0.4	20.7	16.4
Light & Safety [2]	%	18.9	20.3	11.6	27.4
VINCORION [2]	%	3.4	10.3	8.5	22.7
EBIT	**million euros**	**6.2**	**13.5**	**20.0**	**39.1**
Light & Optics	million euros	13.1	12.0	14.4	17.1
Light & Production	million euros	−6.5	−3.1	6.1	6.5
Light & Safety	million euros	3.2	4.2	1.3	6.8
VINCORION	million euros	−0.7	1.4	1.0	12.0
EBIT margin	%	**3.8**	**8.2**	**11.4**	**14.9**
Light & Optics [2]	%	19.0	17.3	19.9	15.8
Light & Production [2]	%	−16.4	−8.8	13.7	10.8
Light & Safety [2]	%	12.3	14.4	5.0	21.4
VINCORION [2]	%	−2.7	4.6	3.1	19.8
Order income	**million euros**	**211.7**	**122.2**	**177.0**	**228.5**
Light & Optics [1]	million euros	73.4	66.2	75.0	124.9
Light & Production [1]	million euros	61.2	3.8	56.8	36.1
Light & Safety [1]	million euros	22.3	19.6	24.3	26.2
VINCORION [1]	million euros	53.4	30.9	20.9	40.0

[1] External figure
[2] Based on total revenue

Imprint

Editor
JENOPTIK AG, Investor Relations & Communications

Layout
Druckhaus Gera GmbH

Images
Druckhaus Gera (pages 5, 9, 13)
Jeibmann Photographik (pages 4, 17, 29)
Tran – stock.adobe.com (page 2), 9comeback – stock.adobe.com (page 9), Lev – stock.adobe.com (page 10), Umibozze – stock.adobe.com, chungking – Fotolia, Alexander.Shelegov – stock.adobe.com (page 28), eggeeggjiew – stock.adobe.com, Eugene – stock.adobe.com, sepy – stock.adobe.com (page 29)
Peter Wittig (page 3), Pascal Blaurock (page 8), Kurt Lochte (pages 11 – 12), Peter Eichler (page 28)
Archiv Jenoptik (pages 4, 6 – 8, 28 – 29)

The contents of this publication adress all genders equally.
For better readability, the masculine forms are used normally.

Dates

March 25, 2021
Publication of Financial Statements 2020

May 11, 2021
Publication of Quarterly Statement January – March 2021

June 9, 2021
Annual General Meeting of JENOPTIK AG 2021, virtual

August 11, 2021
Publication of Interim Report January – June 2021

November 10, 2021
Publication of Quarterly Statement January – September 2021

Investor Relations & Communications

Phone +49 3641 65-2291
Telefax +49 3641 65-2804
E-mail ir@jenoptik.com