

The logo for JENOPTIK, featuring a white curved line above the company name in a white sans-serif font, all contained within a dark blue rectangular box.

**JENOPTIK**

Annual Report 2017





## More Light

This is the motto of our new Strategy 2022. In the future, we want to concentrate more strongly on our core competencies and develop Jenoptik into a focused photonics company, which inspires customers, employees, shareholders and all partners alike.

“More Light” is also the headline for all our initiatives for a successful, fast-growing and profitable Jenoptik. Based on the three pillars “More Focus”, “More Innovation” and “More International” we will move Jenoptik to the next level.

Over the next few pages, we have compiled some prime examples showing the events and projects which contribute to this strategic further development.

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The online report is available at

[www.jenoptik.com/annual-report](http://www.jenoptik.com/annual-report)

more focus





## Jenoptik is focussing ...

Anchored in Jena's optics tradition, we will concentrate more strongly in the future on the things we do best: optics and photonics. We will use the momentum of the booming markets to become "more international" and "more innovative" – all with "more focus".

... on photonic technologies

**Never any doubt about optics.**

Given all the changes at Jenoptik over the decades, one thing has remained untouched: Light-based technologies have always been expected to have a bright future. And this future is here with us today. Fields such as information processing, smart manufacturing, biophotonics, and sensorics and measurement technology have all been evolving and expanding at a rapid pace.

**“More Light” is the new company campaign.**

With this, Jenoptik Executive Board with President & CEO Stefan Traeger are launching a new phase in company history. In the future, Jenoptik will focus strongly on photonics technologies, in the future, slowly bringing the multi-industry era to a close. Jenoptik will be restructured into three divisions, all of which have proposed names involving light: “Light & Optics” for the company’s OEM business; “Light & Production” for industrial customer business; and “Light & Safety” for public sector business. Our mechatronic business will be consigned to a separate brand.



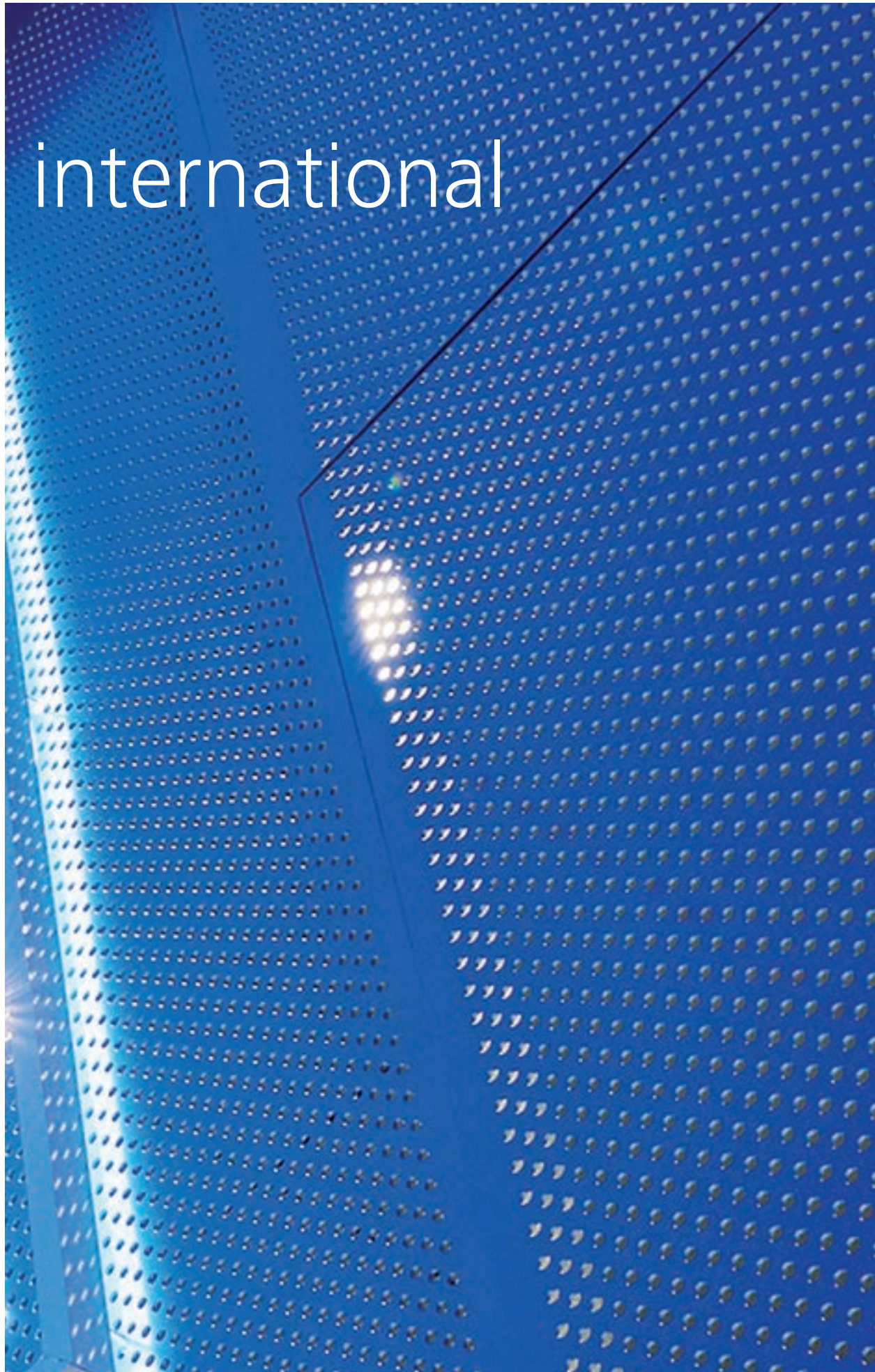


**Deriving power from a clear focus.**

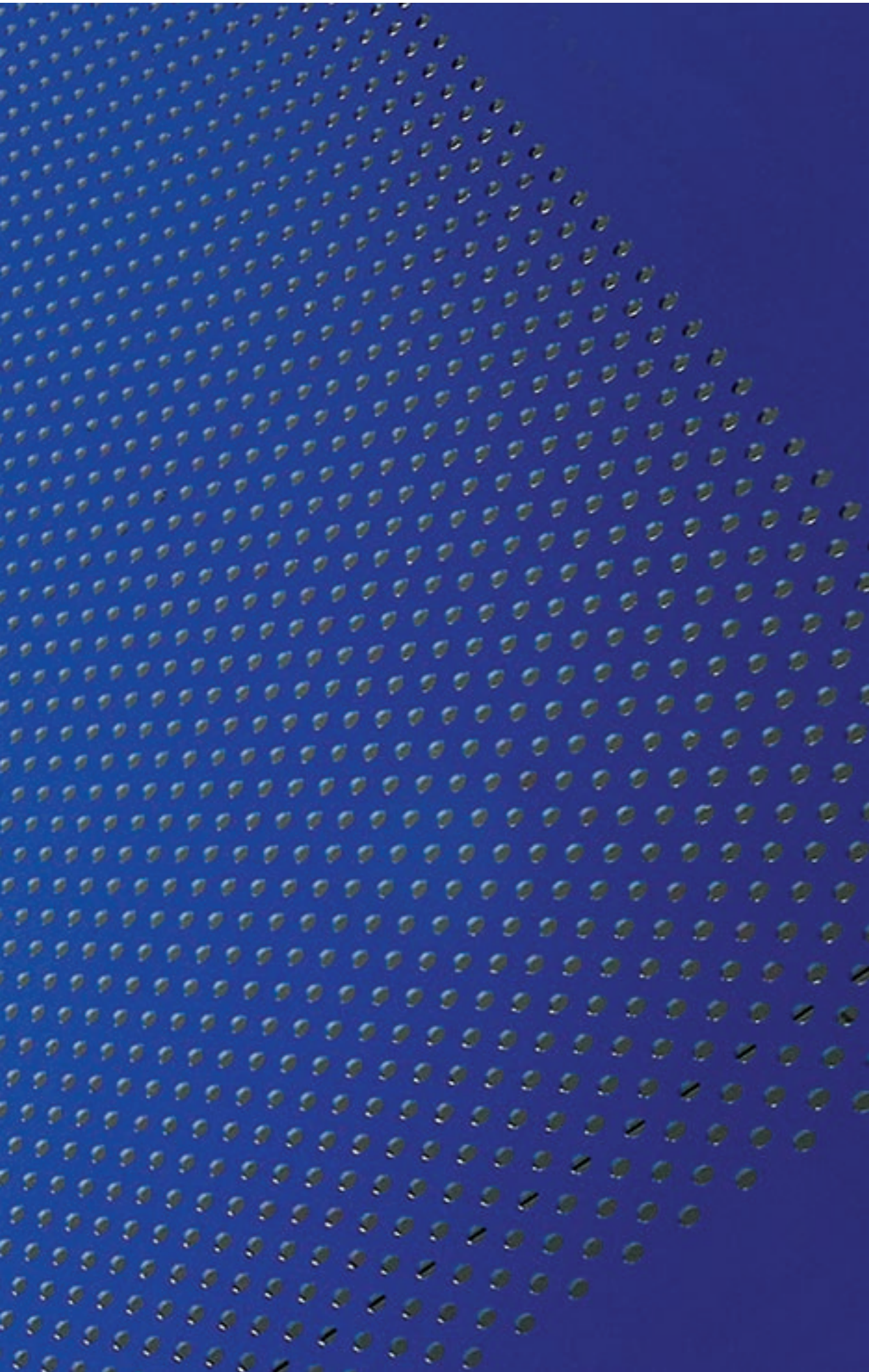
Jenoptik is riding the upward spiral of the photonics markets to expand its own global presence. In 2017, our results increased more strongly than revenue and, thus, our profit margins also improved compared to the previous year. We will endeavor to increase our market share further in 2018 and have already modified our projected goals upward: We now expect between 790 million and 810 million euros in revenue and an EBIT margin of between 10.5 and 11.0 percent. This growth will derive largely from the photonics segment. The name Jenoptik will reflect the company's mission now more than ever.



more international







## Jenoptik is expanding ...

From Jena into the world – these times are over. Being more international means being present wherever our customers may be – even when it comes to development and production. We made great progress in the United States towards this goal in 2017.



## ... its presence on the American Market

This is reflected by our increase in revenue, which was mostly due to the American market. Of all our 30 sites around the world, six are located in the United States, and our staff there has increased from around 260 at the end of 2016 to just under 300 today.

### **The United States are crucial to our international success.**

Year for year, for example, Jenoptik is present at the Photonics West Exhibition in San Francisco, where the entire photonics world gathers. As the main sponsor of the SPIE Startup Challenge for the best business plan, we are able to lend our support to up-and-coming innovators.

### **Hubs across America.**

Our sites can be found at major industrial hubs. This includes a new Silicon Valley branch that was founded, just around the corner from potential customers for our high-tech systems. Our Huntsville, Alabama and Jupiter, Florida branches serve the optics, life science, and defense markets. And we have invested around 15 million dollars over the past two years to expand our US presence that includes our new automotive technology campus in Rochester Hills, Michigan in 2017.







#### **What makes a site a campus?**

One variable is surely the amount of space – and the Jenoptik Campus in Rochester Hills is indeed as big as nine football fields. At just under 9,300 square meters, the new production building is nearly twice as large as the previous facility. A celebration marked the opening of the campus in May, while even more moving crates would follow in August with the acquisition of Five Lakes Automation. Jenoptik purchased the company from the nearby town of Novi, Michigan, a specialist in industrial automation.

#### **The campus is more than the sum of its parts.**

Five Lakes Automation specializes in the automotive industry, which has long been making good use of Jenoptik laser machines. Bringing together specialists with a similar market orientation, the campus has great potential for people to come together – whether at formal meetings or just in the lobby and cafeteria – leading to new synergies in process automation and beyond.

more innovation







## Jenoptik is at the pulse ...

The industrial world is undergoing a transformation – and demand for our optical systems has set new records. Jenoptik is investing its capacity with a view to the future.

... of the digital world

**The process of digitalization is well underway.**

And it continues to reach new heights as our latest revenue figures indicate: Our Optics & Life Science Segment recorded 17 percent growth in 2017, reflecting how the new digital world continues to require a hardwired technological foundation. The semiconductor equipment industry, which grew more rapidly in 2017 than it has in a long time, is in particular need of our optical systems as is the automotive industry with its interactive cars along with Industry 4.0 with its automation, and information and communication technologies.

**We are now preparing ourselves for continuing high demand.**

We are expanding our capacities. A new wafer stepper at our Huntsville optics site, for example, has been manufacturing microoptical modules since the beginning of 2018 – all while advancing our global division of labor. A dome theater for testing and demonstrating laser projection lenses went online in Florida along with a clean room in which high-precision optical assemblies can be manufactured for the semiconductor equipment and aerospace industries. And our new Silicon Valley branch in Fremont, California is just around the corner from any number of trailblazers in the digital world.







### **Traveling new paths for high-performance optics.**

One idea, long viewed as incompatible with high-performance optics, took hold in our optics business in 2017. The new magic word is the platform, which we now use to develop high-performance optics to meet individual requirements, analogue to processes in the automotive industry. This runs from the production and coating of lenses, mounting technology and validation, and continues through to serial production. The technology platform allows for the creation of individual high-performance optical systems more rapidly, efficiently, and cost-effectively. This is of particular use in the semiconductor equipment industry with a view to future generations of chips. The project was recognized with the 2017 Jenoptik Innovation Award.

### **A place for the incomplete.**

Business ideas are now being tested in our new innovation cell. The protected space is ideal for learning, correcting, failing – or whatever is necessary in the creative process. Each experience is taken on board without judgement for the next phase of development. The Optical Systems digital business team is also playing a large role in these developments, keeping tabs on overarching market trends, maintaining contact with other Jenoptik segments, and attending congresses. Potential customers can indeed be found in unexpected places in today's digital world.

## Jenoptik in profile

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Jenoptik is a globally operating technology group which is present in more than 80 countries. Optical and photonic technologies are the very basis of our business.

The majority of our range of products and services are provided to the photonics market. Photonics are understood as the basics and areas of use of optical methods and technologies that address the transmission, storage and processing of information by light.

Our customers primarily include companies in the semiconductor equipment, automotive and automotive supplier industries, the medical technology, security and defense technology as well as the aviation industries.

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# Management

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Hans Dieter Schumacher  
Chief Financial Officer



Dr. Stefan Traeger  
President & CEO



*Dear shareholders,  
dear clients, partners, and friends of our company,*

We ended the 2017 fiscal year with new record figures and have grown steadily with revenue increasing by 9.2 percent to 747.9 million euros. Our profitability improved more strongly than the revenue. We achieved an EBIT of 77.8 million euros, corresponding to an EBIT margin of 10.4 percent. There was tailwind from our major sectors, especially the semiconductor equipment industry. Regionally, our business experienced particularly strong development in the USA during 2017. Here, the new technology campus in Rochester Hills and the acquisition of the automation specialist Five Lakes Automation in 2017 have enabled us to set important cornerstones for our further growth as a partner to the US automotive industry. We also recorded growth in our order intake, to 802.9 million euros. We can look back on a strong 4th quarter in 2017 and also see a continuing positive market development in the first months of the current fiscal year.

Our solid financial resources, which we have continued to strengthen in 2017, also make us feel positive for the future. The free cash flow remained at a good level of 72.2 million euros, despite significantly higher investments. Our equity and cash increased as well.

In the second half of 2017, we, as the new Jenoptik Executive Board team, concentrated on determining the right track for our company towards a successful future. Following in-depth analyses and numerous discussions, we have further developed our strategic orientation, presenting it at the beginning of February. At the moment Jenoptik is still facing global challenges with highly fragmented structures and different cultures within our company. Consequently, we are accelerating Jenoptik's development from a diversified industrial conglomerate into a focused technology company. The focus on photonic technologies will be a central aspect of Jenoptik's strategy for the next five years.

We will concentrate on what we do best. By focusing on "More Light" as our motto, we want to turn Jenoptik into a global photonics company. Among the areas of application that will be of particular interest to us in the future are information processing, biophotonics, smart manufacturing, as well as sensing and metrology. We will operate our mechatronics business under a new independent brand that better reflects specific market and customer needs.

In 2018 we will push ahead with the necessary adjustments which we have already defined. Several projects have already started in the first weeks of the current fiscal year. These include preparations for our new organizational structure, the development of the strategic alignment of the divisions, the reorganization of our Asian business, and the development of the new brand for our mechatronic business.

These and other initiatives relating to our three strategic pillars – "More Focus", "More Innovation", and "More International" – will open up new growth opportunities in the medium-term. This should accelerate our revenue growth, which we expect to be in the mid to high single-digit percentage range on average per year by 2022. We will also ensure that profitability continues to increase.

For 2018, we are planning an EBIT margin of between 10.5 and 11.0 percent with revenue of between 790 and 810 million euros. Tailwind continues to come from the semiconductor equipment industry, but also from optical information and communication technology as well as individual major orders acquired in prior years that are now contributing to revenue and earnings.

Overall, we see a very positive development according to current assessments. Financially and strategically, we have laid the foundation required to move Jenoptik to the next level. We thank you for your trust in our company, which has also been reflected in the share price in recent months. We will work together with you to continue the successful development of your Jenoptik in 2018.



Dr. Stefan Traeger  
President & CEO



Hans-Dieter Schumacher  
Chief Financial Officer



### 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 Communication, Investor Relations, Legal, Compliance & Risk, ESG (Environment, Social, Governance) & CSR (Corporate Social Responsibility) 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, Real Estate, IT & Data Security as well as Internal Audit.

## Supervisory Board Report

*Honored Shareholders,*

The Jenoptik Group continued to see a successful development in the 2017 fiscal year: group revenue increased 9.2 percent and earnings improved significantly. A sharp rise of 9.4 was also seen in our order intake. Apart from the overall economic situation, this success was mostly due to strong demand from the semiconductor industry and, on a regional level, to good growth in the US. To achieve this, the Supervisory Board closely supported and advised the Executive Board. Together we discussed in detail the future strategic orientation of Jenoptik and look confidently to the Group's development focusing more strongly on photonic technologies.

In the year covered by the report, the Supervisory Board stringently fulfilled its duties as stipulated by law, the Articles of Association, the German Corporate Governance Code and the Rules of Procedure. It regularly advised the Executive Board on the management of the company and continually monitored its activities. The Executive Board intensively involved the Supervisory Board in all decisions of fundamental importance to the company at an early stage. The Supervisory Board was also regularly presented with comprehensive information by the Executive Board, both verbally and in written form, on issues pertaining to corporate planning, on business development and profitability trends, on matters involving risk and risk management, on compliance issues and on the general economic position of the company. One key area of focus in the past fiscal year involved the ongoing evolution of the corporate strategy, which the Executive Board dealt with in detail together with the Supervisory Board on a separate strategy day and at the year-end meeting.

Business events of importance to Jenoptik were presented and discussed in detail in both the committees and the meetings of the Supervisory Board based on reports submitted by the Executive Board. The members of the Supervisory Board fully engaged with the submitted reports and were entitled to put forward their own proposals and suggestions at any time. When convening to discuss topics of particular importance to the Jenoptik Group, the shareholder and employee representatives separately prepared for the meetings.

On occasions where, in accordance with the provisions of the German Stock Corporation Act (Aktien-gesetz [AktG]), the Articles of Association or the Rules of Procedure, the Executive Board required the agreement of the Supervisory Board before undertaking certain actions, approval was granted after thorough examination and consultation. In the event that the business development deviated from the established plans, the Executive Board notified the Supervisory Board of this, explaining the reasons in detail. The Executive Board completely fulfilled its reporting obligations as stipulated in §90 of the German Stock Corporation Act and the German Corporate Governance Code.

The Supervisory Board convened six regular meetings and one extraordinary meeting during the reporting year. The extraordinary meeting was held as a mixture of a telephone and in-person meeting. In two instances, decisions were made through the exchange of written correspondence. No active members of the Supervisory Board, the Audit Committee or the Personnel Committee attended half or fewer than half of the meetings in 2017. One member of the Nomination Committee attended only one of its two meetings. Detailed information on members' attendance at meetings can be found in the chart below.



The Executive Board and Supervisory Board always cooperated in an open and trusting atmosphere. The Chairman of the Supervisory Board and the Chairman of the Audit Committee also maintained regular contact with the Executive Board in between the meetings of the Supervisory Board and the committees. The Chairman of the Supervisory Board consulted with the Executive Board on current business developments, in particular, but also on the company’s planning, risk position, risk management, compliance issues and, as a matter of priority in the past fiscal year, the further development of the Jenoptik Group’s corporate strategy. The Chairman of the Supervisory Board was also informed by the Executive Board without delay, either verbally or in writing, about important issues of key relevance to the assessment of Jenoptik’s position, development, and management, and notified the Supervisory Board of these issues in good time or at the latest by the date of the next meeting. Between the meetings, all members of the Supervisory Board received regular monthly reports on the company’s current business and financial situation.

## Particular Subjects Discussed by the Supervisory Board

**At all its regular meetings**, the Supervisory Board dealt with the detailed reports of the Executive Board on the progress of business, particularly with regard to the current development of revenue and earnings, the position of the company, and the financial and risk situations. This included a comprehensive examination and discussion of the corresponding quarterly and monthly reports. The Supervisory Board was regularly updated on the status of current M&A projects by the Executive Board.

In **written correspondence in February 2017**, the Supervisory Board approved the Corporate Governance Statement and the Corporate Governance Report, and passed its report to the 2017 Annual General Meeting.

The focus of the **financial statements meeting on March 21, 2017** was the audit of JENOPTIK AG’s Annual Financial Statements, the Consolidated Financial Statements and the Combined Management Reports for JENOPTIK AG and the Group for the prior fiscal year 2016. Representatives of the auditor reported on the results of the audit. After a thorough review, and on the recommendation of the Audit Committee, the Supervisory Board approved the Annual Financial Statements and the Consolidated Financial Statements. The Annual Financial Statements were thus adopted. Following in-depth discussions, it also approved the Executive Board’s proposal for the appropriation of profits, providing for an increased dividend of 0.25 euros per qualifying no-par value share. Other key topics included the approval of the agenda for the Annual General Meeting on June 7, 2017, with extensive discussion of the shareholder representatives’ proposed candidates for election to the Supervisory Board by the Annual General Meeting. The Supervisory Board scrutinized the Nomination Committee’s proposals, taking into account its existing competence and requirements profile. The Supervisory Board also agreed the settlement of the 2016 target agreements for the members of the Executive Board and approved the new target agreement for the Chief Financial Officer in the 2017 fiscal year. Dr. Stefan Traeger was appointed Chairman of the Executive Board earlier than scheduled with effect from May 1, 2017 and the settlement of an agreement with Dr. Michael Mertin on the details of his departure as Chairman of the Executive Board was approved.

The **extraordinary meeting on April 21, 2017** was dedicated entirely to allowing Ms. Elke Eckstein to introduce herself as the shareholder representatives' candidate for election to the Supervisory Board by the Annual General Meeting.

In addition to recurring topics, the Supervisory Board also used its **meeting** prior to the Annual General Meeting **on June 6, 2017** to discuss the changes to the German Corporate Governance Code adopted on February 7, 2017. The Supervisory Board again set a gender equality target for the Executive Board, which applies until June 30, 2020. It also agreed to allow an external evaluation of its own efficiency in the current year.

At the **inaugural meeting on June 7, 2017**, directly following the Annual General Meeting, I, Matthias Wierlacher, was elected Chairman of the Supervisory Board; Mr. Michael Ebenau was elected my deputy. There were also changes on the committees: Mr. Heinrich Reimitz was re-elected Chairman of the Audit Committee, Ms. Doreen Nowotne his deputy. I, in turn, chair the Personnel, Mediation and Nomination Committees.

The meeting on **September 14, 2017** was held at the home of the Microoptics business unit in Dresden. Following a tour of the premises, the Supervisory Board discussed the latest Group Risk and Opportunity Report with the Executive Board in addition to the regular submissions. The Supervisory Board extended the tenure of Chief Financial Officer Mr. Hans-Dieter Schumacher earlier than scheduled by a further five years to March 31, 2023 and approved a new service contract for this period of time. The Executive Board informed the members of the Supervisory Board regarding the start of a project to further develop the corporate strategy and the completed acquisition of shares in Five Lakes Automation, LLC, based in Novi, Michigan, US. The Supervisory Board adopted a new schedule of responsibilities for the Executive Board, reviewed compliance with the recommendations of the German Corporate Governance Code in the form of a checklist and updated its declaration of conformity of December 14, 2016 during the year. The Supervisory Board also discussed two offers to complete an external review of its own efficiency. It then entrusted the Audit Committee to prepare its review of the separate non-financial report by the Supervisory Board and to call on outside assistance wherever necessary.

## T01 Participation of the individual Supervisory Board members in meetings

	Astrid Biesterfeldt	Evert Dudok	Michael Ebenau	Elke Eckstein (since 7/6/2017)	Brigitte Ederer (until 7/6/2017)	Thomas Klippstein	Dörthe Knips (since 7/6/2017)
7 Supervisory Board Meetings (of which one mixed meeting)	●●●●●●●	●●●●● ○	●●●●● ○	●●●●	●● ○	●●●●●●●	●●●●
5 meetings of the Audit Committee (of which 1 by phone)	●● (since 7/6/2017)	–	–	–	–	●●●●●	–
3 meetings of the Personnel Committee (of which two mixed meetings)	–	–	●●●	–	–	●●●	–
2 meetings of the Nomination Committee (of which one by phone)	–	–	–	–	–	–	–



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One of the Supervisory Board’s priorities in the final quarter of the fiscal year was a discussion of the group strategy presented by the Executive Board. To this end, it engaged in detailed discussion of the group project to further develop the Jenoptik corporate strategy and the segments’ strategies and strategic projects with the Executive Board, the members of the Executive Management Board and the Head of Strategy at a separate **strategy day on November 6, 2017**.

At the final **meeting** in the year covered by the report on **December 6, 2017**, the Supervisory Board approved the corporate planning for the 2018 fiscal year and the medium-term planning following in-depth discussion. Once again, the Supervisory Board discussed with the Executive Board the latter’s project to further develop the corporate strategy. In addition to the recurring topics, further subjects of discussion included information on the implementation status of the CSR reporting obligation, on the project to implement the EU General Data Protection Regulation and on the Jenoptik Group’s IT security policy. The Supervisory Board approved a profile of skills and expertise for the full board updated with the assistance of an outside expert and set the number of shareholder representative members it considers to be independent. Further details can be found in the Corporate Governance Report on page 40 of the Combined Management Report. The external expert appointed to evaluate the efficiency of the Supervisory Board presented his findings.

In **written correspondence at the end of the 2017 fiscal year**, the Supervisory Board adopted its declaration of conformity for the 2017 fiscal year. Fulfilling a stipulation in his service contract, the Supervisory Board also agreed to conclude a contract with Dr. Stefan Traeger regarding his retirement benefits in the form of a defined contribution provident fund model.

## Work in the Committees

As in prior years, the Supervisory Board could draw on the work of four committees in the 2017 fiscal year to help perform its tasks with greater efficiency and address individual topics in more detail. The committee chairs reported on the content and results of the committee meetings at each following

	Dieter Kröhn	Sabine Lötzsch (until 7/6/2017)	Doreen Nowotne	Heinrich Reimitz	Stefan Schaumburg	Andreas Tünnermann	Matthias Wierlacher	Total attendance in percent
	●●●●●●●●	●●●	●●●●●●●●	●●●●●●●● ○	●●●●●●●●	●●●●●●●●	●●●●●●●●	93%
(until 7/6/2017)	●●●	–	●●●●●	●●●●●	–	–	–	100%
	–	–	–	●●●	●●●	●●●	●●●	100%
	–	–	–	●●	–	● ○	●●	83%

meeting of the Supervisory Board. With the exception of the Audit Committee, chaired by Mr. Heinrich Reimitz, the committees are led by myself as the Chairman of the Supervisory Board. An overview of the composition of the individual committees can be found on pages 22 ff. and 188 of the Annual Report.

During the reporting period, the **Audit Committee** met four times and held one conference call. In addition, one decision was made through the exchange of written correspondence. The auditor's representatives attended the first and third face-to-face meetings of the year. The primary duties of the Audit Committee were in-depth audits of the Annual Financial Statements and the Consolidated Financial Statements, the Consolidated Management Report of JENOPTIK AG and the Group and detailed discussions of the quarterly and half-yearly reports prior to their publication. In addition, particular attention was paid to the effectiveness and further development of the risk management system, the internal control and compliance management system and current topics and projects of Internal Audit. Other recurring issues at all meetings of the Audit Committee included the development of the Jenoptik share, current analyst assessments and the group project to implement the CSR reporting obligation. Alongside the Chief Financial Officer, the head of corporate departments were also present as guests for individual agenda items at the committee meetings.

During a **conference call in early February 2017**, the Executive Board presented the committee members the preliminary figures of the 2016 Consolidated Financial Statements, to be published the day after.

The main issue at the **financial statements meeting on March 8, 2017** was an in-depth discussion of the Annual and Consolidated Financial Statements, the Combined Management Report and the Executive Board's proposal for the appropriation of profits. As a result, the Audit Committee recommended to the Supervisory Board that the Annual Financial Statements be adopted. Another purpose of the meeting was the recommendation by the Audit Committee to the Supervisory Board that Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart ("EY"), be proposed to the Annual General Meeting as the auditor for the 2017 fiscal year. EY confirmed that there were no circumstances that might compromise its independence as auditor. In addition to recurring topics, the committee also dealt with the current Group Risk and Opportunity Report.

The financial statements for the first quarter and an initial forecast for the fiscal year were the priorities at the Audit Committee's **meeting on May 9, 2017**. The Audit Committee was updated on the review and implementation of a new whistleblower system, as well as on a project to implement tax compliance measures.

At its **meeting on August 7, 2017**, the Audit Committee discussed the mid-year financial statements prior to their publication with the Chief Financial Officer. The Audit Committee set out the main points for the audit of the Annual Financial Statements in the 2017 fiscal year, reviewed the fee agreement with EY and addressed the issue of monitoring the independence of the auditor. To this end, it reviewed the non-audit services provided in the past year and updated its approved catalog of permissible non-audit services. The Audit Committee then appointed EY to audit the Annual and Consolidated Financial Statements as well as the Combined Management Report for the 2017 fiscal year in accordance with the shareholder resolution at the Annual General Meeting. It was also updated on the new legal requirements for the audit certificate and key audit matters and was informed about the new requirements in accounting standard IFRS 15.

Following delegation by the Supervisory Board, the Audit Committee resolved to commission an external audit review of the separate non-financial report in the course of **written correspondence in September 2017** and appointed an auditor for this purpose.

At its last **meeting** of the year on **November 7, 2017**, the Audit Committee examined the interim financial statements for the third quarter and the current forecast. In addition to recurring issues, the meeting prioritized the presentation of key internal audit findings in the 2017 fiscal year by the Head of Internal Audit.

The **Personnel Committee** met three times in the past fiscal year. The purpose of the sessions in February was the settlement of the target agreements with the members of the Executive Board for 2016 and the target agreement with the Chief Financial Officer, Mr. Hans-Dieter Schumacher, for 2017. The Personnel Committee also prepared an agreement with Dr. Michael Mertin regarding the details of his departure and discussed the handling of the post-contractual non-competition clause agreed with Dr. Mertin. The members recommended that the Supervisory Board agree to appoint Dr. Stefan Traeger Chairman of the Executive Board earlier than scheduled, with effect from May 1, 2017. At its July meeting, the Personnel Committee prepared the Supervisory Board's resolution to extend Mr. Hans-Dieter Schumacher's term on the Executive Board by a further five years with effect from April 1, 2018. It also engaged in preliminary discussion of the new target metric for variable remuneration in the Executive Board service contracts. During a conference call in September, the Personnel Committee examined issues relating to the proposed service contract draft for Mr. Hans-Dieter Schumacher.

Due to the upcoming election of shareholder representatives to the Supervisory Board by the 2017 Annual General Meeting, the **Nomination Committee** convened twice in February and April in the past fiscal year. The meetings were concerned exclusively with discussing suitable candidate proposals for election by the Annual General Meeting. Taking into account a requirements profile approved by the Supervisory Board, and in due consideration of the targets set for its composition, the Nomination Committee discussed the suitability and independence of various candidates to succeed Ms. Brigitte Ederer, who was the only shareholder representative on the Supervisory Board not standing for re-election. It ultimately recommended Ms. Elke Eckstein as the candidate for election by the Annual General Meeting to the Supervisory Board. Ms. Elke Eckstein introduced herself to the Nomination Committee, and then to the Supervisory Board, at the April meeting.

The **Mediation Committee** established on the basis of § 27 (3) of the Codetermination Act (MitbestG) did not meet in the year covered by the report as there was no reason for it to do so.

## Corporate Governance

The Supervisory Board continuously focused on the principles of good corporate governance and regulatory changes in corporate governance over the past fiscal year. At its June meeting, the Supervisory Board discussed the changes to the German Corporate Governance Code in its version of February 7, 2017. The Supervisory Board also approved a new target proportion of women on the Executive Board to be achieved by June 30, 2020 at this meeting. Details on the target figures for women can be found in the Corporate Governance Report on page 33. At its September meeting, the Supervisory Board reviewed its checklist on the Corporate Governance Code and, following the



resolution to extend the tenure of Mr. Hans-Dieter Schumacher and the conclusion of his new service contract, updated the Executive Board and Supervisory Board's declaration of conformity in accordance with § 161(1) of the German Stock Corporation Act (AktG). During its December meeting, the Supervisory Board approved a profile of skills and expertise for the full board updated with the assistance of an outside expert and set the number of independent shareholder representative members it considered sufficient. In written correspondence also conducted in December, the declaration of conformity for the 2017 fiscal year was then adopted. This, together with prior declarations extending back to 2004, are permanently available to shareholders on the company's website. The latest declaration of conformity can also be found on page 36 of the Annual Report.

The Supervisory Board regularly reviews the efficiency of its work in accordance with the Code's recommendations. An external expert was appointed in the past fiscal year and carried out his evaluation by means of both a questionnaire and in-depth interviews. The efficiency of the Supervisory Board's work was investigated with regard to the issues of leadership, strategy, structure and processes, people and composition, culture and the composition of the board regarding formal and substantive strategic aspects. 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 committees.

Individual members of the Supervisory Board exercise an executive role at other companies with which Jenoptik has a business relationship. All of these business transactions, which are not of significant interest to Jenoptik, were conducted under the same conditions as would have been maintained with third-party companies. Detailed information on business transactions with related companies or persons can be found on page 184 in chapter 8.6 of the Notes. In this past fiscal year, there were no conflicts of interest that would have required reporting to the Annual General Meeting with this report.

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

## Annual Financial Statements and Consolidated Financial Statements

Following delegation by the Supervisory Board to the Audit Committee, the latter, after an in-depth preliminary research and on the basis of the resolution at the Annual General Meeting on June 7, 2017, appointed EY auditor for the 2017 fiscal year at its meeting of August 7, 2017. EY audited the Annual and Consolidated Financial Statements and the Combined Management Report for the second time in succession. The auditor undertook its audit according to § 317 of the German Commercial Code (HGB), giving consideration to the generally accepted German audit principles defined by the Institute of Public Auditors in Germany (Institut der Wirtschaftsprüfer [IDW]). The auditor gave its unqualified approval of the Consolidated Financial Statements and Combined Management Report for the 2017 fiscal year, prepared by the Executive Board according to § 315e of the German Commercial Code and based on the International Financial Reporting Standards (IFRS). This also applies to the Annual Financial Statements of JENOPTIK AG prepared according to the rules of the German Commercial Code (HGB). The auditor 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. Immediately upon completion, the audit reports, the Annual Financial Statements, the Consolidated Financial Statements, the Executive Board's proposal for the appropriation

of profits, and the Combined Management Report including the non-financial report, prepared for the first time, were sent to the Audit Committee, and then to the full Supervisory Board, where they were examined and discussed in detail at their meetings on March 8, 2018 (Audit Committee) and March 21, 2018 (Supervisory Board). Both also extensively dealt with the key audit matters. Representatives of the auditor and the auditing company entrusted with the audit review of the non-financial report reported at the meetings on the major findings of their audits and were also available for further questions and information. The auditor also reported on services that were provided in addition to those concerning the audit. According to the auditor, there were no circumstances that gave rise to a concern of impartiality. 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 to the Supervisory Board on the examination of the statements carried out by the Audit Committee.

Following its own comprehensive examination and discussion, the Supervisory Board concurred with the findings submitted by the auditor and the Audit Committee's recommendation, and raised no objections to the results of the audit. It approved the Annual Financial Statements and Consolidated Financial Statements submitted by the Executive Board, thus adopting the Financial Statements in accordance with § 172(1) of the German Stock Corporation Act. The Supervisory Board discussed in detail with the Executive Board the proposal for the appropriation of profits, providing for an increased dividend of 0.30 euros per qualifying no-par value share and also agreed to this following its own review and consideration of the company's financial position.

## Changes on the Supervisory Board and Executive Board

With effect from the conclusion of the Annual General Meeting on May 7, 2017, Ms. Brigitte Ederer and Ms. Sabine Löttsch stepped down from the JENOPTIK AG Supervisory Board. We thank them for their valuable assistance and years of service on the Supervisory Board. At the Annual General Meeting, Ms. Elke Eckstein and, in the employee representative election, Ms. Dörthe Knips were elected new Supervisory Board members with effect from the conclusion of the Annual General Meeting.

With effect from April 30, 2017, Dr. Michael Mertin left the Executive Board at his own request. Over a period of ten years, he guided and managed Jenoptik's successful growth. The Supervisory Board would like to thank him for the great benefits he has contributed to the company. As of May 1, 2017, Dr. Stefan Traeger succeeded Dr. Michael Mertin as President & CEO.

The Supervisory Board would like to thank the members of the Executive Board and all the employees for their exceptional performance and great commitment throughout the fiscal year, as well as our shareholders for the trust they have shown in us.

Jena, March 2018  
On behalf of the Supervisory Board



Matthias Wierlacher  
Chairman

## Highlights 2017

### Change on the Executive Board

Dr. Stefan Traeger has been the new President & CEO since May 2017. He succeeds Dr. Michael Mertin, who relinquishes his position as CEO at the company after almost ten years of service. Jenoptik's Supervisory Board extends CFO Hans-Dieter Schumacher's service contract by five years, to March 2023.

### New technology campus inaugurated

Jenoptik moves into its new technology campus at the US site in Rochester Hills, Michigan, and starts up production as scheduled in mid-May. The new facility employs around 110 people, who manufacture measuring technology and laser machines for the American market.

### Production boost with new clean room

In Florida, Jenoptik triples its clean room space to respond to globally rising demand for optical systems, e. g. in semiconductor manufacturing and in the aerospace industry.

### Components for military equipment

Jenoptik again supplies components for the Patriot missile defense system. The Group also receives follow-up orders to retrofit Leopard 2 tanks with auxiliary power units, electric gun turret drive systems, and turret / weapon stabilization systems.

### Award-winning prototype presented

The "SkyHoist 800" civil rescue hoist, recipient of two design awards, is presented at the HAI Heli Expo in America. The new hoist also impresses with its technical features and innovative functions.

### High-performance optics made to order

A team in the Optical Systems divisions receives the internal Innovation Award for a technology platform that can be used to manufacture custom high-performance optics.

### Jena "Saaleknirpse" celebrate ten years

To celebrate ten years of the "Saaleknirpse" daycare center, Jenoptik extends its agreement to support the facility by five years, thereby safeguarding the existence of a valuable daycare and education program. The center was built by Jenoptik and offers a number of places to children of company employees.





## Acquisition of a process automation company

On acquiring the US company Five Lakes Automation ("FLA"), Jenoptik transitions from being a machinery supplier to a provider of process solutions for metal and plastics processing. FLA specializes in process automation for the automotive industry.

## New traffic monitoring capabilities

The acquisition of the British software company ESSA Technology boosts the Group's portfolio of software for traffic monitoring and public safety.

## Changes on the Supervisory Board

Elke Eckstein joins the Supervisory Board as shareholder representative and Dörte Knips as employee representative. The remaining members were re-elected by the AGM or employees.

## Lead sponsor for company contest

Now for the 6th time, Jenoptik supports the SPIE Startup Challenge with prize money and expertise. Young entrepreneurs present their products to a team of experts, which includes Jenoptik managers Jay Kumler and Marc Himel as SPIE Fellows.

## Better road safety in Kuwait

Jenoptik supplies measuring systems for stationary speed monitoring to Kuwait's Ministry of Interior. The company is also contracted to install non-invasive section control measuring systems on the world's longest sea bridge in the Bay of Kuwait.

## Laser machines for automotive suppliers

Jenoptik sells JENOPTIK-VOTAN® BIM 3D laser machines to leading German automobile manufacturers. They enable the highly efficient processing of complex metal and plastic parts and are used in new production processes, e.g. to manufacture innovative components for electric cars.

## A base in Silicon Valley

Jenoptik builds an application center in Fremont, California. It aims to serve the unique engineering and product development needs of the region.



# The Jenoptik Share

## Stock Markets

2017 was a good year for both the company and the German economy as a whole. Global economic growth was robust and the Ifo Business Climate Index had a record run from May on. Both inflation and interest rates remained low. In addition, Europe's central bank adopted a highly cautious approach, reluctant to make any rash changes to its monetary policy ten years after the financial crisis. The ECB is still buying bonds at the beginning of 2018, keeping interest rates close to zero and thereby continuing to flood the market with cheap money. The consequences of Brexit still appear manageable, the political risks associated with it overstated. 2017 was accordingly an excellent year for investors, and the financial sector saw good growth almost everywhere around the world. One of the winners here was the euro, which increased in value against all other major currencies and gained more than 14 percent over the year. Oil and commodity prices also rose, but the biggest winner, growing almost 1,400 percent, was the Bitcoin cryptocurrency.

In the light of this very good financial environment, the global stock markets also continued to post good gains. The German Dax index climbed to a new record of 13,479 points on November 3 and grew a total 12.5 percent in value since the beginning of 2017 – almost twice as much as the average in prior decades. It started the year on January 2, 2017 at 11,598 points and ended trading on December 29, 2017 at 12,918 points. In 2017, the Dax sunk to its lowest level of 11,510 points on February 6. Following this, it progressed steadily upward, with minor fluctuations occasioned by the ECB's cash injections. The German technology index developed even better: the TecDax opened the year's trading at 1,841 points, rose consistently until May, and following a sideways trend around the mid-year again began to grow in mid-September. After reaching its highest level of 2,592 points on November 6, the TecDax closed at 2,529 points on the last trading day of the year, equivalent to an increase of 37.4 percent.

## Jenoptik Share Trends

In 2017, the Jenoptik share clearly outperformed the market. It started the year with a closing price of 16.77 euros and briefly fell to its annual low of 16.11 euros on January 10 before rising to an initial high of 26.60 euros on May 4, 2017. Following a mid-year sideways trend, the Jenoptik share again grew impressively from September on, reaching its highest level of 29.68 euros on November 1. The share closed at 27.55 euros on December 29 to end the trading year with an overall increase of 64.3 percent. Total shareholder return, i. e. share price appreciation accounting for dividends paid in the fiscal year, came to 65.8 percent in 2017 (prior year 14.1 percent).

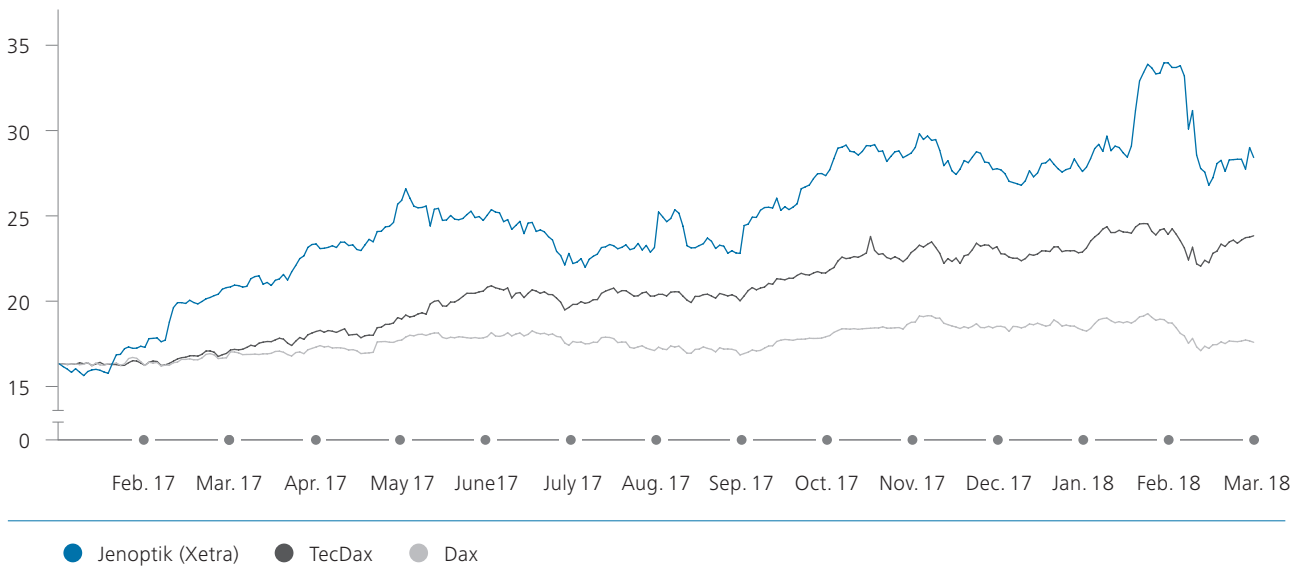
The mood on the international capital markets remained highly positive into January and February 2018. Good economic data is continuing to bolster prices and investors all around the world are adding shares to their portfolios. Wall Street's euphoria is beginning to spread to Europe. The Jenoptik share showed a positive development at the beginning of the year. The share price rose to 33.66 euros in January 2018, consolidated in the subsequent month and closed trading at 28.34 euros on February 28. All figures are Xetra closing prices. **G01 G02**

Excellent share price performance in 2017 resulted in a concomitant rise in market capitalization over the year of 636.8 million euros, based on the 57,238,115 issued shares, which thus came to 1,576.9 million euros at the end of the year (prior year 940.1 million euros). Up to February 28, 2018, market capitalization rose further to 1,622.1 billion euros.

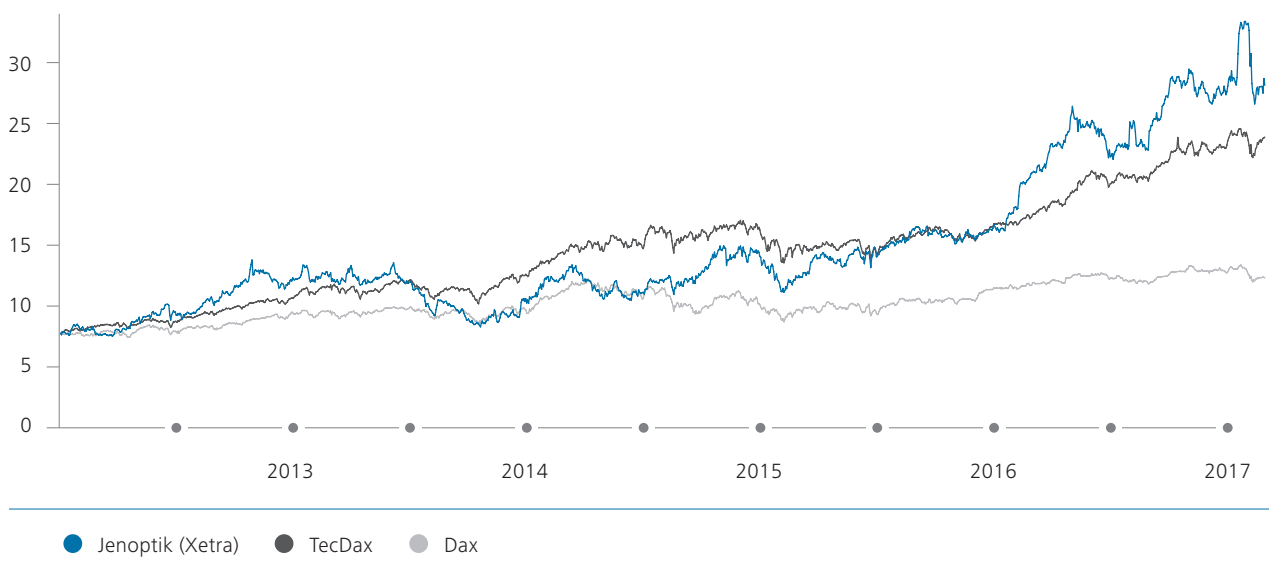


The latest information on the Jenoptik share and the development of the Jenoptik Group can be found on [www.jenoptik.com](http://www.jenoptik.com) or Twitter. Our financial reports can also be viewed using the Jenoptik App for corporate publications.

## G01 Share performance January 2, 2017 to February 28, 2018 (indexed, in euros)



## G02 Share performance 2013-2017 (indexed, in euros)








For more information, see the Notes in the Equity chapter and the Investors/Share/Voting rights announcements section at [www.jenoptik.com](http://www.jenoptik.com)

Compared to the prior year, institutional investor trading saw a marked upturn. In 2017, the average number of Jenoptik shares traded per day on the Xetra, in floor trading and on Tradegate was 152,928. Trading volumes thus saw a considerable increase of 42.7 percent (prior year 107,183 shares). In the TecDax ranking compiled by Deutsche Börse, the Jenoptik share rose seven places to 19th position in terms of stock turnover. In terms of free float market capitalization, the company improved to 15th place, up from 18th.

## Shareholder Structure

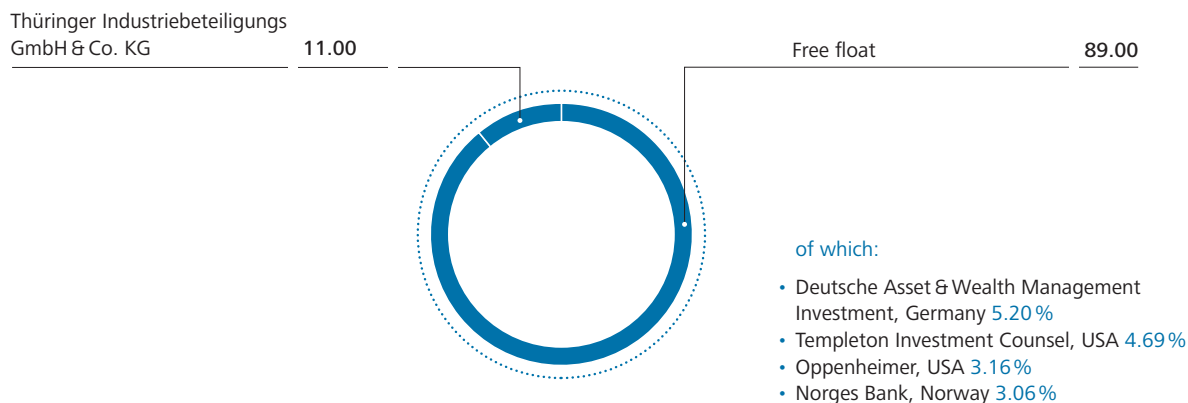
At the end of the fiscal year, the company's free float share was unchanged at 89 percent.

Throughout 2017, we received several voting right notifications from institutional investors to buy or sell larger long stock positions; these were published by the company. 

## Annual General Meeting

Over 350 shareholders, representing around 53 percent of nominal capital, and numerous guests were on hand for the JENOPTIK AG Annual General Meeting in Weimar on June 7, 2017. Dr. Stefan Traeger, the new Chairman of the Executive Board who has been in office since May 2017, introduced himself to the shareholders. By a large majority, the shareholders formally approved the actions of the Executive Board and Supervisory Board and agreed to payment of a dividend and all the other agenda items requiring a vote.

### G03 Shareholder structure (as of February 28, 2018) in %



## Dividend

The Jenoptik management aspires to a policy of dividend reliability and continuity in which shareholders – as in the last five years – receive payment of a dividend in line with the company's success. At the same time, sufficient cash and cash equivalents to finance the operating business, a robust equity position 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 recommendation with considerable

prudence every year. In the past fiscal year, Jenoptik paid a dividend of 0.25 euros per share (prior year 0.22 euros) to its shareholders for 2016. In the new year, too, the Executive Board and Supervisory Board will maintain their dividend policy. Particularly in view of very successful growth in 2017, the two boards will propose an increased payment of 0.30 euros per share to the 2018 Annual General Meeting. Subject to approval there, a dividend payment of 17.2 million euros will produce a payout ratio in relation to shareholder earnings of 23.7 percent (prior year 24.9 percent).

## T02 Key Jenoptik Share Data

	2017	2016	2015	2014	2013
Closing price (Xetra end-year) in euros	27.55	16.43	14.39	10.37	12.35
Highest/lowest price (Xetra) in euros	29.68/16.11	16.65/11.14	15.01/10.22	13.61/8.26	13.84/7.46
Absolute performance in euros/relative in percent	10.78/64.28	1.84/12.6	3.79/35.8	-1.83/-15.0	4.64/60.3
Issued no-par value bearer shares (31/12) in millions	57.24	57.24	57.24	57.24	57.24
Market capitalization (Xetra end-year) in million euros	1,576.9	940.1	823.7	593.6	706.9
Average daily trading volume <sup>1)</sup>	152,928	107,183	224,488	167,876	135,827
P/E ratio (based on highest price/based on lowest price)	23.4/12.7	16.7/11.1	17.3/11.8	18.6/11.3	16.9/9.1
Operating cash flow per share in euros	1.84	1.91	1.60	0.90	1.17
Group earnings per share in euros	1.27	1.00	0.87	0.73	0.82

<sup>1)</sup> Source: Deutsche Börse; includes trading on the Xetra, in Frankfurt, Munich, Berlin, Düsseldorf, Hamburg, Hannover, Stuttgart and on Tradegate

## T03 Key Dividend Data

	2017	2016	2015	2014	2013
Dividend per share in euros	0.30	0.25	0.22	0.20	0.20
Payout amount in million euros	17.2	14.3	12.6	11.4	11.4
Dividend yield <sup>1)</sup> in %	1.1	1.5	1.5	1.9	1.6
Payout ratio <sup>2)</sup> in %	23.7	24.9	25.4	27.5	24.3
Total shareholder return in %	65.8	14.1	37.6	-13.4	62.9

<sup>1)</sup> based on year-end closing price

<sup>2)</sup> based on earnings attributable to shareholders

## Capital Market Communication

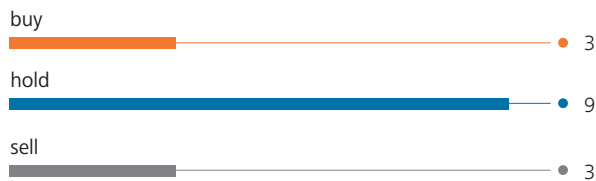
We are committed to making sure our communication with shareholders, analysts and institutional investors is open, transparent and reliable. We publish comprehensive and up-to-date information on the development of our business, while also seeking an active exchange with others. We believe it is important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

In the 2017 fiscal year, we attended a total of nine (prior year nine) capital market conferences at international financial centers such as Frankfurt/Main, London, Madrid and Warsaw. The company also held a total of 21 (prior year 18) roadshows in

Finland, France, Germany, Great Britain, Luxembourg, Switzerland and the US. Jenoptik held two analyst conferences in Frankfurt/Main to mark the reporting of its annual and mid-year figures. 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. Investors also took the opportunity to tour Jenoptik's sites.

Fourteen (prior year 14) analysts published recommendations on the Jenoptik share in 2017: Baader Helvea, Bankhaus Lampe, Commerzbank, Deutsche Bank, DZ Bank, Fairesearch, HSBC, Independent Research, Kepler Cheuvreux, LBBW, Bankhaus Metzler, M. M. Warburg, Montega and Oddo Seydler Bank. On December 31, 2017, the average target price of the Jenoptik share as assessed by analysts was 24.43 euros (prior year 16.35 euros). On publication of the 2017 preliminary figures, Hauck & Aufhauser initiated coverage of the Jenoptik share and a number of analysts increased their target price, which came to an average of 27,33 euros on February 28, 2018. **G04**

### **G04** Analyst Recommendations (as of February 28, 2018)





# Corporate Governance

Information and Notes Relating to Takeover Law and the Remuneration Report are part of the Combined Management Report.

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# Corporate Governance Report

In the following Corporate Governance Report, the Executive Board and Supervisory Board give their opinions in accordance with Clause 3.10 of the German Corporate Governance Code ("Code") in its version dated February 7, 2017. We also consider the "Remuneration Report" (from page 45 on) to be a part of the Corporate Governance Report.



## Corporate Governance

The JENOPTIK AG Executive Board and Supervisory Board affirm their commitment to responsible and values-based corporate governance. They see good corporate governance as the foundation for a sustained increase in the company value. This also strengthens trust in Jenoptik on the part of shareholders, business partners, employees, and the general public.

The Executive and Supervisory Boards adhere to the recognized standards. They support the recommendations of the "Governmental Commission on the German Corporate Governance Code" ("Code").

In the year covered by the report, the management and supervisory bodies of JENOPTIK AG have focused intensively on fulfilling the requirements of the Code and in particular on the changes and additions made by the Government Commission in February 2017. The Executive and Supervisory Boards jointly issued the current declaration of conformity in adherence with § 161 of the German Stock Corporation Act (AktG) in December 2017, containing just only one deviation from therefrom. It is permanently available to shareholders on the company's website. Jenoptik has also followed the majority of the suggestions contained in the Code. If changes should arise in the future, the declaration of conformity will be updated during the year.

## Declaration of Conformity by the Executive Board and Supervisory Board of JENOPTIK AG in the 2017 Fiscal Year

According to § 161, Para. 1, Sent. 1 of the German Stock Corporation Act (AktG) the Executive Board and the Supervisory Board of a listed company are required to declare annually that the recommendations of the "Governmental 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 being complied with or to indicate which recommendations have not been or are not being applied and why not.

The Executive Board and Supervisory Board of JENOPTIK AG support the recommendations of the "Governmental Commission on the German Corporate Governance Code" and state pursuant to § 161, Para. 1, Sent. 1 of the German Stock Corporation Act:

Since the update of the declaration of conformity as of September 21, 2017, the recommendations of the "Governmental Commission on the German Corporate Governance Code" ("Code") in the version dated February 7, 2017 have been complied with and will be complied with in future with the following exception:

In accordance with Point 5.4.1 Para. 2 Sent. 2 of the Code 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 and will not be complied with in the future. The Supervisory Board has decided not to specify a regular limit regarding the Supervisory Board members' term of office. Such limit is not consistently compatible with the procedure for elections of employee representatives to the Supervisory Board as stipulated in the German Co-Determination Act.

December 2017 | JENOPTIK AG

On behalf  
of the Executive Board

On behalf  
of the Supervisory Board

Dr. Stefan Traeger

Matthias Wierlacher

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](http://www.jenoptik.com) under the category Investors/Corporate Governance

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## Shareholders and the Annual General Meeting

JENOPTIK AG shareholders exercise their rights at the Annual General Meeting which takes place at least once a year. 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. Each JENOPTIK AG share is accorded one vote. The reports, other documents and information required by law on the Annual General Meeting are available for inspection on our website [www.jenoptik.com](http://www.jenoptik.com) in the Investors/Annual General Meeting category or at the company's premises. Following the Annual General Meeting, the attendance figures, voting results and the speech by the representatives of the Executive Board will also be published on the Internet.

## Transparent Information

As part of our investor relations work, we pursue the goal of providing the participants in the capital market as well as the interested public with equal, continual, prompt, and comprehensive information in order to guarantee as much transparency as possible. Together with the Executive Board, the investor relations team is in regular and intensive contact with participants in the capital market at roadshows, capital market conferences, and other events.


We use the annual and interim reports 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, the financial calendar and further information are also available in German and English on the Jenoptik website at [www.jenoptik.com](http://www.jenoptik.com). 

In accordance with the statutory requirements of the Regulation on Market Abuse, inside information is published immediately insofar as JENOPTIK AG is not, in individual cases, exempt from


this obligation. The use of electronic distribution channels ensures that the reports are published worldwide simultaneously in German and English.

Jenoptik immediately publishes major changes to its shareholder structure when it is informed that reportable voting rights targets have been reached, fallen below or exceeded. All publications are available on our website under the category Investors/Share/Voting rights announcements. Further information can also be found in Note 5.16 Equity.

## Directors' Dealings

In the 2017 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. 

## Executive Board and Supervisory Board Remuneration

As of December 31, 2017, as in prior years, the Jenoptik Group maintained securities-oriented incentive plans in the form of virtual shares or so-called performance shares for the members of the Executive Board and parts of senior management. 

## Accounting and Auditing

The Consolidated Financial Statements as well as all Consolidated Interim Financial Statements are compiled 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 are compiled in accordance with the requirements of the German Commercial Code (HGB). The Consolidated Financial Statements and the Annual Financial Statements, including the Combined Management Report, are examined by the auditor. On June 7, 2017, the Annual General Meeting elected



Directors' Dealings notifications from prior years can be found at [www.jenoptik.com](http://www.jenoptik.com) under the category Investors/Corporate Governance/Directors' Dealings



Further information on the remuneration system of the Executive Board and the Supervisory Board can be found in the Remuneration Report and Notes



For further information on investor relations activities, please refer to the Jenoptik share chapter



Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Stuttgart ("EY") for the second time as the auditor for the 2017 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 Annual Financial Statements as well as the Combined Management Report has been held by Michael Blesch (since fiscal year 2016).

The Supervisory Board has agreed with the auditor that he 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 occasions when inaccuracies are established 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 2017, the Audit Committee reviewed EY's non-audit services provided in the past year and updated the catalog of approved, predefined non-audit services.



Detailed information on risk and opportunity management and on internal audit can be found in the Risk and Opportunity Report




For the Code of Conduct see [www.jenoptik.com](http://www.jenoptik.com) in the category Investors / Corporate Governance


## Internal Audit

With the objective of improving business processes and thereby strengthening compliance and corporate governance within the company, Internal Audit at Jenoptik undertakes independent and objective auditing and consulting services for the Executive and Supervisory Boards. Internal Audit serves to safeguard operational practices and, in particular, monitors compliance with the principles of correctness and legality.

## Risk and Opportunity Management

The continual and responsible evaluation of opportunities and risks which may result from entrepreneurial activity is, for Jenoptik, one of the basic principles of responsible company management. The goal of our risk and opportunity management is to support the formulation of the strategy and to define measures which create an optimum balance between growth and return targets on the one side and the associated risks on the other. 

## Compliance

Compliance with national and internationally recognized compliance requirements is an integral part of risk prevention and the processes of Jenoptik's compliance management system (CMS). The CMS is based on the Jenoptik values, the Code of Conduct for Jenoptik employees, and various guidelines, 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. For us, essential values for responsible conduct with all stakeholders include respect, fairness, and openness. The Code of Conduct summarizes the most important principles of conduct and is equally binding on all employees of the Jenoptik Group. It sets out minimum standards and serves as a yardstick to ensure a high level of integrity as well as to guarantee ethical and legal standards in Jenoptik. The Code of Conduct for Jenoptik employees was revised in 2017 and now focuses more on rules of conduct in the company. 

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All Jenoptik employees can speak confidentially to the respective executive or the contacts named in the Code if they have questions about the Code of Conduct or suspected illegal or unlawful matters. All employees may also use the newly established reporting system on the Jenoptik intranet, by telephone or via email to report significant violations that must be handled confidentially.

The corporate guidelines implemented within the Jenoptik Group with regard to important company processes are continually being reexamined, expanded, and updated. They are published on the intranet. This gives Jenoptik a system of processes and controls which enables it to identify any possible deficits in the company and to minimize or eliminate them using appropriate measures at an early stage.

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 and our Code of Conduct, are regularly held at both the German and foreign business units. The aim of this online training is to achieve a uniform understanding of our compliance standards company-wide. In addition to the main training courses offered as part of onboarding training for new staff, employees have been taking part in mandatory e-learning refresher courses since 2017. The aim is to provide the employees with content on the topic of compliance on a continuous basis, but at least once a year, and to then verify this with a test. Employees may direct all questions relating to risk or compliance issues at Jenoptik to the Compliance & Risk Management department or use a help desk on the intranet.

We also understand compliance to mean responsibility to our customers and suppliers. In order to optimize our compliance management system, the Code of Conduct for Suppliers and Sales Partners has also been fundamentally revised in the past fiscal year. 

## Objectives for the Composition and Profile of Skills and Expertise of the Supervisory Board

In accordance with Point 5.4.1 of the German Corporate Governance Code, the Supervisory Board of JENOPTIK AG is composed in such a way that, as a whole, its members are endowed with the knowledge, ability and experience necessary to carry out its tasks in an orderly manner. Taking into consideration the size and purpose of the company as well as the international orientation of the Jenoptik Group, the Supervisory Board has also laid down objectives for its composition which take into consideration the idea of diversity.

In the second half of 2017, the Supervisory Board revised its previous requirements profile with the help of an external expert and adopted a new profile of skills and expertise in accordance with Point 5.4.1 (2) of the German Corporate Governance Code.

In doing so, it is the aim of the Supervisory Board to ensure that all the skills and experience that are considered essential for the activities of the Jenoptik Group should be covered by the Board. In addition, members should have sufficient time to exercise their mandate. It is the opinion of the Supervisory Board that the required skills include, in particular:

- in-depth experience of supervising a stock-listed company,
- financial and business competence, personnel expertise, experience in distribution and sales,
- company-related competence in the following areas: digitization, technology, strategy and growth/M&A, markets and internationality, entrepreneurship/management and capital markets as well as
- CEO experience also in a stock-listed company.

It is the opinion of the Supervisory Board that the above-mentioned requirements are largely fulfilled by the abilities, experiences and skills that are available in the Supervisory Board. The skills, abilities and experiences of the individual members of the Supervisory Board can be found in the CVs, which are published on our website at [www.jenoptik.com](http://www.jenoptik.com) under the category Investors/Corporate Governance/Supervisory Board.



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

In accordance with its Diversity Statement, the Supervisory Board will ensure that at all times it comprises members who fulfill the criterion of internationality.

Furthermore, the Supervisory Board should include at least four women, thus, fulfilling the quota required by the Act for Equal Participation of Women and Men in Management Positions in the Private Sector and Public Sector.


With regard to the length of service, the Supervisory Board has decided not to establish a regular limit applicable to all members as it is not consistently compatible with the process provided by the Codetermination Act for election of employee representatives to the Supervisory Board.

In addition, the members of the Supervisory Board shall play neither an advisory nor an executive role with customers, suppliers, creditors or other business partners of JENOPTIK AG, inasmuch as this is the basis of a significant and not merely temporary conflict of interest. One of the objectives for the composition of the Supervisory Board is also that at least half of the shareholder representatives must be of independent status. No persons are to be considered who, at the time of election, have already reached the age of 70.


The composition of the Supervisory Board on December 31, 2017 is largely in line with the previously described objectives. There are currently four women members of the Supervisory Board which corresponds to the quota required by § 96(2)(2) of the German Stock Corporation Act (AktG). At least four members of the Board are able to call on extensive international experience. The Supervisory Board is also characterized by a wide variety of professional expertise, reflecting the broad scope of its members' career backgrounds. It is the view of the Board that all current shareholder representatives named in the list of members of the Supervisory Board under Note 11.3 are independent in the sense of the regulations in Point 5.4.2 of the Code. Individual members exercise an executive role at other 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. Consequently, it is the belief of the Supervisory Board that they do not affect the independence of the members. The rules relating to retirement age are taken into consideration.

The Supervisory Board will recommend the best possible candidates, from its point of view, to the Annual General Meeting, taking into account their expertise and personal integrity.

Further information on the Executive Board and the Supervisory Board, in particular on how they work, on participation in the meetings, on other mandates exercised by the members or on D&O liability insurance, can be found in the Report of the Supervisory Board and in the Notes to the Consolidated Financial Statements. 

## Corporate Governance Statement

The **Corporate Governance Statement** in accordance with §§ 289 f, 315 d of the German Commercial Code (HGB) is an unaudited part of the Combined Management Report. It contains the Declaration of Conformity in accordance with § 161 of the German Stock Corporation Act (AktG), information on methods of corporate governance, a description of the functions of the Executive Board and Supervisory Board, the structure and function of the committees of the Supervisory Board, the specification of the target figures for the proportion of women in the company as well as a description of the diversity concept followed for composition of the Executive and Supervisory Boards. 



More detailed information on the specification of target figures for the quota of women can be found at [www.jenoptik.com](http://www.jenoptik.com) in the Corporate Governance Statement in the category Investors / Corporate Governance



The Corporate Governance Statement as well as the current Declaration of Conformity and those of previous years, are permanently accessible on [www.jenoptik.com](http://www.jenoptik.com) under the category Investors / Corporate Governance

## Information and Notes relating to Takeover Law

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

This information is part of the Combined Management Report.

#### Composition of the Share Capital

As of the balance sheet date on December 31, 2017, the subscribed capital totaled 148,819 thousand euros (prior year 148,819 thousand euros). It is divided into 57,238,115 no-par value bearer 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(4), § 60 of the Stock Corporation Act). The shareholders' rights also include the subscription right to shares in the event of increases in capital (§ 186 of the 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 Stock Corporation Act, in particular in § 12, 53 et seq., § 118 et seq., and § 186. Under § 4(3) of the Articles of Association, any claim by a shareholder to the securitization of his/her shares is excluded.

#### Restrictions Relating to Voting Rights or the Transfer of Shares

In accordance with § 136(1) of the Stock Corporation Act, legal restrictions affecting voting rights exist with respect to votes for annual approval to 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 Securities Trading Act (WpHG in the version dated 3/1/18) may nullify voting rights, at least temporarily, in accordance with § 44 of the Act.

#### 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 163 on.

#### Holders of Shares with Special Rights Conferring Controlling Powers

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

#### 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.

#### 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, the court must appoint the member on the application of a stakeholder (§ 85(1)(1) of the Stock Corporation Act) in urgent cases. 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 can be passed by the Supervisory Board in accordance with § 179(1)(2) of the Stock Corporation Act and § 28 of the Articles of Association. This also includes the corresponding change to the Articles of Association following the utilization of the Authorized Capital 2015 and of the Conditional Capital 2017. Under § 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.

#### 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 2, 2020 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 bearer shares against cash and/or contributions in kind ("Authorized Capital 2015") with the consent of the Supervisory Board. The Executive Board is authorized, with the approval of the Supervisory Board, to exclude the subscription rights of shareholders

(a) for fractional amounts; b) in the event of capital increases against contribution in kind, in particular also as part of corporate mergers or for the acquisition of companies, parts of companies or investments in companies (including an increase in existing investment holdings) or other depositable assets related to such an acquisition project, including receivables from the company; (c) in the event of capital increases in return for cash contributions, to the extent that the portion of the nominal capital attributable to the new shares, taking into account resolutions at the Annual General Meeting and/or the utilization of other authorizations to exclude the subscription right in direct or corresponding application of § 186(3)(4) of the Stock Corporation Act since the date on which such authorization becomes effective, neither exceeds a total of ten percent of the nominal capital as of the date of registration for such authorized capital, nor exceeds a total of ten percent of the nominal capital in existence as of the date of issuance of the new shares and the issue price of new shares is not significantly below the stock exchange price; (d) for the issuance to employees of the company and in companies in which Jenoptik has a majority participation.

All aforementioned authorizations to exclude subscription rights are limited to a total of 20 percent of the nominal capital available at the time this authorization became effective – or, if this value is lower, to 20 percent of the nominal capital at the time this authorization is exercised. This limit of 20 percent includes shares that (i) are sold for the purpose of servicing option and/or convertible bonds 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 company 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.

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 no-par value 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 convertible bonds 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, who are obliged to exercise their conversion rights fulfill their conversion rights by June 6, 2022 and/or the shares are tendered

and neither treasury shares are used nor is 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 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 term, 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](http://www.jenoptik.com) in the section entitled Investors/Annual General Meeting.

Under a resolution passed by the Annual General Meeting on June 12, 2014, the Executive Board is authorized up to June 11, 2019 to purchase own no-par value shares not exceeding a proportion of ten percent of the nominal capital at the time of 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 et seq. of the 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 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. Further details regarding the buyback of shares are described in the invitation to the Annual General Meeting 2014, accessible on our website at [www.jenoptik.com](http://www.jenoptik.com) in the category Investors/Annual General Meeting. As of December 31, 2017, the company had no treasury shares.

### 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 various financing agreements with a total utilized volume of approximately 122.7 million euros (prior year 125.7 million euros).

The conditions for accepting a change in control are formulated differently in each of the loan agreements. For the debenture loan with a total utilized volume of 114 million euros, a change of 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. For one installment of this debenture loan with a total utilized volume of 11 million euros, 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 was concluded, acquire more than 30 percent of the outstanding nominal capital or more than 30 percent of the voting rights, directly or indirectly at any time. Regarding the other installments of the debenture loan, this is only the case if the figure exceeds 50 percent of the nominal capital or voting rights.

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 8.7 million euros had been utilized by December 31, 2017 (prior year 11.7 million euros).

### 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 the agreed severance payment is limited at maximum to three years' annual compensation. Under no circumstance, however, may the severance payment be higher 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 defining the structure of the remuneration system and the composition of the remuneration for the individual Executive Board members. The criteria for defining the appropriateness of the remuneration for the Executive Board of Jenoptik 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.

With the entry of Dr. Stefan Traeger with effect from May 1, 2017, and for Hans-Dieter Schumacher with effect from January 1, 2018, the system of performance-related remuneration of the Executive Board has been restructured by the Supervisory Board with the assistance of an independent external remuneration expert advisor and made identical for both members of the Executive Board. It is referred to below as the “new remuneration system”.

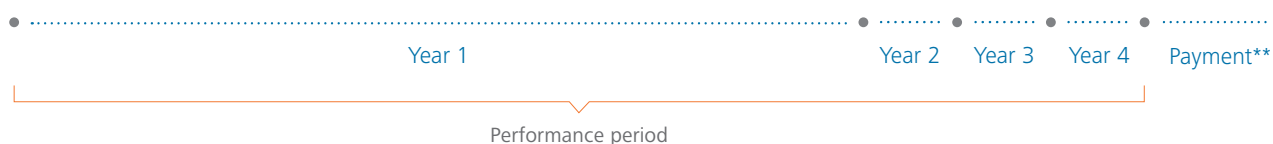
In 2016, an agreement was reached with Dr. Michael Mertin regarding the details of his departure, the content of which is described separately; for the variable remuneration for 2017, the agreement stipulates a fixed bonus on the basis of the remuneration for the targets reached in 2015 and 2016.

Since the previous system of performance-related remuneration (“previous remuneration system”) in 2017 only applied to Hans-Dieter Schumacher and consequences only developed due to the virtual shares allocated to him for 2015 to 2017, it will only be briefly described below; further details can be found in the 2016 Annual Report on pages 47 ff.

The contractual provisions of the contracts of employment with the members of the Executive Board are essentially identical in the respective remuneration systems, unless specified otherwise below.

## G05 The new Remuneration System of the Executive Board Members

Total remuneration		
Basic salary approx. 47 %*	Performance-related remuneration	
	One-year variable remuneration approx. 22 % (with 100 % target attainment)	Multi-year variable remuneration approx. 31 % (with 100 % target attainment)***



\* without fringe benefits

\*\* payment of multi-year variable remuneration

\*\*\* based on constant share price



## I. Non-performance-related remuneration components in the previous and new remuneration system

**Fixed remuneration.** The non-performance-related basic salary is paid on a pro rata basis each month. In 2017, it was 300 thousand euros for Dr. Michael Mertin for the months January to June, 400 thousand euros for Dr. Stefan Traeger for the months May to December (equivalent to 600 thousand euros per annum) and 400 thousand euros for Hans-Dieter Schumacher for the full year (450 thousand euros as of April 1, 2018), payable in twelve equal installments at month-end.

**Retirement benefits and fringe benefits.** Agreements relating to occupational retirement benefits were concluded with all 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 in 2017 totaled 240 thousand euros for Dr. Michael Mertin, 160 thousand euros for Hans-Dieter Schumacher and 116.7 thousand euros for Dr. Stefan Traeger on a pro rata basis since June 1, 2017.

All members of the Executive Board were covered by accident insurance; Dr. Michael Mertin had occupational indemnity insurance until June 30, 2017. Executive Board members are also entitled to the private use of a company vehicle. There is a third party financial loss-liability insurance for the members of the Executive Board. 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 salary of the Executive Board member in question.

**Non-competition clause.** A post-contractual non-competition clause was agreed upon with both Dr. Michael Mertin and Dr. Stefan Traeger for a period of one year following the end of their contracts of employment. An amount equaling 50 percent of one annual salary is agreed as compensation for the non-competition clause. Prior to the termination of the employment relationship, Jenoptik may also waive the post-contractual non-competition clause by means of a written declaration. No waiver was declared with respect to Dr. Mertin.

## II. Performance-related remuneration components

The performance-related bonus for members of the Executive Board is based on personal target agreements concluded in the first quarter of each calendar year by JENOPTIK AG, represented

by the Supervisory Board, and the respective member of the Executive Board, and is settled in the following year. The target agreement is oriented towards the company's sustainable business development.

A portion of the bonus is paid in cash and the remainder in the form of virtual shares or performance shares.

### a. Performance-related remuneration in the previous remuneration system

In the previous remuneration system, the amount of the bonus was based on the extent to which the financial, share price-related, operational and strategic targets agreed with the member of the Executive Board were achieved, as well as an individual performance assessment. For Hans-Dieter Schumacher, the variable remuneration with a target attainment level of 100 percent is 400 thousand euros. The maximum target attainment level is 150 percent.

Half of the bonus is paid in cash, the other half in the form of virtual shares, which are only paid out as a long-term incentive at the end of the fourth subsequent year after allocation. The number of virtual shares allocated is based on the volume-weighted average closing price of the Jenoptik share in the fourth quarter of the calendar year before last ("allotment price"). The allotment price for the virtual shares allocated for the last time for 2017 is 15,880 euros.

The payout of the virtual shares 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 ("payout price"). Throughout the entire four-year period, the virtual shares participate in positive and negative share price developments. Should the payout price fall below the allotment price, it is in economic terms a retroactive reduction in remuneration.

The calculation of the bonus is not linked to the amount or payment of the dividend, however, dividend payments made to shareholders of JENOPTIK AG are taken into account by additional virtual shares being granted in the equal amount of the dividends in the interest of equality between virtual and real shares.

The virtual shares allocated to Hans-Dieter Schumacher for 2017 will be paid out in 2022. Hans-Dieter Schumacher is appointed as a member of the Executive Board until March 31, 2023. In the event of the premature termination of his contract of employment, payment for virtual shares allocated to him, for which the

fourth subsequent year has not yet expired, shall be made at the value based on the average price over the last twelve months prior to the date of termination of employment.

**b. Performance-related remuneration in the new remuneration system**

Contrary to the previous remuneration system, the variable remuneration now consists of two independent components:

1. The bonus based on a one-year assessment basis and payable in cash (approximately 40 percent of the variable remuneration) and
2. the so-called performance shares in the form of virtual shares based on a multi-year assessment basis (approximately 60 percent of the variable remuneration).

Both components are based on a target agreement to be concluded in the first quarter of each year for the respective component. The targets are to be oriented towards the company's sustainable business development. The variable remuneration is between 0 euros and a maximum of 1,400 thousand euros for Dr. Stefan Traeger and 0 euros and a maximum of 1,000 thousand euros for Hans-Dieter Schumacher. The value of 0 euros is the result of less than 50 percent of the targets being achieved, the maximum value is reached with 200 percent of all targets being achieved.

Insofar as information on targets is provided below, these are based on a recommendation of the Personnel Committee of the Supervisory Board made in consultation with the Executive Board and are therefore still subject to the consent of the full Supervisory Board.

**One-year 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. The financial targets and their weighting are:

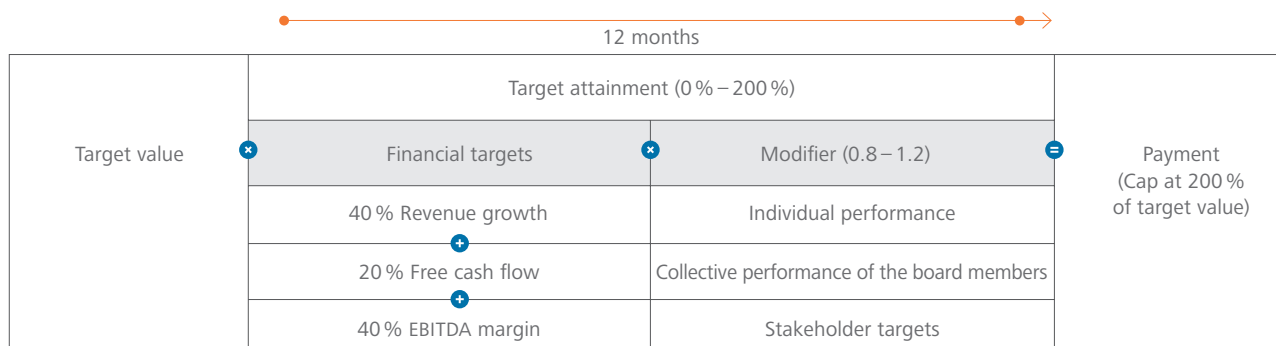
1. Revenue growth (40 percent)
2. Free cash flow (20 percent)
3. EBITDA margin (40 percent)

The yardstick for determining the degree of target attainment does not need to be linear, i.e. target achievement of 200 percent does not necessarily require a doubling of the 100 percent value, just as a 50 percent target achievement does not mean that the 100 percent value must be halved. The precise calibration of the targets is based on historical experience and future expectations, as well as the adopted budget of the respective year.

In the event that less than 50 percent of the target is achieved, there is no full or no pro rata entitlement to a bonus, so the one-year bonus can also be completely eliminated.

To take account of non-financial aspects, the amount resulting from the target attainment is then multiplied by a multiplier of between 0.8 and 1.2 to assess the personal performance of the respective member of the Executive Board. The multiplier is determined primarily on the basis of defined criteria for assessing the individual performance of the Executive Board member, the collective performance of the Executive Board, and certain stakeholder targets such as sustainability/corporate social responsibility, employee satisfaction or diversity. Even if the financial targets have been well achieved, the Supervisory Board can use the multiplier to reduce the remuneration by up to 20 percent

**G06** One-year Variable Remuneration



in the sense of an merit rating (malus regulation), 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.

With 100 percent target attainment and a multiplier of 1.0, Dr. Stefan Traeger receives a one-year bonus of 300 thousand euros and Hans-Dieter Schumacher of 200 thousand euros. In each case, the maximum one-year bonus payable to Dr. Stefan Traeger is limited to 600 thousand euros, and Hans-Dieter Schumacher 400 thousand euros. The one-year bonus will be paid in cash after the target settlement in the month following adoption of the relevant financial statements.

Dr. Stefan Traeger has agreed on a pro rata temporis calculation of the one-year bonus for the 2017 fiscal year, based on a target attainment of 1.0 and a multiplier of 1.0. In the case of Hans-Dieter Schumacher, the new remuneration system will only be applied as of January 1, 2018, meaning that a target agreement for the one-year bonus according to the new remuneration system will be concluded with both members of the Executive Board for the first time in 2018, and this will be settled and paid out in 2019.

#### Multi-year variable remuneration with performance shares.

Performance shares represent the most significant change in the remuneration system for the Executive Board. To date, half of the variable remuneration determined after fulfillment of one-year goals has been in the form of virtual shares, which were paid out after four years. The performance shares now granted are also virtual shares. However, not only do they participate in the value development of the Jenoptik share over a four-year period, but they are only paid out when multi-year performance targets are reached at the end of the specified period.

In detail: Based on an initial value (400 thousand euros for Dr. Stefan Traeger and 300 thousand euros for Hans-Dieter Schumacher), the member of the Executive Board is provisionally granted virtual performance shares in the first quarter of each fiscal year. The number of performance shares is determined by dividing the initial value by the average volume-weighted closing price of the Jenoptik share in the twenty trading days following the announcement of the preliminary annual figures for the previous fiscal year. At the same time, performance targets are agreed, the achievement of which will be measured in the fourth fiscal year following the fiscal year in which the provisional allocation took place ("performance period"). For the performance shares provisionally allocated in 2018, the performance targets will be measured at the beginning of 2022.

The performance targets and their weighting are:

1. Return on Capital Employed (ROCE) (30 percent)
2. Relative Total Shareholder Return (TSR) compared to TecDax (70 percent)

The ROCE and TSR are calculated using the method described in the glossary on page 204. Again, the yardstick for determining the degree of target attainment does not need to be linear here.

Depending on the degree to which the performance target is achieved, the number of performance shares to be finally allocated is then calculated, but is limited to 150 percent of the number of provisionally allocated performance shares ("allocation cap"). Should the level of target attainment be less than 50 percent, the entitlement to final allocation of performance shares shall no longer exist.

The number of finally allocated performance shares is multiplied by the average volume-weighted closing price of the Jenoptik share on the twenty trading days following the announcement of the preliminary annual figures for the last fiscal year of the four-year performance period. The resulting euro amount shall be paid in cash to the member of the Executive Board in the month following adoption of the Annual Financial Statements for the last fiscal year of the performance period. The payout amount is limited to a maximum of 200 percent of the initial value: Stefan Traeger to 800 thousand euros and Hans-Dieter Schumacher to 600 thousand euros ("Payout Cap").

The system of multi-year variable 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 number by dividing the initial value by an average rate determined in year 1.
- Years 1–4: Performance period for Installment 1.
- Year 5: Measurement of target attainment, based on this determination of the number of final performance shares to be allocated for Installment 1, taking into account the allocation cap; multiplication of this number by an average share price determined in year 5 and payment of this amount to the member of the Executive Board, taking into account the payout cap.

The virtual performance shares are not entitled to dividends. Dividend payments to shareholders are not separately considered in the form of performance shares within the scope of the variable remuneration.

Contrary to the previous remuneration system, performance shares which have not yet been finally but only provisionally allocated shall, in the event of termination of the Board activity, not be prematurely finally allocated and paid out, but evaluated with respect to achievement of the performance target, 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.

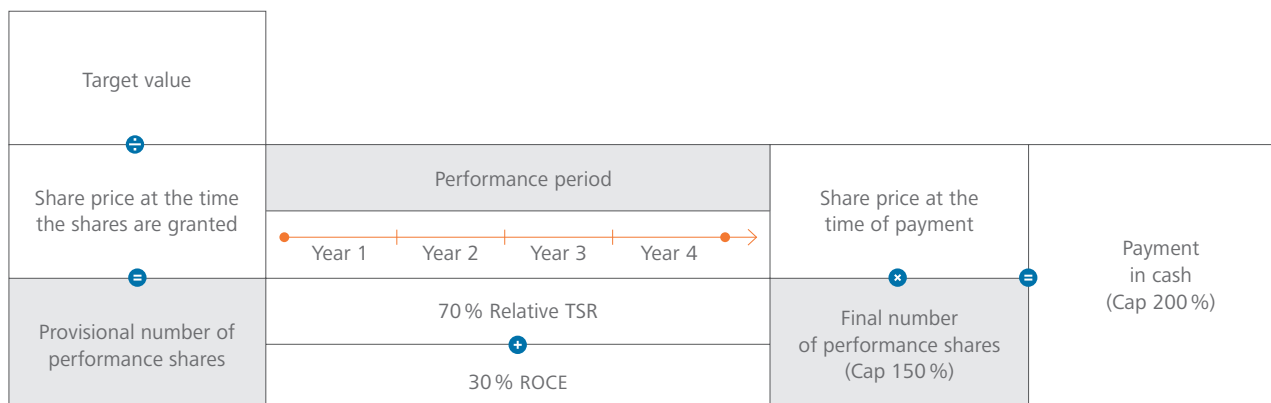
For 2017, it was agreed upon with Dr. Stefan Traeger that in order to calculate the number of performance shares to be allocated provisionally, the pro rata temporis initial amount of 266.7 thousand euros (corresponding to the start of operations during the year on May 1, 2017) will be divided by the average volume-weighted closing price of the Jenoptik share on the twenty trading days prior to him taking up his post on May 1, 2017. This share price amounts to 23,633 euros, so Dr. Stefan Traeger was provisionally allocated 11,284 performance shares for the 2017 installment.

### III. Agreement with Dr. Michael Mertin regarding the details of his departure

On September 20, 2016, Dr. Mertin decided not to seek any further extension to his term on the Executive Board. Consequently, an agreement was concluded with Dr. Mertin, according to which the variable remuneration for 2016 would be paid entirely in cash in 2017. The variable remuneration for the first half-year of 2017 was calculated on the basis of the average target attainment levels for 2015 and 2016 and was also paid out in cash in 2017 in the full amount of 648 thousand euros. As stipulated in the contract of employment with Dr. Michael Mertin, allocated but not yet paid out virtual shares were paid out at the end of July 2017. The payment amount was calculated on the basis of the average price over the last 12 months preceding the date on which Dr. Mertin left his post and an agreed price cap, and amounted to 4,920.8 thousand euros.

Under the terms of his contract of employment, for a period of twelve months from July 1, 2017, Dr. Michael Mertin is entitled to receive bridging payments, to be paid monthly, which amount to a total of 80 percent of his annual salary as well as the continued payment of his pension contributions. The annual salary comprises the fixed remuneration, the bonus and the non-cash benefits for private use of the company car, where the monthly bonus corresponds to one-sixth of the bonus calculated for the first half of 2017. Emoluments resulting

## T04 Multi-year Variable Remuneration





from freelance and/or employed activity, in particular as a member of a management and supervisory body of another company, as well as the compensation for a non-competition clause, will be offset against the payments. In 2017, bridging payments of 772 thousand euros and 120 thousand euros for the continued payment of the pension contributions were paid; in the absence of other emoluments, the payment was made in full. Provisions of 892 thousand euros were set aside for bridging payments and pension contributions expected to be paid in 2018.



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 41 ff.

Dr. Stefan Traeger and Hans-Dieter Schumacher are not entitled to payment of bridging payments following their departures. Neither have they agreed upon a right to give notice in the event of a change of control.

## Total Remuneration for the Individual Members of the Executive Board

The tables below contain a list of the remuneration components granted to the members of the Executive Board, Dr. Stefan Traeger, Hans-Dieter Schumacher, and Dr. Michael Mertin, in the past fiscal year. The summaries differentiate between six components – the fixed remuneration, fringe benefits, one-year variable remuneration, multi-year variable remuneration, the pension contributions, and other termination benefits.

Following agreement with the Personnel Committee, but subject to the consent of the Supervisory Board, the variable remuneration for the 2017 fiscal year for Hans-Dieter Schumacher will be 235 thousand euros in cash and 14,819 virtual shares. Fixed bonuses were agreed for Dr. Stefan Traeger and Dr. Michael Mertin for 2017. Further details on the share-based remuneration in the form of virtual shares can be found in Note 5.21 from page 170 on. We consider this to also be an integral part of this Remuneration Report.

## T05 Remuneration of the Executive Board – Benefits Granted

in euros	2016	Dr. Stefan Traeger President & CEO since 01/05/2017			
		May – Dec. 2017			
		Actual	Minimum	100 %	Maximum
Fixed remuneration	0	400,000	400,000	400,000	400,000
Fringe benefits	0	9,784	9,784	9,784	9,784
<b>Total</b>	0	<b>409,784</b>	<b>409,784</b>	<b>409,784</b>	<b>409,784</b>
One-year variable remuneration*	0	200,000	200,000	200,000	200,000
Multi-year variable remuneration**	0	266,667	0	266,667	266,667
Thereof LTI 2017/Performance Shares (term until 2022)**	0	266,667	0	266,667	266,667
Thereof LTI 2016 (term until 2021)**	0	n. a.	n. a.	n. a.	n. a.
Thereof dividends on LTI tranches outstanding	0	n. a.	n. a.	n. a.	n. a.
<b>Total*</b>	0	<b>876,451</b>	<b>609,784</b>	<b>876,451</b>	<b>876,451</b>
Retirement benefits	0	116,667	116,667	116,667	116,667
Payments arising from termination of Executive Board mandate	0	n. a.	n. a.	n. a.	n. a.
<b>Total remuneration*</b>	0	<b>993,117</b>	<b>726,451</b>	<b>993,117</b>	<b>993,117</b>

\*included for Dr. Michael Mertin for 2016 als a portion that was paid out in cash instead of LTI in 2016 in accordance with the termination agreement

\*\*for LTI plus performance of the newly granted LTI compared with the share price on which allocation was based

## T06 Remuneration of the Executive Board – Inflow

	Dr. Stefan Traeger President & CEO since 01/05/2017		Hans-Dieter Schumacher Member of the Executive Board		Dr. Michael Mertin President & CEO until 30/04/2017 Employment contract until 30/06/2017	
in euros	2016	2017	2016	2017	2016	2017
Fixed remuneration	0	400,000	400,000	400,000	600,000	300,000
Fringe benefits	0	9,784	13,831	13,831	46,742	23,371
<b>Total</b>	<b>0</b>	<b>409,784</b>	<b>413,831</b>	<b>413,831</b>	<b>646,742</b>	<b>323,371</b>
One-year variable remuneration	0	0	193,965	256,018	631,200	1,978,375
Multi-year variable remuneration	0	0	0	0	611,585	4,920,801
Thereof LTI 2016 (term until 2021)	0	0	0	0	0	11,778
Thereof LTI 2015 (term until 2020)	0	0	0	0	0	1,221,998
Thereof LTI 2014 (term until 2019)	0	0	0	0	0	768,636
Thereof LTI 2013 (term until 2018)	0	0	0	0	0	1,514,595
Thereof LTI 2012 (term until 2017)	0	0	0	0	0	1,403,794
Thereof LTI 2011 (term until 2016)	0	0	0	0	611,585	0
<b>Total</b>	<b>0</b>	<b>409,784</b>	<b>607,796</b>	<b>669,849</b>	<b>1,889,528</b>	<b>7,222,547</b>
Retirement benefits	0	116,667	160,000	160,000	240,000	120,000
Payments arising from termination of Executive Board mandate	n. a.	n. a.	n. a.	n. a.	n. a.	891,773
<b>Total remuneration</b>	<b>0</b>	<b>526,451</b>	<b>767,796</b>	<b>829,849</b>	<b>2,129,528</b>	<b>8,234,320</b>

## T05 Remuneration of the Executive Board – Benefits Granted

2016	Hans-Dieter Schumacher Member of the Executive Board				2016	Dr. Michael Mertin President & CEO until 30/04/2017 Employment contract until 30/06/2017			
	Actual	Minimum	100%	Maximum		Actual	Minimum	100%	Maximum
400,000	400,000	400,000	400,000	400,000	600,000	300,000	300,000	300,000	300,000
13,831	13,831	13,831	13,831	13,831	46,742	23,371	23,371	23,371	23,371
<b>413,831</b>	<b>413,831</b>	<b>413,831</b>	<b>413,831</b>	<b>413,831</b>	<b>646,742</b>	<b>323,371</b>	<b>323,371</b>	<b>323,371</b>	<b>323,371</b>
256,018	235,330	0	200,000	300,000	1,330,220	648,155	0	500,000	750,000
260,710	245,278	9,948	209,948	309,948	61,342	11,778	11,778	11,778	11,778
0	235,330	0	200,000	300,000	0	0	0	0	0
256,018	0	0	0	0	0	0	0	0	0
4,692	9,948	9,948	9,948	9,948	61,342	11,778	11,778	11,778	11,778
<b>930,560</b>	<b>894,440</b>	<b>423,780</b>	<b>823,780</b>	<b>1,023,780</b>	<b>2,038,305</b>	<b>983,304</b>	<b>335,149</b>	<b>835,149</b>	<b>1,085,149</b>
160,000	160,000	160,000	160,000	160,000	240,000	120,000	120,000	120,000	120,000
n. a.	n. a.	n. a.	n. a.	n. a.	n. a.	891,773	891,773	891,773	891,773
<b>1,090,560</b>	<b>1,054,440</b>	<b>583,780</b>	<b>983,780</b>	<b>1,183,780</b>	<b>2,278,305</b>	<b>1,995,077</b>	<b>1,346,922</b>	<b>1,846,922</b>	<b>2,096,922</b>

## Remuneration System for the Supervisory Board

The remuneration for the Supervisory Board comprises a fixed and a performance-related component. The remuneration system for the Supervisory Board was changed to purely fixed remuneration by resolution of the Annual General Meeting on June 7, 2017. The new Supervisory Board remuneration shall apply for the first time with effect from the conclusion of the Annual General Meeting on June 7, 2017. The previous version of Article 19 of the Articles of Association shall apply with respect to remuneration for the members of Supervisory Board for activities which took place prior to the end of the Annual General Meeting on June 7, 2017.

According to that, the fixed annual remuneration for the Supervisory Board amounts to 20 thousand euros pro rata temporis up to the Annual General Meeting 2017. The Chairman of the Supervisory Board receives double and their deputy one-and-a-half times this amount.

Should 2017 group earnings before tax exceed 10 percent of group equity at the end of the fiscal year, each member of the Supervisory Board shall also receive a performance-related annual payment of 10 thousand euros for their activities up until the 2017 Annual General Meeting pro rata temporis for the last time. The performance-oriented annual payment is increased to 20 thousand euros, provided that group earnings before tax in 2017 exceed 15 percent of the group equity at the end of the fiscal year. The Chairman of the Supervisory Board receives double and his deputy one-and-a-half times this amount. The pro rata temporis performance-related remuneration is to be paid after the Annual General Meeting which ratifies the actions of the Supervisory Board for the past fiscal year, i. e. after the 2018 Annual General Meeting.


Group earnings before tax for the year 2016 had exceeded the above mentioned figure of 10 percent of group equity at the end of the fiscal year 2016, consequently the members of the Supervisory Board each received a performance-related remuneration payment following the Annual General Meeting in June 2017. There is also (for the last time) a performance-related remuneration payment for 2017, which will be paid after the 2018 Annual General Meeting.

For activities as a member of the Supervisory Board from the end of the 2017 Annual General Meeting, each member shall now receive fixed compensation of 40 thousand euros (instead of the previous 20 thousand euros). In return, the variable remuneration component shall cease to exist. The Chairman of the

Supervisory Board will receive double and their deputy one-and-a-half times this amount. The fixed remuneration is payable on expiry of the fiscal year. 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 his deputy one-and-a-half times this amount. 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.

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 the meeting are reimbursed in addition to the meeting allowance; up until the Annual General Meeting on June 7, 2017, the reimbursement for travel and overnight accommodation costs in connection with a meeting held in Germany was limited to 0.6 thousand euros. By resolution of the Annual General Meeting, the reimbursement of expenses was increased to up to 1 thousand euros per meeting in order to take account of the higher costs of travel expenses incurred by members of the Supervisory Board resident abroad. 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 of the Executive Board member in question.

In the 2017 fiscal year, 533.1 thousand euros (net) was set aside as a provision for the fixed remuneration of the Supervisory Board and its committees to be paid in January 2018, and 116.9 thousand euros (net) for the variable remuneration to be paid after the Annual General Meeting in June 2018. 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. 



Information on the total remuneration for individual members of the Supervisory Board can be found in the Group Notes on page 190

# Combined Non-financial Report

The Combined Non-financial Report is part of the Combined Management Report.

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Combined  
Non-financial Report

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# 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 also an obligation to society and the environment. Together with our customers, we create forward-looking trends in the fields of energy efficiency, healthcare, environment, mobility, and safety. As an international technology company, innovation is our driving force and the basis of our success in business. Our innovative products allow us to make significant contributions to the societal challenges we face and facilitate both the conservation and efficient use of resources.

The Jenoptik Group operates in three segments, Optics & Life Science, Mobility and Defense & Civil Systems, and the majority of its services are provided for the photonics market. With our high-quality capital goods – from standard components to modules to complex solutions – we are primarily partners to industrial companies and public sector clients.

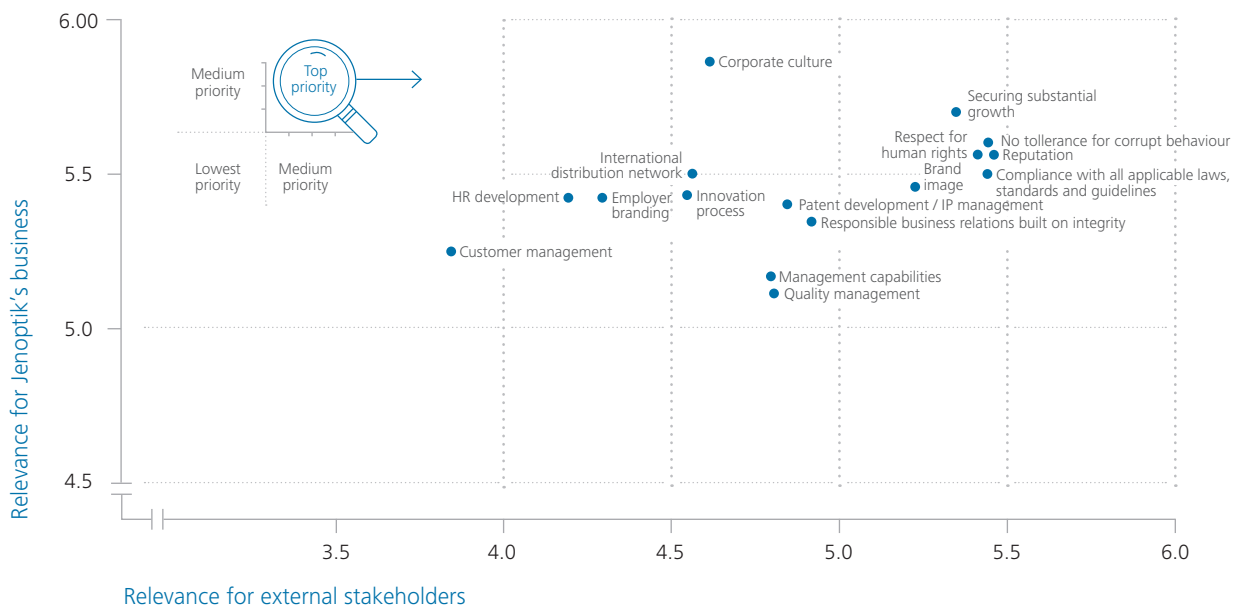
More information on the business model and markets can be found on page 68 ff. of this Annual Report

## Our Take on Sustainability

Our understanding of sustainability is based on the conviction that the best way to achieve our economic goals and lastingly profitable growth is to adopt a position of responsibility to the environment and society. To satisfy this demand, the issue of sustainability at Jenoptik is the responsibility of the President & CEO. An active Sustainability Working Group, consisting of the heads of the Finance, Investor Relations, Communication & Marketing, HR, Environmental Management and Compliance & Risk Management departments, regularly reports to the Executive Board and the Supervisory Board on relevant issues.

In this report we inform about key sustainability issues that help to better understand 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 § 315b, § 315c in conjunction

### G07 Materiality Matrix



with § 289c to 289e of the German Commercial Code (HGB) and covers the key topics in the fields of employees, environmental and social matters, human rights, and anti-corruption, in the 2017 fiscal year, for both external audiences and from the company perspective. The description of the approaches set out here is based on Standard 103 of the Global Reporting Initiative (GRI); key figures were produced on the basis of the GRI standards and both the materiality analysis and risk assessment 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 relevant passages in the Management Report that are relevant to the separate Combined Non-financial Report.

- Business model: page 68
- Strategy: page 70 ff.
- R+D / Innovation management: page 76 ff.
- Risks & opportunities: page 108 ff.
- Diversity policy see Corporate Governance Statement, [www.jenoptik.com/investors/corporate-governance](http://www.jenoptik.com/investors/corporate-governance)

## Materiality Analysis

Jenoptik maintains ongoing dialog with all stakeholders. In order to identify the key non-financial factors influencing sustainable business development within the Group, ten currently relevant topic clusters with a total of 54 issues were defined in the Sustainability Working Group. The topic clusters reflect the aspects required under the German Commercial Code (employee, environmental and social matters, respect for human rights, anti-corruption and anti-bribery) and also include those aspects that

are specific to Jenoptik (business model, management, internationalization, innovation, customer and market penetration, operating excellence, brand, and reputation). The 2017 materiality analysis involved an independent assessment of the 54 issues by the Executive Management Board, departmental heads and employees – both from Jenoptik’s perspective and the perspective of target groups (customers, business partners, employees, shareholders, suppliers, and the general public). Both the internal assessment from Jenoptik’s perspective and our assumptions regarding the issues’ significance to target groups were used representatively to assess the impacts on the aforementioned sustainability issues. They were subjected to an overall assessment, the findings of which were summarized in a materiality matrix. Topics in the upper right quadrant are of major significance to the Group’s business development from the perspective of both Jenoptik and its stakeholders. **G07**

The following overview shows all the topics defined as “key” to Jenoptik in the materiality analysis. They reveal where Jenoptik sees its priorities in the value-added chain. In addition, we report on environmental matters and our corporate citizenship on a voluntary basis. **T07**

Our corporate culture, the development of our employees, as well as our brand and reputation have top priority. Securing substantial growth by promoting good underlying conditions for greater innovation and ensuring increases in capital expenditure for research and development are the decisive factors influencing our future performance. Innovation and IP management are thus indispensable to a technology company such as Jenoptik. Our future success depends crucially on a deep understanding of customer and market requirements as well as on an efficient international distribution network.

## T07 Jenoptik's Key Topics

Employee Matters	Environmental Matters	Social Commitment	Human Rights	Anti-Corruption	Other Topics
Corporate culture	Environmental management	Commitment to science & education, art & culture as well as in social projects	Respect for human rights	No tolerance for corrupt behaviour	Brand & reputation
HR development	Waste management			Responsible business relations built on integrity	Quality management
	Processes to ensure compliance with regulations			Compliance with all applicable laws, standards and guidelines	Innovation & patent development
	Resource management				Corporate strategy

- Jenoptik's key topics
- Topics reported on a voluntary basis


We are also committed to law-abiding and compliant conduct while respecting human rights as well as to ensuring 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. Dedication to our region is therefore another high priority. Our obligations to the environment are also close to our hearts, and environmental issues are of key concern to us in all our business decisions.




See R+D chapter from page 76 on



Detailed information on our risk management system and major risks, including in connection with non-financial factors, can be found from page 108 on and on our website [www.jenoptik.com/About-Jenoptik/Responsibility/Compliance](http://www.jenoptik.com/About-Jenoptik/Responsibility/Compliance)

The key topics are reflected in the new corporate strategy and are value drivers in our various areas of business.  Our materiality matrix thus sets out the basis of all our long-term activities. These key topics are explained in detail in the sections below.

## Risks in Connection with Non-financial Aspects

Acting in conformity with rules and considering business risks and opportunities – for Jenoptik, these are the principles of responsible corporate governance. The Group maintains a risk manual and a system of guidelines that document all relevant processes throughout the Group and represent a reliable reference framework for all employees. Twice a 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. Our risk assessment systems takes account of both financial and all relevant non-financial factors, such as occupational health and safety, environmental protection, compliance, marketing and sales, HR and quality management. The net analysis did not identify any risks that are very likely to have a serious negative impact on the specified key non-financial factors now or in the future. 



See the Targets and Strategies chapter on page 70 ff. and the Corporate Governance Statement for more information




See page 36 ff. of the Corporate Governance Report and in the Corporate Governance Statement

## Employee Matters

Our employees, with their knowledge and abilities, are our greatest asset and absolutely essential to the Jenoptik Group's business success. By supporting, accompanying, and promoting the employees in their particular areas of expertise, we are able to ensure the quality of our products and processes, our innovative potential and thus also our ability to create value in the long term. Structured HR work and a responsible approach to working conditions are key aspects of our employment policies, as consistently excellent business performance is only possible with happy and dedicated employees.

HR work at Jenoptik covers all employee-related measures to realize the Group's objectives and is thus an essential component of the overall leadership and management process. HR is an internal business partner, and comprises a strategic area and several operating areas. It reports directly to the Chairman of the Executive Board, who is also HR Director. HR officers are the points of contact for employees and managers within the Group. Group-wide guidelines and an authorization matrix govern all relevant processes, workflows, and rights of employees internally and to outside parties.

Alongside an appealing corporate culture, we see our employees' efforts, expertise, experience, and commitment to the company as key values. In the future, HR will concentrate its focus on the issues of corporate culture, HR development, and employee satisfaction.

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

A pleasant [corporate culture](#) provides guidance to employees, as well as to customers, suppliers, and potential applicants. The implementation of the new group strategy published in February 2018 involves changes to a number of specific aspects within

the company. At their heart is the establishment of a dialog-based corporate culture based on trust, respect for diversity, and equal opportunities. Jenoptik's leadership culture is set to become even more modern and flexible. We primarily aim to achieve this by promoting respectful behavior in the workplace, flexible working hours, and a healthy work environment. Using regular surveys once every two years, we will gauge our employees' satisfaction with the various aspects of their work and with the corporate and leadership culture, with the intention of identifying specific objectives and actions. On the basis of the surveys on the topics of work organization, working conditions and cooperation, information and communication, leadership and Jenoptik as an employer conducted in Germany in 2012 and 2014, an online survey of all employees, with a revised focus, will be carried out in the 2018 fiscal year. The findings will be used to define implementation projects with specific actions, which can then be evaluated in the year 2020 and reviewed for their effectiveness.

A further measure serving to create an appealing corporate culture is a good work/life balance. Jenoptik is family-friendly and responds to the needs of its employees with flexible working hour models. Flexitime, 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 2017, 156 employees (prior year: 167 employees) took parental leave, 6.6 percent less than in the prior year. The number of part-time contracts rose by around 35 percent in the last five years. 7.4 percent of employees worked part-time in 2017. To further improve the work/life balance, we are presently developing an integrated approach to mobile working, which is due to be rolled out to the first German locations in mid-2018. 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 low staff fluctuation rate of 3.0 percent for the overall Group (prior year 4.2 percent) itself reflects a high level of employee satisfaction with Jenoptik.

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. The central Safety, Occupational and Environmental Protection (SEH) department reports directly to the Chairman of the Executive Board and is available to advise all the group companies. It coordinates the relevant tasks and assists the Executive Board on enforcing necessary measures. There are occupational health and safety committee meetings at all Jenoptik companies each quarter. In addition, all employees are briefed on issues relating to occupational 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. In 2017, we managed to reduce the number of [workplace accidents](#) in Germany to 10.73 per 1,000 employees (prior year 10.86 per 1,000 employees). Compared to the members of the ETEM trade association, Jenoptik is thus well below the average figure of 18.2 in 2016. In the interests of our employees' health and performance, the Group offers regular medical examinations by a company physician, and in 2017 launched a health day for the employees of the Optics & Life Science segment in Triptis.

[HR development](#) is a key factor that determines the future viability of our company. To help promote employees in line with their potential and interests, and thus maintain their lasting motivation, Jenoptik will be focusing on this issue in 2018. The development needs of every single employee are assessed in regular appraisals and appropriate training is selected. In 2017, Jenoptik invested around 2.0 million euros in its employees' professional development. Over the year covered by the report, this benefited 1,755 employees (prior year 1,832 employees).





More information  
in the Employees  
chapter from  
page 81 on

At the same time, our managers are key drivers of our corporate success and are of particular importance to our HR development activities. They are responsible for motivating their employees and have a direct influence on their satisfaction. Jenoptik's leadership program provides training in areas such as leadership and change management, helping to ensure a standardized understanding of management and the use of uniform management tools. The Jenoptik Junior Leadership Program (J<sup>2</sup>LP) enables the targeted development and promotion of potential leaders within the Group. In addition to preparing management trainees for their future career paths, its target is to develop a uniform leadership culture and encourage cross-segment networking among the participants. 2017 saw the successful completion of the 11th generation of this program.

Specific support for school students, university students and graduates forms part of the Group's strategy for skilled personnel, ensuring early loyalty to the company and thus simplifying the recruitment process. **T08**

But it is not only our employees who are developed in line with the corporate strategy and future market requirements – Jenoptik's future HR needs are also aligned with the Group's international growth strategy. In addition to Germany, this results in a higher need for recruitment particularly in Asia and the US. The target groups addressed by recruitment and thus also HR marketing are primarily specialists and skilled workers in the fields of natural and engineering sciences as well as experts with business management and legal backgrounds.

## Environmental Matters

We see the efficient use of resources and energy at all our global locations as our corporate responsibility and here report voluntarily on key environmental matters in the Jenoptik Group. As many of our products contribute to the efficient and responsible use of resources, Jenoptik primarily makes an indirect contribution to conserving resources.

**Environmental management** is an established part of our corporate activities, but we also oblige 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 saving manner and largely avoid producing hazardous waste. Several Jenoptik companies are certified in accordance with the ISO 14001 environmental management system. Photonic Sence GmbH in Eisenach was awarded an ISO 50001 energy management system certificate, as it has higher energy requirements than the other companies due to its energy-intensive handling of germanium and silicon for high-precision optical systems.

Environmental management lies within the remit of Safety, Occupational and Environmental Protection, which reports directly to the Chairman of the Executive Board. The Jenoptik companies

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## T08 Initiatives and Cooperations (Selection)

Jenoptik supports:

- career guidance projects at schools, also offering their students the opportunity to complete state-level an internship
- young researchers as a longstanding 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 together with:

- selected universities around the world with regard 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 sponsorship activities, and is active in a range of committees and networks in an advisory capacity
-

are each responsible for applying the law on all aspects of environmental protection. The central environmental protection officer is available to provide assistance where required and, as just one example, reviews all group investment projects with regard to their environmental relevance. The managers responsible for environmental issues at the German locations meet twice a year to share their experiences and ensure a standard approach to implementing environmental law requirements and processes. Waste officers take care of all matters relating to the production, 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. As an example, the new production facility in Michigan, US, completed in 2017 was fitted with the latest sensor-controlled LED lighting for the offices and production environment, as well as special energy-saving heating and air-conditioning equipment.

As a technology company, Jenoptik generates only small amounts of emissions within its plants (scope1); the majority of its pollutant emissions are attributable to externally sourced energy (district heating or electricity). In order to meet our goal of recording energy consumption at all of the Group's main production sites, the American facilities were included in our reports for the first time in the 2017 fiscal year. This will in future provide comparison values that allow for an assessment of the energy consumption levels as a ratio of revenue and consequently in relation to changing levels of energy efficiency in production.

As a company in the photonics market, Jenoptik generates only minor amounts of hazardous waste, e. g. adhesive residues or acetone. Within all segments located in Germany, types of waste are systematically recorded and categorized, and the quantities calculated. The volume of hazardous waste in the 2017 reporting year fell marginally to 175 tons (prior year 183 tons); this was disposed of in waste treatment/disposal plants. The quantity of non-hazardous waste, by contrast, rose to 871 tons (prior year 620 tons), primarily due increased production at the Altenstadt location. In general, Jenoptik aims at recycling waste through certified waste management facilities. Through continuous waste separation and training of the employees on waste prevention the amount of residual waste was substantially reduced.

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. We comply with 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 the past fiscal year, a project team conducted a group-wide as-is analysis of all companies and is currently defining a target process in line with statutory requirements (REACH) to be implemented across the Group from 2018 on. As Jenoptik does not require large quantities of water for its production processes, we do not see ourselves encountering any key risks in this area. In view of its business purpose, conservation regulations are also of only very minor significance to the Group. The objective of our purchasing processes is to meet all regulations relating to conflict minerals in compliance with the Dodd-Frank Act.

## Resource Management

Many of Jenoptik's innovative products and services make a contribution to the efficient and responsible use of resources. As a technology company, we are mostly involved in the areas where our customers' production processes and products can be made more efficient. **T09**

## Social Commitment/ Corporate Citizenship

Supporting young people in their education and scientific activities, as well as in social projects is at the heart of Jenoptik's corporate citizenship. The Group supports a whole range of non-profit projects, organizations and initiatives and is actively

### T09 Contribution of our products to resource conservation

#### Product

**Jenoptik diode lasers and laser machines** for a wide range of applications, e. g. in medical technology or the automotive industry

#### Contribution to resource conservation

- The most efficient light sources available with an efficiency of up to 70 percent
- Resource-friendly alternative to traditional machining processes, especially when machining high-strength steel with a low weight

„JENOPTIK RayLance“ – powerful and energy-efficient LED lighting system

- Approx. 40 percent higher light yield while maintaining high energy efficiency
- Wide-ranging use, particularly in high industrial spaces such as warehouses, logistics buildings, and production facilities

**Optical systems and components** for information and data transmission and medical diagnostics methods

- Ongoing development toward ever-smaller crystalline structures in semiconductor production opens up a growing number of new applications
- 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 entire vehicles that require less fuel and produce fewer emissions
- More complex transmissions for electromobility demand the increasing use of metrology

**Hybrid power generation systems** to enable an efficient power supply to the Patriot missile defense system

- Use of battery technology reduces fuel consumption
- Longer life cycles for customers, less service expenditure and thus product sustainability

**Traffic monitoring systems** check compliance with road traffic regulations

- Contribution to increasing road safety and reducing accidents
- Reduction in pollutant and noise emissions
- Installation at the side of the road limits interference in the environment (no installation of monitoring gantries)

**Toll payment monitoring systems** on federal highways

involved in the following three areas, primarily in Germany but increasingly also abroad: T10

- A commitment to the younger generation with projects in science, education, and in the social arena.
- Art and culture projects to make our company locations attractive 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 not just financial but also personal 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 it to have a positive effect on our brand image, reputation and our attractiveness as an employer.

Corporate citizenship is thus the direct responsibility of the Executive Board office. Group-wide guidelines govern the prin-

ciples 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 dedication to our region is of particular relevance. Since 1996, the Group has acted as the patron of the "Parent 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 the US, employees at the Rochester Hills, Michigan location provide education and career guidance to young people from financially disadvantaged families. Jenoptik employees at the Jupiter, Florida location assist the "Habitat for Humanity" organization in championing affordable, decent housing, and help to build homes for families in need. In Huntsville, Alabama, our employees donate Christmas presents to children from disadvantaged families as part of the "Angel Tree Program" every year. In 2017, two children were also given the opportunity to spend the Christmas holidays with employee families.

## T10 Social Commitment – Further Exemplary Projects

Social issues	Jenoptik supports	<ul style="list-style-type: none"> <li>• Easter Charity Concert by the International Youth Orchestra Academy for the Elterninitiative für krebskranke Kinder Jena e.V.</li> <li>• „Habitat for Humanity“; Jupiter, Florida</li> <li>• Fund-raising campaign on the occasion of the New Year's Eve Reception for the Center for Children and Youth in Jena</li> <li>• Summer camp for children of employees and for the first time for children from recognized refugee families</li> </ul>
Science and education	Jenoptik has been a partner for many years for	<ul style="list-style-type: none"> <li>• the Thuringian youth researchers competition "Jugend forscht" (since 1991)</li> <li>• the competition of school students "Schüler experimentieren" (since 2012)</li> <li>• long "Night of Sciences" in (since 2005)</li> <li>• the workshops "BEGEGNUNGEN Kultur Technik Wirtschaft" for students of the Ernst-Abbe-Hochschule Jena (since 2004)</li> </ul>
Art and culture	Jenoptik focuses on promoting regional and young artists with its in-house "tangente" art exhibition (since 1994)	<ul style="list-style-type: none"> <li>• tangente "in space" – Peter Wackernagel</li> <li>• tangente "homo fragilis" – Thomas Lindner</li> <li>• and together with partners the exhibition by Georg Thumbach "Ins Holz", organized by the Friedrich-Schiller-University Jena and the "Kirchentag auf dem Weg" Church Congress on the occasion of the anniversary of the Reformation</li> </ul>



Since the company's earliest days, Jenoptik has been enriching life in Jena with art and cultural projects. The in-house "tangente" art exhibition is a key part of this endeavor.



More information can be obtained by going to About Jenoptik/Responsibility/Compliance at [www.jenoptik.com](http://www.jenoptik.com)

Together with numerous partners, the Group is also active as a member of the "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. In the process, Jenoptik supports various models of family-friendly childcare, the "Saaleknirpse" in Jena, the "Wasserstrolche" in Wedel, and the "Talentschuppen" in Monheim. The highlight once again was the summer camp jointly organized for children of Jenoptik employees and children of recognized refugee families.

## Human Rights and Anti-Corruption

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 do not contravene regulations, laws or our values. Corporate Compliance & Risk Management therefore lies within the remit of the Chairman of the Executive Board, the Jenoptik Compliance Manager reports relevant incidents directly and regularly and remains in close contact with the entire organization and all employees. It organizes and manages the Group's risk and opportunity management system in close cooperation with the corporate departments and the divisions' risk officers.

Upholding [human rights](#) is one of Jenoptik's key priorities also 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 expect our suppliers to comply with and respect internationally recognized human rights standards, e.g. the Slavery and Human Trafficking Statement.

All our suppliers are contractually bound to adhere to the standards of the "Code of Conduct for Suppliers to the Jenoptik

Group", which was updated in 2017, and similarly oblige their own suppliers to adhere to them. Processes relevant to the issue of compliance were revised in 2017 with the aim of identifying violations and high-risk business partners in good time. In a two-step process, a supplier compliance declaration and an additional code of conduct for distributors first oblige all our business partners to adhere to the law. In the second step, a centralized high-risk business partner screening process is used to ensure that Jenoptik cooperates only with those business partners that meet all of its compliance requirements.

**Anti-Corruption:** Jenoptik fights all forms of active and passive corruption and expects all its business partners to do the same. We also see it as our responsibility to ensure that our customers and suppliers act in compliance with the law. 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 the whistleblower system implemented in 2017, we refer to the Corporate Governance Report from page 36 on and the Risk and Opportunity Report from page 108 on.

## Quality Management and Brand Image

### Quality Management

The key to Jenoptik's success as a technology company is primarily based on the quality of its products and solutions. Long-standing 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 of impressive quality. As a quality leader, we are committed to ensuring that the quality of our products and services is above the average in many of our product areas. Quality management at Jenoptik is managed locally in the business units and falls within the responsibility of the division managers. The diversity of our product range makes this structure necessary; each division applies individual quality indicators (e.g. customer satisfaction, complaints rate as a percentage of revenue, quality level as a percentage of revenue).

One measure to ensure and further improve our quality is the quality initiative we launched in 2017; its impact can be felt



For further information of employee matters see page 56 ff. and page 81



For more information, see the Risk and Opportunity Report on page 108

in all areas of the business – from the development of new products to quality planning and assurance and all the way to the finished product quality. The initiative will continue to run in 2018, now with an increased focus on internal customer and supplier relationships, i. e. a better understanding of all parties relating to downstream processes.

In addition to certifications, further issues in quality management at Jenoptik include standardization, process controls, tests and 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 below shows a selection of Group certifications and actions undertaken in 2017. In the Optical Systems division,

the quality management system was successfully switched to DIN ISO 9001:2015, the environmental management system to DIN ISO 14001:2015. JENOPTIK Robot GmbH in the Mobility segment successfully passed the certification process for all locations conducted by DEKRA in accordance with DIN EN ISO 9001:2015. In the past fiscal year, the Wedel location in the Defense & Civil Systems segment renewed its occupational health and safety management OHSAS 18001 certification and NATO quality assurance system certification in accordance with AQAP 2110/2210.


Jenoptik's **brand image and reputation** are of key importance in many respects – the trust placed in us by our stakeholders, our position in the competitive environment, our attractiveness as an employer, and our employees' sense of identification with the company. As an international photonics company, we work in many different markets and compete with numerous companies to be visible, predictable and attractive both to customers, as a supplier of high-quality capital goods, and to

## T11 Certification within the Group (selection)

Certification	Description	2017 actions
ISO 9001	Certification of quality management processes	Change in quality management system in the Optics & Life Science segment (JENOPTIK Optical Systems GmbH) and the Mobility segment (JENOPTIK Robot GmbH and JENOPTIK Industrial Metrology GmbH) to ISO 9001:2015
ISO 50001	Certification of the energy management system	Certification of Photonic Sence GmbH due to energy-intensive machining processes
EN 9100	Certification of quality management processes specific to the aerospace and defense industries	
ISO 13485	Certification of comprehensive quality management systems for the design and manufacture of medical products	
ISO 14001	Certification of the environmental management system	Renewal of certification in the Optics & Life Science segment (JENOPTIK Optical Systems GmbH)
ISO/TS 16949	Certification for the automotive industry	
EG 748/2012	Certification as a manufacturer for the civil aviation industry	
EG 2042/2003	Certification as a maintenance company for the civil aviation industry	
IRIS	International Railway Industry Standard	
ILO-OSH-2001/ OHSAS 18001	Certification of occupational safety and health management	Renewal of certification in the Defense & Civil Systems segment (JENOPTIK Advanced Systems GmbH)
AQAO 2110/2210	NATO quality assurance system	Renewal of certification in the Defense & Civil Systems segment (JENOPTIK Advanced Systems GmbH)

future employees. This is dependent on lasting and stable relationships with our customers and suppliers, shareholders and other stakeholders, which we consistently strengthen with transparent communication and trust. Internal and external communications are the task of the corporate Communication and Marketing department at Jenoptik, which reports directly to the Chairman of the Executive Board and ensures a consistent image for the overall Group and the Jenoptik brand. The aim is to ensure that the company's communications and public image are up-to-date, clear, ongoing and memorable, and are aligned with the Executive Board's strategic targets. All topics relating to markets and products are managed locally by the division marketing managers in the operating areas. Group-wide guidelines, for example, govern the information channels for internal communications and central marketing. Communications to the capital market are the responsibility of the Investor Relations department, which also reports to the Chairman of the Executive Board and remains in close, regular contact with Corporate Communications.

Within the highly specialized photonics market, which is characterized by a multitude of smaller companies, the Jenoptik brand is perceived as synonymous with a major supplier – with an integrated brand image covering all products. We have been actively shaping the Jenoptik umbrella brand throughout

the Group for over ten years. At present, the Group is working to boost the brand's international presence and further shore up its brand positioning. We have been stepping up our regional marketing efforts in Singapore and North America since the summer of 2017 to reflect the Group's increasingly international outlook. With its new strategy the Group will focus more intensively on the photonic core competencies of light and optics under the brand Jenoptik. The introduction of an independent brand for the mechatronic business (so far part of the Defense & Civil Systems segment) that better meets the specific market requirements will be one of the priorities in the current fiscal year. Brand management is made centrally at the Corporate Center. 

The Jenoptik Group benefits from the reputation of our headquarters in Jena, which is highly renowned by both scientists and customers as an "Optical Valley". Jenoptik is conscious of this reputation and is involved in various activities aimed at sustainably improving the location. More information can be found in the Corporate Citizenship section of this chapter, on page 60.

The audit report for the separate combined non-financial report can be found on page 202.



Further information  
on strategy see  
Management Report  
from page 70

# Combined Management Report

The Remuneration Report and the Information and Notes relating to Takeover Law (in the chapter Corporate Governance) are part of the Combined Management Report.

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# General Group Information

## Group Structure

### Legal and Organizational Structure

As the holding company and corporate center of the Group, JENOPTIK AG, based in Jena, performs top-level functions including strategic corporate development and innovation management as well as key tasks in control and finance, real estate, internal audit, investor relations, mergers and acquisitions, human resources, accounting, legal, compliance and risk management, taxes, treasury, corporate communications, and corporate marketing.



See Shareholdings of the Jenoptik Group, page 191 f.

The Group's operating business is geared toward growth markets and is divided into the three Optics & Life Science, Mobility, and Defense & Civil Systems segments. The segment reporting reflects the Group's organizational structure. Within the three segments, the operating business is spread over five divisions. The Shared Service Center (SSC) pools the central functions IT, human resources, purchasing, safety, occupational health and safety, environmental protection, and building management.

#### G08

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 has lead coordination of the Group's overall strategy, financial activities, and shared

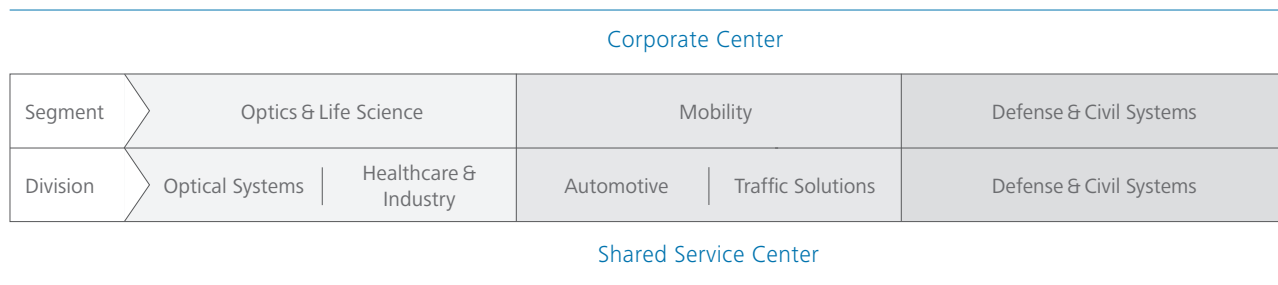
services for the American market. An Asian holding company based in Singapore pools all business in Asia to centrally support the development of business in the region. The operating business in Europe is coordinated at the main locations in Germany.

### Key Locations

Jenoptik is represented in over 80 countries worldwide, with a direct presence in 19 of them, e.g. through its own companies, investments or affiliated firms. The majority of the Group's products are manufactured in Germany, followed by the US. Jenoptik opened a modern technology campus in Rochester Hills, Michigan, in 2017. The Group's Jena headquarters is primarily home to optoelectronic operations, covering all aspects of Optics & Life Science. Other major sites in Germany are at Wedel near Hamburg, Essen and Altenstadt (Defense & Civil Systems), Monheim near Düsseldorf (Traffic Solutions), Villingen-Schwenningen (Automotive), Dresden (Optical Systems), Triptis and Berlin (Healthcare & Industry).

Outside Germany, Jenoptik maintains production and assembly sites in the US, France, the UK, China, and Switzerland. In addition, the Group is represented by subsidiaries and affiliated firms in Algeria, Australia, Brazil, the Czech Republic, India, Japan, Korea, Malaysia, Mexico, the Netherlands, and Singapore. G09

## G08 Structure of the Jenoptik Group

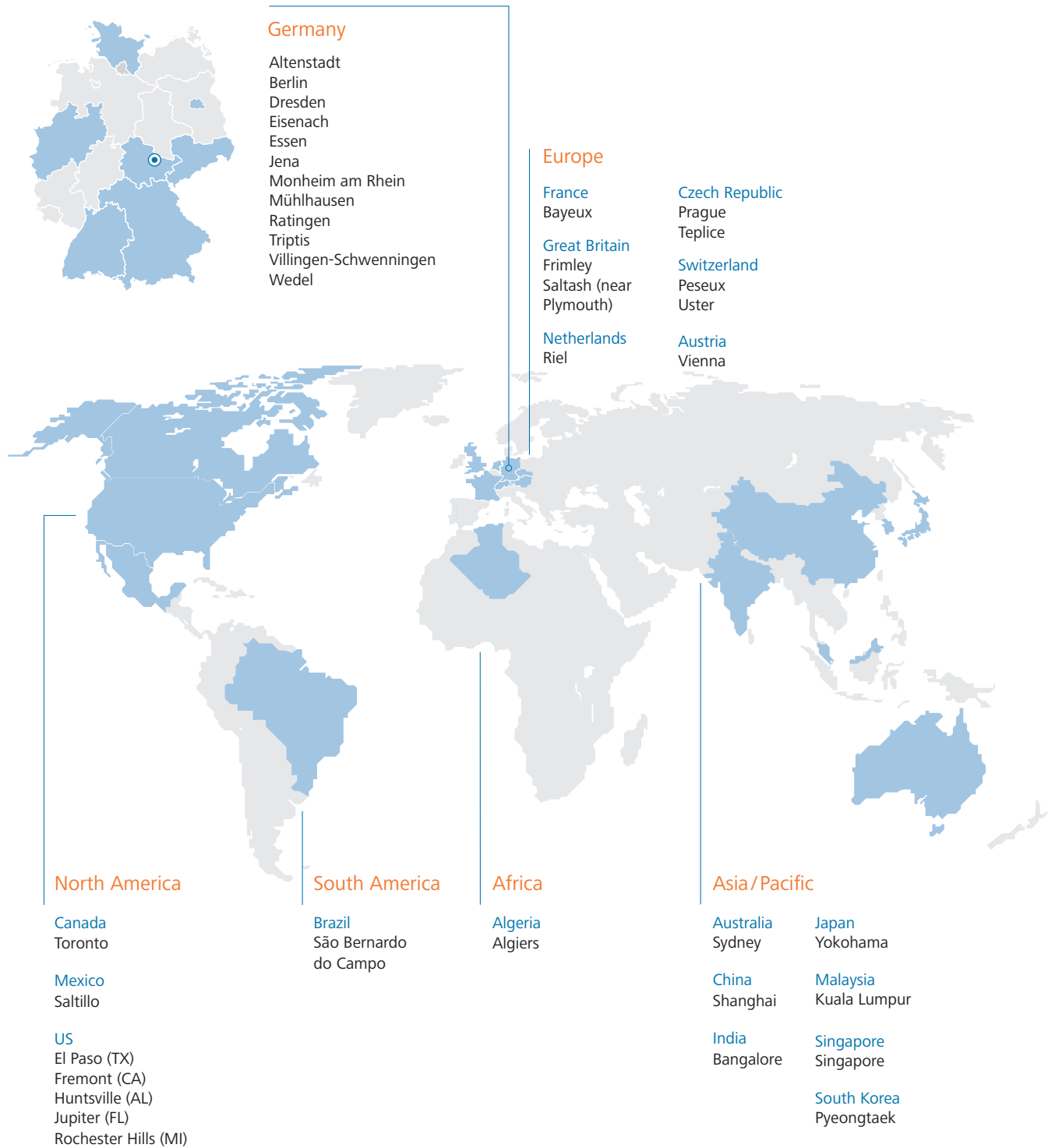




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## G09 Key Locations of the Jenoptik Group



## Business Model and Markets

Jenoptik is a globally operating technology group that provides the majority of its range of products and services to the photonics market. Photonics are understood as the basics and areas of use of optical methods and technologies that address the transmission, storage, and processing of information by light. In the process, they use the special physical properties of light quanta (photons) in place of electrons and also combine optics and electronics.

As a supplier of premium, innovative capital goods, the Jenoptik Group is primarily a partner to industrial companies. In the Mobility and Defense & Civil Systems segments, we are also a supplier to the public sector, in part indirectly through system integrators. Our range of products comprises OEM or standard components, modules and subsystems through to complex systems and production facilities for numerous sectors. It further includes total solutions and full-service operator models.

Our key markets primarily include the semiconductor equipment industry, the medical technology, automotive, machine construction, traffic, aviation, as well as security and defense technology industries.

Jenoptik's product range competes 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 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 activities. Cooperations arrangements and developments on behalf of customers are often the beginning of partnerships and business relationships along the value chain. Our technology-intensive products and systems are often created in close collaboration with customers. This requires confidence on both sides as well as knowledge of partner requirements. Consequently, lasting and successful cooperation arrangements with key customers are an important factor of our success.

As mentioned, Jenoptik operates in the three segments of Optics & Life Science, Mobility, as well as Defense & Civil Systems.



Detailed information on the course of business in the segments can be found in the Segment Report and information on future developments in the Forecast Report

## Optics & Life Science

This segment pools the activities in Optical Systems and Healthcare & Industry, and is essentially a supplier of OEM solutions.

Jenoptik is a leading development and production partner for optical and micro-optical systems as well as precision components that satisfy the highest quality demands. This includes complete systems and modules, all the way to special optical components and custom solutions for wavelengths from the far infrared (IR) to the deep ultraviolet (DUV) region. The Group possesses superb expertise and thus also an excellent market position in the development and manufacture of micro-optics for beam shaping used in, among other things, the semiconductor industry. With its strengths in optical and micro-optical solutions, Jenoptik is in a position to exploit new growth potential in the area of digitization, e.g. the market for information and communication technology or production and test equipment for the manufacture of consumer electronics products. The company also targets the markets for laser material processing and security and defense technology.

In the Optics & Life Science segment, Jenoptik is further joined by customers to develop and manufacture specific systems and applications for the medical technology and the life science sector.

Based on its core expertise in laser and LED-based beam sources, optical components and modules, sensors, digital imaging, and system integration, Jenoptik is a leader in the development of OEM solutions and products for the life science industry. These include extremely reliable analysis and treatment systems for research, clinical applications, and patient self-diagnosis that meet international quality standards and stringent approval criteria. Jenoptik also holds a leading position in the field of high-power diode and thin-disk lasers for ophthalmology and supplies both national and international medical technology companies.

For industry, Jenoptik supplies high-power optoelectronic components and modules as well as integrated solutions that intelligently combine optics, laser technology, sensors, and digital imaging as required. In addition to complex components for head-up displays, innovative lenses for driver assistance systems, and polymer optics for machine vision or augmented reality applications, we also produce powerful and energy-efficient industrial LED lights. In the field of industrial lasers for material processing, Jenoptik covers the entire value-added chain for lasers.

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Key sales regions in the segment are in Europe and North America, and increasingly also in Asia/Pacific. The core markets – semiconductor equipment, medical technology, information and communication technology, show and entertainment, automotive, and defense and security technology – are heavily fragmented. Jenoptik serves numerous niches within them, where it occupies leading market positions. Competitors frequently only specialize in individual product groups and niches. Thanks to an increasing focus on application-oriented system solutions, the Jenoptik Group has managed to further expand its market position in the area of optics/micro-optics in the last few years.

## Mobility

The Mobility segment pools all work in the automotive and traffic safety markets.

Jenoptik is a leading manufacturer of measurement technology and laser machines for production processes in the automotive industry. The Metrology portfolio includes high-precision measurement technology for tactile, optical, and pneumatic inspection of roughness, contour, shape, and the determination of dimensions during the production process and in the measuring room. A wide range of services such as consultation, training, service, and long-term maintenance agreements are also all provided. In its Laser Processing business, Jenoptik develops and produces 3D laser machines that are integrated into customer production lines as part of process optimization and automation and used to machine plastics, metal and leather with the greatest efficiency, precision, and safety. On acquiring Five Lakes Automation LLC in 2017, Jenoptik obtained broad expertise in handling workpieces and integrating separate processing systems in automated process lines. Jenoptik is thus now in a position to offer not only stand-alone laser machines but also complete solutions from a single source. The product portfolio in this area is completed by highly efficient laser perforation machines for functionally reliable predetermined breaking points in vehicle airbag covers.

In its Traffic Solutions business, Jenoptik develops, manufactures and sells components, systems, and services that make the world's roads safer. Its product portfolio includes comprehensive 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). On acquiring ESSA Technology, a company specializing in software for traffic monitoring and back office solutions, in particular automatic

number plate recognition applications for the police, in January 2017, Jenoptik took another step along the road to becoming an integrated solutions provider for public safety and future "smart cities". The Group also provides extensive services that cover the entire supporting process chain – from system development, construction and installation of the monitoring infrastructure, to capturing images of traffic violations and their automatic processing. Since 2016, the company has also been supporting the 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 as stereo image processing and axle number detection in a single system.

The Mobility segment has a greater international focus than any other within the Jenoptik Group. Its regional areas of focus are primarily determined by customers. In the Automotive business, these are the centers of the global automotive and automotive supplier industries in Europe, North America, and Asia. Companies such as Marposs, Mahr, and Mitutoyo compete with the metrology activities in the Automotive business – one of our growth markets. In the Traffic Solutions business, Jenoptik is a leading provider of photographic monitoring equipment, with more than 30,000 devices in use. Competitors here include Redflex, the Sensys Gatso Group or Vitronic. The market served by the Traffic Safety business is increasingly characterized by major projects. Traffic safety systems in Germany are tested and certified by the Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig. 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. These procedures represent a considerable barrier to market entry for potential suppliers and demonstrate the measuring accuracy of the systems used.

## Defense & Civil Systems

The Defense & Civil Systems segment develops, manufactures and markets mechatronic and sensor products for civil and military markets. Its portfolio ranges from individual assemblies for customers which they integrate in their systems to turnkey solutions and end products. The segment specializes in energy systems, optical sensor systems, stabilization systems, aviation subsystems, radomes, and composites. Efficient customer service ensures that customers receive support for the service life of the products, which in most cases is a very long time. Mechatronic products include diesel-electric generating units, generators, electric motors and converters, power electronics, heating systems and controllers, lift systems, and rescue hoists. They are

used in drive, stabilization and energy systems for military and civil vehicle, rail and aircraft equipment. Sensor products cover infrared camera systems and laser rangefinders, which are used in automation technology, security technology, and military reconnaissance.

The segment supplies equipment to major systems companies such as Krauss-Maffei Wegmann and Rheinmetall in Germany, Airbus (France/Germany), BAE Systems (Great Britain), and the American company Raytheon; it also supplies government customers directly. In the area of defense and security technology as well as aviation and rail equipment, Jenoptik 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. In future, in-house developed products with short delivery times, low costs of adaptation and clear USPs will ensure growing revenues. 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 often remain in use for many years and decades. This highlights the importance of the spare parts business and upgrade projects. Competition with other companies is frequently limited to individual product groups.



For further information on the development of the sectors and markets, see page 83 f.

## Targets and Strategies

### Strategic Orientation of the Group

As noted in the chapter titled “Business Model and Markets”, the Jenoptik Group provides the majority of its products and services to the photonics market. As so-called enabling technologies, the extremely precise, flexible methods and processes of photonics exert a great economic leverage effect and will thus enjoy an increasing share in industrial value creation in the future. At the same time, our solutions contribute to increased efficiency and precision as well as improved environmental compatibility.

At the beginning of 2018, the Executive Board of JENOPTIK AG presented its new Strategy 2022. In future, Jenoptik will concentrate on its core competencies of light and optics, and therefore focus more on the photonic growth markets with the target of developing into a globally focused photonics company over the next five years. The greater concentration on the core competencies should simultaneously help to optimize the use of existing capacities and thus to a more efficient allocation of resources. In addition to its focus on photonics, Jenoptik will concentrate primarily on internationalization and innovation when implementing the Strategy 2022.

Our growth strategy is based on three pillars – “More International”, “More Innovation”, and “More Focus”. To implement it, we will


- focus on our core competencies in the field of photonics,
- reorganize and simplify our corporate structure,
- actively manage our portfolio with a view to additional purchases as well as transformatory acquisitions and selective divestments,
- operate our mechatronics business under an independent brand,
- continue to work on further internationalization in conjunction with greater vertical integration and customer proximity in our growth regions,
- invest more heavily in research and development, expand our system and application expertise and step up our activities as a solutions provider,
- drive an active cultural change within the company and
- continue to steadily strengthen our financial power.

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## Focus

In the future, our activities in the market for photonic technologies will focus on the fields of information processing, intelligent production processes, sensors, 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 the digital world, health, mobility & efficiency, infrastructure as well as security, and is increasingly establishing itself as a strategic systems partner for international customers, with whom it works to design forward-looking solutions.

With a new organizational structure, which will come into effect on January 1, 2019, we will continue to improve our market and customer orientation. Business operations within our existing segments will be reorganized and the relevant parts of the operating business with a common understanding of markets and customers and equal business models will be clustered. This helps us to bring our products and solutions closer to the customer and opens up improved growth opportunities. These three newly emerging photonic divisions will build on our extensive expertise in optics, sensors, imaging, robotics, data analysis, and human-machine interfaces – all of which are common core competencies in photonics. The OEM business, including the photonics technology-based business in the Defense & Civil Systems segment (laser sensors and laser-based rangefinders), are to be consolidated under the heading “Light & Optics”, the business with industrial customers (B2B) under “Light & Production”, and the business with public sector clients (B2G) under “Light & Safety”. In the future, the mechatronics technology business in the Defense & Civil Systems segment will be managed under a new brand of its own that better reflects specific market and customer requirements. This will enable us to give this business more space to develop more effectively than previously possible under the Jenoptik brand.

However, for us, focusing also means streamlining structures and thereby making the company more agile. Therefore, the purpose of the new strategy is also to merge certain central functions of the holding company with those of the Shared Service Center (SSC). The number of legally independent companies in the Group is to be reduced, decision-making processes and responsibilities further decentralized and increasingly relocated back into the operating areas. With a simplified structure, we will be better positioned to clearly prioritize initiatives aimed at ongoing growth and successfully implement them. 

## Innovation

As an innovative high-technology company, identifying customer needs and general trends early on, aligning our strategic actions and business activities with them, and determining appropriate technology and product developments is of critical importance to Jenoptik. Therefore, we want to increase our R+D investment, including customer-related projects, to a total of approximately 10 percent of revenue by 2022 in order to expand our position as one of the world's leading suppliers of products and solutions in the field of photonics. Group-wide standards for preparing development and technology roadmaps are therefore a key prerequisite to managing the innovation process in line with market and customer needs throughout the company. In addition, we will push ahead with the cross-segment synergetic expansion of our technology platforms. Our planned profitable growth will be further supported by efficiency measures and increasingly by the expansion of the systems and service businesses as well as economies of scale.

As a system partner, Jenoptik is constantly looking for new solutions together with our customers. Wherever possible, customers are already involved in the very early stages of development processes. This enables us to strengthen our customer relationships and steadily boost value creation.



Further information on the Group structure can be found in the Business Model and Markets chapter



## Internationalization

Due to the trend towards growing industrial production as well as the demographic development, Jenoptik sees particularly great potential for future growth in the regions of the Americas and Asia. In terms of internationalization, we are therefore focusing on these markets. JENOPTIK North America, Inc. controls the business, structural and organizational development in America, identifying growth opportunities and coordinating appropriate measures. Realignment of our Asian business structures is to take place in 2018. We aim to further expand value creation such as local production, product developments, and research & development. This will enable us to offer local customers products and solutions together with service manufactured on site to meet their various needs. The plan is to establish local R+D teams as well as own production on site in all major markets by 2022. In addition, at least one division of the company should be headquartered outside Germany by 2022.


In improving its market and customer orientation, Jenoptik is pursuing two approaches. On the one hand, we develop and manufacture products and solutions consistently geared toward market trends and customer needs. To do this, we will align our structures even more closely to individual market requirements and customer proximity, and will use both – our own direct sales channels as well as dealership structures – to expand the business. In the future, Jenoptik will also continue to invest in the organization of new and expansion of existing sales and service structures, particularly in our focus regions. One example of this is our new technology campus for innovative metrology, laser material processing, and highly efficient automation solutions in Rochester Hills, Michigan. In Silicon Valley, California, in December 2017, Jenoptik opened a new application center for engineering and product development in the field of high-performance optical systems to help customers implement innovation goals on site. In the future, other Jenoptik divisions will also use these locations to expand their businesses in North America. The opening of additional application centers, especially in Asia, is planned for the years ahead.

Through **active portfolio management**, we also want to continue to supplement our organic growth through acquisitions. We, therefore, examine opportunities for implementing our group and growth strategies also through M&A activities. By purchasing companies, we plan to boost our market and cus-

tomers reach – not only in Europe, but in particularly also in the focus regions of the Americas and Asia/Pacific – or complement our portfolio through forward integration and/or additional systems' expertise. Each acquisition must be strategically and culturally appropriate, offer opportunities for growth and a sound business case, thereby fulfilling the criteria for increasing corporate value and integrability. Against the backdrop of focusing on photonic core competencies we constantly consider the discontinuation of already existing business activities or the sale of parts of companies and do not rule out these for the future within the scope of active portfolio management.

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 aspect. Now and in the future, Jenoptik aims to utilize targeted HR marketing activities to maintain its position as an attractive employer. Personnel development measures as well as improved framework conditions and a more modern culture should further help to strengthen employees' loyalty to the company in the future. However, the active support of the corporate values is another key issue within HR work. We review our values as part of the new strategic realignment. In the future, they will form the basis for a common, modern corporate culture and help Jenoptik to grow together across various cultural and legal systems.

Our new Strategy 2022 will be accompanied by a far-reaching cultural change, which we see as the basis of future success and the attainment of our objectives.

As part of a group-wide campaign we aim to further strengthen the Jenoptik brand and promote awareness and acceptance, especially internationally. 

In the course of the new Strategy 2022, the Executive Board of JENOPTIK AG has set out the following priorities for the current 2018 fiscal year:

- establishing a new corporate structure,
- reorganizing the Asian business and
- launching a new brand for the mechatronics business.



Further information on employees and brand can be found in the Separate Combined Non-financial Report

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## Strategic Alignment of the Operating Business


The divisions of the Group that will be created as part of the new business structure, are connected with each other in many ways. In particular, the division operating under the motto “Light & Optics” (at present the Optics & Life Science segment) provides technologies and expertise for the other divisions. Infrastructures and cross-section functions are also increasingly used jointly, for example for global procurement or in the expansion of the international sales network. In the future, joint locations will enable us to faster achieve critical mass worldwide in regions which are important to the company. As a result, in the past fiscal year, Jenoptik not only invested in external growth but also in a technology campus and a new application center in America. Other Jenoptik divisions will in future also expand their US businesses from these locations. The joint use of infrastructure facilitates market entry and optimizes the cost base through the leverage of synergy. Cost benefits are realized and currency risks minimized through global sourcing and production.

Under “Light & Optics” we will consistently focus our OEM business on the “Digital World” megatrend. On the basis of our strengths in optical and micro-optical solutions, we aim to access further digital world markets in addition to the semiconductor equipment sector. Jenoptik will, in future, thus boost its position with optical information and communication technologies. Ongoing internationalization, the expansion of the systems business, and a focus on key customers form the basis for sustainable, profitable growth, to which economies of scale and both customer and technology synergies will additionally contribute.

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 innovative software solutions, we want to increasingly position ourselves as one of the leading, profitably growing partners for the development of system solutions and products for diagnostics, analysis, screening, and therapy in the healthcare and life science industries. On the other hand, we are also participating in the trend for more mobility and efficiency with innovative industrial applications. We also want to expand volume business with optoelectronic and polymer optical high-performance components and modules. In our core areas of expertise, we also pursue promising growth options in innovative applications such as driver assistance systems or technologies for autonomous movement. In these fields, too, we want to become an internationally operating supplier of application solutions.

As a supplier of integrated engineering solutions for industrial customers (B2B), in the new “Light & Production” division (currently the Automotive business as part of the Mobility segment), we will also address the trend towards greater mobility and efficiency. We will use our smart manufacturing applications to support the manufacture of efficient and sustainable products, especially in the automotive industry. Jenoptik’s use of optical production metrology enables it to focus on trends such as reducing fuel consumption and CO<sub>2</sub> emissions. The aim is to expand our position as a leading company in the area of optical metrology for modern drive systems, in particular with new innovative applications in the automotive sector. A concentration on automated plastic and metal processing will support further growth in the field of laser machines. The acquisition of the American automation specialist Five Lakes Automation will contribute to this development. Jenoptik is now able to provide complete process solutions from a single source. At regional level, we intend to grow our business primarily in Asia and North America.

In the “Light & Safety” division (currently the Traffic Solutions business within the Mobility segment), we are pursuing another future trend with the focus on infrastructure and public safety. As one of the world’s leading suppliers of speed and red light monitoring systems, our Traffic Solutions business remains committed to supporting our customers 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 opening up new sales regions. A trend can be seen toward major projects in the global traffic safety technology market with a combination of the equipment business and services, known as Traffic Service Provision. That is why Jenoptik is focusing on strengthening this profitable service business. Following successful entry into a new market with a major order for toll monitoring systems, Jenoptik plans to develop this business further in the future. The market for public safety is becoming an increasingly important part of the traffic safety sector. Based on the existing systems and software applications, the division aims to evolve into an integrated solutions provider for public safety and future smart cities. An important step in this direction was the acquisition of the British company ESSA Technology. Our growing reach into international markets, selected cooperation arrangements, and a focus on innovative and competitive products are aimed at securing future growth and boosting our position as a leading supplier.

Jenoptik's **Mechatronics business** (currently essentially the Defense & Civil Systems segment) will in the future remain positioned as a partner for systems companies and customers who need individual solutions that meet the stringent requirements of the aviation and defense technology markets. We see opportunities for further growth in global trends such as the growing need for security, mobility, and efficiency as well as the increasing electrification in military and civil sectors. For this reason, the future focus will be on such high-growth business areas as energy systems. Beyond this, the aim is to increase the share of systems used in civil fields such as railway engineering and aviation. Customer relations with OEMs and end customers will be stepped up around the world. The segment is also seeking to expand its service business and international sales and service structures, especially in North America and Asia. 



Further information on the segments can be found in the Segment Report and the Business Model and Markets chapter

## Strategy Development and Processes

Jenoptik's Strategy and Business Development department reports directly to the Chairman of the Executive Board and ensures the future optimum strategic alignment of our Group with its segments and foreign locations.

Comprehensive knowledge of the position and competencies of our company in the market environment is indispensable. To underpin group and individual strategies, on the one hand, the so-called "business intelligence" of the respective business units is used and evaluated – i.e. information about 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 suitable patents, strategic road maps, and structural adaptations – here the operational business units are also supported in terms of process and content. This ultimately secures Jenoptik's targeted market position.

Furthermore, the central Strategy and Business Development department supports the operating units in designing business models and structures and implementing them with the goal of creating profitable growth. This target can also be supported through company acquisitions. Therefore, the Strategy and Business Development department is examining acquisition projects, which enable Jenoptik to acquire external expertise, technologies, and market access in the future.

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## Control System

The corporate management is geared toward the long-term corporate strategy. It is also 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.

As part of a rolling strategy process, the Executive Board and the Executive Management Board (EMB) control the development of the business units and monitor the implementation of defined measures. At strategy meetings to date held twice a year we define growth paths, evaluate opportunities and risks, make portfolio decisions, and determine the focuses of in-house research and development using technology roadmaps – all on the basis of global trends.

A planning forecast for the coming year and a five-year period is created annually on the basis of the long-term corporate strategy, summarizing the proposed economic development. In the course of a fiscal year, the planning for that year is updated in several forecast cycles. Planning is carried out using the bottom up/top down method, based on the market-driven strategic planning in the segments.

Our analysis of business performance and both our reporting and planning process improved following the launch of a business intelligence environment at the beginning of the 2017 fiscal year. Monthly results meetings as part of the EMB meetings are used for operational control: the division heads 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 largely involving performance indicators, information parameters, and qualitative assessments, which can then be 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 provide financial information aggregated by segment, used as the basis for Executive Board resolutions, global management of the Group, and targeted resource allocation.


The indicator system used in internal reports and in part to manage the business units in 2017 comprises high-priority performance indicators (“key performance indicators”) and other financial and non-financial information parameters. All the indicators chiefly focus on shareholder value, the requirements of the capital market and the strategy of profitable growth. The key indicators are shown in the chart below. In addition to the key performance indicators at group level, other indicators are used only within the business units, e.g. order backlog or number of employees. A rolling 3-month forecast is used to plan and control the company’s development. **G10** 

## G10 Performance Indicators for Corporate Management in 2017

Key performance indicators	Growth	Revenue, order intake, capital expenditure	
	Liquidity	Free cash flow	
	Return	EBITDA margin, EBIT margin	
Information parameters	Growth	Order backlog, frame contracts	Growth
	Return	ROCE	HR management
	Liquidity	Net debt, working capital	Process Control
			Number of employees
			Training, fluctuation, sick days
			Throughput times, reject quotes, quality management
		Financial indicators	Non-financial indicators

For more information on the non-financial indicators, see the Non-financial Report from page 54 on



In the 2017 fiscal year, the control system underwent further development that resulted in a greater focus on the indicator base to better foreground the performance indicators relevant to the company control system from 2018 on. EBITDA margin and capital expenditure are new key performance indicators, whereas earnings before tax, net debt and ROCE are no longer included. In the current fiscal year, too, the Jenoptik Group is committed to the continuous improvement of its processes. One key aspect of this is the implementation of an SAP business warehouse, which will allow us to better reflect the markets' dynamic growth and thus obtain important control information both faster and more efficiently. 



For information on the planned development of key performance indicators see Forecast Report from page 122 on

## Research and Development

As a technology group, research and development (R+D) is of key importance to Jenoptik. Innovative products and services give us competitive advantages that determine our performance and thus our economic success. One of our key strategic aims is therefore to expand our ability to innovate in the photonics growth markets relevant to us. We also develop market-compliant products and platforms with unique selling points, protecting them by means of industrial property rights. Our solutions help to increase the efficiency of our customers, consequently improving their earnings capacity.

Innovation management is an important tool used by Jenoptik to systematically identify and implement promising ideas. With the networked processes, the primary intention is to generate capital from knowledge by objectively uniting market and company viewpoints. Our innovation management has a group-wide uniform structure with individual forms for the respective business model. It sets framework conditions for advancing developments in order to make a positive value contribution for the entire Group. Innovation management at Jenoptik lies within the remit of the Chairman of the Executive Board. An innovation manager from the central Strategy department manages the innovation processes across the Group and links up with various areas of the company, such as planning and reporting, investment management, or our rolling strategy process.

### Innovation Process

The first stage of the Jenoptik innovation process involves a strategic analysis of global trends and the requirements of our customers to identify opportunities for growth. On this basis, we develop innovation projects that are aligned with our core competencies, often in direct cooperation with key customers.

The Jenoptik Group's innovation process is multi-stage and follows the procedural guidelines set by the central innovation management. Strategic development projects are planned in R+D road maps on the basis of corresponding milestones. This applies to product, technology and process innovations.



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To further increase our innovative power, we must not only develop technologies and products. In addition to selected photonics markets, it is above all the expansion of our applications expertise as well as new digital business models based on our existing technologies and skills that act as an enormous driver for growth and are at the center of our research and development work. The most recent example and also the winner of the Jenoptik Innovation Award 2017 was the development of a technology platform for high-performance optics in the Optics & Life Science segment. In the future, this modular platform will facilitate the quicker and more efficient development of new high-performance optical systems for our key customers in the semiconductor equipment industry. New technologies for system correction allow an automated alignment in the application and therefore even more challenging customer applications.

### 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 demanding. Their knowledge is used both for specific tasks and across all segments in corresponding development projects. **T12**

### Key Cooperation Arrangements and Memberships in Associations

Jenoptik procures additional external expertise with the help of targeted cooperation arrangements. The objectives of research cooperation arrangements range from the market-driven realization of joint projects to reductions in development time frames through to the successful development of specialist expertise. 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. The cooperation with the advisory council, which has had a new line-up since 2016 and which corresponds in its structure to the future technological and market-related orientation of the company, was further intensified in 2017, and promising ideas and concepts transferred to cooperation projects, some of which are cross-segment. The cooperation arrangements mentioned below are some of those in which Jenoptik has been active over the past year.

In the SeNaTe Project funded by the European Union, the technological principles for the manufacture of semiconductor structures with structure widths of 7 nanometers are being developed in cooperation with 40 European partners. These even smaller structures in comparison with current technology will allow for more compact, powerful, and efficient chips, which will be used in a variety of different devices in the future, enabling topics such as the "Internet of Things" (IOT). In the SeNaTe project, Jenoptik is responsible for the development of compensation concepts for improving the performance of inspection lenses and for the development of innovative coating solutions for ensuring consistently high optical performance in the UV range. Both are compulsory prerequisites for the cost-effective production of semiconductor structures in these size ranges.

To realize a compact, modular drive concept (Komma<sup>WBG</sup>), the Defense & Civil Systems division in cooperation with Helmut-Schmidt-Universität (Hamburg) is examining wide bandgap power semiconductors with the focus on their application. In comparison with conventional semiconductors, and in addition to increased efficiency, wide bandgap power semiconductors offer advantages in terms of frequency and space, thus presenting great potential for use in current and future products.

Jenoptik also strongly advocates an environment that encourages innovation, promotes the image of photonic technologies, and plays an active role in numerous sector and technology-oriented associations. The German Industry Association for Optical, Medical and Mechatronic Technologies (Spectaris) and the European Technology Platform Photonics21 are examples of this.

## T12 Employees in R+D

	2017	2016
Number of employees in R+D	461	426
Percentage of overall workforce in %	12.1	11.7

## Development Output

The R+D output of the Jenoptik Group, including developments on behalf of customers, increased to 66.6 million euros in 2017 (prior year: 57.4 million euros). Development costs in connection with customer orders are apportioned to the cost of sales. **T13**

The R+D output of the segments is shown in the table below. **T14**

R+D output in the **Optics & Life Science segment** includes development costs on behalf of customers worth 6.8 million euros (prior year: 7.6 million euros), as key development projects are frequently carried out together with customers. R+D expenses in 2017 totaled 13.4 million euros (prior year: 14.3 million euros).

The R+D output of the **Mobility segment** included developments on behalf of customers totaling 13.5 million euros (prior year: 4.2 million euros), which are essentially attributable to one project in the Traffic Solutions segment. The segment's R+D expenses came to 16.4 million euros (prior year: 20.3 million euros).

In 2017, developments directly on behalf of customers in the **Defense & Civil Systems segment** came to 1.8 million euros (prior year: 3.3 million euros). The segment is also a long-term partner for large systems companies and develops platform technologies in conjunction with its customers. The segment's R+D expenses rose to 12.6 million euros (prior year: 7.4 million euros), especially due to development projects in the aviation area.

## Patents

Our R+D capital expenditure 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. A total of 52 patents were filed by Jenoptik companies in 2017 (prior year: 36 patents). Alongside numerous registrations in the field of "optical components" and "optical modules", strong growth was seen in the patent portfolio for "surface metrology" and "traffic safety systems". In total, the Jenoptik Group currently has more than 460 active patent families.

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. **G11**

## Key Projects and Results

Our aim is to offer our customers the very best 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 2017:

For example micro-optical system solutions were developed for the **semiconductor equipment industry** in 2017 to support future technologies and to optimize cost-of-ownership. Working with the Leibnitz Institute for Photonic Technologies in Jena, it was possible to realize an additional functionality based on integrated sensor technology and develop it to readiness for series production. The existing product portfolio of encapsulated pulse compression gratings with maximum efficiency or ultra-precise beam-shaping elements was expanded, especially for manufacturing and test equipment in the field of consumer electronics.

## T13 R+D Output (in million euros)

	2017	2016	2015	2014	2013
R+D expenses	43.1	42.3	41.8	39.4	39.8
Capitalized development costs	1.4	0.1	0.4	0.5	0.2
Developments on behalf of customers	22.2	15.0	10.9	10.5	12.2
R+D output	66.6	57.4	53.1	50.4	52.2
R+D ratio 1 (R+D output/revenue) in %	8.9	8.4	7.9	8.5	8.7
R+D ratio 2 (R+D expenses/revenue) in %	5.8	6.2	6.2	6.7	6.6

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The same applies to ultra-precise beam-shaping elements which are used in **laser material processing**. In 2017, new beam-shaping concepts were developed, in particular for the laser-cutting and processing of display glass. Together with customers we subjected them to first application tests in the target market of China. In 2017, Jenoptik was able to further expand its catalog range of F-Theta lenses and beam expander optics. Our developments in the field of high-performance laser applications as well as for micro material processing are characterized by unique precision and thermal stability. Optics for processing with ultrashort pulse lasers are supplied with special certification and convince customers with their particularly long service life. These products are targeted, for example, at the automotive/machine construction and medical technology growth markets.

In January 2017, an autonomous innovation team was established in the field of optical systems to create new solutions for the **digital world**. The first product to be presented in 2018 will be a motorized beam expander, which enables a change or adjustment of the diameter of the laser beam and the focus position during the process. A compact system that makes micro material processing more efficient through machine learning and is also an important step into the digital world. The Micro Machining Tool enables this through the integration of laser material processing components in combination with imaging and a new machining process. Alignment and calibration time is no longer required during the production process.

A digital and therefore wireless micro-imaging platform for fluorescence microscopy was developed for our customers in the **medical technology and life science industry**. "SYIONS" has enabled Jenoptik to expand its comprehensive problem-solving expertise in the field of diagnostics and analytics with a customer-

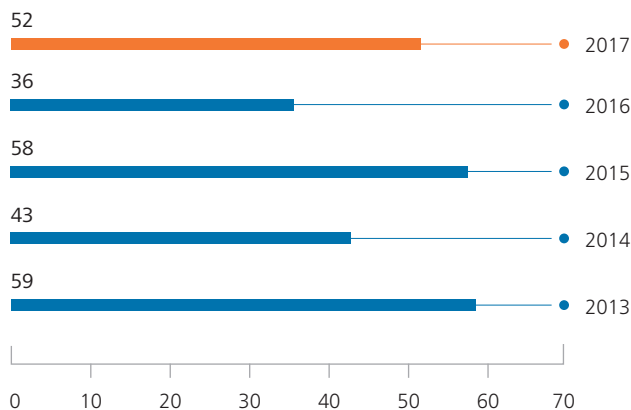
specific, configurable platform for digital image capture, processing, and analysis. The wireless, encapsulated, miniaturized fluorescence microscope was first introduced to our customers at Photonics West 2018 in San Francisco. The new solution enables all kinds of image data in in-vitro diagnostic devices to be generated quickly and efficiently for scientific and clinical use. Applications in the areas of live cell imaging, flow cytometry and molecular diagnostics can be realized quickly and inexpensively with the Jenoptik modular system. Thanks to this, taking samples for analysis is now a thing of the past, thus facilitating the customer's workflow.

In order to be able to offer powerful and innovative system solutions for imaging techniques and diagnostic applications in the healthcare market, Jenoptik has expanded its technology portfolio in the past fiscal year to include next-generation laser beam sources and image processing systems. For the growing market in aesthetic laser treatments, the Group will in the future offer more highly integrated solutions and application-specific components, which will enable more efficient treatment, instead of the current laser modules. In 2017, and using an electrically pumped VCSEL laser source, Jenoptik developed a highly integrated technology in the field of coherence tomography which has achieved a spectral range of 51 nm width – known as the sweep range. The depth resolution required for innovative ophthalmology applications paves the way for low-artefact, high-resolution 3D images of eye structures. In addition to ophthalmology, the new technology can also be used in other medical fields (cancer diagnosis and dermatology).

**T14** R+D Output per Segment (in million euros)

	2017	2016	Change in %
Group	66.6	57.4	16.1
Optics & Life Science	21.1	21.9	-3.7
Mobility	30.0	24.5	22.3
Defense & Civil Systems	14.9	10.6	40.2
Other, incl. consolidation	0.7	0.3	97.7

**G11** Number of Patent Registrations



In 2017, the Group has also developed numerous new products and initiated its first strategic projects in the field of e-mobility, e-transmissions and battery production for the [automotive industry](#). Our R+D team has also intensively examined the effects of Industry 4.0 and digitization so that these can be incorporated into the specifications for the future developments. Automation, flexibility, and shortening of measurement times to improve process efficiency for customers are already the focus of current developments.

Maximum precision and measuring speed ensure the high production quality demanded by the global automotive industry. In order to respond more effectively to the future requirements of customers, our developers have modernized the measuring machines used for the final inspections of crankshafts and camshafts, for example. The "TOLARIS" software platform designed for this purpose was further developed in 2017 and will in the future improve the measurement and control electronics of these machines. Our "TOLARIS" software product portfolio now offers software for all application areas of dimensional metrology. It has a uniform user interface, uniform interfaces to customer QA systems, and standardized internal data formats.

In order to optimally meet the needs of its customers, Jenoptik developed modular, fully-automated "wavemove" measuring systems, which are used worldwide to measure the roughness of components in the car and truck drive train. The technology was simultaneously transferred to the USA, thereby enabling the business units there to generate local added value in this important growth market. The "waveline" roughness measuring system, which was newly developed in 2017, offers customers in the automotive industry modular systems and, in the future, even faster and more precise measuring processes.

For surface testing, for example of cylinder inner raceways, the Visionline internal test sensor was further developed in 2017 so that even smaller bore holes can be inspected in the future.

In the [Traffic Solutions](#) field, Jenoptik entered the market for truck toll monitoring systems in 2017, offering a unique solution for recording and classifying trucks on federal highways through the digital combination of different sensor technologies. The new system is connected across Germany to the top-level control system of the toll company Toll Collect, combining modern sensor technology with stereo image processing, side-view cameras and radar. This facilitates axle detection together with recording of the dimensions. The

communication between the on-board unit and the back office was as much a component of development work as the documentation in the event of a violation. The toll monitoring systems are installed on the side of federal highways, making the comprehensive installation of monitoring gantries unnecessary. This limits interference in the environment.

For the traffic monitoring market, a compact system for monitoring speeds and red lights including automatic number plate recognition was developed in 2017 and combines the well-known Vector ANPR camera with a radar sensor.

In the market for [security and defense technology](#), the Energy & Drive business unit completed the product portfolio with its new air-cooled SAM 600 A generator and focuses on modularity and family concepts. Electric generators from Jenoptik generate reliable, efficient, and on-demand electricity for the on-board networks of various military vehicles, ensuring mobility and operational readiness. The 28-V generator is characterized by a high proportion of standardized components and is optimized for a small footprint and ease of transport.

In the [aviation](#) area, 2017 saw the development of a heating system for the crew rest area on the A330, the modification of existing heating elements, and the expansion of the product portfolio. The heating system is extremely reliable and robust; It can neither overheat nor burn out and provides more comfort and safety in civil aviation. The innovative heated floor panels (Floor Panel Heated – FPH) already passed the Airbus Critical Design Review (CDR) by the end of 2017. Upon completion of the development phase, the qualification phase will begin in March 2018. New workers will be employed for the series production planned from the end of 2018, and the manufacturing structure in Wedel will be adjusted.

In the [sensor technology](#) business, a prototype for industrial applications was developed as part of an ongoing R+D program in the LiDAR future field. It was presented to the public for the first time in November 2017 at the SPS IPC Drives trade show in Nuremberg. The market launch of the industrial 3D LiDAR scanner is scheduled to take place in approximately 2 to 3 years in order to meet the demand from our established industrial automation, public safety, and rail logistics markets. However, the three-dimensional measurement technology will also be used to develop new applications such as in manual, automatic or autonomous drone control or applications in intelligent agriculture.

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## Employees

### Development of Employee Numbers

As of December 31, 2017, with 3,680 employees (incl. trainees), Jenoptik recorded growth in its workforce of 4.0 percent (31/12/2016: 3,539 employees). As a result of the acquisitions and first-time consolidations, the number of Jenoptik employees abroad increased by 17.5 percent to 802 employees (31/12/2016: 686). Consequently, the proportion of employees abroad increased to 22.6 percent (31/12/2016: 19.4 percent), thereby contributing to the internationalization strategy. **T15**  
**T16**

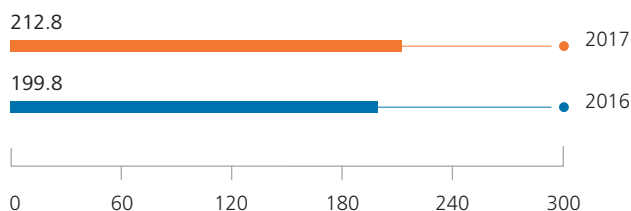
Temporary workers were also employed in the past fiscal year to cover production peaks and for major projects. They were employed predominantly in production and production-related areas. On the reporting date of December 31, 2017, 114 temporary workers were employed in the Group (31/12/2016: 64).

At 258.3 million euros, personnel expenses in 2017 (wages, salaries, social security contributions, pension expenses) were up 4.9 percent compared with the prior year's figure of 246.1 million euros. The increase was attributable both to the increased number of employees in the Group and to wage and salary increases.

Revenue per employee also developed positively due to strong revenue growth and increased by 6.5 percent to 212.8 thousand euros (prior year: 199.8 thousand euros). **G12**

As of December 31, 2017, the proportion of women in the Group (in Germany and abroad) was 26.9 percent, remaining almost unchanged (31/12/2016: 27.0 percent).

### G12 Revenue per Employee (in thousand euros)



Change

2017 6.5%

The employee age distribution, as can be seen in the table below, is balanced and corresponds as far as possible to the figures of the prior year. **T17**

### T17 Employee Age Distribution (in percent)

Under 30 years old	30–39 years old	40–49 years old	50–59 years old	60–65 years old	More than 65 years old
13.01	26.30	22.81	25.59	11.32	0.97

### T15 Employees as of December 31 by Segment (incl. trainees and academy students)

Group	2017	2016	Change in %	Absolute change
Group	3,680	3,539	4.0	141
Optics & Life Science	1,149	1,123	2.3	26
Mobility	1,326	1,229	7.9	97
Defense & Civil Systems	897	881	1.8	16
Other	308	306	0.7	2

### T16 Employees as of December 31 by Region (incl. trainees and academy students)

	2017	2016	Change in %	Absolute change
Germany	2,878	2,853	0.9	25
Germany in %	81.0	80.3		
Abroad	802	686	16.9	116
Abroad in %	22.6	19.3		
Europe (excl. Germany)	198	174	13.8	24
Americas	346	285	21.4	61
Asia/Pacific	258	227	13.7	31



The absenteeism rate among Jenoptik employees in Germany also remained the same in 2017 at 5.4 percent (prior year: 5.4 percent). The staff fluctuation rate developed positively during the year covered by the report. This is calculated from the number of employees leaving the company in the entire month, excluding temporary workers and trainees, divided by the number of employees on the reporting date at the end of the month. The fluctuation rate in Germany fell from 4.2 percent in 2016 to 3.0 percent in 2017.

## Training

As of December 31, 2017, 109 trainees and students of the Duale Hochschule (Cooperative State University) were employed at the Group's German sites (31/12/2016: 123). Of these, 27 new apprentices and students of the Cooperative State University were recruited at the beginning of the new training year in 2017 and 34 were taken on after successfully completing their training. 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.

## Human Resources Development

In 2017, Jenoptik invested around 2.0 million euros in the professional development of its employees (prior year: 1.8 million euros). In the year covered by the report, 1,755 employees (prior year: 1,832 employees) have benefited from this. HR development requirements are reviewed once a year as part of an analysis of training needs.



Further information  
can be found in the  
Non-financial Report.

## Organizational Development

For the 2018 fiscal year, a reorganization of the HR department is planned on a global level as well as in Germany. The previous organizational structure will be converted into an HR Business Partner model. Each global division will be supported by a Global HR Business Partner, who in turn works closely with a national HR operations team and HR experts. This means that in the future, there will be three clusters in the HR department.

With the reorganization in line with the new strategy, HR will make a greater contribution to the company's success and also ensure that the Group is much better prepared for the challenges ahead, such as a new organization, culture, transformation, and the acquisition of new employees.

Important projects in the fiscal year 2018 are the supporting of the organizational and cultural change throughout the Group as well as the specific control and implementation of individual organizational development projects. In addition, optimization of operational HR processes in the sense of automation has already begun.

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# Economic Report

## Macro-economic and Sectoral Developments

In the [global economy](#), the recovery which began in mid 2016 continued on a broad basis in 2017, according to the International Monetary Fund (IMF) in its January 2018 World Economic Outlook. Europe and Asia in particular pleasantly surprised. Both the EU and the euro zone recorded the strongest economic growth for a decade, at 2.5 percent, according to the Eurostat statistics authority. In Germany, gross domestic product (GDP) rose by 2.2 percent in 2017 compared to the prior year, driven by private consumption, high corporate investment, and strong exports, which in 2017 exceeded the record level of the previous year by 6.3 percent according to statistics authority Destatis. **T18**

The Spectaris industry association delivered a positive assessment for the German [photonics](#) industry for 2017: after revenue of 30.3 billion euros in the prior year, the association calculated an increase of 8 to 9 percent based on preliminary estimates. According to Spectaris, the major portion of domestic production within the German photonics industry is being generated in the medical sector, more than in the application areas of production technology, analytical technology and metrology as well as optical components.

In the past year, revenue generated by German manufacturers of [medical technology](#) was almost 5 percent higher than in 2016 and surpassed the 30 billion euro mark for the first time, according to preliminary calculations by Spectaris, as the association informed in a press release published on the occasion of the MEDICA trade fair in November 2017. Major target regions

of the export-oriented German manufacturers included the European Union, North America and Asia, here in particular China. The demographic development in mature economies, the establishment and modernization of health care systems in many emerging countries, as well as the continuously growing importance of health drive the strong demand.

2017 was a record year for the [semiconductor industry](#): according to the Semiconductor Industry Association (SIA), at 412.2 billion US dollars, the industry worldwide generated a generous fifth more revenue than in the prior year. This development was assisted by the integration of semiconductors into everyday and consumer products as well as emerging technologies and trends such as artificial intelligence, virtual reality and the Internet of Things.

Due to the high demand, revenue generated in the [semiconductor equipment industry](#) also reached a record level in 2017: 55.9 billion dollars (prior year: 41.2 billion dollars) were generated worldwide, an increase of 35.6 percent on the prior year, according to preliminary calculations from the Semiconductor Equipment and Materials International (SEMI) trade association. On a regional basis, 2017 saw South Korea become the largest semiconductor equipment market for the first time, followed by Taiwan and China. **G13**

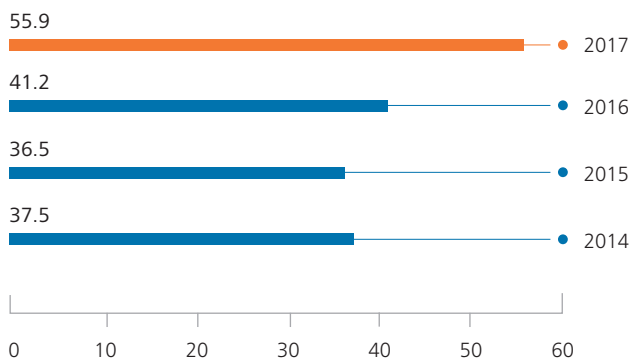
According to the German Engineering Federation (VDMA), the industry was able to benefit from the strong global economy in 2017, recording a total of 8 percent more orders. Orders

### T18 Change in Gross Domestic Product (in percent)

	2017	2016
World	3.7	3.2
USA	2.3	1.5
Euro zone	2.4	1.8
Germany	2.5	1.9
China	6.8	6.7
India	6.7	7.1
Emerging countries	4.7	4.4

Source: International Monetary Fund, World Economic Outlook, January 2017

### G13 Semiconductor Equipment: Global Revenue (in billion US dollars)



Source: Semiconductor Equipment and Materials International (SEMI)

from abroad were 10 percent higher than in the prior year, while business in Germany failed to meet expectations. Production increased significantly following five years of stagnation: according to preliminary calculations of the German Federal Statistical Office, German [machine construction](#) companies achieved a production volume of around 212 billion euros, an increase of 3.1 percent over the prior year. The revenue increased to 224 billion euros according to preliminary estimates.

The German [machine tool industry](#) also reported a successful year: according to the VDW industry association, German manufacturers recorded a total of 8 percent more orders in 2017 than in the prior year; Germany in particular saw massive investment in machine tools in the second half of the year. At 15.7 billion euros, a new record for production volume was achieved.

All major markets in the [automotive industry](#) showed positive development in 2017 according to VDA, the German industry association. Only the US recorded a slight decline in cars and light vehicles of just under 2 percent; however, the volume of new registrations was still at a high level. In Germany, the number of new registrations in 2017 rose to the highest market volume in this decade. With regard to the US market, the VDA reported that German car manufacturers and suppliers have tripled the number of US locations since the end of the 1990s.

In the [traffic safety](#) sector, the German Federal Statistical Office's preliminary accident statistics indicate that the number of road deaths in Germany in 2017 fell slightly in comparison

with the prior year. In total, 3,177 people died in road traffic in Germany throughout the year, 0.9 percent less than in the prior year. In 2017, for the second year in a row, more than 40,000 people died on the roads in the USA. This was the result of preliminary calculations by the US National Safety Council. However, the slight decline of 1 percent year-on-year is not yet indicative of a turnaround.

In the [aviation](#) industry, aircraft manufacturer Airbus increased its order intake by more than half in 2017 compared to the prior year: with 1,109 orders Airbus was ahead of its US competitor Boeing (912 orders). In terms of deliveries, Airbus set a new company record with 718 planes, but nevertheless the Group still lagged behind Boeing (763 deliveries). Airbus also received a new major order for the A380, the world's largest passenger aircraft, which secures production for years.

The German Ministry for Economic Affairs and Energy announced the 2017 armaments exports in the German Bundestag for the German [security and defense technology industry](#). In 2017, the total value of individual export licenses granted was 6.24 billion euros, a slight decrease compared with the prior two years, but historically the third highest value. A single order from Algeria accounted for a large proportion of this. In the area of missile defense, the USA announced in the summer of 2017 that it would be selling the Patriot system to Poland and Romania. In November, Sweden also announced its planned purchase of the medium-range missile defense system.

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## Legal Framework Conditions

The legal framework conditions governing business operations essentially remained constant in 2017 and therefore had no significant impact on the business development of the Jenoptik Group.

## Earnings, Financial and Asset Position

### Comparison of Actual and Forecast Course of Business

Following the release of the preliminary results in January 2017, Jenoptik's Management predicted further growth in revenue and earnings in a first outlook for the current fiscal year. In March, the forecast for revenue was set at between 720 and 740 million euros. All three segments were to contribute to the revenue growth. The EBIT was also projected to rise and the

EBIT margin should lie between 9.5 and 10.0 percent, depending on the development of revenue.

Based on the positive development of business, the Executive Board then firmed up its projection in mid-November with the nine-month report. Revenue and the EBIT margin should then come in at the upper end of the previously forecast range of 720 to 740 million euros or 9.5 to 10.0 percent, with revenue including acquisitions even slightly higher.

In the year covered by the report, the Jenoptik Group generated revenue of 747.9 million euros, which reached the predicted amount when including the acquisitions.

The EBIT margin increased to 10.4 percent, thereby exceeding the value announced in November. Profitability therefore improved significantly in comparison with the prior year (prior year: 9.7 percent).

## T19 Actual and Forecast Course of Business (in million euros/or as specified)

Indicator	Year-end 2016	Forecast 2017	Year-end 2017	Change in %
Revenue	684.8	January: Further growth March: Between 720 and 740 million euros November: At the upper end of the previously published range, including the acquisitions even slightly higher	747.9	9.2
Optics & Life Science	221.5	March: Growth in the high single-digit percentage range	259.4	17.1
Mobility	247.7	March: Growth in the high single-digit percentage range	270.1	9.0
Defense & Civil Systems	218.3	March: Slight growth	219.3	0.5
EBITDA <sup>1)</sup>	94.7	March: Slightly weaker rise than EBIT	106.7	12.8
EBIT <sup>1)</sup> /EBIT margin <sup>1)</sup>	66.2	January: Further growth March: Increase, EBIT margin between 9.5 and 10.0% November: At top end of previously forecast range	77.8	17.6
Optics & Life Science	33.4	March: Stable at minimum (includes one-off operational income in 2016) August: Sharper rise than originally planned	50.5	51.1
Mobility	24.4	March: Rise stronger than revenue August: Considerably below expectations	18.5	-24.2
Defense & Civil Systems	19.1	March: Stable	19.2	0.3
Order intake	733.8	March: Slight increase	802.9	9.4
Free cash flow	80.4	March: Considerably below 2016 figure	72.2	-10.1
Capital expenditure <sup>2)</sup>	27.5	March: 35 to 40 million euros	37.9	38.1

<sup>1)</sup> without discontinued operations

<sup>2)</sup> without capital expenditure on financial assets

The development of revenue and EBIT for the segments is shown in the following table. **T19**

The EBITDA also saw an increase, which as predicted was below the increase in EBIT.

With an increase of 9.4 percent, the order intake rose somewhat more strongly than expected.

The free cash flow also developed better than predicted in the spring of 2017; however, at 72.2 million euros at the end of 2017, it remained as planned below the value of the prior year.

Capital expenditure was forecast to be in the amount of 35 to 40 million euros and fell within this range at 37.9 million euros.

### Earnings Position

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

In the 2017 fiscal year, the Jenoptik Group generated new record **revenue** of 747.9 million euros (prior year: 684.8 million euros), growing by 9.2 percent in comparison with the prior year. At 221.1 million euros, the fourth quarter of 2017 generated the highest revenue in both the past fiscal year and the years before (prior year: 192.2 million euros). All the segments reported revenue growth in 2017. Overall good business performance was facilitated by strong demand from the semiconductor equipment industry and the traffic safety market. **T20**

On a regional basis, growth stimulus came predominantly from the Americas and the Asia/Pacific region, but also from Europe (excluding Germany). In the Americas, group revenue increased significantly in comparison to the prior year by 28.5 percent. The reasons for this include greater demand for optical systems, laser processing machines for the automotive industry and products in the Defense & Civil Systems segment. Revenue in Asia/Pacific increased by 11.1 percent to 111.3 million euros (prior year: 100.2 million euros), chiefly due to the increased demand for traffic safety products in Australia and for optical systems. The share of revenue for both growth regions of the Americas and Asia/Pacific combined came to 38.1 percent of group revenue

## T20 Revenue by Segment (in million euros)

	2017	2016	Change in %
Group	747.9	684.8	9.2
Optics & Life Science	259.4	221.5	17.1
Mobility	270.1	247.7	9.0
Defense & Civil Systems	219.3	218.3	0.5
Other	-0.8	-2.7	69.3

## T21 Revenue by Region (in million euros and as percent of total revenue)

	2017		2016	
	Revenue	% of total	Revenue	% of total
Group	747.9	100.0%	684.8	100.0%
Germany	222.6	29.8%	226.5	33.1%
Europe	212.3	28.4%	197.8	28.9%
Americas	173.6	23.2%	135.2	19.7%
Asia/Pacific	111.3	14.9%	100.2	14.6%
Middle East/Africa	28.1	3.8%	25.1	3.7%



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(prior year: 34.4 percent). At 28.1 million euros, revenue in the Middle East/Africa increased beyond that of the prior year (prior year: 25.1 million euros). At 525.3 million euros, Jenoptik generated 70.2 percent of revenue abroad in the past fiscal year (prior year: 458.3 million euros or 66.9 percent). Outside Germany, Europe remained the region with the highest revenue, accounting for a 28.4 percent share of group revenue, followed by the Americas with 23.2 percent. T21

In 2017, Jenoptik again generated its greatest share of revenue of 30.4 percent in the automotive & mechanical engineering target market. The share of revenue in the security & defense technology sector fell slightly to 20.8 percent (prior year: 21.4 percent). Revenue in the semiconductor equipment industry rose due to the industry boom, while business in the medical technology and aviation & traffic markets remained stable at

the prior year's level. In 2017, 18.3 percent of group revenue was attributable to the top 3 customers (prior year: 16.3 percent). T22

The cost of sales rose by 8.3 percent to 484.0 million euros and thus at a slightly lower rate than the revenue (prior year: 446.9 million euros), in particular due to the positive development in the Optics & Life Science segment. The cost of sales includes expenses arising from developments directly on behalf of customers, which totaled 22.2 million euros (prior year: 15.0 million euros), and offset corresponding revenues. T23

The gross profit increased accordingly to 263.9 million euros (prior year: 237.9 million euros). The gross margin rose to 35.3 percent (prior year: 34.7 percent), due to volume and product mix effects. G14

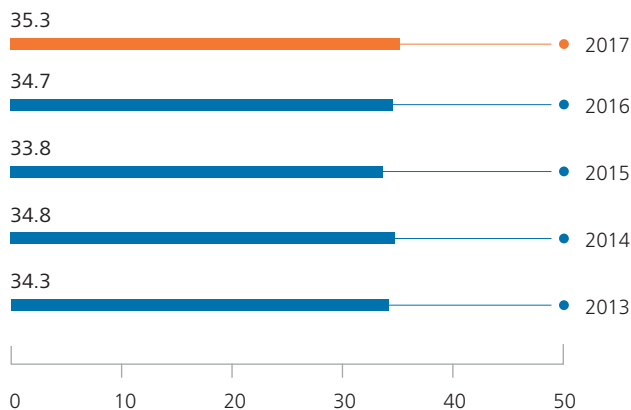
## T22 Revenue by Target Market (in million euros and as percent of total revenue)

Group	2017		2016	
	Revenue (million euros)	Share of total revenue (%)	Revenue (million euros)	Share of total revenue (%)
Automotive & mechanical engineering	227.0	30.4%	213.3	31.1%
Security & defense technology	155.8	20.8%	146.3	21.4%
Aviation & traffic	153.0	20.5%	142.3	20.8%
Semiconductor equipment industry	127.8	17.1%	91.8	13.4%
Medical technology	43.4	5.8%	42.1	6.1%
Other	41.0	5.5%	49.1	7.2%

## T23 Key Items in the Statement of Comprehensive Income (in million euros)

	2017	2016	Change in %
Cost of sales	484.0	446.9	8.3
R+D expenses	43.1	42.3	1.8
Selling expenses	80.3	73.6	9.1
Administrative expenses	55.8	57.6	-3.1
Other operating income	15.7	23.4	-32.6
Other operating expenses	22.6	21.5	4.8

## G14 Development of the Gross Margin (in percent)





More detailed information on research and development in the Jenoptik Group can be found on page 76 ff.

Key factors in the Group's future performance and competitiveness are the **research and development expenses (R+D expenses)**. These increased slightly to 43.1 million euros (prior year: 42.3 million euros). The share of R+D expenses as a proportion of revenue came to 5.8 percent, slightly lower than in the prior year (prior year: 6.2 percent).

The Jenoptik Group again pushed ahead with its internationalization strategy in the 2017 fiscal year. In the course of expanding international activities, **selling expenses** increased by 9.1 percent to 80.3 million euros in 2017, due to, among other things, the setting up of a central Services & After Sales organization in the automotive sector. The selling expenses ratio, at 10,7 percent, was unchanged compared to the prior year (prior year: 10.7 percent).

**General and administrative expenses** came to 55.8 million euros (prior year: 57.6 million euros). The costs could be reduced by active cost management, among other things. In addition, the prior year was characterized by expenses in connection with the change in the Executive Board as well as an increased valuation of share-based payments (LTI) for the Executive Board and some members of the top management, which fell significantly in 2017. At 7.5 percent, the administrative expenses ratio was therefore less than the prior year's figure of 8.4 percent.

**Other operating income** fell to 15.7 million euros (prior year: 23.4 million euros). The high level of the prior year was mainly due to above-average income arising from the reversal of impairments and the sale of an investment. In 2017, other operating income included, in particular, positive currency effects and income arising from the reversal of impairments on receivables.



Information on the segment EBIT can be found in the Segment Report from page 98 on



Detailed information on the composition of the other operating income and expenses, as well as total other comprehensive income, can be found in the Notes

**Other operating expenses**, at 22.6 million euros, were also slightly up on the level of the prior year (prior year: 21.5 million euros). They included foreign currency exchange losses, impairments on receivables, and costs arising in connection with the acquisitions.

In the 2017 fiscal year, Jenoptik also achieved a new record in its operating results over recent years. The **operating result (EBIT)** rose faster than revenue by 17.6 percent to a total of 77.8 million euros. In addition, there are earnings of 0.2 million euros originating in the sale of a former business unit (prior year: 2.3 million euros) which are disclosed as EBIT from discontinued operations. Overall, the EBIT margin improved correspondingly to 10.4 percent (prior year: 10.0 percent or 9.7 percent without income from discontinued operations) and was therefore above the target corridor for 2017. The clear rise in earnings in the Optics & Life Science segment contributed significantly to this. **T24**

The **earnings before interest, taxes, depreciation and amortization (EBITDA)** also increased overall at a faster rate than revenue by 10.3 percent to a total of 106.9 million euros (prior year: 96.9 million euros). The EBITDA for continuing operations came to 106.7 million euros in 2017 (prior year: 94.7 million euros). **T25**

Due to the increase in earnings, the **ROCE (Return on Capital Employed)** for continuing operations also improved to 18.2 percent by December 31, 2017 (prior year: 15.6 percent). Jenoptik shows this indicator inclusive of goodwill and before taxes. The calculation of the ROCE is explained in the glossary on page 204 and shown in the following table. The average tied capital is calculated as the average of the month end values in the reporting period. **T26**

## T24 EBIT (in million euros)

	2017	2016	Change in %
Optics & Life Science	50.5	33.4	51.1
Mobility	18.5	24.4	-24.2
Defense & Civil Systems	19.2	19.1	0.3
Other	-10.3	-10.8	3.8
EBIT continuing operations	77.8	66.2	17.6
EBIT discontinued operations	0.2	2.3	-91.2
EBIT	78.0	68.5	14.0

## T25 EBITDA (in million euros)

	2017	2016	Change in %
Optics & Life Science	58.7	41.7	40.7
Mobility	27.9	32.3	-13.7
Defense & Civil Systems	23.8	23.8	0.4
Other	-3.7	-3.1	-17.6
EBITDA continuing operations	106.7	94.7	12.8
EBITDA discontinued operations	0.2	2.3	-91.2
EBITDA	106.9	96.9	10.3

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The **financial result**, which had also been characterized by income from discontinued operations in the prior year, improved significantly to a total of 2.0 million euros (prior year: minus 3.7 million euros, minus 5.2 million euros without discontinued operations). It was essentially characterized by a clearly positive result from investments arising from the profit generated through the disposal of a minority holding abroad as well as other financial assets amounting to 6.3 million euros. Negative currency effects totaling minus 1.0 million euros (prior year: minus 0.4 million euros) had the opposite effect. The interest income rose in comparison with the prior year to 0.7 million euros (prior year: 0.4 million euros). Interest expenses reduced slightly to 4.4 million euros (prior year: 4.9 million euros) due to the payment of liabilities. In addition, the financial result in the fiscal year was positively influenced by the fair-value measurement of the existing put options in connection with the acquisition of the outstanding shares in the Vysionics Group in the amount of 0.3 million euros (prior year: minus 0.6 million euros).


The sharp rise in EBIT as well as the improved financial result were also reflected in the **earnings before tax**, which at a total of 80.1 million euros were 23.7 percent up on the prior year (prior year: 64.7 million euros). The earnings before tax for continuing operations amounted to 79.9 million euros (prior year: 61.0 million euros).

The current income taxes increased to 14.3 million euros (prior year: 9.1 million euros). Of these, 8.0 million euros (prior year: 5.0 million euros) were levied in Germany and 6.4 million euros (prior year: 4.2 million euros) abroad. The increase can be attributed in particular to the higher income during the reporting period. In Germany, JENOPTIK AG's tax loss carried forward had the effect of reducing the tax burden.

The Jenoptik Group's cash effective tax rate, the relationship between the current income taxes and the earnings before tax, remained at 17.9 percent (prior year: 14.1 percent) – a still comparatively low level for German companies.

Non-cash deferred tax income came to 6.9 million euros in the past fiscal year (prior year: 1.8 million euros). The change resulted in particular from the recognition of additional deferred tax assets on the domestic loss carried forward of JENOPTIK AG. 

In 2017, Jenoptik generated **earnings after tax** of 72.7 million euros, a significant improvement of 26.5 percent (prior year: 57.5 million euros). At 72.5 million euros, earnings attributable to shareholders were also well above the prior year's figure of 57.4 million euros. Earnings per share (EPS) therefore totaled 1.27 euros (prior year: 1.00 euros). The earnings after tax of continuing operations amounted to 72.5 million euros (prior year: 53.9 million euros), resulting in **earnings per share** of 1.27 euros (prior year: 0.94 euros).

In the 2017 fiscal year, the **order intake** increased by a total of 69.1 million euros to a new record high of 802.9 million euros (prior year 733.8 million euros). The major orders for the delivery of 3D laser machines to the German automotive industry as well as to equip the Patriot missile defense system and the upgrading of the Leopard 2 tanks are included in part. The order intake in 2017 was thus both above the prior-year value and above the revenue level. The increase in order intake is mainly attributable to stronger demand from the Optics & Life Science segment as well as to reclassifications from the frame contracts, particularly in the Mobility segment. Against this background, the book-to-bill ratio remained stable at 1.07 (prior year: 1.07). **T27 T30 G15** 



See the Notes for detailed information on the subject of taxes.

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See the Segment Report for detailed information on the order intake in the segments.

## T26 ROCE (in million euros, ROCE in percent)

	2017	2016
Long-term non-interest bearing assets	284.0	277.6
Short-term non-interest bearing assets	316.0	301.2
Non-interest bearing borrowings	-171.4	-152.3
Average tied capital	428.6	426.5
EBIT	77.8	66.2
ROCE (in percent)	18.2	15.6

## T27 Order Intake (in million euros)

	2017	2016	Change in %
Group	802.9	733.8	9.4
Optics & Life Science	295.5	236.6	24.9
Mobility	303.7	267.4	13.6
Defense & Civil Systems	206.2	231.6	-11.0
Other	-2.4	-1.8	-33.2

The **order backlog** at the end of 2017 increased to 453.5 million euros (31/12/2016: 405.2 million euros). Of this order backlog, 79 percent will still be converted to revenue in the current year. In conjunction with a well-filled order pipeline, this is a solid basis for the forecast growth in the 2018 fiscal year. **T28**

There were also **frame contracts** worth 87.6 million euros (31/12/2016: 160.9 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 a reclassification in the order intake. **T29**

## Financial Position

### Principles and Targets of Finance Management

The central Treasury department of JENOPTIK AG plans and controls the demand for and 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 monthly rolling liquidity planning.

A cash pooling system also ensures the liquidity supply to all the major companies in the euro zone and limits their liquidity risk. In the 2017 fiscal year, Jenoptik Traffic Solutions UK Ltd. was incorporated in the cash pooling system. For the companies in North America, JENOPTIK North America, Inc. manages the cash pool, which pools the liquidity of all major American Jenoptik companies.

As a result of the above measures, the existing syndicated loan, the issued debenture loans, and steadily rising cash and cash equivalents, the Group's liquidity in the past fiscal year was sufficiently secured at any point.

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

### T28 Order Backlog (in million euros)

	2017	2016	Change in %
Group	453.5	405.2	11.9
Optics & Life Science	109.1	80.7	35.2
Mobility	144.7	108.3	33.7
Defense & Civil Systems	202.6	217.8	-7.0
Other	-2.9	-1.6	-84.1

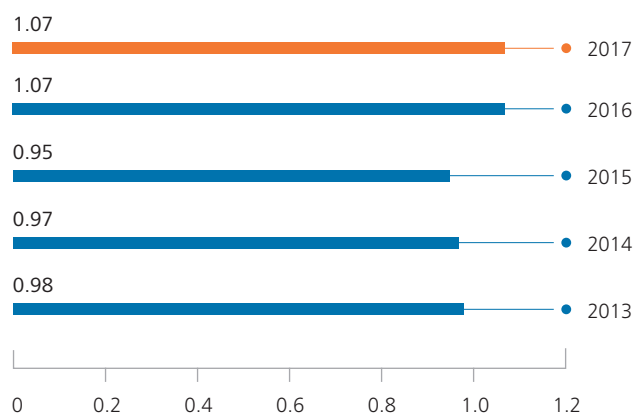
### T29 Frame Contracts (in million euros)

	2017	2016	Change in %
Group	87.6	160.9	-45.6
Optics & Life Science	11.1	14.5	-23.1
Mobility	30.1	79.1	-61.9
Defense & Civil Systems	46.3	67.4	-31.3

### T30 Book-to-bill Ratio (in percent)

	2017	2016
Group	1.07	1.07
Optics & Life Science	1.14	1.07
Mobility	1.12	1.08
Defense & Civil Systems	0.94	1.06

### G15 Development of the Book-to-bill Ratio (in percent)



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### Capital Structure and Financing Analysis

With a very good equity ratio of 59.6 percent as of December 31, 2017, the debenture loans, and the syndicated loan, the Group has a viable financing structure. This gives the company further financial latitude and the flexibility to implement its medium to long-term international growth strategy, i.e. the financing of future organic growth and of acquisitions.

The debenture loans newly issued or converted in 2015, originally with a maturity of five or seven years and a total volume of 125.0 million euros, are subject to variable or fixed interest rates. This also acts to secure Jenoptik’s medium to long-term financing structure. In addition, the company is in a position to make use of a line of credit on attractive terms thanks to the syndicated loan agreement worth 230.0 million euros that was concluded in 2015 and, as optionally extended, runs until 2022. Financial covenants have been agreed for the debenture loans and the syndicated loan, and Jenoptik is in compliance with all their conditions.

In addition to cash and cash equivalents of 132.3 million euros and current financial investments of 64.6 million euros, the Group also has unused volume from credit line agreements totaling 232.2 million euros to fall back on. This means that the company has more than 400 million euros available for corporate development measures.

In 2017, the Group’s non-current financial debt fell to 108.6 million euros (31/12/2016: 120.5 million euros). The

balance sheet item comprised almost exclusively financial liabilities to banks in the amount of 107.9 million euros (31/12/2016: 120.4 million euros). The reclassification of a tranche of debenture loans to current financial debt was chiefly responsible for this downturn. At the end of 2017, non-current financial debt accounted for around 85 percent of Jenoptik’s financial debt (31/12/2016: 97 percent).

Current financial debt rose to 19.3 million euros (31/12/2016: 4.1 million euros), in part due to the take-up of loans to finance the new technology campus in Rochester Hills, Michigan and the reclassification of a tranche of the debenture loans.

As the equity posted at year-end 2017 was 53.6 million euros up on the prior year but borrowed capital increased by only 22.5 million euros, the debt-to-equity ratio improved further, to 0.68 (31/12/2016: 0.71). The debt-to-equity ratio is defined as the ratio between borrowings (359.2 million euros) and equity (529.9 million euros). G16

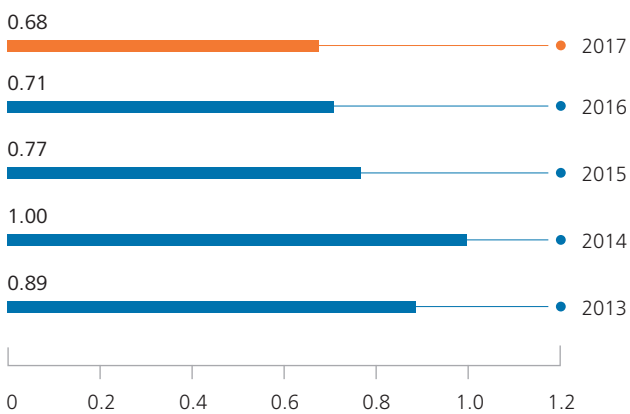
At year-end, the net cash position amounted to 177.5 million euros (31/12/2016: 138.4 million euros). It is defined as the total cash, cash equivalents, and current financial investments in the sum of 196.9 million euros (31/12/2016: 142.5 million euros), minus current financial debt of 19.3 million euros.

The Jenoptik Group remained net debt free throughout the 2017 fiscal year. Thanks to strong cash flows from operating activities, particularly in the fourth quarter, net debt came to minus 69.0 million euros as of December 31, 2017 (31/12/2016: minus 17.9 million euros). This positive development was achieved despite a higher dividend payment, which totaled 14.3 million euros (prior year 12.6 million euros), an increase in capital expenditure, and payments for the acquisition of the US company Five Lakes Automation and the British traffic safety specialist ESSA Technology. T31

### 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.

### G16 Debt-to-equity Ratio (in percent)



In 2017, capital expenditure was used to support further growth, in part with the new technology campus at the US site in Rochester Hills, Michigan, with new customer orders in the traffic monitoring sector and, in the production area, with new technical equipment and the expansion of manufacturing infrastructures at various locations in Germany and abroad, primarily in the Optics & Life Science segment. Examples include investments in optical and micro-optical precision components, in the healthcare and metrology sectors, and in automation solutions for laser systems. In total, the Group invested 37.9 million euros (prior year 27.5 million euros) in intangible assets as well as property, plant and equipment. **T32**

At 33.8 million euros, the largest share of capital expenditure was once again on **property, plant, and equipment** (prior year: 24.5 million euros).

At 4.2 million euros, **capital expenditure on intangible assets** was up on the prior-year level (prior year: 3.0 million euros). The capital expenditure was used for the IT landscape and other group projects. During the reporting period, development services arising from internal projects and worth 0.5 million euros were capitalized (prior year: 0 million euros). **T33**

Scheduled **depreciation** totaled 28.7 million euros (prior year: 27.6 million euros). Impairment losses and reversals came to minus 0.2 million euros (prior year: minus 0.9 million euros).

**Depreciation on property, plant, and equipment** was practically unchanged at 21.2 million euros (prior year: 21.0 million euros) and thus significantly lower than capital expenditure on property, plant, and equipment.

**Amortization on intangible assets** amounted to 7.4 million euros (prior year: 6.5 million euros) and, as in the prior year, mainly covered the depreciation of patents, trademarks and software, as well as the intangible assets identified in the course of company acquisitions.

### Analysis of Cash Flows

**Cash flows from operating activities** came to 96.3 million euros in the year covered by the report (prior year: 100.1 million euros), boosted by higher earnings before tax and a change in provisions. Higher payments for working capital, in particular due to the increase in inventories and receivables, had a negative impact on the operating cash flow. The change in provisions is



Further information on capital expenditure by segment can be found in the Segment Report from page 98 on, or for future investment projects in the Forecast Report from page 121 on

## T31 Net and Gross Debt (in million euros)

	2017	2016	2015	2014	2013
Non-current financial debt	108.6	120.5	113.2	156.8	115.2
Current financial debt	19.3	4.1	14.9	5.1	1.2
<b>Gross debt</b>	<b>127.9</b>	<b>124.6</b>	<b>128.1</b>	<b>161.9</b>	<b>116.4</b>
minus securities	64.6	50.5	0.4	0.3	0.7
minus cash and cash equivalents	132.3	92.0	83.8	69.5	71.6
<b>Net debt</b>	<b>-69.0</b>	<b>-17.9</b>	<b>43.9</b>	<b>92.1</b>	<b>44.1</b>

## T32 Capital Expenditure and Depreciation/Amortization (in million euros)

	2017	2016	Change in %
Capital expenditure	37.9	27.5	38.1
Intangible assets	4.2	3.0	39.2
Property, plant, and equipment	33.8	24.5	38.0
Depreciation/amortization/impairment losses and reversals	28.9	28.5	1.5
Intangible assets	7.4	6.5	12.5
Property, plant and equipment	21.4	21.8	-1.8
Investment properties	0.1	0.1	0.0



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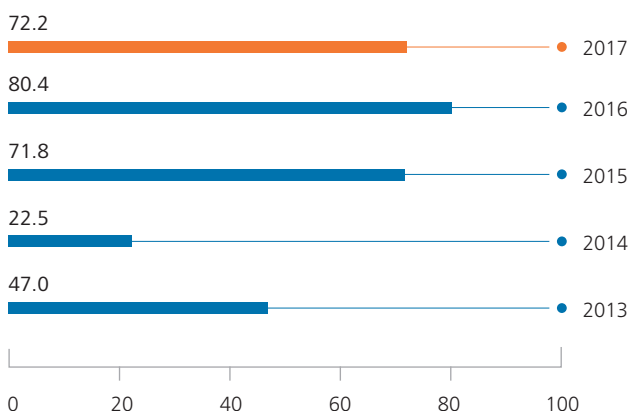
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set out in the Notes, under the item "Other provisions" from page 169 on. **T34**

Cash flows from investing activities came to 42.2 million euros in 2017 (prior year: 71.3 million euros). Increased payments for

### G17 Free Cash Flow (in million euros)



investments were primarily offset by higher proceeds from sale of financial investments in connection with the disposal of shares in a foreign minority holding in the US.

The free cash flow arises from the cash flows from operating activities before income tax payments in the amount of 105.1 million euros (prior year: 109.2 million euros), less the expenditure for operating investment activities in the amount of 32.8 million euros (prior year: 28.8 million euros). During the reporting period, the free cash flow amounting to 72.2 million euros was down on the prior-year value (prior year: 80.4 million euros), mainly due to higher expenditure for the revenue-linked increase in working capital and higher capital expenditure, but nevertheless remained at a good level. **G17**

In the 2017 fiscal year, cash flows from financing activities amounted to minus 12.9 million euros (prior year: minus 20.7 million euros), in part influenced by the payment of a higher dividend, which in total came to 14.3 million euros (prior year: 12.6 million euros), and lower repayments for bonds and loans of minus 3.6 million euros (prior year: minus 11.5 million euros).

### T33 Capital Expenditure by Segment – Intangible Assets and Property, Plant and Equipment (in million euros)

Group	2017	2016	Change in %
Optics & Life Science	37.9	27.5	38.1
Mobility	11.3	6.0	88.4
Defense & Civil Systems	17.5	13.8	26.2
Other	4.5	4.1	8.7
	4.7	3.5	34.2

### T34 Cash Flows (in million euros)

	2017	2016	2015	2014	2013
Cash flows from operating activities	96.3	100.1	85.1	46.3	60.6
Cash flows from investing activities	-42.2	-71.3	-7.2	-37.6	-16.4
Cash flows from financing activities	-12.9	-20.7	-66.5	-13.8	-19.1
Cash-effective change in cash and cash equivalents	41.3	8.0	11.4	-5.0	25.1
Non-cash change in cash and cash equivalents	-0.9	0.1	2.9	2.9	1.1
<b>Change in cash and cash equivalents</b>	<b>40.3</b>	<b>8.1</b>	<b>14.3</b>	<b>-2.1</b>	<b>26.2</b>
<b>Cash and cash equivalents at the end of the fiscal year</b>	<b>132.3</b>	<b>92.0</b>	<b>83.8</b>	<b>69.5</b>	<b>71.6</b>

## Asset Position

As of December 31, 2017 the **total assets** of the Jenoptik Group increased to 889.1 million euros compared with year-end 2016 (31/12/2016: 813.1 million euros). The increase of 76.1 million euros is mainly attributable to the increase in current financial investments and cash and cash equivalents on the assets side, as well as to the increase in liability items such as equity, current financial debt, and current trade accounts payable on the liabilities side. By contrast, financial investments and non-current financial debt, in particular, saw a fall. 

Overall, **non-current assets** increased only slightly, to 376.2 (31/12/2016: 371.9 million euros), with the greatest change here in financial investments, which fell following the disposal of shares in a foreign minority holding in the US to 4.4 million euros (31/12/2016: 19.0 million euros). By contrast, intangible assets and property, plant and equipment increased, mostly due to acquisitions and higher capital expenditure on property,

plant, and equipment. The acquisitions increased the value of the goodwill item to 101.4 million euros (31/12/2016: 94.3 million euros), which thus remained the largest item in intangible assets. Property, plant, and equipment increased to 164.7 million euros (31/12/2016: 157.9 million euros), particularly boosted by the new building in Rochester Hills, Michigan. Due to the capitalization of other deferred taxes on losses carried forward, the active deferred taxes increased to 78.9 million euros in the reporting year (prior year: 74.2 million euros). 

There were only minor changes in the remaining items under non-current assets. **T35**

**Current assets** rose by 71.7 million euros to 512.9 million euros in the past fiscal year (31/12/2016: 441.2 million euros). Inventories were built up as part of the scheduled expansion of business and to ensure delivery capability at the beginning of the new fiscal year. At year-end, they thus rose to a value of 168.6 million



More information on the changes to the consolidated companies can be found in the Notes.



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

## T35 Composition of Non-Current Assets (in million euros and as percent of total value of non-current assets)

	2017		2016		Change in %
	Value	%	Value	%	
Intangible assets	120.9	32.1%	111.4	29.9%	8.6
Property, plant, and equipment incl. investment property	169.1	44.9%	162.3	43.6%	4.2
Financial investments	4.4	1.2%	19.0	5.1%	-76.8
Long-term trade receivables	0	0.0%	1.9	0.5%	-100.0
Other non-current financial assets	2.3	0.6%	1.9	0.5%	20.4
Other non-current non-financial assets	0.6	0.2%	1.1	0.3%	-47.1
Deferred taxes	78.9	21.0%	74.2	20.0%	6.3
<b>Total</b>	<b>376.2</b>	<b>100.0%</b>	<b>371.9</b>	<b>100.0%</b>	<b>1.2</b>

## T36 Elements of Working Capital (in million euros)

	2017	2016	Change in %
Inventories	168.6	159.3	5.8
Trade accounts receivable from third parties and construction contracts	135.8	129.0	5.3
Liabilities arising from trade accounts payable to third parties and construction contracts	61.5	49.0	25.6
Liabilities arising from on-account payments	28.2	29.5	-4.4
<b>Total</b>	<b>214.8</b>	<b>209.9</b>	<b>2.3</b>

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euros (31/12/2016: 159.3 million euros). Also as a result of good revenue at the end of the year, trade accounts receivable rose slightly from 129.8 million euros at year-end 2016 to 136.0 million euros. The increase in short-term cash investments resulted in a boost to current financial investments, which rose from 50.5 million euros to 64.6 million euros. Cash and cash equivalents increased to 132.3 million euros (31/12/2016: 92.0 million euros), primarily due to the good operating cash flow and the payment received from the above-mentioned disposal of shares in a foreign minority holding.

Revenue growth resulted in the working capital increasing in absolute terms; it came to 214.8 million euros at the end of December (31/12/2016: 209.9 million euros), chiefly due to the build-up of inventories and receivables. Despite the absolute increase, active working capital management helped to reduce the working capital ratio, that of working capital to revenue, further, to 28.7 percent (31/12/2016: 30.7 percent). T36

The earnings after tax posted at the end of December 2017, reduced by the dividend payment, the impacts of the first-time consolidation of Jenoptik India, the currency exchange effects from the conversion of the consolidated accounts, and the impacts of the valuation of cash flow hedges and pension provisions recognized outside of profit or loss resulted in an increase in equity, including the non-controlling interests, of

53.6 million euros to 529.9 million euros (31/12/2016: 476.4 million euros). Despite the increase in the total assets and liabilities, the equity ratio, that of equity to total assets and liabilities, also improved further to 59.6 percent (31/12/2016: 58.6 percent). G18

At the end of 2017, non-current liabilities fell to 162.1 million euros (31/12/2016: 175.4 million euros). A key reason for this was the drop of 11.9 million euros, to 108.6 million euros, in non-current financial debt, primarily due to the reclassification of a tranche of debenture loans to current financial debt (31/12/2016: 120.5 million euros). A major element of the non-current financial debt are the debenture loans totaling 103 million euros. Other non-current financial debt also fell, essentially the result of reclassifications to other current financial liabilities as liabilities became due.

Current liabilities rose to 197.1 million euros (31/12/2016: 161.3 million euros). All items saw rises, with the exception of other non-current non-financial liabilities, which fell to 47.3 million euros (31/12/2016: 53.6 million euros), in part due to a payment to a former Executive Board member on the termination of his service contract. At year-end 2017, the balance sheet item included trade accounts payable of 61.7 million euros (31/12/2016: 48.4 million euros), which were attributable in particular to higher revenue-related liabilities to third parties. The other current provisions rose to 51.2 million euros (31/12/2016: 46.2 million euros), in part due to higher personnel provisions and warranty obligations. T37 T38

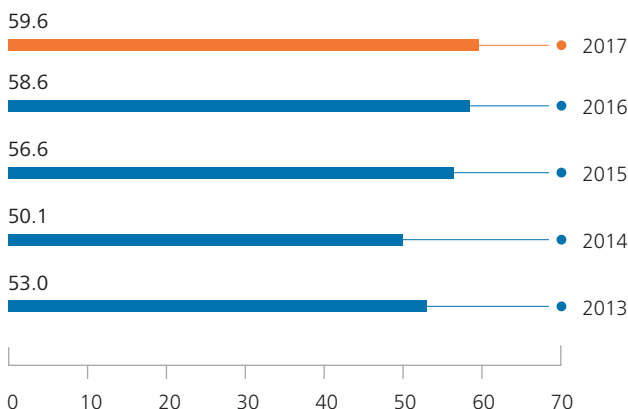
**Purchases and sales of companies:** In January, the Jenoptik Group acquired all shares in the British company ESSA Technology (Domestic and Commercial Security Limited). The company was integrated within the Mobility segment.

In August, the Jenoptik Group acquired all shares in the US company Five Lakes Automation LLC, which was also incorporated in the Mobility segment.


More information on the acquisitions of these companies can be found in the Segment Report, on page 101, and in the Notes, from page 138 on.

There were no other purchases or sales of companies in 2017.

## G18 Equity Ratio (in percent)



## Assets and Liabilities Not Included on the Balance Sheet

The value of the **Jenoptik brand** is one of the main assets not included in the balance sheet. Within the highly specialized photonics market, which is characterized by a multitude of smaller companies, Jenoptik is considered a major supplier. We want to further boost awareness of our brand in the next few years, especially internationally; from 2018 on, we will be actively working to enhance our brand positioning. 

**Non-capitalized 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 the remaining losses carried forward, active deferred taxes are not recognized for corporate income tax purposes in the amount of 105.0 million euros (prior year: 172.7 million euros) and trade tax purposes in the amount of 267.9 million euros (prior year: 330.9 million euros), as they are unlikely to be used

within a determined planning time frame. Equally, no active deferred tax assets were recognized for deductible timing differences in the amount of 6.2 million euros (prior year: 9.4 million euros).

Jenoptik does not utilize any **off-balance sheet financing instruments for its financial and asset position**, such as sales of accounts receivable or asset-backed securities. For details of operating leases, we refer to the Notes, from page 159 on.

Information on **contingent assets and liabilities** can be found in the Notes, from page 184 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 125.7 million euros (prior year: 138.6 million euros). More information can be found in the Remuneration Report, from page 45 on, and in the Information on Takeover Law, from page 41 on.

## T37 Financial Debt by Due Date (in million euros)

	Up to 1 year		1 to 5 years		More than 5 years		31/12/2016	
	2017	2016	2017	2016	2017	2016	2017	2016
Liabilities to banks	19.2	4.1	107.9	44.8	0.0	75.6	127.0	124.5
Liabilities from finance leases	0.2	0.0	0.7	0.0	0.0	0.0	0.9	0.1
<b>Total</b>	<b>19.3</b>	<b>4.1</b>	<b>108.6</b>	<b>44.9</b>	<b>0.0</b>	<b>75.6</b>	<b>127.9</b>	<b>124.6</b>

## T38 Elements of Interest-bearing Liabilities (in million euros)

	2017	2016	Change in %
Current	19.3	4.1	368.3
Liabilities to banks	19.2	4.1	368.6
Non-current	108.6	120.5	-9.9
Liabilities to banks	107.9	120.4	-10.4
Liabilities from finance leases	0.7	0.0	1,427.7



For more information on the brand, see the Non-financial Report

## General Statement by the Executive Board on the Development of Business

In the 2017 fiscal year, Jenoptik continued on its successful path of growth and achieved new revenue and earnings records. All three segments contributed to the increase in revenue. This very good performance was particularly facilitated by strong demand from the semiconductor equipment industry, for traffic safety technology and, on a regional level, by strong growth in the US. Thanks to both a more profitable revenue mix and active cost management, we succeeded in achieving an above-average increase in EBIT.

We also recorded a good increase in the order intake and order backlog. As a result, we have created a solid basis for the further profitable growth of the Group.

With very good earnings capacity and thus strong cash flows, we were able to finance not only our operating business but also major investments and acquisitions to boost our external growth. Despite a significant increase in capital expenditure and higher expenditure for working capital, the free cash flow remained at a healthy level. The Group was net debt free throughout the year. Our equity ratio rose again. We were able to improve our total assets as well as other financial and balance sheet indicators.

The Executive Board was very satisfied with the development of the business.

## Segment Report

The segments' range of products and services and competitive positioning are set out in greater detail in the Group Business Model chapter, from page 68 on.

Information on the various markets can be found in the Sector Report, from page 93 on, and on future developments in the Forecast Report, from page 119 on.

### Optics & Life Science Segment

In the 2017 fiscal year, the Jenoptik Group strengthened its position as a leading supplier of photonic system solutions in the Optics & Life Science segment, which stepped up its role as a development and production partner to numerous international market leaders and also managed to secure further key customers. The segment also boosted its value creation in the field of lithography and again made considerable progress in integrated solutions for semiconductor production. In the past fiscal year, for example, the range of highly efficient and innovative micro-optical solutions, in particular for laser material processing, was successfully expanded. The year also saw a

focus on the medical technology and life science, and on the information and communications technology (ICT) markets. Improved market coverage and the production start-up of new optical products allowed us to successfully increase our international reach in the strategically relevant growth regions of the Americas and Asia/Pacific in 2017. **T39**

The Optics & Life Science segment achieved a new revenue and earnings record in the past fiscal year. **Revenue** rose by 17.1 percent to 259.4 million euros (prior year: 221.5 million euros), with the segment particularly profiting from continuing strong demand in the semiconductor equipment industry and clearly positive growth in the healthcare and industry business. In total, around 79 percent of the segment's revenue was generated abroad in 2017 (prior year: 79 percent), with Europe still enjoying the greatest share, followed by the Americas and Asia/Pacific.

The segment generated **EBIT** of 50.5 million euros (prior year: 33.4 million euros). The operating result thus improved by 51.1 percent, mostly due to the reasons mentioned above. The **EBIT margin** increased sharply to 19.5 percent (prior year: 15.1 percent). **Income from operations before depreciation/amortization (EBITDA)** also grew significantly, by 40.7 percent to 58.7 million euros (prior year: 41.7 million euros).

### T39 Optics & Life Science Segment at a Glance (in million euros)

	2017	2016	Change in %
Revenue	259.4	221.5	17.1
EBITDA	58.7	41.7	40.7
EBITDA margin in %	22.6	18.8	
EBIT	50.5	33.4	51.1
EBIT margin in %	19.5	15.1	
Capital expenditure	11.3	6.0	88.4
Free cash flow	47.5	34.6	37.3
Order intake	295.5	236.6	24.9
Order backlog	109.1	80.7	35.2
Frame contracts	11.1	14.5	-23.1
Employees	1,149	1,123	2.3




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At 295.5 million euros, the [order intake](#) exceeded the high prior-year level (prior year: 236.6 million euros) by 24.9 percent, and in the past reporting year was particularly dominated by a higher demand in the micro-optics and healthcare areas, a key determinant of the successful business performance in the segment. As the order intake grew at a greater rate than revenue, the book-to-bill ratio also rose, to 1.14 (prior year: 1.07).

The [order backlog](#) increased by 28.4 million euros at the end of the year, to 109.1 million euros (31/12/2016: 80.7 million euros), thus forming a good basis for the new fiscal year. The segment also had [frame contracts](#) worth 11.1 million euros (31/12/2016: 14.5 million euros).

With a [free cash flow](#) of 47.5 million euros (before interest and income taxes), higher capital expenditure could not prevent the segment managing to far exceed the good level of the prior year (prior year: 34.6 million euros). This was primarily due to a good earnings performance. Despite higher revenue, the segment's working capital, at 55.8 million euros, was marginally down on the prior year (prior year: 56.6 million euros).

As of December 31, 2017, the Optics & Life Science segment had a total of 1,149 [employees](#), 26 more than in the prior year. The segment had 28 people in trainee positions at the end of 2017.

R+D expenses in 2017 totaled 13.4 million euros (prior year: 14.3 million euros). Including development services on behalf of customers, the segment's [R+D output](#) came to 21.1 million euros, thus virtually unchanged on the prior year (prior year: 21.9 million euros). The share of total R+D costs in segment revenue was 8.1 percent (prior year: 9.9 percent). 

The segment's [capital expenditure](#) on property, plant, and equipment as well as intangible assets rose sharply, to 11.3 million euros (prior year: 6.0 million euros). It was offset by depreciation/amortization in the sum of 8.0 million euros (prior year: 8.2 mil-

lion euros). Key areas of investment in the 2017 fiscal year included the technological upgrade and expansion of manufacturing capacity for optical and micro-optical precision components at the Jupiter (Florida, US) and Huntsville (Alabama, US) locations, and in Jena. For healthcare and industry, investment in imaging development projects was stepped up in 2017.

[Production and organization.](#) Thanks to a quality initiative focusing on internal customer and supplier relationships that was launched in 2017, development quality in the field of optics could be improved further. The development of supplier development teams, working in association with suppliers, achieved demonstrable successes in capacity and skill development. With further boosts to manufacturing expertise thanks to a workcell structure, customer-related planning processes were more closely interlinked with internal processes. The result was shorter lead times and a further drop in handling and waiting times. The new organizational concepts will continue to be rolled out in 2018.

Organizational and operational changes were initiated in the industry sector. Healthcare structures in the US were also realigned, and in particular, the sales organization was adapted to match market conditions. In Silicon Valley on the West Coast, Jenoptik opened a new application center, allowing it to support its customers to achieve their innovation objectives in the life science sector locally while also accelerating growth in the US with greater international reach.

Alongside the Americas, Asia/Pacific is the key target market for Jenoptik's internationalization and ongoing growth. In the past reporting year, the segment therefore continued to optimize its sales and distribution infrastructure in Asia/Pacific, focusing on strategic developments in the field of medical technology. The Asian market for medical technology and life science will be subject to further analysis this year, with the aim of securing new key customers.



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

## Mobility Segment

In 2017, the Mobility segment further boosted its position as a leading supplier of high-precision automated measuring systems and solutions for laser material processing in the automotive industry. Thanks to its acquisition of Five Lakes Automation, Jenoptik is now in a position to offer not only stand-alone laser machines but also complete process solutions from a single source. A key step along the road to becoming an integrated solutions provider for public safety and future smart cities was taken with the acquisition of the British company ESSA Technology.

**Revenue** in the Mobility segment increased by 9.0 percent to 270.1 million euros in 2017 (prior year: 247.7 million euros). Both solutions for the automotive industry and traffic safety technology systems saw increased demand. As the revenue contribution made by the acquisitions – ESSA and Five Lakes Automation – was together only in the mid-single-digit million euro range, the increase was essentially generated organically. At around 72 percent, the segment again generated most of its revenue abroad in 2017 (prior year: approximately 74 percent). Revenue increased in the US, in Asia/Pacific, and in Germany.

T40

The **segment EBIT**, at 18.5 million euros, was below the prior-year level (prior year: 24.4 million euros), mainly due to one-off impacts arising on a project in the traffic safety area and the PPA impacts from the two above-mentioned acquisitions which totaled approx. 9.4 million euros. The EBIT margin was therefore 6.9 percent, considerably weaker than in the prior year (prior year: 9.9 percent). EBITDA fell by 13.7 percent to 27.9 million euros (prior year: 32.3 million euros).

The **order intake** in the segment increased by 13.6 percent to 303.7 million euros in 2017 (prior year: 267.4 million euros). This growth was generated in the traffic solutions business; on the basis of production and delivery releases, frame contracts were also transferred to order intake here. In the past fiscal year, the segment, among other things, received orders to supply 3D laser machines to leading German automotive manufacturers and supplier companies. These highly efficient, robot-based 3D laser processing machines are used, for example, for contour trimming of structural components, especially for next-generation electric cars. The segment's order intake exceeded the level of revenue in the year covered by the report, resulting in a book-to-bill ratio of 1.12 (prior year: 1.08).

### T40 Mobility Segment at a Glance (in million euros)


	2017	2016	Change in %
Revenue	270.1	247.7	9.0
EBITDA	27.9	32.3	-13.7
EBITDA margin in %	10.3	13.0	
EBIT	18.5	24.4	-24.2
EBIT margin in %	6.9	9.9	
Capital expenditure	17.5	13.8	26.2
Free cash flow	10.1	14.5	-30.3
Order intake	303.7	267.4	13.6
Order backlog	144.7	108.3	33.7
Frame contracts	30.1	79.1	-61.9
Employees	1,326	1,229	7.9

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The **order backlog** increased by 33.7 percent, to 144.7 million euros at the end of the year (31/12/2016: 108.3 million euros). Due to the above-mentioned transfers to the order intake, the value of **frame contracts** fell sharply to 30.1 million euros (31/12/2016: 79.1 million euros).

The **free cash flow** (before interest and income taxes) in the segment fell to 10.1 million euros (prior year: 14.5 million euros), chiefly due to the investments made and the reduction in earnings. The segment's working capital rose to 68.9 million euros (prior year: 64.7 million euros), mostly due to inventory increases made in preparation for revenues in the new fiscal year.

As a result of the acquisitions, the Mobility segment had 1,326 **employees** as of December 31, 2017, an increase on the prior year (31/12/2016: 1,229 employees). As of the reporting date, 22 people were in trainee positions (31/12/2016: 25 trainees).

The segment's **R+D output** increased to 30.0 million euros (prior year: 24.5 million euros). This included developments on behalf of customers in the amount of 13.5 million euros (prior year: 4.2 million euros). The increase was particularly the result of a project in the traffic solutions business. The segment's R+D expenses came to 16.4 million euros (prior year: 20.3 million euros). In 2017, the share of R+D output in total revenue in the Mobility segment was 11.1 percent (prior year: 9.9 percent). 

The segment's **capital expenditure** in property, plant, and equipment and intangible assets increased to a total of 17.5 million euros (prior year: 13.8 million euros). The 26.2-percent increase came about both due to internally manufactured equipment operated by Jenoptik as part of a Canadian traffic safety project and the company's investment in a new technology campus at

the US site in Rochester Hills, Michigan. Completion of and move-in to the new company building went ahead as scheduled in the second quarter of 2017. Capital expenditure was offset by depreciation/amortization and impairment losses in the sum of 9.3 million euros (prior year: 7.9 million euros).

In January 2017, Jenoptik boosted its public safety business through the acquisition ESSA Technology. The company, based in the English town of Saltash, is a specialist in software for traffic monitoring and the associated back-office services, in particular for automatic number plate recognition operated by the police. This acquisition not only boosts Jenoptik's existing traffic technology product range but also marks a further important step in its development to become an integrated solution provider for public safety and future smart cities.

In August of this year, Jenoptik completed its acquisition of the US company Five Lakes Automation, securing key expertise in process automation for metal and plastics processing. Jenoptik thus no longer only supplies individual machines for laser processing but, drawing on the expertise of Five Lakes Automation, will in the future be able to offer automated production lines from a single source. The aim is to merge the activities in the field of automated production processes in the automotive industry with Jenoptik's laser machines business. This combination will allow Jenoptik to exploit new potential for growth in the US market.

**Production and organization.** Within the automotive business, 2017 saw the restructuring of the service organization and its establishment as an independent business unit. Production of optical shaft metrology in China also got underway. In order to better support the global traffic solutions business, the regional structures and thus also responsibilities were further enhanced.



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

## Defense & Civil Systems Segment

In 2017, the Defense & Civil Systems segment further established itself as a partner for systems companies and customers with a need for individual solutions, and also launched a wide range of new products. Over the fiscal year, the segment pushed ahead to expand its international sales and service structures, particularly in North America, and boost technology and knowledge transfer to civil fields.

At 219.3 million euros, **revenue** was almost unchanged on the prior year (prior year: 218.3 million euros), although 2016 had seen particularly strong revenues as major orders were fulfilled. At around 57 percent, the share of revenue generated abroad rose sharply (prior year: 47 percent), but was still lower than in the other two segments. The segment achieved significant growth in the Americas, in particular due to the orders for the Patriot missile defense system. In Germany, by contrast, revenue of 93.8 million euros was down on the prior year as a consequence of the projects handled (prior year: 116.5 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. Further growth is mainly due to be generated by expanding the direct foreign share. **T41**

The **segment EBIT**, at 19.2 million euros, was also at the same level as in the prior year (prior year: 19.1 million euros). Despite increased expenditure for research and development, the margin was thus maintained. Accordingly, the segment EBIT margin also remained virtually unchanged, at 8.7 percent (prior year: 8.8 percent). As in the prior year, EBITDA came to 23.8 million euros.

In the cumulative reporting period, the Defense & Civil System segment reported a number of major international projects that were recognized in the order intake or in the frame contracts. As one example, Jenoptik received a follow-up order as part of the Polish program to upgrade Leopard 2 tanks. This in part includes the delivery of auxiliary power units worth around 11 million euros. In the reporting year, Rheinmetall placed an order for NYXUS BIRD thermal imagers worth around 5 million euros. Jenoptik will also be involved in modernizing the Leopard 2 tank for the German armed forces, with segment supplying digital electrical turret/weapon stabilization systems worth a total of over 12 million euros.

### T41 Defense & Civil Systems Segment at a Glance (in million euros)

	2017	2016	Change in %
Revenue	219.3	218.3	0.5
EBITDA	23.8	23.8	0.4
EBITDA margin in %	10.9	10.9	
EBIT	19.2	19.1	0.3
EBIT margin in %	8.7	8.8	
Capital expenditure	4.5	4.1	8.7
Free cash flow	22.3	33.5	-33.6
Order intake	206.2	231.6	-11.0
Order backlog	202.6	217.8	-7.0
Frame contracts	46.3	67.4	-31.3
Employees	897	881	1.8

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In 2017, the segment's **order intake**, worth 206.2 million euros, was, however, still 11.0 percent lower than the high level achieved due to several major projects in the prior year (prior year: 231.6 million euros). The **book-to-bill ratio** in the segment consequently saw a sharp fall, as expected, to 0.94 (prior year: 1.06).

As of December 31, 2017, the **order backlog** was worth 202.6 million euros (31/12/2016: 217.8 million euros). The segment also has **frame contracts** with a value of 46.3 million euros (31/12/2016: 67.4 million euros).

With a total of 897 **employees**, the number of people employed in the Defense & Civil Systems segment at the end of December saw a slight increase (31/12/2016: 881 employees). At the end of December, the segment had a total of 59 people in trainee positions (31/12/2016: 60 trainees).

The segment's **R+D output** grew to 14.9 million euros in 2017 (prior year: 10.6 million euros). Higher expenditure was particularly due to projects to develop new products in the aviation and the energy & drive businesses. Developments directly on behalf of customers fell to 1.8 million euros (prior year: 3.3 million euros). These are primarily joint development projects with systems companies. At 12.6 million euros, the segment's R+D expenses were significantly up on the prior year (prior year: 7.4 million euros). 

The segment invested 4.5 million euros in property, plant, and equipment and intangible assets (prior year: 4.1 million euros). As a result, the **level of capital expenditure** was 8.7 percent higher than in the prior year. One key project involved the modernization of machinery at the Wedel location. Capital expenditure was offset by depreciation/amortization and impairment losses amounting to 4.7 million euros (prior year: 4.7 million euros).

The **free cash flow** (before interest and income taxes) fell from 33.5 million euros in the prior year to 22.3 million euros in the 2017 fiscal year. This was mainly due to a revenue-linked increase in working capital resulting from higher trade accounts receivable at the end of the year. As of December 31, the working capital amounted to 96.2 million euros, up on the prior year's 93.5 million euros.

## General Statement by the Executive Board on the Development of the Segments

Depending on different target markets and international reach, the Jenoptik Group's three operating segments generally developed well in 2017. The Optics & Life Science segment achieved new records in key indicators. The Mobility segment also managed to increase revenues, while the Defense & Civil Systems segment saw stable development. In all three segments, the majority of revenue was generated abroad.

Strong demand from individual markets as well as one-off expenditure in the traffic safety business influenced the operating businesses' EBIT over the course of the year. In the past fiscal year, the EBIT margin in the Optics & Life Science segment was once again well above the Group margin target corridor. In the Mobility segment, the EBIT margin was negatively affected by the above-mentioned one-off effects. The Defense & Civil Systems segment reported stable earnings performance.

Due to very good earnings, the Optics & Life Science segment was the only one to report an increase in free cash flow. Higher capital expenditure and the build-up of working capital negatively impacted on cash generation in the two other segments. Over the course of the past fiscal year, Jenoptik again invested in expanding international sales structures, in efficient processes, and the development of profitable cutting-edge products.

In 2017, we also managed to expand our position in international growth markets, establish a broader range of systems, and secure both major international projects and new customers. This is corroborated by the higher order intake in the Optics & Life Science and Mobility segments. The Defense & Civil Systems segment's business is geared toward the long term and characterized by major projects; this is also reflected in the fluctuations in order intake.



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

# 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 subleasing of commercial premises and the provision of services for subsidiary companies.

The Annual Financial Statements of JENOPTIK AG are prepared in accordance with German commercial law (HGB). 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 valuation methods, chiefly concerning fixed assets, derivatives, provisions, and deferred taxes.

## Asset, Financial and Earnings Position

### Earnings Position

Due to lower rechargeable services, revenue was down 3.8 million euros on the prior year, at 23.6 million euros. This is also reflected in the cost of sales, which fell to 20.4 million euros (prior year: 22.0 million euros).

Administrative expenses fell slightly, by 1.0 million euros, on the prior year, which had seen higher costs due to the forthcoming change on the Executive Board in 2017. Increased personnel costs and additional expenses in connection with strategic and business-related special projects caused a rise in administrative expenses over the past fiscal year.

JENOPTIK AG posted research and development expenses amounting to 0.2 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 0.5 million euros (prior year: 0.9 million euros) covered costs for communications, marketing, advertising and sponsorship.

The other operating result included other operating income of 6.0 million euros, which was offset by 7.2 million euros of other operating expenses.

Other operating income in the sum of 6.0 million euros (prior year: 11.4 million euros) primarily included intra-group cost allocations worth 2.4 million euros (prior year: 3.0 million euros), currency gains of 1.6 million euros (prior year: 2.9 million euros), and income arising from the reversal of provisions in the sum of 1.0 million euros (prior year: 3.5 million euros). Therefore, the reduction in other operating income was mainly attributable to the reversal of provisions, that were 2.5 million euros lower, and foreign currency exchange gains that were 1.2 million euros lower. In addition, a write up of the shares in FIRMICUS Verwaltungsgesellschaft mbH + Co. Vermietungs KG, Jena, of 1.0 million euros, was recorded in the prior year.

### T42 Abbreviated Income Statement of JENOPTIK AG (in thousand euros)

	1/1 to 31/12/2017	1/1 to 31/12/2016
Revenue	23,646	27,407
Cost of sales	20,387	22,014
Gross profit	3,259	5,393
Selling expenses	516	861
General administrative expenses	14,456	15,409
Research and development expenses	172	304
Other operating result	-1,239	4,034
Income and expenses from profit and loss transfer agreements and income from investments	92,710	53,505
Financial result	-1,508	-2,287
Income taxes	7,674	4,682
Earnings after tax	70,404	39,388
Other taxes	0	1
Net profit	70,404	39,388
Retained profits from prior year	59,498	34,420
Accumulated profit	129,902	73,808



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Other operating expenses of 7.2 million euros (prior year: 7.4 million euros) chiefly included foreign currency exchange losses worth 4.1 million euros (prior year: 2.7 million euros), expenses for intra-group cost allocations of 2.3 million euros (prior year: 3.0 million euros), and 0.8 million euros for additions to provisions. The prior year also included a one-off impact arising from unscheduled amortization on intangible assets in the amount of 1.5 million euros.

The financial result of minus 1.5 million euros (prior year: minus 2.3 million euros), consisting of earnings from securities and loans, depreciation on loans, and the interest result, improved by 0.8 million euros on the prior year. The prior year's financial result was dominated by high depreciation on financial assets of 2.9 million euros and compensatory one-off interest income of 1.5 million euros, which resulted from a final agreement on matters relating to the purchase price for the sale of M+W Zander Holding AG in the 2005 fiscal year.

The increase of 3.0 million euros in income taxes, to 7.7 million euros (prior year: 4.7 million euros) was primarily due to a rise in income at the subsidiaries. The comparatively low overall income taxes are attributable to the use of tax losses carried forward.

JENOPTIK AG's net profit increased by 31.0 million euros, or 78.7 percent, to 70.4 million euros (prior year: 39.4 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, and by the dividend payments at the foreign subsidiaries. The net earnings contribution of the subsidiaries increased on the prior year, by 30.2 million euros to 85.6 million euros. Dividends worth a total of 7.1 million euros were also paid out.

### Asset and Financial Position

At 718.8 million euros, JENOPTIK AG's total assets were 9.2 percent up on the figure for the prior year (prior year: 658.2 million euros)

The assets side of the statement of financial position reflects JENOPTIK AG's status as a holding company. Alongside a capitalization ratio of 61.1 percent, of which 51.7 percent was attributable to financial assets and 9.4 percent to property,

plant, and equipment, total assets are also dominated by a high level of cash and cash equivalents (26.1 percent) and receivables from unconsolidated associates (12.4 percent).

Receivables from unconsolidated associates worth 89.3 million euros (prior year: 77.3 million euros) were primarily due to the issue or settlement of liquidity to and with group companies, and chiefly affected the settlement accounts for cash pool holdings.

The increase in cash and cash equivalents of 55.1 million euros, to 187.4 million euros, was also the result of reduced settlement accounts and the subsidiaries' positive contributions to earnings.

## T43 JENOPTIK AG Statement of Financial Position (in thousand euros)

	31/12/2017	31/12/2016
<b>Assets</b>		
<b>Non-current assets</b>	<b>439,349</b>	<b>443,991</b>
Inventories, trade receivables, securities, and other assets	89,597	78,557
Cash and cash equivalents	187,356	132,257
<b>Current assets</b>	<b>276,953</b>	<b>210,814</b>
Expenses and deferred charges	2,490	3,432
	<b>718,792</b>	<b>658,237</b>
<b>Liabilities</b>		
Share capital	148,819	148,819
(Conditional capital 28,600 thousand euros)		
Capital reserves	180,756	180,756
Revenue reserves	74,410	74,410
Accumulated profit	129,902	73,808
<b>Equity</b>	<b>533,887</b>	<b>477,793</b>
Pension provisions	2,935	2,921
Other provisions	16,966	18,042
<b>Provisions</b>	<b>19,901</b>	<b>20,963</b>
Liabilities to banks	114,000	114,002
Trade accounts payable	2,164	1,125
Other liabilities	48,841	43,228
<b>Liabilities</b>	<b>165,005</b>	<b>159,481</b>
	<b>718,792</b>	<b>658,237</b>

Expenses and deferred charges were predominantly due to deferred costs in connection with the expansion and extension of financial liabilities, which are distributed over the terms of the financing agreements.

In terms of liabilities, JENOPTIK AG's financing function as the holding company for the Jenoptik Group was of particular note. Equity came to 533.9 million euros, liabilities to banks 114.0 million euros (15.9 percent of the total assets and liabilities).

Thanks to the positive annual result in the sum of 70.4 million euros, equity improved by 31.0 million euros. This was countered by the payment of dividends worth a total of 14.3 million euros for the 2016 fiscal year. The equity ratio rose from 72.6 percent to 74.3 percent.

Tax provisions within the companies consolidated for tax purpose increased by 5.4 million euros; personnel provisions fell 6.1 million euros due to the payment of bonuses and management bonuses in connection with the change on the Executive Board. Other provisions remained at the same level as in the prior year.

Other liabilities included 46.0 million euros of cash pool holdings and 1.7 million euros of tax liabilities.

Over the reporting year, JENOPTIK AG's debt-to-equity ratio improved due to the increase in equity, from 37.8 percent to 34.6 percent.

As of December 31, 2017, JENOPTIK AG had 121 employees, of which 7 were temporary workers (prior year: 121 employees, of which 12 temporary workers).

## 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 investments holdings and subsidiaries in line with its equity interests. The risks and opportunities of the Group and the segments are set out in the Risk and Opportunity Report from page 113 on.

## Forecast Report

The annual result of JENOPTIK AG is largely dependent on the development of contributions to earnings at the subsidiaries. Based on the development of business set out in the Group Forecast Report, JENOPTIK AG is expecting a declining result in fiscal year 2018 taking into account the positive effects in the investment result in 2017.

Both, rental income and income from holding company cost allocations are anticipated to see a slight decline on the basis of billable costs in fiscal year 2018.

For detailed information on the expected future development of the Jenoptik Group and its segments, we refer to the Forecast Report from page 121 on.

A target of the new strategy is also to merge certain central functions of the holding company with those of the Shared Service Center (SSC). The number of legally independent companies in the Group is to be reduced, decision-making processes and responsibilities further decentralized and increasingly relocated back into the operating areas. With a simplified structure, we will be better positioned to clearly prioritize initiatives aimed at ongoing growth that ultimately guide us to success.

## Events after the Balance Sheet Date

The JENOPTIK AG Executive Board approved the forwarding of the present Consolidated Financial Statements to the Supervisory Board on March 8, 2018. The Supervisory Board is responsible for reviewing and approving the Consolidated Financial Statements at its March 21, 2018 meeting.

**Dividends.** 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 2017 fiscal year, the accumulated profit of JENOPTIK AG totaled 129,901,622.70 euros, comprising net profit for the 2017 fiscal year in the amount of 70,403,527.32 euros plus retained profits of 59,498,095.38 euros.

On the basis of the good annual result, the Executive Board recommends that the Supervisory Board proposes to the 2018 Annual General Meeting a 20 percent higher dividend of 0.30 euros per qualifying no-par value share (prior year: 0.25 euros). This means that an amount of 17,171,434.50 euros will be distributed. From the remaining accumulated profit of JENOPTIK AG for fiscal year 2017, an amount of 72,730,188.20 euros is to be allocated to revenue reserves, and an amount of 40,000,000.00 euros to be carried forward.

No further events of significance occurred after December 31, 2017.

# 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 be able to ensure implementation of our strategy, it is necessary to identify risks and opportunities at an early stage, to evaluate them appropriately, and control them efficiently. This is done by promoting an open risk culture and regularly examining the established risk management system. Jenoptik works to continuously refine its risk and opportunity management. Reporting processes employ centrally available software.

**Risks** are defined as potential developments and events that may result in a negative divergence from company objectives and forecasts and involve uncertainty regarding the occurrence of an event. Operating risks are potential future developments or events that, with regard to business operations, may result in a negative divergence from operating targets in the company. 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 metric. On the basis of a standardized rating scale from 1 to 5, this produces a risk indicator of 1 to 25 for each event. The risks and opportunities described here are the result of aggregating locally identified risks and opportunities that were each allocated to defined categories. **G19**

### Organizational Integration of the Risk and Opportunity Management

Overall responsibility for the risk and opportunity management system in the Jenoptik Group lies with the Executive Board. The group-wide approach is set out in a risk manual.

The corporate Compliance & Management department organizes and manages the system, working closely with the corporate 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 can represent both business units and individual subsidiaries.


## G19 Risk Assessment

Metrics	Probability of occurrence	Consequences resp. 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%

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Internal Audit monitors the effectiveness of the risk management system, while the Audit Committee of the Supervisory Board takes up the external monitoring function for or in conjunction with the Supervisory Board.

On the Risk Committee, all aggregated reporting results are consolidated to form a top-level evaluation of the Group’s risk position. The Risk Committee is made up of the members of the Executive Board and the heads of corporate Compliance & Risk Management, Legal, and Internal Audit. **G20**

The consolidated 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 corporate Compliance & Risk Management and the Audit Committee of the Supervisory Board. Its responsibility and approval lies with the Executive Board. Corporate Compliance & Risk Management communicates the requirements of the risk management system, advises on their efficient implementation, and monitors the measures and results of the risk management processes.

Core process of risk management is the risk assessment. This takes place in 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 that supports management in the evaluation of risks. It comprises several specified categories to which potential risks 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



For further information see Notes from page 136 on

## G20 Process of Risk Reporting

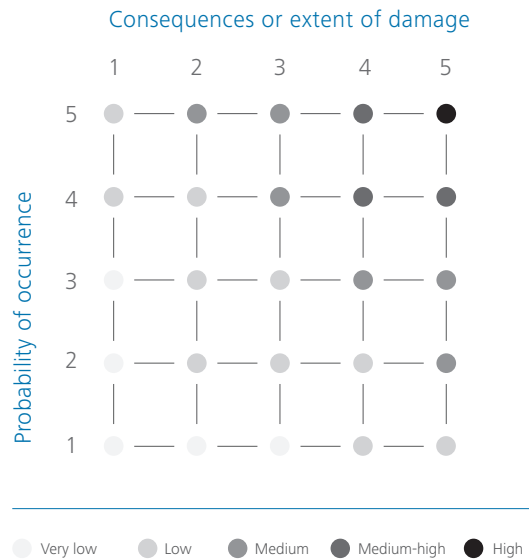
✓	Risk Officers in the Divisions and Central Departments	Assessment of single risks
	Central Functions	Review of aggregated risks
✓	Corporate Compliance & Risk Management Department	Review and analysis of group risks
	Risk Committee	Analysis of group risks
✓	Executive Board	Final assessment of group risks
	Audit Committee	Evaluation of group risks
✓	Supervisory Board	

financial targets are analyzed over a time frame of up to two years, strategic topics are considered for periods of up to four years.

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 (risk management). 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 consequences or extent of damage or the qualitative extent of damage. The opportunities are evaluated in the same way. **G21**

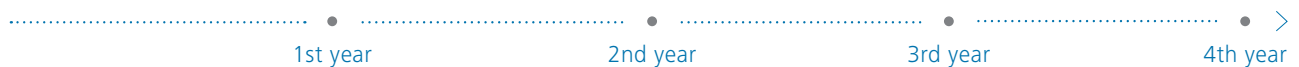
There is a scale of 1 to 5 for both assessment factors mentioned (probability of occurrence and consequences or extent of damage), with 1 being the smallest and 25 the greatest possible risk indicator. **G22**

## G22 Calculation of Risk Scores



## G21 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. R+D)/ Corporate Development (Portfolio and Structure)/ Organizational Setup (Processes and Resources)
Financial Management Risks/Opportunities	
Accounting/Finance Management (Treasury)/ Controlling/Taxes	





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Every six months, the results of the risk assessments are requested by the corporate Compliance & Risk Management department via the Chief Compliance & Risk Officer at the risk reporting units and aggregated to the Group Risk Report. The findings of the risk reporting units are then validated by the departments of the Corporate Center and Shared Service Center before being discussed on the Risk Committee and subjected to a general assessment by the Executive Board, potentially also involving the adoption of further actions. Once the Executive Board has approved the Group Risk Report, it is presented and discussed on the Audit Committee of the Supervisory Board before being submitted to the Supervisory Board.

In addition, any risks identified during the year which 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 responsible departments, they decide on further measures to be taken and, if necessary, the required communication.

The abovementioned reporting instruments also form the basis for the risk early warning system. This is reviewed within the framework of the audit of the financial statements by the auditor in order to ensure that the system is appropriate for promptly recording, evaluating and communicating all risks that could potentially jeopardize the Group's existence.

### Risk Prevention and Ensuring Compliance

Risk 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, the EMB, and at 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.

Jenoptik's Group Guidelines represent a further risk prevention measure. Especially the "Transactions with particular characteristics" guideline is used for risk prevention. If a contract to be concluded or an obligation to be entered into meets one of the criteria defined in this guideline identifying the transaction as deviating from the norm (e.g. a high order value, special financing conditions, regulations on knowledge transfer or strategic

aspects), a special approval process is started. This involves the relevant central group departments and the Chief Compliance & Risk Officer. All opinions are submitted to the Executive Board prior to the possible approval being granted, so that the final decision regarding such a transaction can always be made after consideration of all identified potential risks and opportunities.

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 company-wide uniform understanding of our compliance standards, regular training is provided on subjects relevant to compliance, such as anti-corruption or antitrust law, as well as data protection issues or insider trading. Online training on key compliance issues is obligatory for all employees. A help desk is available on the intranet to assist employees on any risk or compliance issues they may have. The corporate guidelines implemented within the Group with regard to important company processes are continually being reexamined, expanded, and updated. They are published on the intranet.

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 management 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 that serve to ensure compliance with guidelines and prevent losses, as well as ensuring clear divisions of responsibility and function, in adherence to the four-eye principle. In particular, its intention is to ensure the security and efficiency of operations as well as the reliability of financial reporting, and it is regularly reviewed by Internal Audit. The ICS and compliance self-assessments established in 2015, 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 corporate Compliance & Risk

Management, Accounting, Controlling, and 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 development of the internal monitoring and risk management system through process-independent audits. As a staff department, it reports to the Chief Financial Officer. Internal Auditing carried out independent audits. This involves the organizational units of the Jenoptik Group being 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 or process weaknesses 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 as well as to the Executive Board. Breaches or errors are analyzed and work on their elimination initiated as quickly as possible. The audited unit then submits a report to the Executive Board, indicating which of the stated recommendations were implemented by a defined date. 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 to the Audit Committee of the Supervisory Board at least once a year on its key findings since the last report. In 2017, three Jenaudits, one follow-up audit and three ad hoc audits were conducted. Five units received support for implementation of the measures identified in the course of auditing.

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, and liquidity risks on the basis of a group-wide guideline 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 and are only concluded with banks with good to very good credit ratings.

### Key Features of the Internal Control and Risk Management System with regard to the Consolidated Accounting Process (§ 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 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, the IFRS data of 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 in accordance with the IFRS regulations as adopted by the EU.

The [Corporate Governance Report](#) can be found in the Annual Report on pages 36 ff. The [Corporate Governance Statement](#) in accordance with §§ 289 f, 315 d of the German Commercial Code can be viewed on our website at [www.jenoptik.com](http://www.jenoptik.com) by going to Investors/Corporate Governance. In accordance with § 317 (2) sent. 6 of the German Commercial Code, the information required under §§ 289 f, 315 d is not considered by the auditor.

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## The Group's Risk and Opportunity Profile

Based on the year 2017, the Group's risk profile for the subsequent years was determined with the aid of the various risk and opportunity assessments from the segments. Part of the risk assessment of the segments is also a review by the central functions of the holding company and the Shared Service Center, so that their risks are included in the segment reporting and in the final group assessment. Our risk and opportunity management enables a direct comparison of the individual risk subcategories and the associated risk symptoms. T44

Overall, the risks to which the Group is exposed are still at the lower end of the medium risk range.

Once again, *strategic risks and opportunities* for the Group were assessed as the most important, compared to operational and financial management risks, in 2017. Jenoptik operates on very different, in part very volatile markets, such as the semiconductor equipment and automotive markets, so that their development can represent both a continuous risk and opportunity.

The at times uncertain general direction of economic development in Jenoptik's growth markets, e.g. China, the potential negative effects that still exist with regard to Great Britain's withdrawal from the European Union, the difficulty in assessing the trade and foreign policy positions of the current US administration, and political conflicts caused by existing and emerging trade barriers all present potential risks to the Group's current

### T44 Risk Profile of the Jenoptik Group 2017

	Group risk assessment	
	Current year	Prior year
<b>Strategic risks</b>		
Market development	Medium	Medium
Product development (incl. R + D)	Medium	Medium
Corporate development (portfolio and structure)	Medium	Medium
Organizational setup (processes and resources)	Medium	Medium
<b>Operational risks</b>		
Supply chain management	Medium	Medium
Safety and environmental protection	Low	Low
Production (incl. quality management)	Medium	Medium
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
<b>Financial management risks</b>		
Accounting	Low	Low
Finance management	Low	Low
Controlling	Medium	Medium
Taxes	Low	Low
<b>Total risk</b>	Medium	Medium

and future business. Continuing high levels of public debt in parts of Europe and associated budgetary consolidation are inhibiting investment by both public sector clients and consumers.

Jenoptik is exposed to intense competition in all three segments. Due to their size and concomitant good financial resources, a number of competitors may be in a position to better respond to competitive pressure. In addition, mergers and acquisitions on the markets we target may further exacerbate the competitive environment, and potentially improved cost structures at competitor companies, and the related higher pricing pressure may have negative effects on group earnings. Jenoptik counters these risks by subjecting its portfolio of products to ongoing analysis to determine which products to serve which markets with. We also review whether targeted investments in the form of corporate acquisitions can usefully complement our portfolio and generate lasting profitable growth. The ongoing pace of technological change presents opportunities not only for our product portfolio, but also for our competitors. Throughout the Group, there is a risk of losing market share due to delays in our product development.

**Operational risks and opportunities** were assessed with low to medium risk indicators for the whole Group. The increasing number of complex international projects, particularly those of a technically challenging nature, place very high operational demands on all parts of the Group. Supply chain management and production are predominantly responsible for assuring the quality of the products we supply. The use of individual single-source suppliers increases the risk of dependency. The continuing expansion of our purchasing structures aims to ensure that suppliers are qualified around the world on an ongoing basis.

Global IT systems and processes are of significance to Jenoptik in all segments. 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 multi-stage archive and backup system. This allows for rapid data recovery

in the event of a possible crisis scenario. The world is seeing a rise in the number of IT threats, e.g. in the form of phishing or other virus attacks in which corporate information is obtained by third parties by means of deception. Despite compliance with a range of technical requirements, established processes and training provided to relevant employees, there remains a risk of data loss or restricted use of the IT infrastructure, which in turn could negatively impact on our business position. Jenoptik plans to counter this group-wide risk by taking out cyber risk insurance.

Our employees make the most important contribution to the company's success. As an international technology company, we need dedicated and highly qualified colleagues around the world – now and in the future. There is a risk that we may not be able to secure sufficient numbers of skilled employees for open positions or that we may lose our top performers. Jenoptik counters this risk with targeted employer branding and structured HR development, which in part includes the J2LP leadership development program and attractive incentive plans.

In view of Jenoptik's international business operations, one group-wide operational risk is non-compliance with legal, ethical and contractual requirements. In part due to stricter compliance requirements throughout the Group, the risk was assessed higher than in the prior year and is now in the medium risk range. 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 measures to minimize potential compliance violations have been implemented with a group-wide export control organization, the corporate Compliance and 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.

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Once again, [financial management risks](#) were assessed as low throughout the Group in 2017. The issues cited below also include the segment-specific risks. One key task of Jenoptik's Finance department is the long-term coordination of financing requirements within the Group. Jenoptik has good internal financing and access to alternative, external financing options. Financial covenants that are regularly monitored and reported on have been agreed for the existing JENOPTIK AG debenture loans and the syndicated loan. Currency-related risks arise from the Group's international activities. The central Treasury department identifies these risks in collaboration with the group companies and controls them with appropriate measures such as the conclusion of currency forward transactions. As a basic principle, all group companies must hedge foreign currency positions on the date they are created. Hedging has the aim of establishing a hedge relationship with the greatest possible effectiveness.

The interest rate risk 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. Because the interest rate swap, existing as of the balance sheet date, was concluded in connection with variable-interest debenture loans that have since been repaid, the hedge relationship no longer exists here. A variable interest rate was consciously agreed for a part of the loans in order to fully profit from the current low interest rate environment.

The purpose of the liquidity planning is to identify liquidity risks at any early stage and to systematically minimize them on a group-wide basis. Regular treasury reports and a monthly rolling liquidity forecast are used for liquidity control and monitoring.

With regard to the use of financial instruments, we refer to the Note 8.2 from page 177 on. In the Controlling and Accounting departments, opportunities predominantly arise from the continuing expansion and optimization of the standardized SAP system. Thanks to the ongoing establishment and development of modern, targeted Controlling instruments, we counter the risk of possibly missing to 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 segments. Financial management risks are aggregated and shown in the Group risk and opportunity profile. [T45](#)

### Optics & Life Science

[Strategic risks and opportunities](#) primarily arise on the basis of demand in the semiconductor equipment industry, which is subject to cyclical developments. They may have a significant positive or negative effect on the segment's results. Moreover, the dependence on just a few major customers also poses a general risk that negative business developments of the customers may have a tangible effect on revenue and earnings in the entire segment. 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 and internationalization. In addition, the segment addresses this risk by continuously reviewing vertical integration with the aim of supplying more system solutions to its customers.

The increasing importance of healthcare, demographic developments in the industrialized nations, and advances in medical technology all give rise to growing demand. Ongoing development of the product portfolio and Jenoptik's greater market orientation mean that we are able to better meet our customers' requirements. Increasing financial problems in national 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.

Customers' specific requirements result in particular [operational risks and opportunities](#) in supply chain management and production processes. For many components manufactured in the segment, there are 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. Partners are subject to ongoing qualification with the help of strategic purchasing to have a stable base of suitable suppliers in the medium and long term. Specific customer requirements, especially regarding the quality of the products, also lead to increased demands on existing machines in the area of manufacturing, which must be met through targeted expansion or replacement investment. Consequently, there is a risk that the quality requirements cannot be achieved by the agreed time, which may in turn lead to delays in delivery.

## Mobility

Both, market and political developments influence the [strategic risks and opportunities](#) in the Mobility segment. Within the metrology business, achieving revenue targets is strongly dependent on the automotive market. As our business develops, we regularly evaluate market and economic analyses and assess changes to legal regulations (e.g. with regard to fuel consumption and emissions standards) together with their impacts on the automotive industry. Tighter government regulation would mean planning uncertainties for the industry, which may also represent an increased overall risk for Jenoptik.

## T45 Risk Profiles of the Segments 2017

	Group risk assessment					
	Optics & Life Science segment		Mobility segment		Defense & Civil Systems segment	
	Current year	Prior year	Current year	Prior year	Current year	Prior year
<b>Strategic risks</b>						
Market development	Medium	Medium	Medium	Medium	Medium	Medium
Product development (incl. R+D)	Medium	Medium	Medium high	Medium high	Medium	Medium
Corporate development (portfolio and structure)	Medium	Medium	Medium high	Medium	Medium	Medium
Organizational setup (processes and resources)	Medium	Medium	Medium high	Medium	Medium	Medium
<b>Operational risks</b>						
Supply chain management	Medium	Medium	Medium	Medium	Medium	Medium
Safety and environmental protection	Low	Medium	Low	Low	Low	Low
Production (incl. quality management)	Medium	Medium	Medium	Low	Low	Medium
Marketing and sales	Medium	Medium	Medium	Medium	Medium	Medium
Patents and IP rights	Low	Low	Low	Medium	Low	Low
Human resources management	Medium	Medium	Medium	Medium	Medium	Medium
IT	Low	Low	Medium	Medium	Medium	Medium
Compliance	Medium	Low	Medium	Medium	Medium	Medium
Legal affairs	Low	Low	Low	Low	Medium	Low
Real estate	Low	Low	Medium	Low	Medium	Low
<b>Financial management risks</b>						
Accounting	Low	Low	Medium	Medium	Low	Low
Finance management	Low	Low	Low	Low	Low	Low
Controlling	Low	Medium	Medium	Medium	Medium	Medium
Taxes	Low	Low	Medium	Low	Low	Low
<b>Total risk</b>	Medium	Medium	Medium	Medium	Medium	Medium



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The trend toward electric mobility is both a risk and an opportunity. The reduction in the number of mechanical components is a risk to the established model in our automotive business. On the other hand, there is the opportunity to generate further orders, as the trend to cut carbon emissions may increase investment in low-emission engines.

Presently uncertain economic and political developments on the Asian and North African markets represent a risk to our traffic safety business. 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. By contrast, increasing political stability in certain sales markets and the economic prosperity of the countries opens up opportunities to better serve the evolving demand for traffic safety technology. At the same time, increased demand for safety technology, in particular among public sector clients, increases the segment's opportunities. Continuous optimization of the product portfolio as part of the corporate development may produce strategic advantages over the competition. The risks set out here may bring about changes to the organizational and process structures in the various businesses.

In terms of **operational risks and opportunities**, the increasing internationalization of projects and parts of the value chain is reflected in increased demands on supply chain 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.

Upgrades of the implemented ERP system have been made to improve it in the long run. These, however, currently still may result in delays in fully realizing the desired efficiency gains. With long-term use of the group-wide ERP system, however, the opportunities outweigh the risks in terms of efficiency and improved controls.

## Defense & Civil Systems

**Strategic risks and opportunities.** The defense market is strongly influenced by political decision-making, in particular by governments' budgetary positions, and by the restrictive export license policy of the German government. Due to various global political conflicts and tensions, however, defense spending in individual countries is increasing. Looking ahead, the market environment is likely to be stimulated by the demand that NATO members spend two percent of gross domestic product on defense and military and the consideration by the European Union's member states to establish a common armaments policy. The planned increase in the defense budget and the associated growth in investment by the German government may result in higher order intakes for the segment.

In terms of corporate development, the potential risk of a dependency on political decisions and government budgets is in part countered by the targeted expansion of the civil and in particular international product portfolio. 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 continuously to fully exploit the relevant growth options.

Since a large proportion of the segment revenue is the result of project business, product developments, and launches represent both the biggest risk and the greatest opportunity. Long-term development projects present great potential to generate future revenue. However, there are also inherent technological and organizational risks here that may jeopardize the timely success of the development.

Due to the segment's business model being focused on long-term customer relationships and long product life cycles, supplier performance is an important success factor. **Operational risks and opportunities** arise primarily from a strong dependency on single sources in a number of cases, which may endanger future business opportunities. Compared to the prior year, the risk was reduced thanks to active supply chain management.

Risks arise in the field of civil applications due to the high performance requirements for the manufactured systems and, in part, low quantities, which may result in delays in time to market or premature handover to the customer. This, in turn, may give rise to quality issues.

## General Statement by the Executive Board on the Group's Risk and Opportunity Situation

Overall, in terms of strategic, operational, and financial management risks, the Jenoptik Group's exposure to risk is largely unchanged on the prior year, and currently remains at the lower end of the medium risk range.

The strategic risks that were assessed as "medium" are offset by adequate opportunities or were countered by measures that enable lastingly beneficial strategic positioning. This is particularly the case for the risks in the "product development", "corporate development", and "organizational setup" subcategories. The risks in the "market development" subcategory are largely attributable to external sources of risk that are impossible to influence and can thus only partly be forecast or minimized.

In the area of operational risks, the successful development and expansion of the sales structures is of crucial importance. The same applies to supply chain management and production,

which demand special attention due to the high technological requirements in an international environment and, in some cases, associated single source procurement. Due to increased digitization, the associated increased requirements in the field of IT, the further ongoing process of internationalization, and the increased risk of external attacks, the IT risk is still assessed as "medium".

In view of the Group's diversification and constantly growing legislative – and, in particular, customer – requirements around the world, the compliance risk assessment has now been raised from "low" to "medium". As set out above, the Group counters this higher risk by means of appropriate preventive action within the organization and processes, and by working to continually evolve its compliance management system.

Overall, the financial management risks for the Group have not changed in any significant way from the prior year.

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.

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## Forecast Report

### Framework Conditions: Future Development of the Economy as a Whole and the Jenoptik Sectors

In its most recent “World Economic Outlook” of January 2018, the International Monetary Fund (IMF) expects the [global economy](#) to keep growing, by a robust 3.9 percent in each of the next two years. It believes that the lively demand seen in the recent past will in particular be bolstered by capital expenditure thanks to favorable global financing conditions. This, according to the IMF, will have a noticeable effect on growth in export-oriented countries. Tax reforms in the US are also likely to have a stimulating effect that could boost demand in neighboring countries. The IMF sees risks in protectionist trends and trade barriers, e.g. in connection with Brexit, and in ongoing geopolitical tensions, primarily in East Asia and the Middle East.

T46

According to the analysts at Markets and Markets, the global [photonics](#) market will grow to a value of 795 billion US dollars by 2022, chiefly driven by strong demand from applications such as displays, information and communication technology, medical technology and life sciences, measurement, lighting, and production technology. On a regional scale, Asia/Pacific will see the highest average rate of growth. By comparison, in their “Photonics Industry Report” the Spectaris, VDMA and ZVEI industry associations still anticipate average annual growth of 6.5 percent and a market volume of 615 billion euros in 2020.

#### T46 Gross Domestic Product Forecast (in percent)

	2019*	2018
World	3.9	3.9
US	2.7	2.5
Euro zone	2.2	2.0
Germany	2.3	2.0
China	6.6	6.4
India	7.4	7.8
Emerging countries	4.9	5.0

Source: International Monetary Fund, World Economic Outlook, January 2018  
\* Forecast

The field of silicon photonics is becoming increasingly important to data transfer and the necessary optics design. It uses silicon as an optical medium. French market research company Yolé Développement is anticipating considerable expansion in this field: it believes the global market for optical components enabling rapid and high-volume transfer will be worth 4 billion US dollars by 2025, not least due to steadily increasing data traffic on the internet resulting from social media, video, and game applications.

Photonic technologies are a key element of many diagnostic and treatment methods in [medical technology](#), e.g. in-vitro diagnostics, endoscopy and in so-called point-of-care solutions. The Spectaris trade association is expecting revenue growth of 5 percent to approximately 32 billion euros for German manufacturers of medical technology in 2018. Digitization will have the strongest impact on the development of the industry, e.g. in medical care and production processes. According to Spectaris, the business model of the manufacturers is also undergoing changes: from the classical supplier of equipment in the past decade to a solution provider in the current decade through to a provider of digital and integrated healthcare solutions in the next decade. The Evaluate-MedTech market research company, who is quoted by Spectaris, is expecting the global market for medical technology to grow by an average of about 5 percent per year to approximately 530 billion US dollars by 2022.

According to industry experts, the robust momentum seen in the global [semiconductor market](#) in the prior year is set to continue in 2018, albeit at a slightly weaker pace. As stated in a press release, IT market research company Gartner is forecasting revenue growth of 7.5 percent in 2018, to 451 billion US dollars; following a double-digit increase in 2017, the industry will return to a single-digit growth rate and is then expected to see a marginal fall in revenue in 2019. The SIA association’s forecast, published in a press release, also projects only moderate revenue growth for 2018.

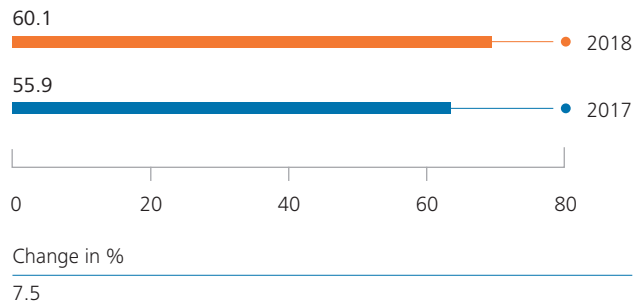
In the [semiconductor equipment industry](#), the SEMI industry association sees global revenues growing 7.5 percent to a new record of 60.1 billion US dollars in 2018, according to its most recent forecast issued in a December 2017 press release. South Korea, China, and Taiwan will remain the biggest markets. G24

The VDMA is warning of new trade barriers and protectionist policies: Germany's export-oriented **machinery and plant engineering industry** will face additional export and import costs running into the nine figures following Great Britain's withdrawal from the EU, according to the association's calculations. German **machine tool manufacturers** are expecting production to grow again in 2018, by 5 percent to reach a value of over 16 billion euros for the first time, according to the industry association VDW. It sees the move toward electromobility as a challenge to the industry, but a downturn in demand for traditional machining methods could be more than compensated for by a global increase in new car registrations and investment in the change to hybrid drive systems or all-electric vehicles.

The International Federation of Robotics (IFR) is forecasting growing robot sales to meet rising levels of **automation** in the automotive industry. In the US alone, revenue generated with industrial robots is due to rise by an average of at least 15 percent annually in the years from 2017 through 2020. In its "World Robotics Report", the IFR estimates global demand for industrial robots to grow to over 3 million units by 2020. This compares with a figure of around 1.8 million units in 2016. In addition, both small and medium-sized manufacturers are increasingly turning to automation, creating demand for flexible and simple robotics solutions.

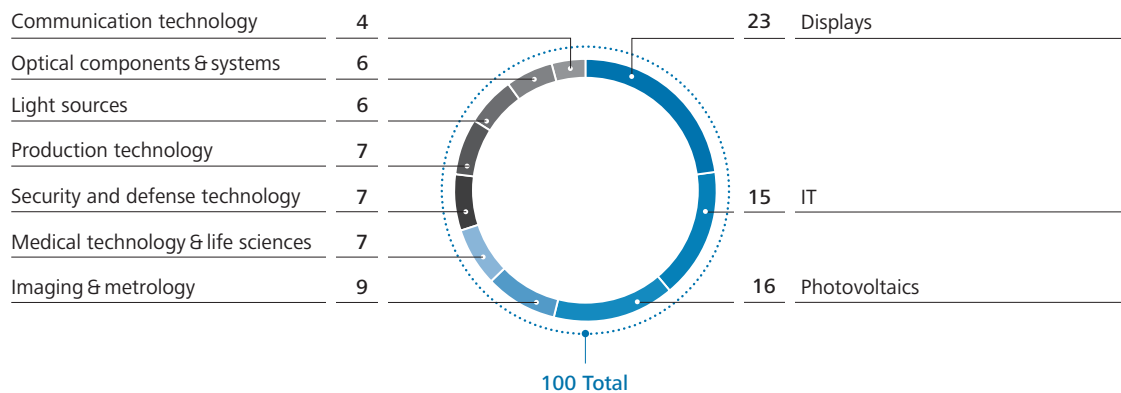
According to a study conducted by consulting firm McKinsey, the changes affecting the **automotive industry** will produce significant growth in revenue: by 2030, it sees a potential revenue increase from 3.4 trillion to 6.6 trillion euros, chiefly driven by new automotive mobility services, autonomous driving, and alternative drive systems. According to the forecast, the latter will account for around a quarter of total revenue by 2030, from a current level of less than 1 percent. For 2018, the German

### G24 Semiconductor Equipment: Global Revenue Forecast (in billion US dollars)



Source: Semiconductor Equipment and Materials International (SEMI)

### G23 Global Photonics Market in 2020: 615 billion euros (share in percent)



Source: VDMA, ZVEI, Spectaris: Photonics Industry Report 2013

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Association of the Automotive Industry (VDA) is projecting weak growth in the global car market, to 86 million vehicles.

Within the field of [traffic and public safety](#), there is strong demand for automatic number plate recognition systems (ANPR). According to the market researchers at Research and Markets, the market will grow by an average 12 percent annually through 2025. This development will be driven by applications for safety and traffic management, including monitoring, and toll solutions. With a view to a European toll system, the EU Commission has fleshed out its plans for a toll based on actual distance traveled and no longer on the purchase of a vignette for a specific period. In Germany, section control is due to be launched on an initial stretch of road in Lower Saxony in the spring of 2018. The federal state has been preparing to introduce this speed monitoring technology to Germany in the last few years. Jenoptik technology has been deployed on the pilot project.


In the global [rail industry](#), established structures are being shaken by the planned merger of Siemens and French manufacturer Alstom that aims to counter the competition in the industry, primarily from China. As reported by market research company SCI Verkehr, the German rail industry will grow by an average 3.4 percent annually up to 2021 and thus more strongly than the global market. Digitization and the demands of more environmentally-friendly solutions are becoming increasingly important, according to the SCI market survey of September 2017.

In the [aviation](#) market, aircraft manufacturers Airbus and Boeing are hoping for a boost with the help of new models in the MOM segment ("Middle of the Markets") but, according to a study by Alix Partners at the Paris Air Show in June 2017, are coming under increasing pressure from smaller competitors in Canada, Brazil, China, Japan, and Russia. Both manufacturers raised their long-term forecasts for the aviation industry: as stated in a press release, Airbus anticipates that the airlines will buy a total of around 34,900 new passenger jets and cargo planes worth 5.3 trillion US dollars by 2036. Boeing forecasts a demand for 41,030 aircraft worth 6.1 trillion US dollars. A potential halt in production of the Airbus A380 aircraft was averted in January 2018: the Airbus Group received a major order allowing production to continue until at least 2025.


In the area of [security and defense technology](#), the EU nations laid the foundations for the "Pesco" defense pact in June 2017: at the heart of their plans is the future joint procurement of defense equipment and coordination of defense projects, supported by a European defense funds for research projects. Germany and France, in particular, are planning closer cooperation on defense policy. As such, the aim is for plans to be drawn up by mid-2018 for the joint development of a fighter that is intended to replace the Eurofighter and Rafale models in the future. The German armed forces plan to increase tank numbers to just under 330 by 2023 through purchase or modernization. In the US, military spending is due to increase by three to five percent in the years from 2019 through 2023.

## Expected Development of the Business Situation

### Planning Assumptions for the Group and Segments

The forecast for the future business development was based on the [Group planning](#) undertaken in the fall of 2017 and the "Strategy 2022" published at the beginning of 2018. 

The starting point is formed by the new Jenoptik "Strategy 2022" and the plans from the segments and operational business units, which are harmonized and integrated in the group planning. Possible acquisitions and exchange rate fluctuations are not included in the planning process.

At the start of the 2017 fiscal year, the system of key performance indicators was subjected to further development at both Group and segment level, and focused on the revenue, EBITDA margin, EBIT margin, order intake, free cash flow, and capital expenditure indicators. Other indicators will also be regularly compiled in the future and are used by top management for informational purposes. 

In 2018 we will begin rolling out our new strategy, which is focused on photonic technologies. In the process, we are concentrating on three issues – focusing, innovation, and internationalization. Over the 2018 fiscal year, a new corporate structure is due to be established and will become the basis for reporting from January 1, 2019. 



See the Business Targets and Strategy chapter for more information on the strategy and the new segment structure



See the Control System chapter for more information on the key performance indicators



See the Targets and Strategy chapter for information on the new strategy and organizational structure

The Jenoptik Group anticipates a good development of business in the [Optics & Life Science segment](#) also in 2018. It intends to boost its leading position in the photonics market by expanding its technological expertise and offering a larger range of integrated system solutions with a higher share of added value. Jenoptik is securely established as a development and production partner for numerous international market leaders. For the semiconductor equipment market, observers are expecting strong demand to continue in the current year. Here, the segment can profit from its position as one of the leading suppliers of optical and micro-optical system solutions for semiconductor production. A further priority supporting this positive development remains the focus on optical information and communication technologies. In medical technology and life science, existing cooperation arrangements with key international customers are due to be expanded in the current fiscal year and contribute to growth. In 2018, the segment will also continue to focus on the acquisition of new major customers. On a regional level, growth is particularly expected in Asia/Pacific and the Americas. In the current fiscal year, the segment will also continue to invest in the international production locations and sales to promote future growth and continue the process of internationalization, especially in the core regions.

The [Mobility segment](#) also expects good growth in 2018. In the automotive sector, we assume that the trend toward integrated production-related metrology will continue. This plays a particularly important role when precision parts are manufactured, such as those required by the automotive industry for efficient and environmentally-friendly drive systems. In order to respond to this trend, the segment is continuing to invest in the development of innovative and high-performance technologies and systems. Key growth momentum is also expected in the field of laser machines. Alongside established systems for plastics processing in the automotive industry, the segment is primarily focusing on 3D material processing. In 2017, the segment secured key expertise in process automation for material processing with its acquisition of the US company Five Lakes Automation, and now offers automated production lines from a single source. This has allowed Jenoptik to exploit new potential for growth in the US market. In the field of traffic safety, scheduled growth will mainly be supported by the major orders secured in prior years, which will contribute to the increase in revenue in 2018. This also includes the delivery of toll monitoring systems. The Traffic Service Provision business model will also be rolled

out further. The civil security business is another area that is growing in significance. From a regional perspective, Jenoptik forecasts the greatest growth momentum for the Mobility segment in the Asia/Pacific region and North America. We believe that the traffic safety market in the US will continue to stabilize in 2018.

For 2018, we expect stable development in the [Defense & Civil Systems segment](#). Its business is predominantly project-based and geared toward the long term. The defense market in the West is continuing to grow and an increase in expenditure – primarily in NATO member states – is expected in the coming years, meaning that demand for defense products could rise. At the same time, a potentially more restrictive export policy under a new coalition government in Germany 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, however, it may contribute to higher revenues. Internationalization also remains a key topic in 2018; foreign business is due to expand steadily, particularly in North America and Asia/Pacific. Beyond this, the segment is looking to further increase the share of systems used in civil fields. These include, for example, system solutions for civil aviation.

## 2018 Earnings Position Forecast

In view of the sustained high level of demand in our markets and on the basis of a good order and project pipeline, the Executive Board is forecasting growth in revenue and earnings for 2018. Currently identifiable risks, such as bottlenecks in the supply chain or exchange rate developments, in particular the euro to the US dollar, are subject to ongoing monitoring. Our scheduled growth also presupposes that political and economic conditions do not worsen. These primarily include the effects of Brexit, regulations at European level, export restrictions, further developments in the US, China and the Middle East, and the conflict between Russia and Ukraine.

The Jenoptik Group anticipates [revenue](#) of between 790 and 810 million euros for 2018 (prior year: 747.9 million euros). The Optics & Life Science and Mobility segments are due to make the greatest contribution to revenue growth.



See the Framework Conditions chapter for more information on the future development of the Jenoptik sectors



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At present, Jenoptik is expecting **EBITDA** (earnings before interest, taxes and depreciation/amortization, incl. impairment losses and reversals) to grow in the 2018 fiscal year (2017 EBITDA of continuing operations 106.7 million euros); the EBITDA margin is due to come in at between 14.5 and 15.0 percent. The Executive Board is also forecasting a rise in EBIT (2017: EBIT of continuing operations 77.8 million euros). The operating earnings margin (**EBIT margin**) is expected within the range of 10.5 to 11.0 percent.

The **order intake** for a period is affected by major orders, particularly in the Defense & Civil Systems and Traffic Solutions divisions. In the past fiscal year, Jenoptik received new orders worth 802.9 million euros and had thus built up a very good order base at year-end 2017. For the current fiscal year, Jenoptik is expecting the order intake to remain stable, as the fiscal year included an operational one-off impact. Also worthy of note is that Jenoptik had frame contracts worth 87.6 million euros at the end of 2017, which are not included in the order intake or backlog. Around 79 percent of the order backlog as of the end of December 2017 will impact on revenue in 2018.

Following very positive business performance in 2017, the **Optics & Life Science segment** anticipates revenue growth in the mid single-digit percentage range in 2018. EBITDA is due to remain stable at the high level seen in 2017.

Buoyed by the major orders it has secured, the **Mobility segment** is anticipating revenue growth in the lower double-digit percentage range in the current fiscal year. EBITDA is expected to grow significantly. The accuracy of the forecast is influenced by the time at which traffic safety projects are settled.

In the 2018 fiscal year, the **Defense & Civil Systems segment** is due to bolster our corporate success with stable revenue and EBITDA contributions.

### Group Asset and Financial Position Forecast

For the 2018 fiscal year, Jenoptik is forecasting an increase in **capital expenditure** to over 40 million euros. Capital expenditure on property, plant, and equipment will focus on the growth areas within the segments or take place within the scope of new customer projects. It aims to expand capacities, thereby ensuring future growth.

We are expecting **free cash flow** in 2018 to slightly exceed the 2017 figure. Even considering the rise in capital expenditure, this will allow all interest, tax, and dividend payments to be covered by the free cash flow.

In 2017, Jenoptik paid out a **dividend** for the 2016 fiscal year in the amount of 0.25 euros per share. In addition to financing

## T47 Summary of Targets for Group and Segments (in million euros)

	Actual 2017	2018 guidance
Revenue	747.9	Between 790 and 810 million euros
Optics & Life Science	259.4	Growth in the middle single-digit percentage range
Mobility	270.1	Growth in the lower double-digit percentage range
Defense & Civil Systems	219.3	Stable
EBITDA/EBITDA margin	106.7/14.3%	EBITDA margin between 14.5 and 15.0 percent
Optics & Life Science	58.7	Stable at high level
Mobility	27.9	Marked rise
Defense & Civil Systems	23.8	Stable
EBIT/EBIT margin	77.8/10.4%	EBIT margin between 10.5 and 11.0 percent
Order intake	802.9	Stable (2017 includes operational one-off effect)
Free cash flow	72.2	Slightly above 2017 figure
Capital expenditure <sup>1)</sup>	37.9	Over 40 million euros

<sup>1)</sup> Without capital expenditure on financial investments



See the Events after  
the Balance Sheet  
Date for more  
information on the  
dividend

the continued growth of the company, the future aim of the Executive Board is still to ensure a dividend policy in line with corporate success. In the view of the Executive Board, a stable provision 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.

**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 if the assumptions upon which the statements are based prove to be inaccurate in relation to the economic development.

## General Statement by the Executive Board on Future Development

In the current 2018 fiscal year, the Jenoptik Group will begin rolling out 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, more efficient and faster processes, and higher margins result in higher, stable earnings.

Building on strong demand in our markets and a solid order backlog, Jenoptik plans to grow successfully again in 2018. The good asset position and a viable financing structure also give sufficient room for maneuver to carry out acquisitions and finance further growth. In 2018, the Executive Board is forecasting revenue of between 790 and 810 million euros and an EBIT margin of between 10.5 and 11.0 percent. The EBITDA margin is due to come in at between 14.5 and 15.0 percent. Achieving these targets is dependent on economic and political conditions.

In 2018, we will again invest a significant portion of our funds in the expansion of international sales and value creation structures, as well as in the development of innovative products. As part of our active portfolio management, potential acquisitions are closely scrutinized; divestments are not ruled out.

Overall, the Executive Board expects positive corporate development within the Jenoptik Group during the 2018 fiscal year.

Jena, March 8, 2018

JENOPTIK AG  
the Executive Board

# Consolidated Financial Statements

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# Consolidated Statement of Comprehensive Income

## Consolidated Statement of Income

in thousand euros	Note No.	1/1 – 31/12/2017	1/1 – 31/12/2016
<b>Continuing operations</b>			
Revenue	4.1	747,929	684,769
Cost of Sales	4.2	484,042	446,915
<b>Gross profit</b>		<b>263,887</b>	<b>237,854</b>
Research and development expenses	4.3	43,078	42,298
Selling expenses	4.4	80,312	73,598
General administrative expenses	4.5	55,817	57,583
Other operating income	4.7	15,744	23,374
Other operating expenses	4.8	22,579	21,540
<b>EBIT</b>		<b>77,844</b>	<b>66,209</b>
Result from other investments	4.9	6,468	303
Financial income	4.10	1,756	4,403
Financial expenses	4.10	6,186	9,892
<b>Financial result</b>		<b>2,038</b>	<b>-5,185</b>
<b>Earnings before tax</b>		<b>79,882</b>	<b>61,024</b>
Income taxes	4.11	-7,429	-7,112
<b>Earnings after tax</b>		<b>72,453</b>	<b>53,911</b>
<b>Discontinued operations</b>			
Other operating income	4.14	200	2,261
<b>EBIT</b>		<b>200</b>	<b>2,261</b>
Financial income		0	1,458
<b>Financial result</b>		<b>0</b>	<b>1,458</b>
<b>Earnings before tax</b>		<b>200</b>	<b>3,719</b>
Income taxes		0	-174
<b>Earnings after tax</b>		<b>200</b>	<b>3,545</b>
<b>Group</b>			
<b>Earnings after tax</b>		<b>72,653</b>	<b>57,456</b>
Results from non-controlling interests	4.12	149	53
Earnings attributable to shareholders	4.13	72,504	57,403
<b>Earnings per share in euros – continuing operations</b>	4.15	<b>1.27</b>	<b>0.94</b>
Earnings per share in euros – discontinued operations	4.15	0.00	0.06
<b>Earnings per share in euros – Group (diluted = undiluted)</b>	4.15	<b>1.27</b>	<b>1.00</b>

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## Comprehensive income

in thousand euros	Note No.	1/1 – 31/12/2017	1/1 – 31/12/2016
<b>Earnings after tax</b>		<b>72,653</b>	<b>57,456</b>
Items that will never be reclassified to profit or loss	5.16	858	-358
Actuarial gains/losses arising from the valuation of pensions and similar obligations		1,156	-298
Deferred taxes		-298	-60
Items that are or may be reclassified to profit or loss	5.16	-4,704	-2,376
Available-for-sale financial assets		-270	-249
Cash flow hedges		4,456	-1,680
Foreign currency exchange differences		-8,016	-915
Deferred taxes		-874	468
<b>Total other comprehensive income</b>		<b>-3,846</b>	<b>-2,735</b>
<b>Total comprehensive income</b>		<b>68,807</b>	<b>54,722</b>
Thereof attributable to:			
Non-controlling interests		209	331
Shareholders		68,598	54,391

## Consolidated Statement of Financial Position

Assets in thousand euros	Note No.	31/12/2017	31/12/2016	Change
<b>Non-current assets</b>		<b>376,225</b>	<b>371,891</b>	<b>4,333</b>
Intangible assets	5.1	120,931	111,352	9,579
Property, plant and equipment	5.2	164,730	157,882	6,848
Investment property	5.3	4,350	4,444	-93
Financial investments	5.5	4,408	19,034	-14,626
Non-current trade receivables	5.6	0	1,923	-1,923
Other non-current financial assets	5.7	2,319	1,926	393
Other non-current non-financial assets	5.8	586	1,108	-522
Deferred tax assets	5.9	78,900	74,223	4,678
<b>Current assets</b>		<b>512,901</b>	<b>441,159</b>	<b>71,742</b>
Inventories	5.10	168,625	159,324	9,301
Current trade receivables	5.11	136,017	129,821	6,195
Other current financial assets	5.12	5,307	2,422	2,884
Other current non-financial assets	5.13	6,067	7,091	-1,024
Current financial investments	5.14	64,577	50,540	14,037
Cash and cash equivalents	5.15	132,310	91,961	40,349
<b>Total assets</b>		<b>889,126</b>	<b>813,051</b>	<b>76,075</b>

Equity and liabilities in thousand euros		31/12/2017	31/12/2016	Change
<b>Equity</b>	5.16	<b>529,932</b>	<b>476,379</b>	<b>53,553</b>
Share capital		148,819	148,819	0
Capital reserve		194,286	194,286	0
Other reserves		186,704	133,604	53,099
Non-controlling interests	5.17	123	-330	454
<b>Non-current liabilities</b>		<b>162,105</b>	<b>175,358</b>	<b>-13,253</b>
Pension provisions	5.18	37,066	37,630	-564
Other non-current provisions	5.20	15,909	12,339	3,570
Non-current financial debt	5.22	108,573	120,479	-11,906
Non-current trade payables	5.23	0	680	-680
Other non-current financial liabilities	5.24	420	3,485	-3,065
Other non-current non-financial liabilities	5.25	0	655	-655
Deferred tax liabilities	5.9	137	90	47
<b>Current liabilities</b>		<b>197,089</b>	<b>161,313</b>	<b>35,776</b>
Tax provisions	5.19	8,938	3,380	5,558
Other current provisions	5.20	51,250	46,152	5,097
Current financial debt	5.22	19,337	4,129	15,208
Current trade payables	5.26	61,657	48,402	13,255
Other current financial liabilities	5.27	8,654	5,642	3,012
Other current non-financial liabilities	5.28	47,253	53,609	-6,356
<b>Total equity and liabilities</b>		<b>889,126</b>	<b>813,051</b>	<b>76,075</b>



## Consolidated Statement of Cash Flows

in thousand euros	1/1 – 31/12/2017	1/1 – 31/12/2016
Earnings before tax – continuing operations	79,882	61,024
Earnings before tax – discontinued operations	200	3,719
<b>Earnings before tax</b>	<b>80,082</b>	<b>64,743</b>
Interest income	4,430	4,030
Non-operating income from investments	0	-1,693
Depreciation and amortization	28,678	27,603
Impairment losses and reversals of impairment losses	147	1,982
Profit/loss from asset disposals	-6,359	-591
Other non-cash income/expenses	539	-446
<b>Operating profit before adjusting working capital and further items of the statement of financial position</b>	<b>107,517</b>	<b>95,628</b>
Change in provisions	7,150	4,539
Change in working capital	-7,776	5,713
Change in other assets and liabilities	-1,817	3,342
<b>Cash flows from operating activities before income tax payments</b>	<b>105,074</b>	<b>109,223</b>
Income tax payments	-8,727	-9,121
<b>Cash flows from operating activities</b>	<b>96,347</b>	<b>100,102</b>
thereof discontinued operations	200	101
Proceeds from sale of intangible assets	18	154
Capital expenditure for intangible assets	-4,384	-3,446
Proceeds from sale of property, plant and equipment	1,870	126
Capital expenditure for property, plant and equipment	-30,340	-25,681
Proceeds from sale of financial investments	18,854	1,508
Capital expenditure for financial investments	-351	-356
Proceeds from sale of consolidated entities	0	1,211
Acquisition of consolidated entities	-13,893	-539
Proceeds from sale of investment companies	0	1,126
Proceeds from sale for financial assets within the framework of short-term disposition	34,736	0
Capital expenditure for financial assets within the framework of short-term disposition	-49,196	-49,746
Proceeds from non-operating income from investments	0	1,693
Interest received	521	2,610
<b>Cash flows from investing activities</b>	<b>-42,164</b>	<b>-71,339</b>
thereof discontinued operations	0	2,669
Dividends paid	-14,310	-12,592
Capital expenditure for shares in consolidated entities	-339	0
Proceeds from issuing bonds and loans	7,272	7,463
Repayments of bonds and loans	-3,562	-11,468
Payments for finance leases	-116	-33
Change in group financing	1,416	-556
Interest paid	-3,271	-3,541
<b>Cash flows from financing activities</b>	<b>-12,909</b>	<b>-20,728</b>
<b>Change in cash and cash equivalents</b>	<b>41,274</b>	<b>8,035</b>
thereof discontinued operations	200	2,770
Effects of movements in exchange rates on cash held	-1,014	102
Change in cash and cash equivalents due to changes in the scope of consolidation	89	0
Cash and cash equivalents at the beginning of the period	91,961	83,824
<b>Cash and cash equivalents at the end of the period</b>	<b>132,310</b>	<b>91,961</b>

## Statement of Changes in Equity

in thousand euros	Note No.	Share capital	Capital reserve	Retained earnings	Available-for-sale financial assets
<b>Balance at 1/1/2016</b>		<b>148,819</b>	<b>194,286</b>	<b>111,508</b>	<b>802</b>
Acquisition of non-controlling interests				-419	
Dividends				-12,592	
Change in financial instruments	5.5/8.2				-287
Measurement of pension obligations	5.18				
Foreign currency exchange differences	5.16				
Net profit for the period	4.12/4.13			57,403	
Other adjustments				-883	
<b>Balance at 31/12/2016</b>		<b>148,819</b>	<b>194,286</b>	<b>155,016</b>	<b>515</b>
<b>Balance at 1/1/2017</b>		<b>148,819</b>	<b>194,286</b>	<b>155,016</b>	<b>515</b>
Acquisition of non-controlling interests	2.4			-245	
Dividends				-14,310	
Change in financial instruments	5.5/8.2				-302
Measurement of pension obligations	5.18				
Foreign currency exchange differences	5.16				
Net profit for the period	4.12/4.13			72,504	
Other adjustments	2.1			-944	
<b>Balance at 31/12/2017</b>		<b>148,819</b>	<b>194,286</b>	<b>212,022</b>	<b>213</b>

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Cash flow hedges	Cumulative exchange differences	Actuarial effects	Equity attributable to shareholders of JENOPTIK AG	Non-controlling interests	Total	
-399	9,273	-28,076	436,213	-1,081	435,132	<b>Balance at 1/1/2016</b>
			-419	419	0	Acquisition of non-controlling interests
			-12,592		-12,592	Dividends
-1,178			-1,465		-1,465	Change in financial instruments
		-358	-358		-358	Measurement of pension obligations
	-1,165	-23	-1,188	278	-911	Foreign currency exchange differences
			57,403	53	57,456	Net profit for the period
			-883	0	-883	Other adjustments
-1,577	8,108	-28,457	476,710	-331	476,379	<b>Balance at 31/12/2016</b>
-1,577	8,108	-28,457	476,710	-331	476,379	<b>Balance at 1/12/2017</b>
			-245	245	0	Acquisition of non-controlling interests
			-14,310		-14,310	Dividends
3,131			2,829		2,829	Change in financial instruments
		858	858		858	Measurement of pension obligations
	-7,811	218	-7,593	60	-7,533	Foreign currency exchange differences
			72,504	149	72,653	Net profit for the period
			-944	0	-944	Other adjustments
1,554	297	-27,382	529,809	123	529,932	<b>Balance at 31/12/2017</b>

# Notes

## 1 Presentation of the Group Structure

### 1.1 Parent Company

The parent company is JENOPTIK AG headquartered in Jena and is registered in the Commercial Register of Jena in Department B under the number 200146. JENOPTIK AG is publicly listed on the German Stock Exchange in Frankfurt and in the TecDAX index.

The list of shareholdings of the Jenoptik 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 191 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 2017 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. If not otherwise specified, all amounts are presented in thousand euros. Please note that there may be rounding differences as compared to the mathematically exact amounts (monetary units, percentages, etc.). The statement of total comprehensive income was prepared in accordance with the cost of sales method.

The fiscal year of JENOPTIK AG and those of the 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 comprehensive income and in the statement of financial position. The classifications used for these items are listed in the Notes.

The following International Financial Reporting Standards were applied for the first time in the fiscal year:

**Changes to IAS 7: Disclosure initiative.** The amendment to IAS 7 Cash Flow Statements, is part of the IASB's disclosure initiative and obligates entities to provide information that enables addressees of financial statements to keep track of the changes to the debts arising from financing activities. When applying the amendments for the first time, entities do not have to give any comparison information for prior periods. This amendment is to be applied for fiscal years beginning on or after January 1, 2017. The necessary disclosures are shown in the section "Disclosures on the Cash Flow Statement" from page 173 .

**Amendment to IAS 12 "Recording of deferred tax claims for non realized losses".** The amendment makes it clear that an entity must consider whether tax laws restrict the sources for future taxable income, against which it can use deductions from the reversal of the corresponding, deductible temporary differences. In addition, the amendment contains guidelines on how an entity has to determine future taxable income and explains the circumstances in which future taxable income can include amounts arising from the realization of assets above their carrying amount. The amendment is to be applied for fiscal years beginning on or after January 1, 2017. This amendment will have no material effect on the consolidated financial statements.

**IFRS Improvements (2014–2016).** Amongst other, the Annual Improvements Project has made amendments to IFRS 12 "Disclosures on Investments in Other Companies". These amendments have made it clear that a company must also meet the disclosure obligations for companies held available for sale. This amendment as part of the Improvements Project comes into effect on January 1, 2017. These changes have no material effect on the consolidated financial statements.

The application of the following standards and interpretations published by the IASB and adopted by the EU is not yet mandatory nor have these been applied by Jenoptik in the consolidated financial statements as of December 31, 2017. The Group does not intend to apply these standards early.

The new standards or amendments to standards are to be applied for the fiscal years commencing on or after the date these come into effect.

IFRS 9 “Financial Instruments”. This standard replaces all earlier versions of IAS 39 for the classification and valuation of financial assets and liabilities as well as for the accounting treatment for hedging instruments. This new version of the standard contains revised guidelines for the classification and valuation of financial instruments. These include a new model for anticipated credit defaults for calculating the impairment loss to financial assets as well as the new general accounting regulations for hedging transactions. This standard also adopts the IAS 39 guidelines for the recognition and derecognition of financial instruments. IFRS 9 is to be adopted in fiscal years beginning on or after January 1, 2018. Early application is allowed. With the exception of the accounting for hedging transactions, the standard is to be applied retrospectively but there is no requirement for the disclosure of comparison information. Apart from a few exceptions, the regulations for the accounting treatment of hedging transactions must be applied in general prospectively.

Jenoptik has conducted an analysis of the impact of all three aspects of IFRS 9 on the consolidated financial statements. Overall, the Group does not anticipate any significant impact on the balance sheet and equity. This assessment is based on information currently available and may change as a result of additional information in the year 2018.

a) Classification and valuation

The Group will essentially exercise the case-by-case option of applying a valuation at fair values through other comprehensive income for equity instruments which are currently valued as available-for-sale assets. Consequently all future changes in fair value will be recognized directly in other comprehensive income without any effect on profit or loss and without any later possibility of reclassifications through profit or loss. Under IFRS 9, no material change is expected with regard to assets valued at amortized procurement costs. Loans and trade receivables are held in order to collect the contractual cash flows which exclusively represent amortization and interest payments on the outstanding nominal amounts. Jenoptik analyzed the contractual cash flows and came to the conclusion that the cash flow requirement is being met and no reclassification is necessary.

b) Impairment losses

The Group will apply the simplified approach and record the Expected-Credit-Loss over the entire term arising from all trade receivables. Jenoptik has determined that as a result of non-secured loans and receivables, the provision for risks will be increased by 0.6 million euros.

c) Accounting for hedging transactions

The Group has determined that all hedging transactions currently designated as effective hedging relationships also meet the criteria provided for under IFRS 9 for hedge accounting. Since IFRS 9 does not provide for any change in the general principles for the accounting of effective hedging relationships, there are also not expected to be any material changes with regard to the accounting of hedging relationships in the consolidated financial statements.

IFRS 15 “Revenue from Contracts with Customers”. IFRS introduces a five-stage model for accounting for revenue from contracts with customers. Under IFRS 15, revenue is recorded in the amount of the consideration in return which an entity can expect for the transfer of goods or services to a customer (the transaction price). The new standard replaces all existing guidelines for recording revenues such as IAS 18 Revenue, IAS 11 Construction Contracts and IFRIC 13 Customer Loyalty Programs. For fiscal years commencing on or after January 1, 2018, the regulation stipulates either the full retrospective application or a modified retrospective application. Early application is allowed.

Clarifications on IFRS 15 “Revenue from Contracts with Customers”. The clarifications explain implementation issues which were addressed by the Joint Transition Group for Revenue Recognition. These questions relate to the identification of performance obligations, the application guidelines for principal-agent relationships and licenses for intellectual property, as well as the transitional provisions. In addition, the aim of the amendments is to ensure a more consistent approach in the implementation of IFRS 15 and to reduce the costs and complexity associated with its application. The amendments came into effect on January 1, 2018.

Jenoptik has analyzed the impact on the consolidated financial statements as part of a project. Based on the results of the project phases completed so far, material changes are mainly expected to arise from the following transactions:

a) Customer-specific development projects, followed by volume production: In the past, revenues were recognized after delivery of the product, unless IAS 11 applied (successive contracts to supply). The Group concludes that development services under IFRS 15 are recognized as separate performance obligation over the period of development as revenue and no longer through volume production, which

tends to result in revenues being recognized earlier. According to provisional knowledge, in the fiscal year 2018, the changes will lead to a reduction in revenue ranging between approx. 1.5 million euros and 2.5 million euros and a reduction in cost of sales of between approx. 4.5 million euros and 5.5 million euros.

- b) Customer-specific volume production: Up to and including the fiscal year 2017, revenue was recognized with the transfer of risk after delivery or acceptance by the customer. Under IFRS 15, Jenoptik concludes that these contracts are to be accounted for in accordance with the requirements of IFRS 15.35 (c) in the specific period, leading to revenue being recognized earlier. An impact on the level of sales in fiscal year 2018 will depend on the continuity of this business, although this is not anticipated based on the current revenue forecast.

The Group will record the conversion effects on January 1, 2018 on a cumulative basis in the equity (modified retrospective method). Based on the current calculations, this will lead to a reduction in equity of a sum of between approx. 3.5 million euros and 4.0 million euros including deferred taxes.

Furthermore, the initial application of IFRS 15 will result in the need for Jenoptik to disclose clearly more information in the Notes concerning the nature, amount, timing and uncertainty of the revenue and cash flows arising from contracts with customers as defined in IFRS 15.

**IFRS 16 „Leasing“.** IFRS 16 includes a comprehensive set of new rules for accounting for leases and supersedes the previous rules of IAS 17 leases and some interpretations. The objective is to disclose the lessee's rights and obligations associated with the leases in the balance sheet. Relief is planned for short-term leases and the leasing of objects of low-value. Lessors will continue having to account for leases by classifying them as either finance or operating leases, applying the criteria defined in IAS 17. Moreover, IFRS 16 contains further regulations on classification and disclosures in the Notes. IFRS 16 is to be applied for the first time in fiscal years beginning on or after January 1, 2019. Early application is permitted insofar as IFRS 15 is also applied.

These changes are expected to have a significant impact on the Group as a lessee, as it has so far largely concluded operating leases on movable assets as well as real estate. As a result of

these leases being recorded in the balance sheet in the future and based on current information, the Group expects a significant increase in the mid double-figure million range in fixed assets and financial liabilities respectively and, consequently, an increase in the balance sheet total and a corresponding reduction in the equity ratio. Furthermore, the change in the recognition of leasing payments in the income statement will lead to an improvement in EBITDA in the upper single-digit million euro range. In the cash flow statement, payments for operating leases will in future be reported in the cash flows from financing activities which leads to an improvement in the cash flows from operating activities compared to the provisions in IAS 17.

With regard to the scope of leases arising in future periods and to be recorded in the accounts, we refer to the disclosure in the Notes 5.4 from page 158.

This is not expected to have any material effects for the Group as a lessor.

The new regulation listed below is not applicable to the Group and will therefore have no effect on the consolidated financial statements:

- Amendments to IFRS 4: Application of IFRS 9 "Financial Instruments" together with IFRS 4 "Insurance Contracts"

The following standards and interpretations published by the IASB have not yet been adopted by the European Union.

**Amendment to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures"**. The amendments address a well-known inconsistency between the regulations of IFRS 10 and IAS 28 (2011) for cases when assets are to be sold to an associate or to a joint venture or when assets are to be contributed towards an associate or to a joint venture. The intention in the future is for the entire profit or loss from a transaction to only be recognized if the assets, either sold or contributed, constitute a business in accordance with IFRS 3. This applies independently of whether the transaction is designed as a share deal or an asset deal. If, by contrast, the assets do not constitute a business, then the results may only be recognized proportionately. The date on which the amendments come into effect has been deferred by the IASB for an indefinite period. This amendment will have no material impact on the consolidated financial statements.



**Amendments to IFRS 2: Classification and valuation of share-based payment agreements.** The IASB has published an amendment to IFRS 2 “Share-Based Payment” which addresses three main areas: the effects of vesting conditions on the valuation of share-based payment transactions with cash settlement, the classification of share-based payment transactions with net fulfillment clauses with a legal obligation to the deduction of withholding tax and the accounting of share-based payment transactions with settlement in cash in the event of a modification of their conditions leading to a classification as a share-based payment transaction with equity settlement. The amendment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

**Amendments to IFRS 9: Prepayment features with negative compensation.** The change makes it clear that the cash flow condition is met for financial assets with negative compensation in the event of early repayment. The amendment is to be applied for fiscal years beginning on or after January 1, 2019. Early application is allowed. As this amendment only has a narrow area of application, based on an initial analysis it will have no material impact on the consolidated financial statements.

**Amendments to IAS 28: Long-term investments in associates and joint ventures.** The amendment specifies that an enterprise first applies IFRS 9 to financial instruments that are not accounted for in accordance with the equity method but represent part of the net investment in the associate or joint venture. It will then apply the subsequent measurements according to IAS 28.38 and IAS 28.40-43. The amendment is to be applied for fiscal years beginning on or after January 1, 2019. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

**Amendments to IAS 40 “Investment Property”.** The amendment to IAS 40 relates to the classification of property which has not yet been completed and makes it clear in which cases the classification of an investment property begins or ends if the property is still under construction or in development. The amendment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

**IFRIC 22 “Foreign Currency Transactions and Prepaid Considerations”.** The IASB has clarified the date for calculating the exchange rate for the conversion of transactions in a foreign currency which include payments received or paid. The amend-

ment is to be applied for fiscal years beginning on or after January 1, 2018. Early application is allowed. This amendment will have no material impact on the consolidated financial statements.

**IFRIC 23 “Uncertainty over income tax treatments”.** The interpretation is to be applied to the accounting of income taxes if there are any uncertainties regarding the treatment of income for tax purposes. The interpretation is to be applied for fiscal years beginning on or after January 1, 2019. The Group operates in a multinational tax environment so the interpretation could have an impact on the consolidated financial statements. Jenoptik carries out further analyses in order to obtain the necessary information required for applying the interpretation on a timely basis.

**IFRS Improvements (2014 – 2016).** The Annual Improvements Project has made changes to various standards. This also affects the IFRS 1 and IAS 28 standards. The amendments to IFRS 1 cover the deletion of the remaining, temporary relief regulations for first-time users. The amendments to IAS 28 entail clarifications. This part of the Improvement Project comes into effect on January 1, 2018. These amendments will have no material effects on the consolidated financial statements.

**IFRS Improvements (2015 – 2017).** The Annual Improvements Project has made changes to various standards. The collective standard contains clarifications on IFRS 3, IFRS 11, IAS 12, and IAS 23. These amendments come into effect on January 1, 2019 and will have no material effects on the consolidated financial statements.

The new regulation listed below is not applicable to the Group and will therefore have no effect on the consolidated financial statements:

- IFRS 17: Insurance contracts

### 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 that affect their recognition in the balance sheet or in the statement of comprehensive income of the Group as well as the disclosure of contingent receivables and contingent 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. This essentially relates to:

- the assessment of impairment to goodwill (see note “Intangible assets” from page 154),
- determining the useful lives when valuing intangible assets, property, plant and equipment and investment property (see note “Intangible assets” from page 154, note “Property, plant and equipment” from page 157 and note “Investment property” from page 158),
- the method for valuing inventories, as well as for defining valuation routines and discounts (see note “Inventories” from page 160),
- the actuarial parameters for the valuation of provisions for pensions and similar obligations as well as the determination of the fair value of fiduciary assets (see note “Provisions for Pensions and Similar Obligations” from page 165),
- the assumptions and methods for valuing other provisions – for example, warranty obligations, restructuring and actuarial parameters of personnel provisions (see note “Other provisions” from page 169),
- the estimation of the probability of outflows of resources due to present obligations and their presentation as contingent liabilities (see note “Contingent liabilities” from page 184) and
- the realizability of future tax breaks – in particular arising from losses carried forward – in the valuation of deferred tax assets (see note “Income taxes” from page 151).

## 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 and one joint operation on a proportional basis. The list of shareholdings is presented in detail in disclosure note 12 from page 191.

The consolidated financial statements of JENOPTIK AG include 35 (prior year 32) fully consolidated subsidiaries. Of which 12 (prior year 12) have their legal seat in Germany and 23 (prior year 20) have theirs abroad. The consolidated entities of the Jenoptik Group include one joint operation (prior year 1).

In fiscal year 2017, 100 percent of the shares were acquired in Domestic and Commercial Security Limited (referred to below as: ESSA Technology), Saltash, Great Britain and 100 percent of

the shares in Five Lakes Automation LLC (referred to below as: Five Lakes Automation), Novi (Mi), USA. Detailed disclosures on the acquisitions are provided in Note 2.4 from page 138 .

In fiscal year 2017, the previously non-consolidated JENOPTIK India Private Limited, Bangalore, India, was included in the consolidated financial statements for the first time and JENOPTIK KATASORB GmbH, Jena, merged into the fully consolidated JENOPTIK Automatisierungstechnik GmbH, Jena, Germany.

Hillos GmbH, Jena, is included in the consolidated financial statements as a joint operation with a proportional shareholding of 50 percent in accordance with IFRS 11. This entity is a strategic customer of Jenoptik, operating in the area of construction and construction-related applications of laser technology. The following assets and liabilities are to be allocated to the Group:

in thousand euros	2017	2016
Non-current assets	524	711
Current assets	10,043	9,738
Non-current liabilities	37	30
Current liabilities	2,665	2,853
Income	22,884	24,637
Expenses	22,280	24,037

Further 11 subsidiaries, of which 8 are non-operating entities, are not consolidated as their influence on the net assets, financial and earnings position – both individually and in total – is of minor significance. The total revenue of the non-consolidated entities amounts to about 0.2 percent of group revenue; the EBIT was nearly zero percent of group EBIT. The estimated effect of consolidating all the non-consolidated entities on the group’s total assets is approximately 0.2 percent.

The following subsidiaries have material investments held by non-controlling shareholders:

Name	Legal seat of the entity	Non-controlling interests
JENOPTIK Korea Corporation Ltd.	Korea	33.40
JENOPTIK Japan Co. Ltd.	Japan	33.42
Vysionics Group	Great Britain	3.50

The following table summarizes the financial information of the subsidiaries mentioned above, based on the individual financial statements of the entities, including IFRS adjustments as well as adjustments due to the allocation of the purchase price for the Vysionics Group. Effects of the consolidation were not taken into account in this context.

in thousand euros	JENOPTIK Korea	JENOPTIK Japan	Vysionics Group
Revenue	5,213	5,159	21,958
	(4,403)	(5,094)	(19,772)
Earnings after tax	283	26	828
	(-320)	(2)	(2,122)
Earnings after tax from non-controlling interests	95	9	45
	(-107)	(1)	(159)
Total results	283	26	828
	(-320)	(2)	(2,122)
Total results from non-controlling interests	95	9	45
	(-107)	(1)	(159)
Non-current assets	279	127	8,444
	(175)	(71)	(5,798)
Current assets	2,371	1,771	8,224
	(2,458)	(2,105)	(7,853)
Non-current liabilities	0	549	25,792
	(0)	(633)	(24,412)
Current liabilities	1,188	1,096	5,169
	(1,465)	(1,298)	(4,895)
Net assets	1,461	253	-14,292
	(1,168)	(246)	(-15,657)
Net assets from non-controlling interests	488	84	-500
	(390)	(82)	(-802)
Cash flows from operating activities	9	38	3,016
	(312)	(25)	(3,791)
Cash flows from investing activities	-135	0	-5,421
	(-5)	(0)	(-225)
Cash flows from financing activities	-30	-23	545
	(-398)	(-475)	(-2,974)
Change in cash and cash equivalents	-155	15	-1,859
	(-90)	(-450)	(592)

Prior year figures are in parentheses.

## 2.2 Consolidation Procedures

The assets and liabilities of domestic and foreign entities included fully or proportionately in the consolidated financial statements are recognized uniformly in accordance with the accounting policies and valuation methods applicable throughout the entire Jenoptik Group.

At the acquisition date, the equity 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 as defined in IFRS 3.23 are classified as liabilities. 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 accordance with IAS 36.

Receivables and payables as well as income and expenses 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.

There was no change in the consolidation methods applied in the prior year.

## 2.3 Foreign Currency Conversion

Annual financial statements prepared by subsidiaries 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 is generally identical to that of the subsidiary's 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 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.

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 shown under other operating income or other operating expenses affecting the results and, if these are derived from financial transactions, are shown in financial income or financial expenses (see details on the Income Statement from page 148). This excludes currency conversion differences arising from loans which constitute a part of the net investment in a foreign business operation. These differences arising from foreign currency conversions are shown under other comprehensive income outside of profit or loss.

The exchange rates used for the conversion are shown in the table below:

	1 EUR =	Annual average exchange rate		Reporting date exchange rate	
		2017	2016	2017	2016
Australia	AUD	1.4729	1.4874	1.5346	1.4596
Switzerland	CHF	1.1115	1.0901	1.1702	1.0739
China	CNY	7.6264	7.3482	7.8044	7.3202
Great Britain	GBP	0.8761	0.8166	0.8872	0.8562
Japan	JPY	126.6541	120.0834	135.0100	123.4000
Korea	KRW	1,275.8233	1,283.5105	1,279.6100	1,269.3600
Malaysia	MYR	4.8501	4.5823	4.8536	4.7287
Singapore	SGD	1.5582	1.5275	1.6024	1.5234
USA	USD	1.1293	1.1061	1.1993	1.0541

## 2.4 Entities Acquired and Sold

### Acquisition of ESSA Technology

With the signing of the agreement on January 19, 2017, Jenoptik acquired 100 percent of the shares in Domestic and Commercial Security Limited, Saltash, Great Britain via the British entity JENOPTIK Traffic Solutions UK Ltd. This company, which operates under the name of ESSA Technology, specializes in software for traffic monitoring and the associated back office solutions, in particular for the automatic number plate recognition (ANPR) applications for the police. The acquisition expands the Jenoptik Group's traffic safety portfolio and continues its ongoing transformation into a supplier of integrated solutions for public safety and smart cities.

Since Jenoptik held 94.64 percent of the shares in the acquiring company JENOPTIK Traffic Solutions UK Ltd. on the acquisition

date, 5.36 percent of ESSA Technology's results are to be apportioned to non-controlling interests from the acquisition date.

The purchase price comprises a fixed cash component of 4,536 thousand pounds sterling (5,268 thousand euros). In return, we acquired the net assets identified below as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	1,577
Current assets	1,113
Non-current liabilities	273
Current liabilities	503

The acquired assets include receivables with a gross value of 667 thousand euros, corresponding to the fair value. There is no expectation that the acquired receivables will be unrecoverable.

Also included in the acquired assets are cash and cash equivalents amounting to 288 thousand euros.

In connection with the acquisition of shares in ESSA Technology, the main items identified as intangible assets were a customer base, technologies, trademark rights and an order backlog. The intangible assets are amortized over periods of between one and ten years. Goodwill in the sum of 3,356 thousand euros was also recorded for the acquisition of the skilled personnel as well as for synergy effects arising from the expansion of the range of services, which extend all the way to integrated solutions. The goodwill is to be allocated to the cash-generating unit "Traffic Solutions" and is not tax-deductible.

Contingent liabilities were not included in the company acquisition.

Costs for the acquisition of ESSA Technology in the 2017 fiscal year were incurred in the sum of 56 thousand euros (prior year 148 thousand euros). These were shown in other operating expenses.

#### Acquisition of Five Lakes Automation

With the signing of the agreement on July 27, 2017 and on fulfillment of the conditions precedent on August 21, 2017, Jenoptik acquired a 100 percent stake in Five Lakes Automation LLC, Novi (MI), USA through its U.S. company JENOPTIK Automotive North America LLC. The entity acquired is a young company specializing in production automation for car manufacturers and automotive suppliers. Jenoptik therefore no longer only supplies individual machines for laser processing but, drawing on the expertise of Five Lakes Automation, will in the future be able to plan and implement automated production lines from a single source.

The following information is based on provisional amounts. The provisional nature relates to the determination of the acquired net assets and the valuation of the intangible assets identified as part of the purchase price allocation. The first-time consolidation will be finalized by the end of the valuation period.

The purchase price (13,550 thousand US dollars, 11,450 thousand euros) comprises a cash component in the amount of 10,550 thousand US dollars (8,932 thousand euros) and a conditional component in the amount of 3,000 thousand US dollars (2,518 thousand euros) which is based on the attainment

of defined budget targets for existing customer projects. The conditional component was recognized as a liability using the fair value.

In return, we acquired the following net assets as at the date of the initial consolidation:

in thousand euros	Total
Non-current assets	4,714
Current assets	4,446
Non-current liabilities	0
Current liabilities	3,454

The acquired assets include trade receivables with a gross value of 2,899 thousand euros, corresponding to the fair value. There is no expectation that the acquired receivables will be unrecoverable.

Also included in the acquired assets are cash and cash equivalents amounting to 20 thousand euros.

In connection with the acquisition of the shares in Five Lakes Automation, the main items identified as intangible assets were a customer base, order backlog and non-compete agreements. The intangible assets are amortized over periods of between six months and nine years. Goodwill in the sum of 5,744 thousand euros was also recorded for the acquisition of skilled personnel and synergies arising from the expansion of the range of services, which extend all the way to automated production lines. The goodwill is to be allocated to the group of cash-generating units "Automotive" and is fully tax-deductible.

Contingent liabilities were not included in the company acquisition.

In future, the continued employment of a member of the business management that is shown as a separate transaction in distinction to the acquisition, will be recorded over the period of the management services to be rendered.

Costs of 589 thousand euros for the acquisition of Five Lakes Automation arose in the 2017 fiscal year. These were shown in other operating expenses.

The consolidated financial statements include revenue in the sum of 1.561 thousand euros and earnings after tax (EAT) of 332 thousand euros arising from the inclusion of ESSA Technology. The consolidated financial statement includes revenue in

the sum of 5,277 thousand euros and earnings after tax (EAT) of minus 2,256 thousand euros arising from the consolidation of Five Lakes Automation. Earnings after tax (EAT) include expenses from the scheduled amortization of the intangible assets identified within the framework of the allocation of the purchase price.

On the premise that all corporate acquisitions had already taken place as at January 1, 2017, the Jenoptik Group would show revenue of 760,312 thousand euros and group earnings after tax (EAT) of 73,086 thousand euros. In order to determine this information, it was assumed that the fair values of the intangible assets identified in the context of the allocation of the purchase price as at January 1, 2017 are identical to those as at the initial consolidation date. These proforma 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.

The entity JENOPTIK India Private Limited, Bangalore, India, was included in the consolidated financial statements for the first time on January 1, 2017. The consolidated financial statement includes revenue in the sum of 652 thousand euros and earnings after tax (EAT) of minus 112 thousand euros arising from the newly consolidated entity Jenoptik India.

In addition, with effect from January 1, 2017 the non-consolidated JENOPTIK KATASORB GmbH, Jena, Germany was merged with the fully-consolidated JENOPTIK Automatisierungstechnik GmbH, Jena, Germany. This merger has no material effect on the consolidated statement of income because the revenue generated by the company was almost exclusively on an intra-group basis and, as a result of being included in the scope of consolidation for income tax purposes, was subject to the transfer of profits to Jenoptik Automatisierungstechnik.

The following additions to assets and liabilities arose as a result of the initial consolidation of Jenoptik India and the merger of Jenoptik Katasorb:

in thousand euros	Total
Non-current assets	88
Current assets	601
Non-current liabilities	0
Current liabilities	490

In the 4th quarter of 2017, non-controlling shareholders of JENOPTIK Holdings UK Ltd. (formerly: Vysionics Ltd.) exercised existing put options. This resulted in Jenoptik's investment quota in JENOPTIK Holdings UK Ltd. and the companies controlled by this entity increasing from 94.64 to 96.50 percent with a corresponding reduction in non-controlling interests. The change is shown as an acquisition of non-controlling interests in the Consolidated Statement of Changes in Equity.

There were no sales of companies in the 2017 fiscal year.

## 2.5 Notes on Other Entities

Jenoptik holds shares in 8 (prior year 8) entities with a maximum 50 percent investment quota respectively. The investments in these entities are accounted for at fair value in accordance with IAS 39. If no reliable fair value can be determined, then the valuation is applied at the acquisition costs. The investments are of minor importance for the respective asset, financial and earnings situation of Jenoptik. Therefore, based on the principle of cost effectiveness and materiality, the at-equity valuation was not applied.

The general disclosures on the investments are contained in the list of shareholdings of the Jenoptik Group.

## 2.6 Discontinued Operations

Discontinued activities are significant, definable operations which have either been sold or are planned to be sold. A breakdown of the income and expenses relating to discontinued activities is shown in the income statement – after the result of continuing operations.

Detailed information on the discontinued operations is provided in note 4.14 from page 153.



## 3 Accounting Policies and Measurements Methods

### 3.1 Goodwill

Goodwill as stated in IFRS 3 corresponds to the positive difference between the consideration for a business combination and the newly acquired, revalued assets and liabilities, including certain contingent liabilities remaining after a purchase price allocation. 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 values. 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.

### 3.2 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 note "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 patents are subject to scheduled 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 are 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, adequate resources must be 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 manufacturing 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 income statement.

Research costs are recorded as current expenses in research and development expenses in accordance with IAS 38.

### 3.3 Property, Plant and Equipment

Property, plant and equipment are valued at acquisition and manufacturing cost, less scheduled, straight-line depreciation. The depreciation method reflects the anticipated pattern of consumption of the future economic benefits. Where necessary, impairment losses reduce the amortized acquisition and production costs. In principle, government grants 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.

Scheduled depreciation is essentially based on the following useful lives:

	Useful life
Building	20 – 80 years
Machinery and technical equipment	4 – 20 years
Other equipment, operating and office equipment	3 – 10 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.

### 3.4 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 cash-generating units are identified, impairment tests are performed on these assets.

The demarcation between cash-generating units is primarily based on the business units constituting the divisions.

An impairment test is performed by first determining the recoverable amount of an asset or cash-generating unit and then comparing it with the carrying amount in order to identify if there is any need for an impairment test.

The recoverable amount is the higher of an asset's fair value less costs to sell and its value in use.

The amount designated as 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 expected 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 then depreciated to the recoverable amount. The impairment loss is recognized immediately through 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 of the impairment loss reversal 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 recorded through profit or loss.

### 3.5 Government Grants

IAS 20 distinguishes between grants related to acquiring non-current assets and grants related to income.

In general, IAS 20 states that grants are to be accounted for through profit or loss in the same period as the relevant expenses.

In the Jenoptik Group a grant for a non-current asset is deducted from the acquisition costs. Correspondingly, the amount to be written off is determined on the basis of the reduced acquisition costs.

### 3.6 Leases

When using leased items of property, plant and equipment, the conditions for finance leases as defined in IAS 17 "Leases" are fulfilled if all material risks and opportunities incidental to ownership have been transferred to the respective consolidated entity of the Group. All other leases are classified as operating leases.

**Finance leases.** The Group, as a lessee of the finance lease, capitalizes the assets leased at the inception of the lease at the amount equal to their fair value, or if lower, the current value of the minimum lease payments. The straight-line depreciation method is to be used to write off the asset over the period of its economic useful life or the shorter term of the lease agreement if it is unlikely that an option to purchase the asset will be exercised. Liabilities from finance lease agreements are shown at the current value of the minimum lease payments.

If the Group is a lessor, the amount equal to the net investment in the lease is to be capitalized as a receivable. Financial income is recognized through profit or loss in the respective reporting period, so that there is a constant periodic return on the net investment.

**Operating leases.** Lease payments from operating leases are recognized through profit or loss on a straight-line basis over the term of the corresponding lease.

Any incentives received or outstanding for entering into an operating lease agreement are also recognized on a straight-line basis over the term of the lease.

### 3.7 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 production costs (see page 158). The basis for determining the fair value to be shown, is the application of the discounted cash flow method or standard ground values.

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 charged 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 from a prior period cease to exist, corresponding write ups are recorded.

### 3.8 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 deriva-

tive 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 balance sheet from the date on which the Group becomes a contractual party in a financial instrument agreement.

The treatment of existing financial instruments depends on their classification: "receivables and loans" are recognized at amortized acquisition costs and "available-for-sale financial assets" are recognized at fair value.

The amortized acquisition costs of a financial asset or a financial liability are 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 amortization of any difference between the original amount and the amount repayable on maturity (e.g. premium 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 costs 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 determined 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 checking confirmations issued by the banks that sold the instruments.

#### a) Primary Financial Instruments Shares in Entities

Initial recognition in the balance sheet is based on the fair value.

In the Jenoptik Group, all investments in listed stock corporations are classified as "available for sale" and are valued at fair value in subsequent periods without deducting transaction costs. Changes in value are recorded in other comprehensive income outside of profit or loss. In the case of a permanent impairment loss, this is to be recognized through profit or loss.

Shareholdings in subsidiaries not publicly listed and other investments are also classified as “available-for-sale financial assets”. However, these are fundamentally shown at their respective acquisition costs since the carrying amounts constitute an appropriate approximate figure for the fair value. As far as there are any indications of lower fair values, these are recognized.

#### Loans

Loans involve credits granted by the Jenoptik Group and are to be valued at the amortized acquisition costs in accordance with IAS 39.

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.

#### Securities

Securities belong to the category of “available-for-sale financial assets” and are recognized at fair value. They are valued until sold and reported outside of profit or loss under other comprehensive income, taking deferred taxes into consideration. When securities are sold or if a significant or permanent impairment loss occurs, the cumulative profit or loss that had been accounted for directly in equity is reclassified in the profit or loss of the current reporting period. The initial valuation is recorded at the settlement date at acquisition costs which reflect the fair value.

#### Trade Receivables

Trade receivables are non-interest bearing due to their being short term and are recognized at nominal value less impairment losses on the basis of anticipated bad debts. In this context, consideration is given to both the individual default risk as well as a default risk derived from past events for a group of receivables with comparable default risks (portfolio-based impairment) by setting up an impairment loss account. When the loss of a trade receivable is finally realized, the receivable is booked out by using any impairment previously recognized.

#### Other Receivables and Assets

Other receivables and assets are recognized at amortized acquisition costs. All identifiable default risks are accounted for by a corresponding impairment.

Significant non-current, non-interest-bearing or low interest-bearing receivables are discounted.

#### Current Financial Investments

Current financial assets are included in the categories “financial investments held to maturity” or “loans and receivables” and are valued at amortized acquisition costs.

#### 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 accounted for at their nominal value.

#### 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.

Liabilities from finance lease agreements are shown at the current value of the minimum lease payments.

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 repayments 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

Within the Jenoptik Group, derivative financial instruments are used 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 values are determined on the basis of 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 governed by group guidelines which are authorized by the Executive Board and represent a fixed written guideline on 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.

### 3.9 Inventories

Inventories are recognized at the lower of acquisition or production costs and their net realizable value.

Net realizable value is the estimated proceeds from sale less the estimated production costs and any costs incurred up to sale.

Acquisition costs also include any other costs incurred to restore the inventories to their current condition. Any reductions in purchase prices such as rebates, bonuses or trade discounts are taken into account.

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 in turn result in an increase of their net realizable value, reversals of write-downs are recognized as a reduction in material expenses in the corresponding periods in which the change occurs.

### 3.10 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.

### 3.11 Advances Received

Advance payments received from customers are recognized as liabilities as far as such payments do not relate to construction contracts.

### 3.12 Construction Contracts

In accordance with IAS 11 "Construction Contracts", revenue and profits from construction contracts are recognized according to the "Percentage of Completion Method". The percentage of completion is derived from the ratio between the actual contract costs incurred up to the end of the fiscal year and the currently estimated total contract costs ("cost-to-cost method"). Losses arising from construction contracts are recognized immediately and in full in the fiscal year in which they are identifiable.

Construction contracts valued according to the "percentage of completion method" are recognized as receivables or payables arising from construction contracts, depending on the amount of the progress payments received or progress billings outstanding. They are valued at production costs plus any proportion of income received corresponding to the percentage of completion. Insofar as the cumulative services rendered (contract costs and contract outcome) exceed the progress payments and advances received in individual cases, construction contracts are shown under receivables from construction contracts. If, after deducting progress payments and advances received, there is a negative balance, this is shown as a payable under liabilities from construction contracts. Any anticipated contract losses are taken into account as write-downs or provisions. They are determined by considering all identifiable risks.

### 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 balance sheet in order to take into account future tax effects resulting from timing differences between the balance sheet 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 balance sheet 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 both the pension obligations of the Jenoptik Group from 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. Actuarial expert opinions are annually obtained for this procedure.

The mortality rates are determined in accordance with the Heubeck "Guideline mortality tables 2005 G". 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.

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 balance sheet.

Tax provisions for corporation tax and trade tax or similar income tax expenses are determined on the basis of the taxable income of the consolidated entities, less any prepayments made. Any other taxes to be assessed are considered in the same manner.

### 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. Discounting is based on interest rates before taxes that reflect current market expectations with regard to the interest effect and that depend on the corresponding term of the obligation. The interest portion of the compounded interest in a provision is recorded 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 active members of the Executive Board and some senior management personnel receive share-based payments in the form of long term incentives (LTI) as well as performance shares in accordance with the new Executive Board remuneration system. These payments are accounted for as share-based payments with settlement in cash in accordance with IFRS 2



“Share-based payment”. At the balance sheet date and depending upon the contractual provisions, a long-term liability is set aside in the amount either of the pro rata temporis or total fair value of the payment obligation. Virtual shares are granted on the basis of the annual target agreement. Changes in fair value are recognized through profit or loss.

### 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 balance sheet but are explained in the Notes in the note “Contingent Liabilities” from page 184.

### 3.19 Revenue

Revenue generated from the sale of goods is recognized through profit or loss as soon as all material risks and rewards associated with the ownership of the goods have been transferred to the buyer, a price is agreed or can be determined and the payment thereof can be assumed. The payments charged to the customers for the goods and services – less sales deductions and trade discounts – are shown under revenue.

Revenue from services is recorded in accordance with the percentage of completion of the order at the balance sheet date. The percentage of completion of the order is determined on the basis of the services rendered. Income is only recognized if there is sufficient probability that the entity will receive the economic benefit associated with the contract. Otherwise, income is only recognized to the extent that expenses incurred are refundable.

If a contract contains a number of delimitable components (multi-component contracts), these will be recognized separately in accordance with the above principles.

Rental income received from real estate is recognized on a straight-line basis over the term of the corresponding rental contracts and disclosed in revenue.

### 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 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. Research and development expenses which do not qualify for being capitalized, are shown under research and development expenses.

### 3.21 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.

General administrative expenses include personnel expenses and the cost of materials as well as administration-related depreciation.

### 3.22 Other Operating Income and Expenses

Income from provision reversals are recorded in functional costs insofar as the underlying provisions were set aside in the functional costs. If the provision was set aside in other operating expenses, the provision reversal will also be shown in other operating expenses. Other taxes are allocated to other operating expenses.

### 3.23 Financial Income and Financial Expenses

The financial income and financial expenses of the Group mainly comprise interest income and interest expenses. Furthermore, these items include currency exchange gains and losses arising from financial assets and liabilities as well as net gains or losses arising from hedging instruments for these financial assets and liabilities. In addition, the financial income and financial expenses include net gains and losses arising from the measurement of the fair value of contingent considerations that are classified as financial liabilities.

## 4 Disclosures on the Statement of Income

### 4.1 Revenue

Compared to 2016, revenue increased overall by 63,160 thousand euros or 9.2 percent to 747,929 thousand euros and mainly resulted from sales of goods:

in thousand euros	2017	2016
Sale of goods	645,910	583,838
Services rendered	100,006	98,969
Rental income	2,013	1,961
<b>Total</b>	<b>747,929</b>	<b>684,769</b>

The item 'revenue' comprised revenue from construction contracts accounted for in accordance with their percentage of completion at the reporting date in the sum of 28,267 thousand euros (prior year 9,437 thousand euros) for the fiscal year 2017. For these construction contracts, progress billings sent to customers amounted to 13,508 thousand euros (prior year 4,000 thousand euros).

Revenue for construction contracts not yet completed as at the balance sheet date arising from the fiscal year 2017 and from previous years, totaled 46,200 thousand euros (prior year 18,582 thousand euros).

The item 'revenue' also includes revenues arising from the so-called "bill and hold" agreements in the sum of 6,759 thousand euros (prior year 1,037 thousand euros).

Detailed disclosures on revenue according to segment and region are shown in the Segment Report on pages 175 ff.

### 4.2 Cost of Sales

in thousand euros	2017	2016
Cost of materials	289,651	269,026
Personnel expenses	141,063	134,205
Depreciation and amortization	21,591	21,390
Other cost of sales	31,738	22,295
<b>Total</b>	<b>484,042</b>	<b>446,915</b>

Compared to 2016 cost of sales increased overall by 37,127 thousand euros or 8.3 percent and totaled 484,042 thousand euros. Cost of sales show the costs incurred to generate revenue. This item records the costs for setting aside provisions for sales-related transactions as well as the costs for development services on behalf of customers.

Cost of sales for construction contracts not yet completed as at the balance sheet date arising from the fiscal year 2017 and from previous years, totaled 47,634 thousand euros (prior year 16,768 thousand euros). The profit generated from these totaled 8,299 thousand euros (prior year 1,962 thousand euros), a loss in the sum of 9,733 thousand euros was reported, (prior year 2,488 thousand euros).

### 4.3 Research and Development Expenses

Research and development expenses have increased overall by 780 thousand euros or 1.8 percent to 43,078 thousand euros compared to the 2016 fiscal year.

These cover all expenses attributable to research and development activities. The expenses paid by customers in connection with research and development services in the sum of 22,155 thousand euros (prior year 15,013 thousand euros) were not included in this item. Such expenditures are allocated to cost of sales.

In the fiscal year just past, costs in the sum of 549 thousand euros for internal development projects were capitalized in intangible assets (prior year 78 thousand euros).

### 4.4 Selling Expenses

Compared to 2016, selling expenses in 2017 increased overall by 6,715 thousand euros or 9.1 percent to 80,312 thousand euros.

Selling expenses include personnel expenses and the cost of materials as well as sales-related depreciation. They also include the expenses for sales commissions as well as marketing and communication.

### 4.5 General Administrative Expenses

Compared to the prior year, general administrative expenses in 2017 reduced by 1,766 thousand euros or 3.1 percent to 55,817 thousand euros.

General administrative expenses include personnel expenses and the cost of materials as well as administration-related depreciation.

## 4.6 Expenses According to Types of Expense

The following main types of expenses are included in cost of sales, selling and administrative expenses as well as research and development expenses:

in thousand euros	2017	2016
Cost of materials	309,343	284,574
Personnel expenses	258,275	246,127
Depreciation and amortization	28,684	27,151
Other expenses	66,947	62,542
<b>Total</b>	<b>663,250</b>	<b>620,394</b>

## 4.7 Other Operating Income

in thousand euros	2017	2016
Foreign currency exchange gains	8,178	8,910
Income from non-cash contributions	1,593	1,079
Income from reversed bad debt allowances for receivables	1,416	6,058
Income from services, offsets and rentals	1,375	1,627
Income from government grants	970	1,783
Income from damage claims/ insurance benefits	414	239
Income from the sale of materials	351	72
Income from the sale of intangible assets and property, plant and equipment	222	153
Income from the sale of investment companies	0	1,070
Income from impairment reversals of real estate	0	439
Others	1,225	1,944
<b>Total</b>	<b>15,744</b>	<b>23,374</b>

Other operating income in 2017 reduced by 7,629 thousand euros and thus by 32.6 percent to 15,744 thousand euros.

Income from foreign currency exchange gains mainly includes gains arising from fluctuations in exchange rates between the transaction date and the payment date of receivables and pay-

ables in foreign currencies, as well as exchange rate gains arising from the valuation at the exchange rate on the reporting date.

The reversal of bad debt allowances for receivables has been recorded through profit or loss on the basis of payments received for overdue receivables.

Income from government grants is generally related to grants for research and development projects that Jenoptik received from the Federal Ministry for Education and Research and other federal institutions.

Income from services, offsets and rentals is not derived from the common business activities of the companies.

The income from the sale of investment companies in the prior year was generated with the sale of a minority investment in the Optics & Life Science segment.

## 4.8 Other Operating Expenses

in thousand euros	2017	2016
Foreign currency exchange losses	11,836	8,770
Expenses from increase of bad debt allowances for receivables and bad debt losses	3,531	2,476
Expenses for services and rentals	2,404	3,049
Amortization of intangible assets from a first-time consolidation	1,362	441
Acquisition costs	1,158	148
Expenses for group projects	530	1,064
Other taxes	359	285
Losses from disposals of intangible assets and property, plant and equipment	296	1,845
Impairments of intangible assets and property, plant and equipment	248	1,313
Additions/reversals of provisions	-763	-557
Others	1,618	2,705
<b>Total</b>	<b>22,579</b>	<b>21,540</b>

Other operating expenses increased by 1,039 thousand euros or 4.8 percent compared with the prior year, to 22,579 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 receivables or payables, as well as from the valuation at the exchange rate on the reporting date. Exchange rate gains resulting from these items are recognized under other operating income. From the net viewpoint, foreign currency gains and losses led to a net loss of 3,658 thousand euros (prior year net gain of 140 thousand euros).

The expenses arising from the increase of bad debt allowances for receivables and bad debt losses have risen compared to the previous year due to higher overdue receivables.

The increase in amortization of intangible assets from a first-time consolidation relates to some of the intangible assets identified within the framework of the acquisitions of ESSA Technology and Five Lakes Automation.

The acquisition costs include transaction and consultancy costs for corporate acquisitions. In the fiscal year 2017, these primarily relate to the acquisition of ESSA Technology and Five Lakes Automation.

The expenses for group projects relate to the expansion of the ERP system which was implemented in some US group companies in 2017.

The addition to and reversal of provisions include additions in the sum of 683 thousand euros (prior year 2,141 thousand euros) as well as reversals in the sum of 1,446 thousand euros (prior year 2,698 thousand euros) which weren't directly attributable to functional costs. More information on these items can be found in the section "Other provisions" from page 169.

#### 4.9 Investment Income

in thousand euros	2017	2016
Impairments and impairment reversals of financial assets	74	-1,172
Earnings from investments	6,393	1,475
<b>Total</b>	<b>6,468</b>	<b>303</b>

The investment income in 2017 increased by 6,165 thousand euros to 6,468 thousand euros.

Impairment losses on financial assets in the fiscal year totaled 112 thousand euros (prior year 1,832 thousand euros) and mainly entail impairment losses to the investment carrying amount in a non-consolidated entity. Reversals of impairment losses to financial assets totaled 187 thousand euros (prior year 660 thousand euros) and primarily relate to available-for-sale financial assets.

The earnings from investments in the fiscal year just ended includes in particular income from the sale of a minority holding and the sale of listed securities in the total sum of 6,344 thousand euros. In the prior year, in addition to dividend income from investment companies in the sum of 1,705 thousand euros, the figure included losses from profit transfer agreements with non-consolidated companies in the sum of minus 230 thousand euros.

#### 4.10 Financial Income and Financial Expenses

in thousand euros	2017	2016
Income from measuring financial instruments in foreign currency	776	3,980
Income from fair value measurement of financial instruments	280	0
Income from financial asset securities and loans	19	39
Other interest and similar income	682	384
<b>Total financial income</b>	<b>1,756</b>	<b>4,403</b>
Expenses for measuring financial instruments in foreign currency	1,797	4,392
Interest expenses for debenture loans	1,867	1,979
Interest expenses for syndicated loan	693	842
Net interest expenses for pension provisions	502	689
Expenses from fair value measurement of financial instruments	0	643
Other interest and similar expenses	1,328	1,346
<b>Total financial expenses</b>	<b>6,186</b>	<b>9,892</b>
<b>Total</b>	<b>-4,430</b>	<b>-5,488</b>

The net balance of financial income and financial expenses reduced by 1,058 thousand euros or 19.3 percent to minus 4,430 thousand euros (prior year minus 5,488 thousand euros).

Income from measuring financial instruments in foreign currency in the sum of 776 thousand euros (prior year 3,980 thousand euros) and corresponding expenses in the sum of 1,797 thousand euros (prior year 4,392 thousand euros) led to a net loss in the fiscal year 2017 of 1,021 thousand euros (prior year 412 thousand euros). This result is derived from the foreign currency exchange gains and losses arising from the valuation of financial assets which are issued in foreign currencies, less the valuation of the respective derivatives.

The income from financial instrument reameasurement includes the valuation of the put option agreed as part of the acquisition of the Vysionics Group. In the prior year the valuation led to an expense.

The item other interest and similar income primarily comprises interest income from bank deposits.

The item other interest and similar expenses includes guaranty and bank charges as well as interest expenses from accrued interest of non-current liabilities and other provisions.

#### 4.11 Income Taxes

Income taxes are shown as the current income tax expense (paid or owing) in the respective countries as well as deferred tax assets and deferred tax liabilities. The calculation of the current income tax expense of the Jenoptik Group was performed by using the tax rates applicable at the balance sheet date.

The calculation of the deferred taxes for domestic entities was based on a tax rate of 29.74 percent (prior year 29.9 percent) In addition to the corporation tax of 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 13.92 percent (prior year 14.08 percent) is taken into account. The calculation of deferred taxes for foreign entities is based on the tax rates applicable in the respective country. As a result of the US tax reform, the tax rate applicable for calculating the deferred taxes of the US entities was reduced to 25.74 percent (prior year 38.9 percent).

Deferred taxes are recognized as either tax income or tax expenses in the statement of income, unless these directly relate to items 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.

Tax expenses were classified according to origin as follows:

in thousand euros	2017	2016
Current income taxes		
Domestic	7,952	4,952
Foreign	6,382	4,164
<b>Total</b>	<b>14,334</b>	<b>9,116</b>
Deferred taxes		
Domestic	-5,199	-4,150
Foreign	-1,706	2,320
<b>Total</b>	<b>-6,905</b>	<b>-1,830</b>
<b>Total income tax</b>	<b>7,429</b>	<b>7,286</b>

The item current income taxes includes an expense in the sum of 0 thousand euros (prior year expense of 174 thousand euros) for discontinued operations.

The item current income taxes includes an expense in the sum of 537 thousand euros (prior year income of 367 thousand euros) for current taxes from earlier business periods. Deferred tax income includes income relating to a different period in the sum of 281 thousand euros (prior year income of 867 thousand euros).

Deferred tax income includes an expense in the sum of 390 thousand euros (prior year expense of 1,440 thousand euros) resulting from the development of timing differences.

As at the balance sheet date, the Jenoptik Group had the following unused tax losses carried forward at its disposal for offsetting against future profits:

in thousand euros	31/12/2017	31/12/2016
Corporate income tax	303,570	341,185
Trade tax	462,709	500,829

Of which the following is subject to a time limit on losses carried forward:

in thousand euros	31/12/2017	31/12/2016
1 year or less	676	457
2 years to 5 years	5,790	2,970
6 years to 9 years	1,496	2,900
More than 9 years	477	741
<b>Total losses carried forward subject to a time limit</b>	<b>8,439</b>	<b>7,068</b>

The reduction in tax losses carried forward mainly resulted from their being used in the reporting period. Taking into consideration all currently known positive and negative factors influencing future tax results of the Jenoptik Group, the use of a corporation tax loss carried forward of 198,555 thousand euros (prior year 168,488 thousand euros) and the use of a trade tax loss carried forward of 194,782 thousand euros (prior year 169,884 thousand euros) is probable.

A deferred tax claim of 59,448 thousand euros (prior year 51,101 thousand euros) is recognized for unused tax losses carried forward. Of which 27,167 thousand euros (prior year 23,911 thousand euros) is attributable to tax losses carried forward for trade tax.

For the remaining losses carried forward, no deferred tax assets are recognized for corporation tax purposes in the sum of 105,015 thousand euros (prior year 172,697 thousand euros) whilst no deferred tax assets are recognized for trade tax purposes in the sum of 267,927 thousand euros (prior year 330,945 thousand euros).

In addition, no deferred tax assets are shown for allowable time differences in the sum of 6,210 thousand euros (prior year 9,396 thousand euros) as these will probably not be realized in the underlying period under review.

The following recognized deferred tax assets and deferred tax liabilities are attributed to recognition and valuation differences in the individual balance sheet items and to tax losses carried forward:

in thousand euros	Deferred tax assets		Deferred tax liabilities	
	31/12/2017	31/12/2016	31/12/2017	31/12/2016
Intangible assets	1,678	1,122	1,562	1,962
Property, plant and equipment	2,011	1,791	1,684	1,776
Financial assets	1,055	687	157	48
Inventories	7,273	9,278	58	28
Receivables and other assets	1,387	1,841	3,115	2,814
Provisions	12,129	12,558	1,274	320
Liabilities	1,881	3,281	249	1,118
Tax losses carried forward and tax refunds	59,448	51,641	0	0
<b>Gross value</b>	<b>86,862</b>	<b>82,199</b>	<b>8,099</b>	<b>8,066</b>
(thereof non-current)	(66,303)	(59,860)	(5,624)	(5,141)
Offset	-7,962	-7,976	-7,962	-7,976
<b>Value presented in the statement of financial position</b>	<b>78,900</b>	<b>74,223</b>	<b>137</b>	<b>90</b>

The net inventory of the asset surplus in deferred tax assets increased by 4,630 thousand euros. Taking into consideration the deferred taxes (1,696 thousand euros) recognized outside of profit or loss when offset in the reporting year, as well as the foreign currency exchange conversions (327 thousand euros) and the first-time consolidations (252 thousand euros), the result is a deferred tax income of 6,905 thousand euros shown in the statement of income.

Temporary differences in the sum of 66,463 thousand euros (prior year 75,577 thousand euros) relate to shares in subsidiaries for which no deferred tax liabilities are created.

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 2017 the applicable group tax rate of 29.74 percent (prior year 29.9 percent) is multiplied by the earnings before tax.



in thousand euros	2017	2016
Earnings before tax – continuing operations	79,882	61,024
Earnings before tax – discontinued operations	200	3,719
<b>Earnings before tax</b>	<b>80,082</b>	<b>64,743</b>
Corporate income tax rate for the Jenoptik Group in %	29.74	29.90
<b>Expected tax expense</b>	<b>23,816</b>	<b>19,358</b>
Following tax effects resulted in the difference between the actual and the expected tax expense:		
Non-deductible expenses, tax-free income and permanent deviations	578	906
Changes in impaired deferred taxes and unrecognized deferred taxes	-20,590	-12,772
Effects resulting from tax rate differences	1,080	992
Effects of tax rate changes	1,535	-66
Taxes for prior years	584	-1,234
Other tax effects	426	102
<b>Total adjustments</b>	<b>-16,387</b>	<b>-12,072</b>
Actual tax expense	7,429	7,286
<b>Actual tax expense – continuing operations</b>	<b>7,429</b>	<b>7,112</b>
Actual tax expense – discontinued operations	0	174
Actual tax expense	7,429	7,286

#### 4.12 Earnings of Non-controlling Interests

Earnings from non-controlling interests in the group earnings total 149 thousand euros (prior year 53 thousand euros) and relate to the non-controlling interests in JENOPTIK Korea Corporation Ltd., JENOPTIK Japan Co. Ltd. as well as the Vysionics Group.

More information on the entities with non-controlling interests is available in section 2.1 “The Group of Entities Consolidated” from page 136.

#### 4.13 Earnings attributable to Shareholders

in thousand euros	2017	2016
Earnings attributable to shareholders – continuing operations	72,304	53,858
Earnings attributable to shareholders – discontinued operations	200	3,545
<b>Earnings attributable to shareholders – Group</b>	<b>72,504</b>	<b>57,403</b>

#### 4.14 Earnings from Discontinued Operations

Within the framework of the sale of M+W Zander Holding AG in 2005, individual issues remained with JENOPTIK AG from the economic aspect and these have since been concluded. Final agreement on purchase price-related facts was reached in the fiscal year 2016, leading to an overall claim for payment on the part of Jenoptik. The payments in the sum of 200 thousand euros, received in the fiscal year 2017 on the basis of this agreement, were shown as earnings from discontinued operations. This impacted on the cash flow in the same amount.

#### 4.15 Earnings per Share

Earnings per share correspond to the earnings attributable to shareholders divided by the weighted average of the 57,238,115 outstanding shares (prior year 57,238,115 shares).

	2017	2016
Earnings per share in euros – continuing operations	1.27	0.94
Earnings per share in euros – discontinued operations	0.00	0.06
<b>Earnings per share in euros – Group (undiluted = diluted)</b>	<b>1.27</b>	<b>1.00</b>

## 5 Disclosures on the Statement of Financial Position

### 5.1 Intangible Assets

in thousand euros	Development costs from internal development projects	Acquired patents, rademarks, software licenses, customer relationships	Internally generated patents	Goodwill	Other intangible assets	Total
<b>Acquisition or production costs</b>	<b>14,194</b>	<b>67,408</b>	<b>1,688</b>	<b>104,197</b>	<b>1,800</b>	<b>189,288</b>
<b>Balance at 1/1/2017</b>	<b>(14,213)</b>	<b>(70,333)</b>	<b>(1,578)</b>	<b>(109,911)</b>	<b>(1,268)</b>	<b>(197,302)</b>
Foreign currency exchange effects	-17	-838	0	-2,018	-1	-2,874
	(-18)	(-1,024)	(0)	(-5,713)	(0)	(-6,755)
Changes in the group of entities consolidated	0	6,385	0	9,100	0	15,484
	(0)	(0)	(0)	(0)	(0)	(0)
Additions	485	2,270	25	0	1,392	4,171
	(0)	(1,728)	(242)	(0)	(1,025)	(2,994)
Disposals	161	8,127	19	0	169	8,476
	(0)	(4,021)	(150)	(0)	(167)	(4,338)
Reclassifications (+/-)	0	1,060	-270	0	-774	15
	(0)	(393)	(18)	(0)	(-327)	(83)
<b>Acquisition or production costs</b>	<b>14,501</b>	<b>68,158</b>	<b>1,424</b>	<b>111,279</b>	<b>2,247</b>	<b>197,609</b>
<b>Balance at 31/12/2017</b>	<b>(14,194)</b>	<b>(67,408)</b>	<b>(1,688)</b>	<b>(104,197)</b>	<b>(1,800)</b>	<b>(189,288)</b>
<b>Amortization and impairments</b>	<b>13,462</b>	<b>53,801</b>	<b>778</b>	<b>9,895</b>	<b>0</b>	<b>77,936</b>
<b>Balance at 1/1/2017</b>	<b>(13,058)</b>	<b>(50,921)</b>	<b>(693)</b>	<b>(9,894)</b>	<b>(0)</b>	<b>(74,566)</b>
Foreign currency exchange effects	-17	-659	0	0	0	-675
	(-19)	(-253)	(0)	(1)	(0)	(-271)
Changes in the group of entities consolidated	0	331	0	0	0	331
	(0)	(0)	(0)	(0)	(0)	(0)
Additions	464	6,773	131	0	1	7,369
	(423)	(5,979)	(135)	(0)	(0)	(6,537)
Impairments	0	0	0	0	0	0
	(0)	(9)	(0)	(0)	(0)	(9)
Disposals	161	8,127	9	0	0	8,297
	(0)	(2,925)	(50)	(0)	(0)	(2,975)
Reclassification (+/-)	0	16	0	0	0	16
	(0)	(70)	(0)	(0)	(0)	(69)
<b>Amortization and impairments</b>	<b>13,748</b>	<b>52,134</b>	<b>900</b>	<b>9,895</b>	<b>1</b>	<b>76,679</b>
<b>Balance at 31/12/2017</b>	<b>(13,462)</b>	<b>(53,801)</b>	<b>(778)</b>	<b>(9,895)</b>	<b>(0)</b>	<b>(77,936)</b>
<b>Net carrying amount at 31/12/2017</b>	<b>753</b>	<b>16,024</b>	<b>524</b>	<b>101,384</b>	<b>2,246</b>	<b>120,931</b>
	<b>(732)</b>	<b>(13,608)</b>	<b>(909)</b>	<b>(94,303)</b>	<b>(1,800)</b>	<b>(111,352)</b>

Prior year figures are in parentheses.

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The changes in the group of entities consolidated include additions from the acquisitions of ESSA Technology and Five Lakes Automation as well as from the merger of Jenoptik Katasorb.

The disposal of patents, trademarks, software and customer relationships primarily relate to intangible assets that were recorded in prior years within the context of acquisitions and which 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 total 545 thousand euros (prior year 242 thousand euros).

Additions to other intangible assets include capitalized expenses for internally generated assets in development in the sum of 260 thousand euros (prior year 106 thousand euros), of which 64 thousand euros is attributable to development costs arising from internal development projects and 196 thousand euros to internally generated patents. Once the internal development projects have been completed or the patents granted, a transfer is made to the corresponding groups of intangible assets.

Other than goodwill, there are no intangible assets with an indefinite useful life.

As of December 31, 2017 goodwill amounted to 101,384 thousand euros (prior year 94,303 thousand euros). The additions to goodwill in the sum of 9,100 thousand euros resulted from the acquisitions of ESSA Technology and Five Lakes Automation. The further change in the carrying amounts in the sum of minus 2,017 thousand euros is attributable exclusively to currency effects (prior year 5,714 thousand euros).

As in the prior year, no impairments were required for goodwill in the 2017 fiscal year.

The following table summarizes the goodwill for each cash-generating unit according to segment:

in thousand euros	31/12/2017	31/12/2016
Optics & Life Science	42,661	42,946
Optical Systems	1,460	1,662
Healthcare & Industry	41,201	41,284
Mobility	50,802	43,436
Automotive	10,032	4,597
Traffic Solutions	40,770	38,839
Defense & Civil Systems	7,921	7,921
<b>Total</b>	<b>101,384</b>	<b>94,303</b>

The following table shows the allocation of goodwill to the segments by percentage:

in percent	31/12/2017	31/12/2016
Optics & Life Science	42	46
Mobility	50	46
Defense & Civil Systems	8	8
<b>Total</b>	<b>100</b>	<b>100</b>

The impairment test for goodwill is performed at the level of the cash-generating units benefiting from the synergies of the respective business combination and representing the lowest level at which goodwill is monitored for internal company management. If the carrying amounts of these cash-generating units exceed their recoverable amounts, the goodwill allocated is correspondingly impaired. The determining factor for the impairment test is 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 calculates 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 and submitted to the Supervisory Board. This takes past experience into consideration and is based on the

management's best estimate of future development. The cash flows in the detailed planning phase are planned on the basis of differentiated growth rates. These take account of the development and dynamics of the relevant sectors and target markets. Healthcare & Industry (HCI), as part of the Optics & Life Science segment, posted a positive performance in the last fiscal year. The restructuring in 2016 was reflected in a significant growth in revenue and profitability for the year 2017. In the future, concentrating on the diagnostic imaging, laser-based therapy and automotive sub-markets will secure the profitable business and contribute to sustainable growth. For Traffic Solutions (TS), as part of the Mobility segment, revenue is forecast to show continuing growth over the medium term. This will be helped by the increasing level of internationalization, particularly in the Americas and Asia region. The on-going continuation of structural and process optimization as well as the increase in local value added will be reflected in long-term profitability. The expansion of the international business is also expected to produce consistent growth in revenue across all segments. This is coupled with the assumption that part of the added value is relocated to the target regions in order to generate sustainable growth in profitability. Differentiated ranges are used to determine the future development of the working capital. At the same time, the result of the respective planning year for determining the free cash flow is adjusted for non-cash expenses and income such as amortization and depreciation.

A perpetual annuity is assumed, the amount of which is individually determined for each cash-generating unit by management 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 1.1 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 industries determined from peer groups and 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 industries and the standard average tax rate. The weighted costs of equity and borrowing costs resulted from applying the capital structure customary in our industries.

Impairment testing was conducted assuming a weighted average cost of capital after taxes at a rate between 6.10 and 8.15 percent (prior year 5.81 to 8.25 percent). This corresponds to the weighted average cost of capital before taxes of between 7.85 and 10.68 percent (prior year 7.54 to 11.21 percent).

The assumptions used to determine the values in use of the cash-generating units are shown in the following table:

	Growth component in perpetual annuity	Weighted average cost of capital after taxes	Weighted average cost of capital before taxes
Optical Systems	1.00 (1.00)	7.30 (7.41)	10.65 (10.67)
Healthcare & Industry	1.10 (1.10)	8.15 (8.25)	10.68 (11.21)
Automotive	0.90 (1.00)	7.20 (5.82)	10.16 (8.12)
Traffic Solutions	0.90 (1.00)	6.10 (5.81)	7.85 (7.54)
Defense & Civil Systems	0.90 (0.90)	6.10 (6.00)	8.80 (8.32)

Prior year figures are in parentheses.

Sensitivity analyses were performed for all cash-generating units to which goodwill was allocated as of December 31, 2017. A reduction in the cash flows or an increase in the weighted average cost of capital within the ranges considered by the management as possible, would not result in the recoverable amount being less than the carrying amount of the cash-generating unit.

## 5.2 Property, Plant and Equipment

in thousand euros	Land and buildings	Technical equipment and machinery	Other equipment, operating and office equipment	Assets under construction	Total
<b>Acquisition or production costs</b>	<b>154,950</b>	<b>172,641</b>	<b>98,171</b>	<b>12,271</b>	<b>438,032</b>
<b>Balance at 1/1/2017</b>	<b>(151,279)</b>	<b>(174,859)</b>	<b>(99,309)</b>	<b>(3,962)</b>	<b>(429,408)</b>
Foreign currency exchange effects	-2,434 (302)	-3,777 (-640)	-825 (154)	-1,098 (328)	-8,133 (145)
Changes in the group of entities consolidated	13 (0)	617 (0)	333 (0)	0 (0)	963 (0)
Additions	8,128 (3,008)	4,484 (4,870)	8,248 (5,492)	12,871 (11,068)	33,730 (24,438)
Disposals	4,648 (474)	2,794 (8,177)	4,964 (7,534)	345 (37)	12,751 (16,222)
Reclassifications (+/-)	5,382 (835)	5,864 (1,729)	2,542 (751)	-13,977 (-3,051)	-189 (264)
<b>Acquisition or production costs</b>	<b>161,392</b>	<b>177,035</b>	<b>103,506</b>	<b>9,721</b>	<b>451,653</b>
<b>Balance at 31/12/2017</b>	<b>(154,950)</b>	<b>(172,641)</b>	<b>(98,171)</b>	<b>(12,271)</b>	<b>(438,032)</b>
<b>Depreciation and impairments</b>	<b>70,554</b>	<b>132,911</b>	<b>76,625</b>	<b>61</b>	<b>280,151</b>
<b>Balance at 1/1/2017</b>	<b>(65,893)</b>	<b>(131,965)</b>	<b>(75,891)</b>	<b>(0)</b>	<b>(273,749)</b>
Foreign currency exchange effects	-900 (216)	-2,389 (-410)	-609 (134)	0 (0)	-3,897 (-60)
Changes in the group of entities consolidated	10 (0)	468 (0)	237 (0)	0 (0)	714 (0)
Additions	3,980 (4,167)	9,808 (9,197)	7,428 (7,608)	0 (0)	21,215 (20,972)
Impairment losses	0 (1,145)	149 (46)	99 (37)	0 (61)	248 (1,289)
Impairment reversals	0 (-439)	0 (0)	0 (0)	-26 (0)	-26 (-439)
Disposals	4,330 (434)	2,272 (7,913)	4,841 (7,272)	0 (0)	11,443 (15,619)
Reclassifications (+/-)	-26 (5)	-1,545 (26)	1,532 (228)	0 (0)	-39 (259)
<b>Depreciation and impairments</b>	<b>69,287</b>	<b>137,130</b>	<b>80,471</b>	<b>35</b>	<b>286,923</b>
<b>Balance at 31/12/2017</b>	<b>(70,554)</b>	<b>(132,911)</b>	<b>(76,625)</b>	<b>(61)</b>	<b>(280,151)</b>
<b>Net carrying amount</b>	<b>92,105</b>	<b>39,905</b>	<b>23,034</b>	<b>9,686</b>	<b>164,730</b>
<b>at 31/12/2017</b>	<b>(84,396)</b>	<b>(39,730)</b>	<b>(21,546)</b>	<b>(12,210)</b>	<b>(157,882)</b>

Prior year figures are in parentheses.

Land and buildings of the Group in the amount of 92,105 thousand euros (prior year 84,396 thousand euros) include in particular the production and administration buildings in Jena, Altenstadt, Huntsville (USA) and Shanghai (China) as well as the land acquired in 2016 in Rochester Hills (USA). A new technology campus for metrology and laser machines at the Rochester Hills site was completed in the second quarter of 2017 after a period of construction of around one year. This led to capitalization of the investments in the prior year in the sum of

5,438 thousand euros and consequently to a reclassification from assets under construction. The investments for this project totaled 6,319 thousand euros in the year of the report.

The disposals include, in particular, the sale of the production site in France due to a planned new building. Disposals of tenants' installations after the move to the new technology campus are also shown.

More detailed explanations on the investments made are contained in the Combined Management Report, under the note "Financial position" from page 90.

Order commitments for property, plant and equipment in the sum of 7,965 thousand euros have increased significantly compared with the prior year (prior year 1,958 thousand euros) and are mainly attributable to replacement and new investments in technical equipment and machinery as a result of the implementation of new technologies and the expansion of production capacities.

In the 2017 fiscal year investment grants in the sum of 35 thousand euros were deducted from the acquisition costs of property, plant and equipment (prior year 43 thousand euros).

As of the balance sheet date no property, plant and equipment was pledged (prior year 111 thousand euros). Loans in the sum of 107 thousand euros were secured through registered charges against real property (prior year 138 thousand euros). There are no further disposal restrictions for property, plant and equipment.

### 5.3 Investment Property

in thousand euros	Investment Property
<b>Acquisition or production costs</b>	<b>10,397</b>
<b>Balance at 1/1/2017</b>	<b>(10,396)</b>
Additions	0 (1)
<b>Acquisition or production costs</b>	<b>10,397</b>
<b>Balance at 31/12/2017</b>	<b>(10,397)</b>
<b>Depreciation</b>	<b>5,953</b>
<b>Balance at 1/1/2017</b>	<b>(5,860)</b>
Additions	93 (93)
<b>Depreciation</b>	<b>6,047</b>
<b>Balance at 31/12/2017</b>	<b>(5,953)</b>
<b>Net carrying amount</b>	<b>4,350</b>
<b>at 31/12/2017</b>	<b>(4,444)</b>

Prior year figures are in parentheses.

The investment property as of December 31, 2017 primarily included property in the Jena-Göschwitz Industrial Park.

The fair values total 5,091 thousand euros (prior year 5,894 thousand euros). These are 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, rents without utilities, as well as maintenance and ancillary expenses, the fair value is assigned to level 3 in the hierarchy of fair values.

Rental income from investment property as of the end of the fiscal year amounted to 516 thousand euros for 2017 (prior year 577 thousand euros).

In fiscal year 2017, the direct operating expenses for property and movables accounted for at the end of the year totaled 547 thousand euros for rented space due to extensive maintenance work (prior year 218 thousand euros) and for non-rented space 33 thousand euros (prior year 5 thousand euros).

### 5.4 Leases

#### Finance leases

**The Group as lessee.** In the 2017 fiscal year, a leasing agreement was concluded for a demonstration facility and classified as a finance lease. The technical equipment and machinery associated with this agreement and shown in the accounts include a carrying amount of 441 thousand euros. The original acquisition or production costs total 503 thousand euros.

In addition, there are a number of rental contracts for motor vehicles as well as a contract concluded in 2017 for technical test equipment which was classified as finance leases. The carrying amount of assets from finance leases included in other equipment, operating and office equipment totals 416 thousand euros (prior year 83 thousand euros). The original acquisition or production costs for these assets total 505 thousand euros (prior year 207 thousand euros).

The finance lease contracts in force as of the balance sheet date are based on a weighted average interest rate of 2.9 percent (prior year 4.9 percent).

Of the lease payments in the sum of 87 thousand euros (prior year 39 thousand euros), 7 thousand euros (prior year 5 thousand euros) were recognized through profit or loss in the fiscal year 2017.

The lease payments due in the future are shown in the following table:



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in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	193 (44)	705 (47)	0 (0)	898 (91)
Interest portions included in payments	12 (3)	15 (2)	0 (0)	27 (5)
Present value	180 (41)	690 (45)	0 (0)	871 (86)

Prior year figures are in parentheses.

**The Group as lessor.** One Group entity in the Mobility segment concluded contracts for leasing traffic safety equipment to a client which were qualified as finance leases. The average total lease period for these contracts is 30 months.

Of the agreed minimum lease payments received in the fiscal year 2017 in the sum of 468 thousand euros (prior year 425 thousand euros), 5 thousand euros (prior year 21 thousand euros) were recognized through profit or loss.

The outstanding minimum lease payments as of December 31, 2017 are shown as follows:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	340 (510)	0 (340)	0 (0)	340 (850)
Interest portions included in payments	0 (0)	0 (5)	0 (0)	0 (5)
Present value	340 (510)	0 (335)	0 (0)	340 (845)

Prior year figures are in parentheses.

All financial income arising from this lease business was recorded through profit or loss.

### Operating Leases

**The Group as lessee.** Operating leases mainly included lease agreements for commercial space as well as for office and data processing equipment and motor vehicles.

The payments arising from leases are recognized through profit or loss in the sum of 9,767 thousand euros (prior year 8,608 thousand euros). As in the prior year, no contingent lease payments were included.

As of the balance sheet date, there are open obligations arising from non-terminable operating leases with the following maturities:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	8,670 (7,818)	23,193 (17,362)	21,607 (16,998)	53,470 (42,179)

Prior year figures are in parentheses.

**The Group as lessor.** Within the framework of operating leases the Group leases commercial property. Rental income from the leasing of property, plant and equipment and from investment property amounted to 2,013 thousand euros in the reporting period (prior year 1,961 thousand euros).

At the balance sheet date the following minimum lease payments had been contractually agreed with tenants:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Minimum lease payments	1,764 (1,645)	2,233 (2,523)	120 (48)	4,117 (4,216)

Prior year figures are in parentheses.

Lease agreements without a termination date were recorded in rental income only up until the date of the earliest possible termination. The probability of leasing the space further or of granting extensions on the lease agreements was not included in the calculation.

## 5.5 Financial Investments

in thousand euros	31/12/2017	31/12/2016
Shares in unconsolidated associates	610	2,222
Investment companies	2,202	14,376
Loans to unconsolidated associates and investment companies	730	1,294
Long-term securities	867	1,142
<b>Total</b>	<b>4,408</b>	<b>19,034</b>

The reduction in shares in unconsolidated associates primarily resulted from the first-time inclusion of Jenoptik India in the consolidated financial statements and the merger of the previously non-consolidated Jenoptik Katarorb as of January 1, 2017. For further details we refer to the note "Group of consolidated entities" from page 136.

In the course of the acquisition of a US company by a third party, a minority holding by Jenoptik in this company acquired in 2011 legally passed to the purchaser in 2017. As a result, investment companies in the fiscal year reduced by 12,285 thousand euros. In addition, shares in a real estate company were revalued and therefore increased by 112 thousand euros outside of profit or loss.

The reduction in loans to unconsolidated associates and investment companies is attributable to the redemption of loans.

The table below reflects the changes in the impairments to financial investments:

in thousand euros	2017	2016
<b>Impairments at 1/1</b>	<b>14,814</b>	<b>22,864</b>
Additions	763	2,438
Utilization	2,978	9,575
Reversal/derecognition	299	916
Foreign currency exchange effects	0	2
<b>Impairments at 31/12</b>	<b>12,300</b>	<b>14,814</b>

In addition to the facts already presented above, the development of impairments in 2017 was affected primarily by the deletion of an entity and the impairment losses utilized in this context.

## 5.6 Non-current Trade Receivables

As of the end of the fiscal year 2017 there were no non-current receivables from contracts with clients (prior year 1,923 thousand euros).

## 5.7 Other Non-current Financial Assets

Other non-current financial assets include the following:

in thousand euros	31/12/2017	31/12/2016
Derivatives	1,957	1,591
Receivables from lease agreements	0	335
Other non-current financial assets	363	0
<b>Total</b>	<b>2,319</b>	<b>1,926</b>

Other non-current financial assets are subject to disposal restrictions in the sum of 86 thousand euros (prior year 0 thousand euros).

The aggregated item derivative financial instruments is explained in greater detail in section 8.2 from page 177.

For details on receivables arising from lease contracts please see note 5.4 from page 158.

## 5.8 Other Non-current Non-financial Assets

Other non-current non-financial assets in the sum of 586 thousand euros (prior year 1,108 thousand euros) essentially comprise the deferred charges for the syndicated loan in the amount of 360 thousand euros (prior year 649 thousand euros).

## 5.9 Deferred Taxes

The development of the balance sheet item deferred taxes is shown in note 4.11 from page 151.

## 5.10 Inventories

in thousand euros	31/12/2017	31/12/2016
Raw materials, consumables and supplies	69,675	56,186
Unfinished goods and work in progress	80,706	84,400
Finished goods and merchandise	18,244	18,738
<b>Total</b>	<b>168,625</b>	<b>159,324</b>

As of the end of the fiscal year 2017, accumulated impairment losses in the sum of 44,078 thousand euros (prior year 45,508 thousand euros) were taken into account on the net realizable value. The carrying amount of the inventories which were recognized at the net realizable value was 87,812 thousand euros (prior year 97,437 thousand euros).

In the fiscal year, impairment losses were recorded in the sum of 1,580 thousand euros (prior year 5,295 thousand euros). Impairment losses were reversed in the sum of 2,662 thousand euros (prior year 3,951 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 233,579 thousand euros (prior year 218,510 thousand euros), the table below shows the distribution.

in thousand euros	31/12/2017	31/12/2016
Cost of Sales	230,911	215,992
Research and development expenses	2,055	1,735
Selling expenses	356	479
Administrative expenses	257	304
<b>Total</b>	<b>233,579</b>	<b>218,510</b>

At the reporting dates there were no restrictions on the disposal of inventories.

### 5.11 Current Trade Receivables

in thousand euros	31/12/2017	31/12/2016
Trade receivables from third parties	120,978	124,608
Receivables from construction contracts	14,859	4,419
Trade receivables from unconsolidated associates and joint operations	94	562
Trade receivables from investment companies	86	232
<b>Total</b>	<b>136,017</b>	<b>129,821</b>

The fair values of trade receivables correspond to their carrying amounts as of the reporting date.

With regard to receivables from construction contracts less progress payments, customer-specific construction contracts are recognized as assets if the production costs incurred, including shares in profits, exceed the amount received from advance payments and partial billings. As of the balance sheet

date, progress payments in the total sum of 7,700 thousand euros (prior year 2,486 thousand euros) were offset against receivables arising from construction contracts.

Trade receivables comprise the following:

in thousand euros	31/12/2017	31/12/2016
Gross amount of trade receivables from third parties	128,406	130,243
Gross amount of receivables from construction contracts	14,859	4,419
Gross amount of trade receivables from unconsolidated associates and joint operations	1,475	1,942
Gross amount of trade receivables from investment companies	155	302
<b>Gross amount of trade receivables (total)</b>	<b>144,895</b>	<b>136,906</b>
Cumulative impairments	-8,879	-7,084
<b>Carrying amount of trade receivables</b>	<b>136,017</b>	<b>129,821</b>

Default risks are taken into account through impairments. The following table shows the changes in impairment losses on outstanding trade receivables:

in thousand euros	2017	2016
<b>Impairments at 1/1</b>	<b>7,084</b>	<b>11,973</b>
Additions	3,308	2,289
Consumption	88	445
Reversal/derecognition	1,363	6,785
Foreign currency exchange effects	-62	53
<b>Impairments at 31/12</b>	<b>8,879</b>	<b>7,084</b>

The gross amount of trade receivables from third parties totaled 128,406 thousand euros (prior year 130,243 thousand euros). Thereof receivables amounting to 6,988 thousand euros (prior year 2,609 thousand euros) were subject to individual impairments. The age structure of unimpaired trade receivables from third parties is as follows:

in thousand euros	2017	2016
Not due	86,369	101,395
Overdue	36,680	26,238
Less than 30 days	16,367	15,427
Between 30 and 60 days	6,288	2,894
Between 60 and 120 days	4,296	2,021
Between 120 and 240 days	4,897	1,270
Between 240 and 360 days	2,066	695
More than 360 days	2,766	3,931
<b>Total</b>	<b>123,049</b>	<b>127,634</b>

Overdue but unimpaired receivables were owed primarily by public sector contractors, companies in the automobile industry as well as their suppliers. The default risk as of the balance sheet date for receivables not subject to individual impairment were taken into account through portfolio-based impairments in the sum of 5,147 thousand euros (prior year 3.491 thousand euros).

Non-impaired receivables are covered by collateral in the form of bank guarantees in the sum of 660 thousand euros (prior year 4,251 thousand euros).

The measures begun in the prior year to reduce the overdue non-impaired receivables from third parties were intensified.

## 5.12 Other Current Financial Assets

in thousand euros	31/12/2017	31/12/2016
Derivatives	3,008	51
Receivables from Mitarbeiter-treuhand e.V.	1,728	1,752
Receivables from lease agreements	340	510
Other receivables from unconsolidated associates	0	102
Miscellaneous current financial assets	230	8
<b>Total</b>	<b>5,307</b>	<b>2,422</b>

As in the prior year, there were no restrictions on disposals of other current financial assets.

For details on receivables arising from lease contracts please refer to note 5.4 from page 158.

The aggregated item derivative financial instruments is explained in greater detail in note 8.2 from page 177.

Default risks are taken into account through impairments. The breakdown of the carrying amount of other current financial assets is as follows:

in thousand euros	31/12/2017	31/12/2016
Gross amount of other current financial assets	6,596	3,927
Cumulative impairments	-1,289	-1,504
<b>Carrying amount of other current financial assets</b>	<b>5,307</b>	<b>2,422</b>

The following table shows the changes in impairment losses on outstanding other current financial assets:

in thousand euros	2017	2016
<b>Impairments at 1/1</b>	<b>1,504</b>	<b>4,549</b>
Additions	7	0
Consumption	40	2,801
Reversal/derecognition	183	243
<b>Impairments at 31/12</b>	<b>1,289</b>	<b>1,504</b>

## 5.13 Other Current Non-financial Assets

in thousand euros	31/12/2017	31/12/2016
Accruals	3,266	3,348
Receivables from other taxes	1,640	1,527
Receivables from income taxes	340	513
Receivables from subsidies and grants	176	301
Miscellaneous current non-financial assets	644	1,402
<b>Total</b>	<b>6,067</b>	<b>7,091</b>

As in the prior year, there were no restrictions on disposals of other current non-financial assets.

## 5.14 Current Financial Investments

in thousand euros	31/12/2017	31/12/2016
Fair value	64,577	50,540

The current financial investments primarily entail cash deposits made in the sum of 64,169 thousand euros.

For financial investments valued at amortized acquisition costs, it is assumed that the fair values correspond to the carrying amounts.

For further details on the financial instruments we refer to note 4.2 from page 177.

## 5.15 Cash and Cash Equivalents

in thousand euros	31/12/2017	31/12/2016
Checks, cash on hand, bank balances and demand deposits with a maturity of less than 3 months	132,310	91,961

For further information we refer to the section entitled Disclosures on the Cash Flows from page 173.

## 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 shares.

At the beginning of July 2011 Thüringer Industriebeteiligungs GmbH & Co. KG, Erfurt, Thüringer Industriebeteiligungs-geschäftsführungs 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 Thuringia, 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 August 21, 2014, Deutsche Asset & Wealth Management Investment GmbH, Frankfurt, Germany, notified us that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG on August 19, 2014. Accordingly, Deutsche Asset & Wealth Management Investment GmbH directly held 5.20 percent of the voting rights (2,978,179 voting rights) in JENOPTIK AG on that day. Thereof 5.06 percent of the voting rights (2,898,579 voting rights) were held directly by Deutsche Asset & Wealth Management Investment GmbH on that day and 0.14 percent of the voting rights (79,600 voting rights) were attributed to them on that day in accordance with § 22 (1) (1) No. 6 of the WpHG.

Templeton Investment Counsel, LLC, Wilmington, Delaware, USA, notified us on February 17, 2016 that it had exceeded the threshold of 5 percent of the voting rights in JENOPTIK AG on February 12, 2016. Accordingly, Templeton Investment Counsel, LLC held 4.69 percent of the voting rights (2,682,522 voting rights) as indirectly attributed to it on that day in accordance with § 22 of the WpHG.

The Ministry of Finance, Oslo, Norway, notified us on November 4, 2016 on behalf of the Norwegian state that it had exceeded the threshold of 3 percent of the voting rights in JENOPTIK AG on November 2, 2016. Accordingly, on that day the Ministry of Finance held 3.06 percent of the voting rights (1,752,411 voting rights) as indirectly attributed to it on that day in accordance with § 22 of the WpHG. The voting rights are held directly by the Norges Bank, Oslo, Norway.

The Oppenheimer International Small-Mid Company Fund, Wilmington, Delaware, USA, notified us on January 30, 2018 that it had exceeded the threshold of 3 percent of the voting rights in JENOPTIK AG on January 25, 2018. Accordingly, the Oppenheimer International Small-Mid Company Fund held 3.16 percent of the voting rights (1,808,844 voting rights) on that day. Oppenheimer Funds, Inc., Denver, Colorado, USA has an indirect investment via the Oppenheimer International Small-Mid Company Fund.

On September 28, 2017, Dimensional Holdings Inc., Austin, Texas, USA, notified us that it fell below the threshold of 3 percent of the voting rights in JENOPTIK AG on September 25, 2017. Accordingly, Dimensional Holdings Inc., held 2.99 per-

cent of the voting rights (1,713,730 voting rights) on that day. Dimensional Fund Advisors LP, Dimensional Fund Advisors Ltd., DFA Canada LLC, Dimensional Fund Advisors Canada ULC as well as DFA Australia Limited have an indirect investment via Dimensional Holdings Inc.

The voting right notifications of recent years and the notifications of shareholders that had closed out their investments have been published on our Internet site [www.jenoptik.com](http://www.jenoptik.com) under Investors/Share/Voting rights announcements.

### Authorized Capital

An "Authorized Capital 2015" was created with the resolution passed by the Annual General Meeting on June 3, 2015 as follows: The Executive Board is authorized through June 2, 2020, 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 bearer shares against cash and/or contribution in-kind ("Authorized Capital 2015"). The new shares can be taken on by one bank or multiple banks with the obligation to offer these to shareholders (indirect subscription rights). The Executive Board is authorized, with the approval of the Supervisory Board, to exclude the subscription rights of shareholders (a) for fractional amounts; (b) in the event of capital increases against contribution in-kind, in particular also as part of corporate mergers or for the acquisition of companies, parts of companies or investments in companies (including an increase in existing investment holdings) or other depositable assets related to such an acquisition project, including receivables from the company; (c) in the event of capital increases in return for cash contributions, to the extent that the portion of the nominal capital attributable to the new shares, taking into account resolutions at the Annual General Meeting and/or the utilization of other authorizations to exclude the subscription right in direct or corresponding application of § 186 (3) (4) of the Stock Corporation Act since the date on which such authorization becomes effective, neither exceeds a total of ten percent of the nominal capital as of the date of registration for such authorized capital, nor exceeds a total of ten percent of the nominal capital in existence as of the date of issuance of the new shares and the issue price of new shares is not significantly below the stock exchange price; (d) for the issuance to employees of the company and companies in which Jenoptik has a majority participation.

All aforementioned authorizations to exclude subscription rights are limited to a total of 20 percent of the nominal capital available at the time this authorization became effective – or, if this

value is lower, to 20 percent of the nominal capital at the time this authorization is exercised. This limit of 20 percent includes shares that (i) are sold for the purpose of servicing option and/or convertible bonds 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 company 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.

### Conditional Capital

With the shareholder resolution passed at the Annual General Meeting (AGM) held on June 7, 2017 the share capital of the entity is contingently raised 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 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 rights by June 6, 2022 and neither own shares are used nor is 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 to the appropriation of profits. 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 existing nominal capital 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.

### 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

- available-for-sale financial assets
- cash flow hedges,
- accumulated foreign currency exchange differences and
- actuarial gains/losses arising from the valuation of pensions and similar obligations.

In the 2017 fiscal year value adjustments to securities available for sale amounted to minus 270 thousand euros (prior year minus 249 thousand euros). The resultant deferred taxes totaled minus 32 thousand euros (prior year minus 38 thousand euros). The effective portions of the change in the value of derivatives to be recognized outside of profit or loss within the framework of the cash flow hedges amounted to 4,456 thousand euros (prior year minus 1,680 thousand euros) less applicable deferred taxes in the sum of minus 1,325 thousand euros (prior year 502 thousand euros). The 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 8,016 thousand euros (prior year minus 915 thousand euros). The change in applicable deferred taxes totaled 483 thousand euros (prior year 4 thousand euros).

The actuarial gains (prior year losses) arising from the valuation of pensions are recognized in the sum of 1,156 thousand euros (prior year minus 298 thousand euros). The resultant deferred taxes totaled minus 298 thousand euros (prior year minus 60 thousand euros).

In the 2017 fiscal year the change in deferred taxes recognized outside of profit or loss led to a reduction in the reserves of 1,173 thousand euros (prior year increase of 408 thousand euros). The amount of deferred tax assets in equity totaled 4,788 thousand euros (prior year 5,961 thousand euros).

### Treasury Shares

In accordance with the shareholder resolution passed by the Annual General Meeting held on June 12, 2014, the Executive Board was authorized to purchase up to a maximum of ten percent of the no-par value shares of the existing share capital as treasury shares for purposes other than trade in treasury shares by no later than June 11, 2019. 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 et seq. of the 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 entity or, for specific authorized purposes, also by dependent companies or 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. Further details regarding the buyback of treasury shares are described in the invitation to the Annual General Meeting 2014, accessible to the general public, on our website at [www.jenoptik.de](http://www.jenoptik.de) under the heading Annual General Meeting.

### 5.17 Non-controlling Interests

This balance sheet item 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.

As a result of the acquisition of shares of non-controlling shareholders, the amounts attributable to the acquired shares were reclassified as retained earnings in the fiscal year 2017.

### 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. The bene-

fits 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 pension schemes in Germany have been closed with the exemption of the reinsured group provident fund. Within the Group, company pension plans are 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 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.

Up to and including 2016, defined benefit plans in the form of a reinsured group provident fund were treated as defined contribution plans as the risk of a claim arising from the existing subsidiary liability was considered unlikely. As a result of the increased likelihood of a claim due to the on-going period of low interest rates, these commitments were treated as defined benefit plans for the first time in 2017. The undercoverage amounting to 275 thousand euros was recorded as actuarial effect within other comprehensive income.

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 commitment of the Group cover 1,194 entitled persons, including 514 active employees, 159 former employees as well as 521 retirees and survivors.

In compliance with IAS 19, the assets held by the Mitarbeiter-treuhand e.V., Jena, are offset as plan assets against pension obligations. The pension obligations of JENOPTIK Industrial Metrology Switzerland SA, JENOPTIK Advanced Systems GmbH and the commitments via the group provident fund are also covered by means of plan assets and are accordingly booked 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	2017	2016
DBO at 1/1	68,762	67,432
Foreign currency exchange effects	-1,029	108
Past-service cost	956	977
Contributions to the pension plans	133	247
Thereof by employees	133	247
Interest expenses	860	1,148
Actuarial gains (-) and losses (+)	-74	1,519
Experience-based gains and losses	-410	-2,038
Changes from financial assumptions	336	3,557
Transfers	256	0
Other changes	15,792	0
Pension benefits	-2,533	-2,669
<b>DBO at 31/12</b>	<b>83,122</b>	<b>68,762</b>

The other changes relate to the first-time recording of pension commitments through the reinsured group provident fund route.

The effects of the expense recognized in the statement of income are summarized as follows:

in thousand euros	2017	2016
Current service costs	956	977
Net interest expenses	502	699
<b>Total expenses</b>	<b>1,458</b>	<b>1,676</b>

The amounts shown above are generally included in the personnel expenses of the functional areas. The interest charged on the obligation as well as the interest received on plan assets is recorded in the interest result.

Changes in plan assets are shown as follows:

in thousand euros	2017	2016
Plan assets at 1/1	31,134	31,339
Foreign currency exchange effects	-700	69
Interest income from plan assets	358	232
Return on plan assets less interest income	1,354	1,189
Contributions	266	682
Employers	133	227
Employees	133	454
Transfers	256	0
Other changes	15,517	0
Pension payments	-2,130	-2,376
<b>Plan assets at 31/12</b>	<b>46,055</b>	<b>31,133</b>

The initial recording of plan assets of the reinsured group provident fund is shown as other changes.

The net obligation as of the balance sheet date is as follows:

in thousand euros	2017	2016
Present value of the obligation covered by plan assets	77,600	63,022
Plan assets	-46,055	-31,133
Net liability of the obligation covered by plan assets	31,545	31,889
Net liability of the obligation not covered by plan assets	5,521	5,741
<b>Total</b>	<b>37,066</b>	<b>37,630</b>

The portfolio structure of the plan assets is shown as follows:

in thousand euros	2017	2016
Loans rendered (loans and receivables)	4,407	4,985
Insurance policies	24,536	9,528
Stocks and other securities	5,472	5,627
Investments	6,426	5,456
Cash equivalents	6,943	7,288
Other assets and liabilities	-1,728	-1,752
<b>Total</b>	<b>46,055</b>	<b>31,133</b>

There is an active market for the stocks and other securities held in plan assets.

Of the insurance policies an amount of 15,517 thousand euros is related to pension insurances with AXA Lebensversicherung AG. The capital was mainly invested in stocks and investment funds as well as debenture loans and fixed interest-bearing securities. Furthermore insurance policies amounting to 7,996 thousand euros persist due to the benefit plan of AXA Fondation LLP (Switzerland).

The actuarial assumptions are shown in the following table. Where applicable, inflation expectations are taken into account in the above-mentioned assumptions.

in percent	2017	2016
Discount rate		
Germany	1.68	1.52
Switzerland	0.66	0.18
Expected salary increases		
Germany	2.67	2.79
Switzerland	0.35	0.35
Expected pension increases		
Germany	1.59	1.81
Switzerland	1.00	0.00

In the fiscal year 2017, a yield on plan assets of 1.52 percent, i.e. 358 thousand euros, was assumed on the basis of the discounting factor used for calculating the DBO for the prior year (prior year 232 thousand euros). The actual yield from the plan assets was 1,712 thousand euros (prior year 1,420 thousand euros).

A change in the key actuarial assumptions of one percentage point respectively as of the balance sheet would influence the DBO as follows:

in thousand euros	Change in the DBO	
	Increase	Reduction
Discount rate	-11,316 (-9,194)	14,264 (9,589)
Expected salary increases	162 (244)	-69 (-63)
Expected pension increases	8,642 (8,854)	-7,217 (-5,986)

Prior year figures are in parentheses.

The sensitivity analysis shows the change in a DBO when an assumption is changed. 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.

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-à-vis calculation assumptions. In accordance with the regulations stated in IAS 19, this amount is offset against other comprehensive income in equity.

As of December 31, 2017, the weighted average remaining service period was 5 years and the weighted average remaining maturity of the obligation was 20 years.

The financing of the pension plans of JENOPTIK Advanced Systems GmbH, Wedel and 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. In this context, the pension plan is financed by contributions from both the employer and the employees.

The anticipated pension payments arising from the pension plans as of December 31, 2017 for the following fiscal year are in the sum of 2,579 thousand euros (prior year 2,620 thousand euros) and for the subsequent four fiscal years of 12,818 thousand euros (prior year 11,610 thousand euros).

#### Defined Contribution Plans

Within the framework of the defined contribution plans, expenses for 2017 totaled 18,075 thousand euros (prior year 13,987 thousand euros), this figure including contributions to pension insurance providers in the sum of 13,893 thousand euros (prior year 13,447 thousand euros).

#### 5.19 Tax Provisions

in thousand euros	31/12/2017	31/12/2016
Provisions for income taxes	8,870	3,290
Provisions for other taxes	67	90
<b>Total</b>	<b>8,938</b>	<b>3,380</b>

Details on income tax expenses are provided in Note 4.11 from page 151.

## 5.20 Other Provisions

The development of other provisions is as follows:

in thousand euros	Balance at 1/1/2017	Foreign currency exchange effects	Changes in the group of entities consolidated	Additions	Compound interest	Utilization	Reversals	Balance at 31/12/2017
Personnel	24,352	-140	47	23,614	42	-17,565	-2,129	28,221
Guarantee and warranty obligations	13,369	-71	5	15,357	20	-5,873	-1,886	20,922
Trademark and license fees	2,931	0	0	491	0	-9	-153	3,261
Onerous contracts	1,341	0	60	1,361	0	-377	-786	1,599
Price adjustments	1,727	0	0	512	0	-5	-810	1,423
Restructuring	2,261	0	0	0	0	-1,375	-749	137
Others	12,510	-330	0	5,982	6	-3,744	-2,829	11,595
<b>Total</b>	<b>58,491</b>	<b>-541</b>	<b>112</b>	<b>47,318</b>	<b>69</b>	<b>-28,949</b>	<b>-9,341</b>	<b>67,159</b>

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 of service payments in the sum of 2,627 thousand euros (prior year 2,584 thousand euros) and partial retirement obligations in the sum of 1,286 thousand euros (prior year 502 thousand euros). Expert opinions were obtained for the partial retirement obligations with the assumption of income increasing at 2.7 percent (prior year 2.8 percent). The amount of the liability for top-up payments already earned was 609 thousand euros as of December 31, 2017 (prior year 155 thousand euros).

The provision for guarantee and warranty obligations include expenses for individual guaranty cases as well as for general guarantees. The calculation of the provision for general guarantee risks is based on empirical values which are 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 2017 fiscal year chiefly comprise guarantee and warranty provisions for specific individual cases for which the underlying obligations no longer exist.

The provision for trademark and license fees relates to risks in connection with potential patent violations as well as license cost risks.

The provision for onerous contracts mainly includes the liability overhang for individual customer projects.

Provisions for price adjustments exist for customer contracts that are subject to the risk of subsequent changes in selling prices. Additions and reversals are made to revenue.

The use and reversal of the provision for restructuring covers the payment of severance pay to employees in connection with the restructuring of the laser business of Jenoptik Laser GmbH in Jena.

Other provisions included, amongst others, provisions for potential contractual penalties and claims for damages. In addition, they relate to numerous identifiable specific risks as well as uncertain liabilities that were accounted for in the amount of the best possible estimate of settlement sum. The additions in the fiscal year 2017 include, amongst other things, the Supervisory Board remuneration, the recognition of expenses for risks arising from the utilization of a guarantee claim as well as for removal obligations.

The anticipated claims by maturity are shown below:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Personnel	22,146	4,017	2,057	28,221
Guarantee and warranty obligations	17,446	3,476	0	20,922
Trademark and license fees	1,293	1,969	0	3,261
Onerous contracts	959	640	0	1,599
Price adjustments	200	1,223	0	1,423
Restructuring	137	0	0	137
Others	9,069	1,433	1,093	11,595
<b>Total</b>	<b>51,250</b>	<b>12,759</b>	<b>3,150</b>	<b>67,159</b>

## 5.21 Share-based Payments

As of December 31, 2017, the Jenoptik Group had at its disposal share-based payment instruments in the form of virtual shares for both active Executive Board members and some senior management personnel. In this context, a distinction is drawn between the long-term incentives from the previous Executive Board remuneration system and the remuneration system for some senior management personnel ("LTI") as well as performance shares under the new Executive Board remuneration system.

The effect of the share-based payment with cash settlement on the statement of income as well as the statement of financial position in the 2017 fiscal year was as follows:

in thousand euros	Profit or loss		Statement of financial position	
	2017	2016	2017	2016
Virtual shares for the current year	-646	-262	646	262
Virtual shares for prior years	-902	-1,541	1,972	5,676
<b>Total</b>	<b>-1,547</b>	<b>-1,803</b>	<b>2,617</b>	<b>5,938</b>

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 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. In the event of departure before the end of the term, the LTI is paid out early in cash. In the event of departure, performance shares will also only be valued, allocated and then paid out at the end of the respective performance period, depending on whether the targets have been achieved. Following preparation by the Personnel Committee but subject to the approval of the Supervisory Board, the members of the Executive Board are to be granted a total of 26,103 virtual shares for the 2017 fiscal year. The virtual shares allocated for the fiscal years 2012 to 2017 were valued at the fair value as of the 2017 balance sheet date and recognized in provisions.

The development of the Executive Board's virtual shares is shown in the following table:

in units	Number for 2017	Number for 2016
<b>Dr. Stefan Traeger</b> (Chairman of the Executive Board since May 1, 2017)		
1/1	0	0
Granted for period	11,284	0
31/12	11,284	0
<b>Hans-Dieter Schumacher</b>		
1/1	39,794	21,329
Granted for period	14,819	18,134
Granted for protection of existing shares in case of dividend payment	425	331
31/12	55,038	39,794
<b>Dr. Michael Mertin</b> (Chairman of the Executive Board up to April 30, 2017)		
1/1	283,154	328,066
Granted for protection of existing shares in case of dividend payment	0	4,326
Paid out	283,154	49,238
31/12	0	283,154

Of the total expenses of fiscal year 2017 related to share-based payment an amount of 292 thousand euros (prior year 0 thou-



sand euros) was attributable to Dr. Stefan Traeger, 738 thousand euros (prior year 311 thousand euros) were attributable to Hans-Dieter Schumacher and expenses of 12 thousand euros (prior year 1,149 thousand euros) were related to Dr. Michael Mertin.

For all further disclosures, we refer to the Remuneration Report in the section Corporate Governance which forms part of the combined Management Report.

Virtual shares are also granted to some members of the top management. The system for allocation and payment of the virtual shares is essentially the one described in Section II. a of the Remuneration Report for the Executive Board, pages 45 ff. ("Performance-Related Payment in the Previous Remuneration System"), the only difference being that in the event of departure before expiry of the period, the virtual shares can be forfeited depending upon the reasons for the departure.

The development of these virtual shares is shown in the following table:

in units	Number for 2017	Number for 2016
<b>Members of the Executive Management Board</b>		
1/1	109,726	114,346
Granted for period	15,967	20,113
Granted for adjusted achievement of prior year's goals	-644	473
Forfeited rights	-7,953	-12,575
Paid out	-34,023	-12,631
31/12	83,073	109,726

## 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	19,157 (4,088)	107,883 (44,845)	0 (75,589)	127,040 (124,521)
Liabilities from finance leases	180 (41)	690 (45)	0 (0)	871 (86)
<b>Total</b>	<b>19,337 (4,129)</b>	<b>108,573 (44,890)</b>	<b>0 (75,589)</b>	<b>127,910 (124,608)</b>

Prior year figures are in parentheses.

Liabilities to banks with a term of up to one year primarily comprise a tranche of the debenture loan in the sum of 11.000 thousand euros due in 2018, the repayments due in 2018 for the loan to finance investments at the site in Michigan, USA in the sum of 1,668 thousand euros as well as the utilization of revolving lines of financing by the Chinese subsidiary in the sum of 6,423 thousand euros.

Liabilities to banks with a term of one to five years comprise further tranches of the debenture loans with a nominal value of 103,000 thousand euros.

As of the balance sheet date, the syndicated loan was purely utilized for guarantees in the sum of 8,670 thousand euros. Taking into account the other lines of financing not fully utilized, 232,220 thousand euros of guaranteed, existing lines of credit were unused as of the balance sheet date.

## 5.23 Non-current Trade Payables

As of the balance sheet date there were no non-current trade payables. Liabilities in the prior year arising from the purchase of intangible investment assets totaled 680 thousand euros.

## 5.24 Other Non-current Financial Liabilities

in thousand euros	31/12/2017	31/12/2016
Liabilities from acquiring associates	417	702
Derivatives	3	1,983
Miscellaneous non-current financial liabilities	0	800
<b>Total</b>	<b>420</b>	<b>3,485</b>

The liabilities from acquiring associates include the long-term share of the conditional purchase price payment agreed within the framework of the acquisition of Five Lakes Automation.

Further disclosures on derivatives are provided in Note 8.2 from page 177.

## 5.25 Other Non-current Non-financial Liabilities

There were no other non-current non-financial liabilities as of the balance sheet date (prior year 655 thousand euros).

## 5.26 Current Trade Payables

This item includes:

in thousand euros	31/12/2017	31/12/2016
Trade payables towards third parties	61,523	48,020
Trade payables towards unconsolidated associates and joint operations	116	293
Trade payables towards investment companies	18	89
<b>Total</b>	<b>61,657</b>	<b>48,402</b>

## 5.27 Other Current Financial Liabilities

This item includes:

in thousand euros	31/12/2017	31/12/2016
Other liabilities towards unconsolidated associates and joint operations	2,854	1,784
Liabilities from acquiring associates	2,711	582
Interest payables	785	762
Derivatives	676	1,354
Miscellaneous current financial liabilities	1,628	1,160
<b>Total</b>	<b>8,654</b>	<b>5,642</b>

Liabilities to unconsolidated associates and joint operations primarily include liabilities to a joint operation in the sum of the non-consolidated part of liabilities of 2,845 thousand euros (prior year 1,552 thousand euros). Standard market interest rates were agreed for liabilities.

The liabilities from acquiring associates relate to the put option agreed within the framework of the acquisition of the Vysionics Group for the purchase of the remaining shares as well as the short-term share of the conditional purchase price payment for the acquisition of Five Lakes Automation.

The item derivative financial instruments is explained in greater detail under Note 8.2 from page 177.

## 5.28 Other Current Non-financial Liabilities

in thousand euros	31/12/2017	31/12/2016
Liabilities from advance payments received	28,169	29,461
Liabilities to employees	8,287	12,816
Liabilities from other taxes	5,387	4,183
Accruals	2,816	3,295
Liabilities from social security	1,307	1,199
Liabilities to employer's insurance association	1,065	1,180
Liabilities from construction contracts	0	952
Miscellaneous current non-financial liabilities	222	523
<b>Total</b>	<b>47,253</b>	<b>53,609</b>

Liabilities to employees included, amongst others, vacation entitlements and flextime credits.

Liabilities from other taxes essentially comprise liabilities arising from sales tax.

## 6 Disclosures on Cash Flows

Liquid funds comprise the cash and cash equivalents recognized in the balance sheet in the sum of 132,310 thousand euros (prior year 91,961 thousand euros). Liquid funds are defined as the sum of cash on hand and demand deposits at banks with a 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 balance sheet items used for preparing the statement of cash flows cannot be directly derived from the balance sheet 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 income and expenses. The cash flows from operating activities are determined by taking into account the changes in working capital, provisions and other operating balance sheet items.

The cash flows from operating activities in the fiscal year just past totaled 96,347 thousand euros (prior year 100,102 thousand euros). The changes compared to the previous year were mainly attributable to increased payments for the build-up of working capital which were not fully offset by the improved operating result.

The cash flows from investing activities were minus 42,164 thousand euros (prior year minus 71,339 thousand euros) and were characterized in particular by payments for investments in property, plant and equipment in the sum of 30,340 thousand euros (prior year 25,681 thousand euros) of which, 7,348 thousand euros (prior year 7,735 thousand euros) were attributable

to the construction of the new Technology Campus at the US site in Rochester Hills, Michigan. Further information on the investments is provided in the section Earnings, Financial and Asset Position in the Management Report from page 85.

In addition, the cash flows for investing activities included net payments for current cash deposits in the sum of 14,460 thousand euros (prior year 49,746 thousand euros). Corporate acquisitions in this fiscal year led to payments in the sum of 8,912 thousand euros for Five Lakes Automation and 4,981 thousand euros for ESSA Technology. Receipts arising from the transfer of a minority stake held by Jenoptik to a buyer, had a positive effect on the cash flows from investing activities in the sum of 16,685 thousand euros. For details related to the acquisition see section Entities acquired and sold from page 138. Further information on the disposal of the minority investment are included in section Investment income from page 150.

Cash flows from financing activities amounted to minus 12.909 thousand euros (prior year minus 20,728 thousand euros). The cash outflows arising from the dividends paid increased compared with 2016 as a result of the increased dividend payment of 0.25 euros per share (prior year 0.22 euros per share). The proceeds from issuing bonds and loans and the take-up of credit in the reporting year mainly included the cash inflows arising from the financing taken up for the construction of the new Technology Campus at the US site in Rochester Hills, Michigan. In addition, payments in the sum of 339 thousand euros for the acquisition of additional shares in JENOPTIK Holdings UK Ltd. when exercising some of the existing put options, had a minimal effect on the cash flows from financing activities. The change in the group financing included payments from or to affiliated non-consolidated companies and investments.

The changes in financial debt that will lead to cash flows from financing activities in the future, are shown in the following table:

in thousand euros	Balance at 1/1/2017	Cash-effective change	Non cash-effective change			Change in maturity	Balance at 31/12
			Foreign currency exchange effects	Addition	Change in the fair value		
Non-current financial debt	120,479 (113,243)	413 (6,615)	-966 (437)	723 (0)	222 (211)	-12,298 (-25)	108,573 (120,479)
Non-current liabilities to banks	120,434 (113,173)	475 (6,615)	-961 (436)	0 (0)	222 (211)	-12,287 (0)	107,883 (120,434)
Non-current liabilities arising from finance leases	45 (70)	-62 (0)	-5 (1)	723 (0)	0 (0)	-11 (-25)	690 (45)
Current financial debt	4,129 (14,850)	3,181 (-10,654)	-454 (-104)	182 (0)	0 (11)	12,298 (25)	19,337 (4,129)
Current liabilities to banks	4,088 (14,802)	3,236 (-10,620)	-454 (-105)	0 (0)	0 (11)	12,287 (0)	19,157 (4,088)
Current liabilities arising from finance leases	41 (48)	-54 (-34)	0 (1)	182 (0)	0 (0)	11 (25)	180 (41)
<b>Total</b>	<b>124,608</b> <b>(128,093)</b>	<b>3,595</b> <b>(-4,039)</b>	<b>-1,420</b> <b>(332)</b>	<b>905</b> <b>(0)</b>	<b>222</b> <b>(222)</b>	<b>0</b> <b>(0)</b>	<b>127,910</b> <b>(124,608)</b>

Prior year figures are in parentheses.

Information regarding the allocation of free cash flows to the segments is provided in the Segment Report from page 175.

The total amounts for cash flows from operating, investing and financing activities of the proportionately consolidated joint operation are of minor significance for Jenoptik.

Additional information on the consolidated statement of cash flows is provided in the Group Management Report in the section Financial Position.

## 7 Disclosures on Segment Reporting

The segments are shown in accordance with the regulations laid down in 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.

Since 2016, Jenoptik has been reporting on the Optics & Life Science, Mobility as well as Defense & Civil Systems segments. 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 66.

The Optics & Life Science segment pools the activities in the Healthcare & Industry and Optical Systems businesses. In this field Jenoptik is one of the few development and production partners worldwide for optical and micro-optic systems and precision components used in the semiconductor equipment industry, in information and communication technologies and for security and defense technology. In addition, the segment develops and manufactures specific system and application solutions for customers worldwide in the medical technology and life sciences sectors. It also offers industry high-performance opto-electronic components and modules as well as integrated solutions for laser, automotive and lighting applications.

The Mobility segment pools the activities in the automotive and traffic safety markets. Mobility and infrastructure are closely interlinked key issues of the future. The components and

system solutions of this segment increase the efficiency of products and production processes in the automotive market. In addition, the traffic flows in the global economic centers are daily becoming more complex. The solutions provided by the segment ensure that traffic infrastructure in the future will not only remain manageable but also become safer.

The Defense & Civil Systems segment develops, manufactures and distributes mechatronic and sensor products for civil and military markets. Its portfolio ranges from individual assemblies for customers to integrate in their systems through to turnkey solutions and final products.

The activities of the holding company, the Shared Service Center and real estate management are shown together under Other.

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% of the total revenue of the Jenoptik Group was generated with one customer of the Optics & Life Science segment (80,685 thousand euros). There were no other customer relationships with individual customers whose share of revenue is significant 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	Optics & Life Science	Mobility	Defense & Civil Systems	Other	Consolidation	Group
Revenue	259,379 (221,546)	270,072 (247,661)	219,319 (218,307)	36,454 (36,572)	-37,296 (-39,318)	747,929 (684,769)
thereof intragroup revenue	4,298 (6,572)	48 (87)	164 (415)	32,787 (32,244)	-37,296 (-39,318)	0 (0)
thereof external revenue	255,082 (214,974)	270,024 (247,574)	219,155 (217,892)	3,667 (4,329)	0 (0)	747,929 (684,769)
Germany	50,109 (41,094)	75,406 (65,056)	93,700 (116,157)	3,414 (4,188)	0 (0)	222,629 (226,495)
Europe	97,093 (72,552)	67,822 (69,378)	47,337 (55,828)	0 (1)	0 (0)	212,252 (197,760)
thereof Great Britain	3,013 (3,789)	24,605 (22,219)	8,373 (11,408)	0 (0)	0 (0)	35,991 (37,416)
thereof Netherlands	81,173 (56,649)	3,355 (3,527)	2,847 (2,439)	0 (0)	0 (0)	87,375 (62,615)
America	48,161 (46,036)	65,535 (56,795)	59,927 (32,361)	2 (56)	0 (0)	173,625 (135,248)
thereof USA	46,815 (43,431)	49,728 (39,712)	58,558 (31,688)	0 (53)	0 (0)	155,100 (114,884)
Middle East/Africa	12,048 (13,085)	6,257 (9,022)	9,812 (2,991)	0 (0)	0 (0)	28,117 (25,098)
Asia/Pacific	47,671 (42,207)	55,004 (47,323)	8,379 (10,556)	251 (83)	0 (0)	111,304 (100,169)
thereof China	9,507 (10,791)	28,414 (24,619)	808 (935)	0 (1)	0 (0)	38,729 (36,345)
thereof Singapore	21,217 (22,674)	548 (160)	478 (301)	104 (0)	0 (0)	22,347 (23,135)
EBITDA from continuing operations	58,704 (41,728)	27,875 (32,313)	23,849 (23,761)	-3,686 (-3,012)	2 (-120)	106,744 (94,671)
EBITDA from discontinued operations	0 (0)	0 (0)	0 (0)	200 (2,261)	0 (0)	200 (2,261)
EBIT from continuing operations	50,486 (33,404)	18,537 (24,448)	19,162 (19,109)	-10,349 (-10,635)	9 (-117)	77,844 (66,209)
EBIT from discontinued operations	0 (0)	0 (0)	0 (0)	200 (2,261)	0 (0)	200 (2,261)
Investment income	160 (-186)	-91 (710)	0 (0)	31,624 (-220)	-25,225 (0)	6,468 (303)
Research and development expenses	-13,449 (-14,345)	-16,391 (-20,260)	-12,577 (-7,359)	-713 (-546)	51 (212)	-43,078 (-42,298)
Free cash flow (before income taxes)	47,471 (34,585)	10,125 (14,528)	22,281 (33,546)	17,834 (-2,284)	-25,473 (1)	72,238 (80,376)
Working capital	55,808 (56,563)	68,915 (64,668)	96,179 (93,514)	-6,035 (-4,717)	-98 (-111)	214,769 (209,917)
Order intake	295,460 (236,615)	303,655 (267,371)	206,175 (231,566)	36,350 (36,463)	-38,738 (-38,256)	802,902 (733,759)
Frame contracts	11,128 (14,480)	30,150 (79,054)	46,334 (67,408)	0 (0)	0 (0)	87,612 (160,942)
Total assets	181,248 (190,624)	241,019 (225,286)	179,056 (176,851)	779,719 (718,487)	-491,916 (-498,198)	889,126 (813,051)
Total liabilities	53,913 (48,058)	183,062 (146,245)	125,838 (129,538)	174,647 (193,311)	-178,265 (180,479)	359,194 (-336,672)



in thousand euros	Optics & Life Science	Mobility	Defense & Civil Systems	Other	Consolidation	Group
Additions to intangible assets, property, plant and equipment and investment property	11,276 (5,947)	17,480 (13,850)	4,488 (4,129)	4,658 (3,545)	0 (-37)	37,902 (27,433)
Scheduled depreciation and amortization	-7,996 (-8,171)	-9,338 (-7,866)	-4,688 (-4,652)	-6,664 (-6,917)	7 (3)	-28,678 (-27,603)
Impairment losses	-248 (-153)	0 (0)	0 (0)	0 (-1,145)	0 (0)	-248 (-1,298)
Impairment reversals	26 (0)	0 (0)	0 (0)	0 (439)	0 (0)	26 (439)
Number of employees on average (without trainees)	1,097 (1,108)	1,259 (1,188)	837 (822)	307 (286)	0 (0)	3,500 (3,404)

EBITDA = Earnings before interest, taxes, depreciation and amortization

EBIT = Earnings before interest and taxes

Prior year figures are in parentheses.

## 7.2 Non-current Assets by Regions

in thousand euros	31/12/2017	31/12/2016
Group	290,597	273,678
Germany	194,752	197,389
Europe	45,520	43,894
thereof Great Britain	42,425	41,013
Americas	43,202	24,656
thereof USA	43,202	24,656
Asia/Pacific	7,123	7,739

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.

## 8 Other Disclosures

### 8.1 Financial Management

The aim of the Jenoptik's capital management is to maintain a strong capital base in order to retain the trust of the shareholders, creditors and markets as well as to ensure the sustained, successful development of the company. The Executive Board monitors in particular the equity ratio and the net debt as part of the regular management reporting. In the event of significant deteriorations in these parameters, alternative courses of action are worked out and the corresponding measures implemented.

### 8.2 Financial Instruments

#### General

Within the framework of its operating activities, the Jenoptik Group is exposed to credit, default, liquidity and market risks in the financial area. The market risks relate in particular to 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 Management Report in section Risk and Opportunity Report (see page 108). Additional information on capital management disclosures is provided in the Economic Report in the chapter Financial Position (see page 91).

The risks described above impact on the financial assets and liabilities which are shown below.

## Financial assets:

in thousand euros	Valuation category according to IAS 39 <sup>1)</sup>	Carrying amounts 31/12/2017	Valuation in statement of financial position according to IAS 39			Valuation according to IAS 17
			Amortized acquisition costs	Fair value through other comprehensive income	Fair value through profit & loss	
<b>Financial investments</b>						
Securities	LAR	64,169 (49,746)	64,169 (49,746)			
Shares in unconsolidated associates and investments	AFS	2,812 (16,598)		2,812 (16,598)		
Available-for-sale financial assets	AFS	867 (1,656)		867 (1,656)		
Loans granted	LAR	730 (1,294)	730 (1,294)			
Financial assets held to maturity	HTM	408 (280)	408 (280)			
Trade receivables	LAR	136,017 (131,745)	136,017 (131,745)			
<b>Other financial assets</b>						
Receivables from lease agreements	–	340 (845)				340 (845)
Derivatives with hedging relations						
Forward exchange transactions	–	2,962 (43)		2,962 (43)		
Derivatives without hedging relations						
Interest & currency swap	FVTPL	225 (210)			225 (210)	
Forward exchange transactions	FVTPL	1,778 (1,389)			1,778 (1,389)	
Miscellaneous financial assets	LAR	2,322 (1,862)	2,322 (1,862)			
Cash and cash equivalents	LAR	132,310 (91,961)	132,310 (91,961)			
<b>Total</b>		<b>344,937 (297,628)</b>	<b>335,954 (276,888)</b>	<b>6,640 (18,297)</b>	<b>2,003 (1,599)</b>	<b>340 (845)</b>

Prior year figures are in parentheses.

<sup>1)</sup> LAR = Loans and receivables

HTM = Held to maturity

AFS = Available for sale

FVTPL = Fair value through profit & loss

## Financial liabilities:

in thousand euros	Valuation category according to IAS 39 <sup>1)</sup>	Carrying amounts 31/12/2017	Valuation in statement of financial position according to IAS 39			Valuation according to IAS 17
			Amortized acquisition costs	Fair value through other comprehensive income	Fair value through profit & loss	
<b>Financial debt</b>						
Liabilities to banks	FLAC	127,040 (124,521)	127,040 (124,521)			
Liabilities from finance lease agreements	–	871 (86)				871 (86)

126 Consolidated Statement of Comprehensive Income

128 Consolidated Statement of Financial Position

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in thousand euros	Valuation category according to IAS 39 <sup>1)</sup>	Carrying amounts 31/12/2017	Valuation in statement of financial position according to IAS 39			Valuation according to IAS 17
			Amortized acquisition costs	Fair value through other comprehensive income	Fair value through profit & loss	
Trade payables	FLAC	61,657 (49,082)	61,657 (49,082)			
Other financial liabilities						
Contingent liabilities	FVTPL	3,128 (1,284)			3,128 (1,284)	
Derivatives with hedging relations						
Forward exchange transactions	–	486 (2,770)		486 (2,770)		
Derivatives without hedging relations						
Interest swap	FVTPL	182 (350)			182 (350)	
Forward exchange transactions	FVTPL	11 (217)			11 (217)	
Miscellaneous financial liabilities	FLAC	5,266 (4,506)	5,266 (4,506)			
<b>Total</b>		<b>198,642</b> <b>(182,816)</b>	<b>193,963</b> <b>(178,109)</b>	<b>486</b> <b>(2,770)</b>	<b>3,322</b> <b>(1,851)</b>	<b>871</b> <b>(86)</b>

Prior year figures are in parentheses.

<sup>1)</sup> FLAC = Financial liabilities at cost

FVTPL = Fair value through profit & loss

The classification of the fair values for the financial assets and liabilities is taken from the following overview:

in thousand euros	Carrying amounts 31/12/2017	Level 1	Level 2	Level 3
Available-for-sale financial assets	867 (1,656)	0 (1,295)	0 (0)	867 (361)
Derivatives with hedging relations (assets)	2,962 (43)	0 (0)	2,962 (43)	0 (0)
Derivatives without hedging relations (assets)	2,003 (1,599)	0 (0)	2,003 (1,599)	0 (0)
Contingent liabilities	3,128 (1,284)	0 (0)	0 (0)	3,128 (1,284)
Derivatives with hedging relations (liabilities)	486 (2,770)	0 (0)	2,486 (2,770)	0 (0)
Derivatives without hedging relations (liabilities)	194 (567)	0 (0)	194 (567)	0 (0)

Prior year figures are in parentheses.

Fair values 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.

Fair values of available-for-sale financial assets are determined on the basis of stock exchange prices (level 1), respectively, discounted cash flows (level 3).

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, Reuters. If an interpolation of market data is applied, this is done on a straight-line basis.

The fair values of contingent liabilities are determined by taking into account the anticipated payment outflows discounted as of the balance sheet date. The addition is the result of the conditional components of the purchase price agreed within the

framework of the acquisition of Five Lakes Automation which were recognized as a liability at the fair value in the sum of 2,517 thousand euros. On grounds of materiality, the long-term amount in this figure was not discounted. The contingent liabilities also include the put option agreed with the vendors for the transfer of the remaining non-controlling interests within the framework of the acquisition of JENOPTIK Holdings UK (formerly: Vysionics Ltd.). The anticipated exercise price is 627 thousand euros. As of the balance sheet date, the anticipated cash outflows were revalued on the basis of the currently available information and the resulting adjustment of the liability recognized through profit or loss. As a result of the anticipated short-term maturity, the amount was not discounted.

Gains and losses from the level 1 available-for-sale financial assets were not recognized in equity during the reporting period (prior year 352 thousand euros). In the fiscal year 2017 reclassification was carried out from equity to profit or loss in the sum of 382 thousand euros (prior year minus 601 thousand euros).

The development of assets and liabilities allocated to level 3 is shown in the following table:

in thousand euros	Available-for-sale financial assets	Contingent liabilities
<b>Balance at 1/1/2017</b>	<b>361</b>	<b>1,284</b>
Additions	351	2,517
Disposals	0	-339
Gains and losses recognized in operating result	0	-45
Gains and losses recognized in financial result	155	-273
<b>Balance at 31/12/2017</b>	<b>867</b>	<b>3,128</b>

### 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 its 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 bad debt allow-

ances. In addition, the Jenoptik Group is exposed to credit and default risks to cash and cash equivalents as well as securities. Account is taken of these risks through constant monitoring of the creditworthiness of our business partners based on the analysis of credit ratings, as well as through spreading the cash deposits between several banks within defined limits.

The maximum default risk corresponds to the carrying amount of the financial assets as of the reporting date in the sum of 344,937 thousand euros (prior year 297,628 thousand euros). For further explanations we refer to Note 8.2 from page 177.

Impairment losses were recorded in the fiscal year for the following financial assets:

in thousand euros	2017	2016
Financial investments	763	2,438
Trade Receivables	3,308	2,289
Other financial assets	7	0
<b>Total</b>	<b>4,077</b>	<b>4,727</b>

### 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 as well as our financial flexibility at all times, the lines of credit and level of utilization as well as the net cash and cash equivalents are planned by means of a five-year financial plan as well as a monthly, rolling 12 week liquidity forecast. The liquidity risk is mitigated by effective cash and working capital management as well as through an unused guaranteed framework line of credit in the sum of 232,220 thousand euros (prior year 231,488 thousand euros).

As of the balance sheet date, the Group has stable long-term financing and solid liquidity reserves. These comprise a syndicated loan in the sum of 230,000 thousand euros, debenture loans in the sum of 114,000 thousand euros as well as net cash and cash equivalents in the sum of 132,310 TEUR (prior year 91,961 thousand euros) and securities in the sum of 64,169 thousand euros (prior year 49,746 thousand euros). The second and final contractually fixed extension option of the syndicated loan was exercised in 2017 and the term extended by one year to March 2022. A tranche of the debenture loans is due for repayment in October 2018 in the sum of 11,000 thousand euros. Further repayments are to be made in 2020 resp. 2022.

in thousand euros	Interest rates (range in %)	Carrying amounts 31/12/2017	Cash outflows			
			Total	Up to 1 year	1 to 5 years	More than 5 years
Variable interest-bearing liabilities to banks	0.8–6.12 (0.8–4.71)	33,002 (26,457)	34,049 (30,536)	6,860 (3,145)	27,189 (13,320)	0 (14,071)
Fixed interest-bearing liabilities to banks	1.0–4.4 (1.0–4.4)	94,038 (98,064)	100,416 (101,636)	14,795 (2,379)	85,621 (43,193)	0 (56,064)
Fixed interest-bearing liabilities from lease agreements	0.9–7.6 (0.9–7.6)	871 (86)	871 (86)	180 (41)	690 (45)	0 (0)
<b>Total</b>		<b>127,910</b> <b>(124,608)</b>	<b>135,336</b> <b>(132,258)</b>	<b>21,836</b> <b>(5,565)</b>	<b>113,500</b> <b>(56,558)</b>	<b>0</b> <b>(70,135)</b>

Prior year figures are in parentheses.

The cash outflows for a period of up to one year essentially include the interest payments and repayments on existing debenture loans, interest payments and repayments arising from the real estate financing newly concluded in the USA in 2016 as well as planned outflows arising from the use of short-term lines of credit for the operational business in China.

The cash outflows in the time frame of between one to five years include the repayment of the five and seven-year debenture loans.

Further details are provided under Note 5.22 on page 171.

### Interest Rate Fluctuation Risk

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 2017 this mainly affected debenture loans issued in the sum of 114,000 thousand euros (prior year 114,000 thousand euros) as well as securities in the sum of 64,169 thousand euros (prior year 49,746 thousand euros) and the major part of the cash and cash equivalents in the sum of 132,310 thousand euros (prior year 91,961 thousand euros) at the respective balance sheet date.

in thousand euros	Carrying amounts	
	31/12/2017	31/12/2016
Interest-bearing financial assets	87,368	82,805
Variable interest	3,946	5,109
Fixed interest	83,421	77,695
Interest-bearing financial liabilities	127,910	124,608
Variable interest	33,002	26,457
Fixed interest	94,909	98,151

The mathematically determined gains and losses arising from a change in the market interest rate as of December 31, 2017 within a bandwidth of 100 basis points are shown in the following table:

in thousand euros	31/12/2017	31/12/2016
Increase by 100 basis points		
Interest-bearing financial assets	873	828
Interest-bearing financial liabilities	-1,279	-1,247
<b>Effect on earnings before tax</b>	<b>-406</b>	<b>-419</b>
Reduction by 100 basis points		
Interest-bearing financial assets	-873	-828
Interest-bearing financial liabilities	1,279	1,247
<b>Effect on earnings before tax</b>	<b>406</b>	<b>419</b>

Within the context of the interest rate risk control, Jenoptik deploys various interest rate hedging instruments, e.g. interest rate swaps, caps and floors as well as combined interest and currency swaps. The structure of the derivatives concluded for hedging against the risk of changing interest rates is shown below:

<b>Interest swap</b>	
Nominal amount	EUR 8,000 thousand
Term	April 28, 2012 to October 28, 2018
Fixed interest rate	1.985 percent p. a.
Variable interest rate	6-month Euribor
<b>Interest and currency swap</b>	
Nominal amount	CNY 17,980 thousand
Term	March 12, 2015 to March 12, 2025
Fixed interest rate	5.10 percent p. a.
Variable interest rate	6-month Euribor

As of the balance sheet date, there was one interest rate swap with a nominal volume of 8,000 thousand euros remaining from the hedging of debenture loans redeemed in 2015. As a result of the replacement of the underlying financing, there is no longer any direct reference to an underlying transaction for this interest rate derivative. The market value of this swap in the sum of plus 168 thousand euros was recorded through profit or loss in the statement of income.

In March 2015 a combined interest and currency swap in the amount of CNY 17,980 thousand with a term of ten years was concluded to hedge an internal group loan to finance real estate in Shanghai (China). The change in its market value of plus 15 thousand euros was recorded through profit or loss in the statement of income.

The interest rate hedging instruments are expected to give rise to the following outgoing payments:

in thousand euros	Up to 1 year	1 to 5 years	More than 5 years	Total
Interest swaps	183 (174)	0 (86)	0 (0)	183 (260)
Interest and currency swap	121 (139)	448 (556)	259 (525)	827 (1,220)

Prior year figures are in parentheses.

## Foreign Currency Exchange Risk

Foreign currency risks are divided into two types: Conversion risk and transaction risk.

The conversion risk arises from the fluctuation in financial assets and liabilities denominated in foreign currencies caused by changes in foreign currency exchange rates used for the translation in the reporting currency. Since this is not associated with any cash flows that can be hedged, no hedging is currently carried out.

The transaction risk is the result of the fluctuation 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 (in particular revenue and material purchases). Contractually agreed cash flows are hedged 1:1 via so-called micro-hedges. Planned future cash flows from pending transactions and transactions with a high probability of being realized are hedged within the framework of the anticipatory hedging.

JENOPTIK AG also hedges the anticipated cash flows from intra-group loans in foreign currencies, mainly JPY and GBP, using derivative financial instruments.

As of the balance sheet date there were exclusively forward exchange transactions and currency swaps with a nominal value of 118,621 thousand euros (prior year 81,536 thousand euros). A so-called cash flow hedge relationship with the respective underlying transaction was documented for the vast majority of these transactions. Where these are proven effective, their changes do not have to be recorded through profit or loss. The critical terms match method is used to measure the prospective effectiveness and the dollar offset method for the retrospective effectiveness.

Foreign exchange forward transactions and currency swaps are grouped according to sales and purchases in foreign currencies (against the euro respectively) as follows:

in thousand euros	31/12/2017	31/12/2016
USD sale	87,893	59,556
USD purchase	5,776	122
GBP sale	22,498	21,010
GBP purchase	0	37
CNY sale	103	338
JPY sale	983	473
JPY purchase	466	0
AUD sale	902	0
<b>Total foreign currency sales</b>	<b>112,379</b>	<b>81,377</b>
<b>Total foreign currency purchases</b>	<b>6,242</b>	<b>159</b>

These currency forward transactions give rise to the following market values:

in thousand euros	31/12/2017	31/12/2016
<b>Positive market values</b>		
Derivatives with hedging relations		
non-current	50	2
current	2,912	41
Derivatives without hedging relations		
non-current	1,907	1,374
current	97	16
<b>Total positive market values</b>	<b>4,965</b>	<b>1,432</b>
<b>Negative market values</b>		
Derivatives with hedging relations		
non-current	0	1,570
current	486	1,201
Derivatives without hedging relations		
non-current	3	67
current	191	150
<b>Total negative market values</b>	<b>680</b>	<b>2,987</b>

The market values for hedging transactions for intra-group loans are included in the derivatives without hedges as the underlying transaction comprising intra-group receivables and liabilities is consolidated. The positive market values of these derivatives as of the balance sheet date amount to 1,778 thousand euros (prior year 1,383 thousand euros), whilst the negative market values total 11 thousand euros (prior year 169 thousand euros). The overall change led to earnings of 553 thousand euros (prior year 1,214 thousand euros) which were recognized in the financial result through profit or loss.

Gains and losses from cash flow hedges amounting to 2,204 thousand euros (prior year minus 2,252 thousand euros) were recognized in equity outside of profit or loss – a reclassification in the sum of minus 711 thousand euros (prior year minus 570 thousand euros) was carried out from equity to profit or loss. This type of reclassification is normally associated with the recognition of the underlying transaction (e.g. recognition of revenue and booking of the corresponding receivable on billing) through profit or loss so that the targeted balancing effect of concluding the hedge transaction is achieved in the statement of income.

The foreign currency hedging transactions hedge against foreign currency risks in the sum of 88,797 thousand euros with a time frame up to the end of 2018. Foreign currency risks in the sum of 28,907 thousand euros are hedged with a time frame up to the end of 2020.

The main foreign exchange transactions of the Jenoptik Group involve US dollars. The table shows the net risk item based on US dollars:

in thousand euros	31/12/2017	31/12/2016
Financial assets	20,071	29,068
Financial liabilities	2,005	2,755
<b>Foreign currency exchange rate risks resulting from items of the statement of financial position</b>	<b>18,066</b>	<b>26,313</b>
Foreign currency exchange rate risks resulting from pending transactions	68,594	44,097
<b>Transactions related to foreign currency item</b>	<b>86,660</b>	<b>70,410</b>
Items effectively hedged by derivatives	82,117	59,434
<b>Net risk item</b>	<b>4,543</b>	<b>10,976</b>

As of the balance sheet date there was a net risk item based on US dollars in the sum of 4,543 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 31/12/2017	1.1993 (1.0541)	
Increase by 5 percent	1.2593 (1.1068)	216 (523)
Decrease by 5 percent	1.1393 (1.0014)	-239 (-578)
Increase by 10 percent	1.3192 (1.1595)	413 (998)
Decrease by 10 percent	1.0794 (0.9487)	-505 (-1,220)

Prior year figures are in parentheses.

### 8.3 Contingent Liabilities

Guarantees as of December 31, 2017 total 4,750 thousand euros (prior year 5,556 thousand euros). This results from a warranty bond for a non-consolidated associate in connection with a construction project. Insofar as a claim from the bond issued is anticipated, corresponding provisions were set aside.

There are no further guarantee obligations to third parties.

### 8.4 Other Financial Obligations

The financial obligations resulting from rental contracts or lease agreements are shown in Note 5.4 from page 158.

In addition to order commitments for intangible assets and property, plant and equipment in the sum of 8,510 thousand euros (prior year 2,201 thousand euros) there are other financial liabilities in the sum of 102,149 thousand euros (prior year 73,552 thousand euros), in particular for order commitments for inventories in the sum of 65,996 thousand euros (prior year 61,603 thousand euros).

Loan commitments to unconsolidated associates had not been used in the sum of 1,147 thousand euros (prior year 118 thousand euros).

### 8.5 Legal Disputes

JENOPTIK AG and its group entities are involved in court or arbitration proceedings. Provisions for litigation risks, respectively litigation expenses, were set aside in the appropriate amounts in order to meet any possible financial burdens resulting from any court decisions or arbitration proceedings.

### 8.6 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 to the extent that 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 2017 fiscal 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) is shown in the following table.

in thousand euros	2017	2016
Short-term benefits	3,126	3,404
Post-employment benefits	397	400
Termination benefits	0	1,762
Share-based payments	1,042	1,460
<b>Total</b>	<b>4,565</b>	<b>7,026</b>

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 have been published in the Remuneration Report as part of the Combined Management Report in the section Corporate Governance on pages 45 ff. as well as in the section Required and Supplementary Disclosures under HGB in the Notes on pages 187 and 190.

The following table shows the composition of the business relationships with non-consolidated entities and with the joint operation considered to be other related parties.

in thousand euros	Total	Thereof with	
		Unconsolidated entities	Joint operation
Revenue	3,500 (2,727)	3,121 (2,330)	379 (397)
Purchased services	1,473 (3,608)	1,064 (3,039)	410 (569)
Receivables from operations	179 (896)	175 (852)	4 (44)
Liabilities from operations	2,987 (2,166)	107 (600)	2,881 (1,566)
Loans	730 (1,294)	730 (1,294)	0 (0)

Prior year figures are in parentheses.

In the fiscal year, impairment losses were recorded in the sum of 2 thousand euros (prior year 226 thousand euros) on receivables due from non-consolidated entities. This was offset by reversals of impairment losses in the sum of 26 thousand euros (prior year 896 thousand euros).

In addition, there are group guarantees to related parties in the sum of 4,750 thousand euros (prior year 5,556 thousand euros). For more detailed explanations we refer to the section "Contingent Liabilities" from page 184.

## 9 Events after the Balance Sheet Date

The Executive Board of JENOPTIK AG approved the forwarding of these consolidated financial statements to the Supervisory Board on March 8, 2018. The Supervisory Board has the task of examining and approving the consolidated financial statements at its meeting on March 21, 2018.

**Dividends.** 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 2017 fiscal year, the accumulated profit of JENOPTIK AG totaled 129,901,622.70 euros, comprising net profit for the 2017 fiscal year in the amount of 70,403,527.32 euros plus retained profits of 59,498,095.38 euros.

On the basis of the good annual result, the Executive Board recommends that the Supervisory Board proposes to the 2018 Annual General Meeting a 20 percent higher dividend of 0.30 euros per qualifying no-par value share (prior year: 0.25 euros). This means that an amount of 17,171,434.50 euros will be distributed. From the remaining accumulated profit of

JENOPTIK AG for fiscal year 2017 an amount of 72,730,188.20 euros is to be allocated to revenue reserves, and an amount of 40,000,000.00 euros to be carried forward.

No further events of significance occurred after December 31, 2017.

## 10 Required Disclosures 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 Group Management Report are in conformity with the Directive on Consolidated Accounts (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 disclosures and explanations are published, that are required under the HGB and are above and beyond those under IFRS.

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 Diode Lab GmbH, Berlin
- JENOPTIK Industrial Metrology Germany GmbH, Villingen-Schwenningen

- JENOPTIK Laser GmbH, Jena
- JENOPTIK Optical Systems GmbH, Jena
- JENOPTIK Power Systems GmbH, Altenstadt
- JENOPTIK Polymer Systems GmbH, Triptis
- JENOPTIK Robot GmbH, Monheim am Rhein
- JENOPTIK SSC GmbH, 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:

	2017	2016
Employees	3,500	3,404
Trainees	108	116
<b>Total</b>	<b>3,608</b>	<b>3,520</b>

Of whom in the fiscal year 2017 an average of 35 (prior year 32) employees were employed in the proportionately consolidated entity.

## 10.3 Cost of Materials and Personnel Expenses

in thousand euros	2017	2016
Cost of materials		
Expenditures for raw materials, consumables and merchandise	234,158	220,775
Expenditures for services purchased	75,185	63,798
<b>Total</b>	<b>309,343</b>	<b>284,574</b>
Personnel expenses		
Wages and salaries	228,722	217,721
Social security, pension contributions and retirement benefits	29,554	28,406
<b>Total</b>	<b>258,275</b>	<b>246,127</b>

## 10.4 Financial Statement Auditor Fees

The fees for the services received rendered by our auditor, as well as by those affiliates and network companies, amount to:

in thousand euros	2017	2015
Financial statement audit services	958	732
Fees for other services	37	46
Other attestation services	23	0
Tax consulting services	7	3
<b>Total</b>	<b>1,025</b>	<b>780</b>

The fees for financial statement audit services mainly relate to expenses for the audit of the consolidated financial statements of the Jenoptik Group as well as the statutory annual financial statements of the subsidiaries and joint operations included in the consolidated financial statements. Furthermore, performed services in connection with enforcement procedures are included.

Other services performed by the auditor concern permissible advisory services related to issues of accounting according IFRS 15. Other attestation services were conducted within the framework of written confirmations of financial covenants, certifications according to the Renewable Energy Act as well as according to the European Market Infrastructure Regulation (EMIR).

Of the total expenses, financial statement services in the sum of 821 thousand euros (prior year 629 thousand euros), other services in the sum of 37 thousand euros (prior year 46 thousand euros) and other confirmation services in the sum of 23 thousand euros (prior year 0 thousand euros) were attributable to the auditors of the consolidated financial statements Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, Germany.

## 11 Corporate Governance

### 11.1 German Corporate Governance Code

In December 2017, 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 February 7, 2017. The declaration is reproduced in the Corporate Governance Report from page 36 and has been made permanently available to shareholders on the JENOPTIK AG website under [www.jenoptik.com](http://www.jenoptik.com) in the section Investors/Corporate Governance. The declaration can also be viewed in the offices of JENOPTIK AG (Carl-Zeiss-Straße 1, 07743 Jena).

## 11.2 Executive Board

The following persons were appointed members of the Executive Board in the 2017 fiscal year:

	Other mandates with:
Dr. Stefan Traeger (since 1/5/2017) President & CEO of JENOPTIK AG	JENOPTIK Asia-Pacific Pte. Ltd. (GI; CCB member) JENOPTIK North America, Inc. (GI; CCB member)
Dr. Michael Mertin (up to 30/4/2017) President & CEO of JENOPTIK AG	JENOPTIK Asia-Pacific Pte. Ltd. (GI; CCB member)
Hans-Dieter Schumacher, Member of the Executive Board of JENOPTIK AG	None

Abbreviations: CCB – comparable controlling body, GI – group internal appointment

The following overview shows the remuneration of the Executive Board for the 2017 fiscal year. Along with direct and indirect remuneration components earned, this overview includes the fair value of share-based remuneration instruments (LTI or performance shares). The system of performance-related remuneration for Executive Board was revised with Dr. Stefan Traeger taking up his post with effect from May 1, 2017 and for Hans-Dieter Schumacher with effect from January 1, 2018 by the Supervisory Board with the involvement of an independent external remuneration consultant, with an identical structure for

both members of the Executive Board. A detailed description of the new remuneration system can be found in the Remuneration Report on pages 45 of the Combined Management Report in the chapter “Corporate Governance”.

Fringe benefits consist of contributions to disability and accident insurances (only for Dr. Mertin) as well as to accident insurance and the provision of company cars.

Provisions in the sum of 892 thousand euros set to aside for the benefits expected to be paid in 2018 due the end of Dr. Mertin's term of office on the Executive Board (consisting of bridging payments and the continuation of payment of pension contributions).

Retirement benefits were paid to former Executive Board members in the sum of 181 thousand euros (prior year 210 thousand euros). The pension provisions for former Executive Board members totaled 3,423 thousand euros as of the balance sheet date (prior year 3,691 thousand euros). The expenses recorded for these existing provisions in the 2017 fiscal year comprised interest costs in the sum of 51 thousand euros (prior year 80 thousand euros).

In the 2017 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.

in thousand euros	Dr. Stefan Traeger (President & CEO since May 1, 2017)		Hans-Dieter Schumacher (Member of Executive Board)		Dr. Michael Mertin (President & CEO up to April 30, 2017)	
	2017	2016	2017	2016	2017	2016
Fixed remuneration	400.0	0	400.0	400.0	300.0	600.0
Variable remuneration	200.0	0	235.3	256.0	648.2	1,330.2
LTI/performance shares of fiscal year – measured at issue price	266.7	0	235.3	256.0	0	0
Granted for protection of existing shares	n.a.	0	9.9	4.7	11.8	61.3
Retirement benefits	116.7	0	160.0	160.0	120.0	240.0
Fringe benefits	9.8	0	13.8	13.8	23.4	46.7
Termination benefits	n.a.	n.a.	n.a.	n.a.	891.8	0
<b>Total remuneration</b>	<b>993.1</b>	<b>0</b>	<b>1,054.4</b>	<b>1,090.6</b>	<b>1,995.1</b>	<b>2,278.3</b>

### 11.3 Supervisory Board

The following persons were appointed members of the Supervisory Board in the 2017 fiscal year:

	Member of:	Additional positions at
<p><b>Matthias Wierlacher</b> (Chair) Chair of the Board of the Thüringer Aufbaubank Appointed in 2012, Chair since July 2015</p>	<ul style="list-style-type: none"> <li>Personnel Committee (Chair)</li> <li>Nomination Committee (Chair)</li> <li>Mediation Committee (Chair)</li> </ul>	<ul style="list-style-type: none"> <li>Mittelständische Beteiligungsgesellschaft Thüringen mbH (SB member)</li> <li>bm-t beteiligungsmanagement thüringen GmbH (Gl, SB Chair)</li> <li>ThüringenForst – Public Body (SB member)</li> </ul>
<p><b>Michael Ebenau<sup>1)</sup></b> (Deputy Chair) Secretary of the IG Metall Union, District Management Mitte Appointed in 2007</p>	<ul style="list-style-type: none"> <li>Personnel Committee</li> <li>Mediation Committee</li> </ul>	<ul style="list-style-type: none"> <li>Samag Saalfelder Werkzeugmaschinen GmbH (CCB member)</li> </ul>
<p><b>Astrid Biesterfeldt<sup>1)</sup></b> Head of Product Management and Deputy Business Unit Director at JENOPTIK Advanced Systems GmbH, Business Unit Energy &amp; Drive Appointed in 2014</p>	<ul style="list-style-type: none"> <li>Audit Committee (since June 7, 2017)</li> </ul>	None
<p><b>Evert Dudok</b> Executive Vice President CIS Airbus Defence &amp; Space Appointed in 2015</p>		<ul style="list-style-type: none"> <li>Dornier Consulting International GmbH (Gl, SB Chair, up to January 2018)</li> <li>EURASSPACE Gesellschaft für Raumfahrttechnik mbH (Gl, SB member)</li> </ul>
<p><b>Elke Eckstein</b> (since June 7, 2017) Executive Board member of Weidmüller Gruppe AG Appointed in 2017</p>		<ul style="list-style-type: none"> <li>Karl Mayer Textilmaschinenfabrik GmbH (CCB member)</li> <li>Enics AG, Switzerland (CCB member, since May 1, 2017)</li> <li>Weidmüller S.A., Spain (Gl, CCB)</li> <li>Weidmüller &amp; IZ, proizvodnja prenapetostnih zascit, d.o.o., Slovenia (Gl, CCB member)</li> <li>Weidmüller Interface (Shanghai) Co., Ltd., China (Gl, CCB member)</li> <li>Weidmüller Interface (Suzhou) Co., Ltd., China (Gl, CCB Chair)</li> <li>Weidmüller Interconnections, Inc., USA (Gl, CCB member)</li> </ul>
<p><b>Brigitte Ederer</b> (up to June 7, 2017) Chair of the Supervisory Board of the Österreichische Bundesbahnen-Holding Aktiengesellschaft [Austrian Railways Holding Company] Appointed in 2012</p>		<ul style="list-style-type: none"> <li>Boehringer Ingelheim RCV GmbH, Austria (SB member)</li> <li>Infineon Technologies Austria AG, Austria (SB member)</li> <li>Österreichische Bundesbahnen-Holding Aktiengesellschaft (SB Chair)</li> <li>Österreichische Bundesbahn Personenverkehr AG, Austria (SB member)</li> <li>ÖBB Infrastruktur AG, Austria (SB Chair)</li> <li>Rail Cargo Austria AG, Austria (SB member)</li> <li>Schoeller –Bleckmann Oilfield Equipment AG, Austria (SB member)</li> <li>Wien Holding GmbH, Austria (CCB Chair, up to May 2017)</li> </ul>
<p><b>Thomas Klippstein<sup>1)</sup></b> Chair of the Group works council of Jenoptik Appointed in 1996</p>	<ul style="list-style-type: none"> <li>Personnel Committee</li> <li>Audit Committee</li> </ul>	None

	Member of:	Additional positions at
<b>Dörthe Knips<sup>1)</sup></b> (since June 7, 2017) Work scheduler at JENOPTIK Laser GmbH Appointed in 2017		None
<b>Dieter Kröhn<sup>1)</sup></b> Production planner at JENOPTIK Advanced Systems GmbH Appointed October 1999 to June 2007, reappointed since December 2010	<ul style="list-style-type: none"> <li>• Audit Committee (up to June 7, 2017)</li> <li>• Mediation Committee (since June 7, 2017)</li> </ul>	None
<b>Sabine Löttsch<sup>1)</sup></b> (by June 7, 2017) Master's in Mathematics, Team Leader IT Service Desk of JENOPTIK SSC GmbH Appointed in 2012		None
<b>Doreen Nowotne</b> Independent corporate management consultant Appointed in 2015	<ul style="list-style-type: none"> <li>• Audit Committee (Deputy Chair)</li> </ul>	<ul style="list-style-type: none"> <li>• Brenntag AG (SB member)</li> <li>• Lufthansa Technik AG (SB member since October 1, 2017)</li> </ul>
<b>Heinrich Reimitz</b> Member of the Management of HPS Holding GmbH, Austria Appointed in 2008	<ul style="list-style-type: none"> <li>• Audit Committee (Chair)</li> <li>• Personnel Committee,</li> <li>• Nomination Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Ühinenud Farmid AS, Estonia (CCB member)</li> </ul>
<b>Stefan Schaumburg<sup>1)</sup></b> Head of the Functional Department and Secretary of the Management Board of the IG Metall Union, Frankfurt Appointed in 2012	<ul style="list-style-type: none"> <li>• Personnel Committee</li> <li>• Mediation Committee (up to June 7, 2017)</li> </ul>	<ul style="list-style-type: none"> <li>• GKN Driveline International GmbH (Dep. SB Chair)</li> </ul>
<b>Prof. Dr. rer. nat. habil., Dipl.-Physiker Andreas Tünnermann</b> Director of the Institute for Applied Physics and University Lecturer in Applied Physics at the Friedrich-Schiller University and Head of the Institute for Applied Optics and Precision Mechanics of the Fraunhofer Institute, Jena Appointed in 2007	<ul style="list-style-type: none"> <li>• Personnel Committee</li> <li>• Mediation Committee</li> <li>• Nomination Committee</li> </ul>	<ul style="list-style-type: none"> <li>• Docter Optics SE (CCB member)</li> </ul>

<sup>1)</sup> Employee representative  
 Abbreviations: SB – Supervisory Board, CCB – Comparable controlling body, GI – Group internal appointment, Dep. – Deputy

## Supervisory Board Remuneration

For the 2017 fiscal year the members of the Supervisory Board received the following remuneration in total:

in thousand euros	Total remuneration	Thereof			Value added tax <sup>1)</sup>
		Fixed annual remuneration 2017	Variable remuneration 2017	Meeting fees (plus reimbursement of expenses)	
Matthias Wierlacher (Chair)	131.7	98.4	20.6	12.7	21.0
Michael Ebenau (Deputy Chair)	85.1	61.9	15.5	7.7	13.6
Astrid Biesterfeldt	64.9	44.0	10.3	10.6	10.4
Evert Dudok	54.7	37.3	10.3	7.1	8.7
Elke Eckstein (since June 7, 2017)	31.9	27.0	0	4.9	5.1
Brigitte Ederer (up to June 7, 2017)	19.4	8.7	8.7	2.0	–
Thomas Klippstein	82.1	55.1	10.3	16.7	13.1
Dörthe Knips (since June 7, 2017)	31.8	27.0	0	4.8	5.1
Dieter Kröhn	63.5	42.4	10.3	10.8	10.1
Sabine Löttsch (up to June 7, 2017)	23.6	10.3	10.3	3.0	3.8
Doreen Nowotne	82.6	55.1	10.3	17.2	13.2
Heinrich Reimitz	88.7	61.3	8.7	18.7	–
Stefan Schaumburg	64.7	43.2	10.3	11.2	10.3
Prof. Dr. rer. nat. habil. Andreas Tünnermann	71.0	49.2	10.3	11.5	11.3
<b>Total</b>	<b>895.7</b>	<b>620.9</b>	<b>135.9</b>	<b>138.9</b>	<b>125.7</b>

<sup>1)</sup> Included in fixed remuneration, variable remuneration and meeting allowances; Mrs. Brigitte Ederer and Mr. Mag. Heinrich Reimitz have a limited tax liability in Germany due to their place of residence being abroad; since their remuneration is subject to a withholding tax in accordance with § 50 a (1) No. 4 of the German Income Tax Act, no value added tax was incurred.

For a more detailed explanation of the Supervisory Board remuneration system we refer to the chapter on Corporate Governance in the Remuneration Report which forms part of the Combined Management Report.



## 12 List of Shareholdings of the Jenoptik Group as at December 31, 2017 in accordance with § 313 (2) of the German Commercial Code (HGB)

No.	Name and legal seat of the company	Shareholding of Jenoptik or shareholder directly in percent	Equity 31/12/2017 in thousand euros	Earnings for 2017 in thousand euros
<b>1.1. Consolidated associates</b>				
<b>– direct shareholdings</b>				
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	JENOPTIK Laser GmbH, Jena, Germany	100		
7	JENOPTIK Polymer Systems GmbH, Triptis, Germany	100		
8	SAALEAUE Immobilien Verwaltungsgesellschaft mbH & Co. Vermietungs KG, Pullach im Isartal, Germany, i.l. <sup>7)</sup>	100		
9	JENOPTIK SSC GmbH, Jena, Germany	100		
10	JENOPTIK North America, Inc., Jupiter (FL), USA	100		
11	JENOPTIK Asia-Pacific Pte. Ltd., Singapore, Singapore	100		
<b>– indirect shareholdings</b>				
12	JENOPTIK Traffic Solutions Switzerland AG, Uster, Switzerland	100		
13	JENOPTIK ROBOT MALAYSIA SDN BHD, Kuala Lumpur, Malaysia	100		
14	ROBOT Nederland B.V., Riel, Netherlands	100		
15	JENOPTIK Holdings UK Ltd., Milton Keynes, Great Britain	96.5		
16	Vysionics ITS Holdings Ltd., Milton Keynes, Great Britain	100 <sup>1)</sup>		
17	JENOPTIK Traffic Solutions UK Ltd., Camberley, Great Britain	100 <sup>1)</sup>		
18	Computer Recognition Systems Ltd., Milton Keynes, Great Britain	100 <sup>1)</sup>		
19	Domestic and Commercial Systems Ltd., Saltash, Great Britain	100 <sup>1)</sup>		
20	JENOPTIK Industrial Metrology Switzerland SA, Peseux, Switzerland	100		
21	JENOPTIK Industrial Metrology France S.A., Bayeux, France	100		
22	JENOPTIK Power Systems GmbH, Altenstadt, Germany	100		
23	PHOTONIC SENSE GmbH, Eisenach, Germany	100		
24	JENOPTIK Diode Lab GmbH, Berlin, Germany	100		
25	Traffipax, LLC, Jupiter (FL), USA	100		
26	JENOPTIK Automotive North America, LLC, Rochester Hills (MI), USA	100		
27	JENOPTIK INDUSTRIAL METROLOGY DE MEXICO, S. DE R.L. DE C.V., Saltillo, Mexico	100		
28	Five Lakes Automation, LLC, Novi (Mi), USA	100		
29	JENOPTIK Optical Systems, LLC, Jupiter (FL), USA	100		
30	JENOPTIK Advanced Systems, LLC, El Paso (TX), USA	100		
31	JENOPTIK (Shanghai) Precision Instrument and Equipment Co., Ltd., Shanghai, China	100		
32	JENOPTIK Australia Pty Ltd, Sydney, Australia	100		
33	JENOPTIK Korea Corporation, Ltd., Pyeongtaek, Korea	66.6		
34	JENOPTIK JAPAN CO. Ltd., Yokohama, Japan	66.58		
35	JENOPTIK India Private Limited, Bangalore, India	100		

No.	Name and legal seat of the company	Shareholding of Jenoptik or shareholder directly in percent	Equity 31/12/2017 in thousand euros	Earnings for 2017 in thousand euros
<b>1.2. Unconsolidated associates</b>				
<b>– direct shareholdings</b>				
36	JENOPTIK Einundsiebzigste Verwaltungsgesellschaft mbH, Jena, Germany	100	23	<sup>3)</sup>
37	JENOPTIK MedProjekt GmbH, Jena, Germany, i.l. <sup>7)</sup>	100	–4,040 <sup>9)</sup>	–1 <sup>9)</sup>
38	FIRMICUS Verwaltungsgesellschaft mbH Jena, Germany	100	47 <sup>9)</sup>	3 <sup>9)</sup>
39	SAALEAUE Immobilien Verwaltungsgesellschaft mbH, Pullach im Isartal, Germany, i.l. <sup>7)</sup>	100	29 <sup>9)</sup>	–1 <sup>9)</sup>
40	LEUTRA SAALE Gewerbegüterverwaltungs-gesellschaft mbH, Grünwald, Germany, i.l. <sup>7)</sup>	100	25 <sup>9)</sup>	0 <sup>9)</sup>
<b>– indirect shareholdings</b>				
41	AD-Beteiligungs GmbH, Monheim am Rhein, Germany	100	227 <sup>9)</sup>	–2 <sup>9)</sup>
42	RADARLUX Radar Systems GmbH, Leverkusen, Germany	100	–365	51
43	Traffipax do Brasil Ltda., Sao Paulo, Brazil	100	–1,130 <sup>9)</sup>	–277 <sup>9)</sup>
44	PHOTONIC SENSE, INC., Nashua (NH), USA	100	1	–3
45	JENOPTIK do Brasil Instrumentos de Precisão e Equipamentos Ltda., Sao Paulo, Brazil	100	337 <sup>9)</sup>	185 <sup>9)</sup>
46	JENOPTIK Saudi Arabia, LLC, Jeddah, Saudi-Arabia	90	101 <sup>9)</sup>	–26 <sup>9)</sup>
<b>2. Joint operations</b>				
47	HILLOS GmbH, Jena, Germany	50		
<b>3. Investments</b>				
<b>– direct shareholdings</b>				
48	JENAER BILDUNGSZENTRUM gGMBH SCHOTT CARL ZEISS JENOPTIK, Jena, Germany	33.33	738 <sup>9)</sup>	33 <sup>9)</sup>
<b>– indirect shareholdings</b>				
49	JT Optical Engine Verwaltungs GmbH, Jena, Germany, i.l. <sup>7)</sup>	50 <sup>5)</sup>	24 <sup>9)</sup>	0 <sup>9)</sup>
50	JT Optical Engine GmbH + Co. KG, Jena, Germany, i.l. <sup>7)</sup>	50 <sup>5)</sup>	511 <sup>9)</sup>	–2 <sup>9)</sup>
51	JENOPTIK Robot Algérie SARL, Algiers, Algeria	49	125 <sup>9)</sup>	–23 <sup>9)</sup>
52	HOMMEL CS s.r.o., Teplice, Czech Republic	40	735 <sup>9)</sup>	118 <sup>9)</sup>
53	TELSTAR-HOMMEL CORPORATION, Ltd., Pyeongtaek, Korea	33.4	12,915 <sup>9)</sup>	1,190 <sup>9)</sup>
54	Dr. Teschauer AG, Chemnitz, Germany, i.i. <sup>8)</sup>	24.99 <sup>6)</sup>		<sup>2)</sup>
55	Zenteris GmbH, Jena, Germany, i.i. <sup>8)</sup>	24.9 <sup>5)</sup>		<sup>2)</sup>

1) Included in the financial statements of JENOPTIK Holdings UK Ltd.

2) No data is available.

3) Profit and loss transfer agreement (HGB) with the parent company

4) Deviating fiscal year as of March 31

5) Deviating fiscal year as of June 30

6) Deviating fiscal year as of October 31

7) i.l. = in liquidation

8) i.i. = in insolvency

9) Disclosures for the financial statements 2016

Jena, March 8, 2018  
JENOPTIK AG

The Executive Board

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## 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 8, 2018



Dr. Stefan Traeger  
President & CEO



Hans-Dieter Schumacher  
Chief Financial Officer

# Independent Auditor's Report

To JENOPTIK AG

## 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 financial position as of December 31, 2017, the consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the fiscal year from January 1 to December 31, 2017, 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 has been combined with the management report, for the fiscal year from January 1 to December 31, 2017.

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 of December 31, 2017, and of its financial performance for the fiscal year from January 1 to December 31, 2017, and
- the accompanying group management report, which has been combined with the management report of the Company, 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.

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 January 1 to December 31, 2017. 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 impairment test pursuant to IAS 36.

The result of the valuations depends chiefly on the future cash inflows estimated as well as the discount rate used. The impairment test 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 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 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 approved by the Executive Board and Supervisory Board. 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, discussed this 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 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 significant 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 Note 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 differences in the measurement of inventories.

In particular, the calculation of the write-down rates using the Company's IT-supported write-down procedure 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.

[Auditor's response](#)

In our audit, we first examined the procedures for determining write-downs recognized for slow-moving goods and marketability and checked the corresponding controls.

We verified the suitability of the IT-supported write-down procedure for the assessment of inventory risks for saleability, range and net realizable value. We assessed the system-based implementation of the write-down procedure in IT with the assistance of internal IT experts. If there were any changes in the write-down procedure in the current year, we examined these changes. We compared the computational logic of the model with the accounting and measurement policies used by the Company and arithmetically verified it on a test basis. We further assessed the write-downs calculated based on past experience through analytical comparisons with the write-downs carried out in prior years.

The results of the IT-supported write-down procedure are in line with our expectations. We discussed additional, manual adjustments to write-downs with the Company's executive directors, obtained evidence and performed further audit procedures in particular cases, which did not lead to any significant objections with regard to the valuation of manual adjustments.

[Reference to related disclosures](#)

Additional disclosures on the measurement of inventories are contained in Note 5.10 "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 estimated future taxable income. 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 with the Company's executive directors and assessed its compliance with the rules of IAS 12.

We scrutinized the executive directors' forecasts of estimated future taxable income and compared these to the internal planning on a sample basis. We also engaged internal tax specialists to assist us with assessing the reconciliation of planned earnings to the expected taxable income. Furthermore, we confirmed the assumptions of the tax planning based on the taxable income generated in the past.

We do not have any significant 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 Note 4.11 "Income Taxes" of the notes to the consolidated financial statements.

#### Further information

The Supervisory Board is responsible for the Report of the Supervisory Board. In all other respects, the executive directors are responsible for the other information. The other information comprises the following reporting sections in the Annual Report, of which we received a copy of by the time this independent auditor's report was issued: the disclosures made in Notes 1, 2 and 7 of the Annual Report, "Strategy 2022", "Management" and "Further Information", the Corporate Governance Report, the "separate combined non-financial report pursuant to the CSR Directive Implementation Act" as well as the Assurance by the Legal Representatives.

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 state-

ments, 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

#### Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as group auditor by the Annual General Meeting on June 7, 2017. We were engaged by the Supervisory Board on October 2, 2017. 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. Michael Blesch.

Stuttgart, March 8, 2018

Ernst & Young GmbH  
 Wirtschaftsprüfungsgesellschaft

Blesch	Pester
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

# Independent Practitioner's Report on a Limited Assurance Engagement on Non-financial Reporting<sup>1)</sup>

To Jenoptik AG, Jena

We have performed a limited assurance engagement on the separate combined non-financial report pursuant to §§ (Articles) 289b Abs. (paragraph) 3 and 315b Abs. 3 HGB ("Handelsgesetzbuch": "German Commercial Code") of Jenoptik AG, Jena, (hereinafter the "Company") for the period from 1 January to 31 December 2017 (hereinafter the "Non-financial Re-port").

## Responsibilities of the Executive Directors

The executive directors of the Company are responsible for the preparation of the Non-financial Report in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Non-financial Report that is free from material misstatement whether due to fraud or error.

## Independence and Quality Control of the Audit Firm

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ("Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer": "BS WP/vBP") as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Practitioner's Responsibility

Our responsibility is to express a limited assurance conclusion on the Non-financial Report based on the assurance engagement we have performed.

<sup>1)</sup> PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the separate non-financial report and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

Within the scope of our engagement we did not perform an audit on external sources of information or expert opinions, referred to in the Non-financial Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January to 31 December 2017 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization and of the stakeholder engagement
- Inquiries of management and relevant personnel involved in the preparation of the Non-financial Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Non-financial Report
- Identification of the likely risks of material misstatement of the Non-financial Report
- Analytical evaluation of selected disclosures in the Non-financial Report
- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the combined group management report
- Evaluation of the presentation of the non-financial information

### Assurance Conclusion

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January to 31 December 2017 has not been prepared, in all material aspects, in accordance with §§ 315b and 315c in conjunction with 289c to 289e HGB.

### Intended Use of the Assurance Report

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement. The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Munich, March 8, 2018

PricewaterhouseCoopers GmbH  
 Wirtschaftsprüfungsgesellschaft

Hendrik Fink                      ppa. Barbara Wieler  
 Wirtschaftsprüfer  
 (German public auditor)

# 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.

**B2B** – Business activities with the capital goods industry.

**B2G** – Business activities with the public sector.

## D

**Debenture loan** – 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

**EBIT** – Income from operations – earnings before interest and taxes.

**EBITDA** – Earnings before interest, taxes, depreciation and amortization (including impairment losses and reversals of impairment losses).

**EBIT margin** – Return on revenue – EBIT divided by revenue.

**EBITDA margin** – Return on revenue = EBITDA divided by revenue

**Equity ratio** – Indicator used in capital structure analysis stating the relative proportion of equity in total equity and liabilities (equity in relation to total equity and liabilities).

## 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

**Goodwill** – Difference between the purchase price of a newly acquired company and its equity (assets minus liabilities).

**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.

## M

**Market capitalization** – Number of shares multiplied by the share price.

## N

**Net debt** – Calculated by deducting cash and securities from the total of non-current and current financial debt.

## O

**OEM** – An Original Equipment Manufacturer which markets its components/products to another company instead of selling by retail.

## P

**PoC/Percentage of completion method** – Procedure in accordance with IAS 11 which computes revenue, order costs and order results on a long-term customer-specific contract relative to the degree to which the project is completed.

## 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 income from operations (EBIT) by the average tied operating capital. The total tied operating capital is calculated on the basis of the non-finance related capital in the non-current assets (such as intangible assets including goodwill, property, plant and equipment and investment properties) plus the capital tied up in current assets (primarily inventories, receivables from the operating business activities and other current receivables). non-interest-bearing borrowings (such as provisions – excluding pensions and taxes, liabilities from the operating business activities and other non-interest-bearing liabilities) are subtracted from this figure. The calculation of the average takes into account twelve month-end balances and the opening balance at the start of the year, which corresponds to the closing balance of the prior year.

## S

**Swap** – An agreement between two companies to exchange cash flows. In the case of an interest swap, fixed interest payments are swapped for floating payments for a nominal fee.

**Syndicated loan** – The syndicated loan is a credit granted jointly by several banks (members of a consortium) to one debtor. One or several banks may take the lead.

## W

**Working capital** – The total of trade receivables and receivables from construction contracts as well as inventories minus trade payables and payables from construction contracts as well as advance payments received.



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## Historical Summary of Financial Data

		2011	2012 <sup>2)</sup>	2013	2014	2015	2016	2017
<b>Statement of Income</b>								
Revenue	million euros	543.3	585.0	600.3	590.2	668.6	684.8	747.9
Optics & Life Science	million euros	n/a	n/a	n/a	n/a	213.7	221.5	259.4
Mobility	million euros	n/a	n/a	n/a	n/a	244.6	247.7	270.1
Defense & Civil Systems	million euros	n/a	n/a	n/a	n/a	211.4	218.3	219.3
Foreign revenue	million euros	321.5	376.9	371.9	379.1	450.8	458.3	525.3
of revenue	%	59.2	64.4	62.0	64.2	67.4	66.9	70.2
Cost of sales	million euros	359.3	381.6	394.6	384.7	442.5	446.9	484.0
Gross profit	million euros	184.0	203.4	205.7	205.5	226.2	237.9	263.9
Gross margin	%	33.9	34.8	34.3	34.8	33.8	34.7	35.3
R + D expenses	million euros	32.0	36.0	39.8	39.4	41.8	42.3	43.1
Selling expenses	million euros	61.9	65.1	66.6	67.5	72.6	73.6	80.3
Administrative expenses	million euros	38.9	42.6	46.4	51.1	54.0	57.6	55.8
EBIT	million euros	49.2	54.8 <sup>3)</sup>	52.7 <sup>3)</sup>	51.6 <sup>3)</sup>	61.2 <sup>3)</sup>	68.5 <sup>3)</sup>	78.0 <sup>3)</sup>
Optics & Life Science	million euros	n/a	n/a	n/a	n/a	19.7	33.4	50.5
Mobility	million euros	n/a	n/a	n/a	n/a	27.0	24.4	18.5
Defense & Civil Systems	million euros	n/a	n/a	n/a	n/a	17.9	19.1	19.2
EBIT margin	%	9.0	9.4 <sup>3)</sup>	8.8 <sup>3)</sup>	8.7 <sup>3)</sup>	9.2 <sup>3)</sup>	10.0 <sup>3)</sup>	10.4 <sup>3)</sup>
Optics & Life Science	%	n/a	n/a	n/a	n/a	9.2	15.1	19.5
Mobility	%	n/a	n/a	n/a	n/a	11.0	9.9	6.9
Defense & Civil Systems	%	n/a	n/a	n/a	n/a	8.5	8.8	8.7
EBT	million euros	36.2	46.1 <sup>3)</sup>	47.2 <sup>3)</sup>	46.1 <sup>3)</sup>	57.4 <sup>3)</sup>	64.7 <sup>3)</sup>	80.1 <sup>3)</sup>
EBT margin	%	6.7	7.9 <sup>3)</sup>	7.9 <sup>3)</sup>	7.8 <sup>3)</sup>	8.6 <sup>3)</sup>	9.5 <sup>3)</sup>	10.8 <sup>3)</sup>
Earnings after tax	million euros	35.3	50.2 <sup>3)</sup>	47.2 <sup>3)</sup>	41.6 <sup>3)</sup>	49.9 <sup>3)</sup>	57.5 <sup>3)</sup>	72.7 <sup>3)</sup>
EPS	euros	0.62	0.88 <sup>3)</sup>	0.82 <sup>3)</sup>	0.73 <sup>3)</sup>	0.87 <sup>3)</sup>	1.00 <sup>3)</sup>	1.27 <sup>3)</sup>
Cost of materials (incl. external services)	million euros	230.4	242.0	250.9	253.6	281.5	284.6	309.3
Material intensity	%	41.1	40.3	40.7	41.3	40.4	40.2	40.2
R + D output	million euros	46.7	50.6	52.2	50.4	53.1	57.4	66.6
R + D ratio	%	8.6	8.6	8.7	8.5	7.9	8.4	8.9
EBITDA	million euros	76.8	77.7 <sup>3)</sup>	74.8 <sup>3)</sup>	76.1 <sup>3)</sup>	88.8 <sup>3)</sup>	96.9 <sup>3)</sup>	106.9 <sup>3)</sup>
Financial result	million euros	-13.0	-8.7	-5.5	-5.5 <sup>3)</sup>	-3.8	-3.7 <sup>3)</sup>	2.0
<b>Cash Flows and Capital Expenditure</b>								
Cash flows from operating activities	million euros	65.6	66.6	60.6	46.3	85.1	100.1	96.3
Free cash flow (before income tax)	million euros	44.0	43.7	47.0	22.5	71.8	80.4	72.2
Capital expenditures	million euros	25.1	31.2	24.4	29.9	24.7	27.5	37.9
<b>Personnel</b>								
Employees on average		2,894	3,066	3,233	3,375	3,421	3,404	3,500
Revenue per employee	thousand euros	187.7	190.8	185.7	174.9	195.4	201.2	213.7
Personnel expenses	million euros	183.8	201.2	210.9	219.7	239.6	246.1	258.3
Personnel intensity	%	33.8	34.4	35.1	37.2	35.8	35.9	34.5

		2011	2012 <sup>2)</sup>	2013	2014	2015	2016	2017
<b>Statement of Financial Position</b>								
Non-current assets	million euros	312.4	333.8	329.8	389.5	382.8	371.9	376.2
Intangible assets and property, plant and equipment	million euros	207.1	213.9	216.0	274.0	278.4	269.2	285.7
Investment property	million euros	20.6	19.6	19.1	16.4	4.5	4.4	4.4
Financial investments	million euros	22.8	27.2	20.1	21.1	21.7	19.0	4.4
Other non-current assets	million euros	4.9	4.8	4.4	1.8	4.5	5.0	2.9
Deferred tax assets	million euros	57.0	68.4	70.3	76.3	73.6	74.2	78.9
Current assets	million euros	331.1	335.8	362.6	382.2	386.3	441.2	512.9
Inventories	million euros	169.1	169.3	165.1	179.0	167.1	159.3	168.6
Trade and other receivables	million euros	111.9	120.7	125.3	133.4	135.0	139.3	147.4
Current financial assets and cash	million euros	50.1	45.9	72.2	69.8	84.2	142.5	196.9
<b>Equity</b>	million euros	298.4	330.3	367.1	386.6	435.1	476.4	529.9
Share capital	million euros	148.8	148.8	148.8	148.8	148.8	148.8	148.8
Non-current liabilities	million euros	173.7	177.6	173.1	216.6	169.5	175.4	162.1
Pension provisions	million euros	18.4	31.2	28.2	41.0	36.1	37.6	37.1
Other non-current provisions	million euros	12.4	12.1	11.0	10.0	10.3	12.3	15.9
Non-current financial liabilities	million euros	123.1	115.8	115.2	156.8	113.2	120.5	108.6
Other non-current liabilities	million euros	15.8	15.4	16.9	7.0	7.9	4.8	0.4
Deferred tax liabilities	million euros	4.0	3.1	1.8	1.7	2.0	0.1	0.1
Current liabilities	million euros	171.3	161.7	152.3	168.5	164.5	161.3	197.1
Tax provisions	million euros	6.8	6.1	4.8	5.7	3.3	3.4	8.9
Other current provisions	million euros	49.7	52.1	37.4	37.7	42.7	46.2	51.2
Current financial liabilities	million euros	4.1	4.7	1.2	5.1	14.9	4.1	19.3
Trade payables and other liabilities	million euros	110.7	98.9	109.0	120.0	103.6	107.7	117.6
Total equity and liabilities	million euros	643.4	669.6	692.4	771.7	769.2	813.1	889.1
<b>Balance sheet ratios</b>								
Equity ratio	%	46.4	49.3	53.0	50.1	56.6	58.6	59.6
Asset coverage		216.0	230.7	261.0	256.5	279.5	301.7	321.7
Gross debt	million euros	127.2	120.5	116.4	161.9	128.1	124.6	127.9
Net debt	million euros	77.1	74.5	44.1	92.1	43.9	-17.9	-69.0
Working capital	million euros	190.4	202.8	195.6	217.5	215.5	209.9	214.8
Working capital ratio	%	35.0	34.7	32.6	36.9	32.2	30.7	28.7
Debt to equity ratio		1.2	1.0	0.9	1.0	0.8	0.7	0.7
Total return on investment based on EBT	%	5.6	6.9	6.8	6.0	7.5	8.0 <sup>3)</sup>	9.0 <sup>3)</sup>
Return on equity based on EBT	%	12.1	14.0	12.9	11.9	13.2	13.6	15.1 <sup>3)</sup>
ROCE		15.6	15.6	14.0	13.0	13.5	15.6 <sup>1)</sup>	18.2 <sup>1)</sup>
<b>Dividend key figures</b>								
Dividend per share	EUR	0.15	0.18	0.20	0.20	0.22	0.25	0.30 <sup>4)</sup>
Pay out ratio on earnings attributable to shareholders	%	24.3	20.5	24.3	27.5	25.4	24.9	23.7 <sup>4)</sup>
Dividend yield based on year-end stock exchange price	%	3.3	2.4	1.6	1.9	1.5	1.5	1.1 <sup>4)</sup>

<sup>1)</sup> Continuing operations

<sup>2)</sup> Adjusted to initial application of IAS 19R

<sup>3)</sup> Including discontinued operations

<sup>4)</sup> Subject to the approval by the annual general meeting

## Key Figures of Jenoptik by Segment

	in million euros	2017	2016	Change in %
<b>Revenue</b>	<b>million euros</b>	<b>747.9</b>	<b>684.8</b>	<b>9.2</b>
Optics & Life Science	million euros	259.4	221.5	17.1
Mobility	million euros	270.1	247.7	9.0
Defense & Civil Systems	million euros	219.3	218.3	0.5
Other <sup>1)</sup>	million euros	-0.8	-2.7	69.3
<b>EBITDA</b>	<b>million euros</b>	<b>106.7</b>	<b>94.7</b>	<b>12.8</b>
Optics & Life Science	million euros	58.7	41.7	40.7
Mobility	million euros	27.9	32.3	-13.7
Defense & Civil Systems	million euros	23.8	23.8	0.4
Other <sup>1)</sup>	million euros	-3.7	-3.1	-17.6
<b>EBIT</b>	<b>million euros</b>	<b>77.8</b>	<b>66.2</b>	<b>17.6</b>
Optics & Life Science	million euros	50.5	33.4	51.1
Mobility	million euros	18.5	24.4	-24.2
Defense & Civil Systems	million euros	19.2	19.1	0.3
Other <sup>1)</sup>	million euros	-10.3	-10.8	3.8
<b>EBIT margin</b>	<b>%</b>	<b>10.4</b>	<b>9.7</b>	
Optics & Life Science	%	19.5	15.1	
Mobility	%	6.9	9.9	
Defense & Civil Systems	%	8.7	8.8	
<b>R + D output</b>	<b>million euros</b>	<b>66.6</b>	<b>57.4</b>	<b>16.1</b>
Optics & Life Science	million euros	21.1	21.9	-3.7
Mobility	million euros	30.0	24.5	22.3
Defense & Civil Systems	million euros	14.9	10.6	40.2
Other <sup>1)</sup>	million euros	0.7	0.3	97.7
<b>Order intake</b>	<b>million euros</b>	<b>802.9</b>	<b>733.8</b>	<b>9.4</b>
Optics & Life Science	million euros	295.5	236.6	24.9
Mobility	million euros	303.7	267.4	13.6
Defense & Civil Systems	million euros	206.2	231.6	-11.0
Other <sup>1)</sup>	million euros	-2.4	-1.8	-33.2
		<b>31/12/2017</b>	<b>31/12/2016</b>	<b>Change in %</b>
<b>Order backlog</b>	<b>million euros</b>	<b>453.5</b>	<b>405.2</b>	<b>11.9</b>
Optics & Life Science	million euros	109.1	80.7	35.2
Mobility	million euros	144.7	108.3	33.7
Defense & Civil Systems	million euros	202.6	217.8	-7.0
Other <sup>1)</sup>	million euros	-2.9	-1.6	-84.1
<b>Employees</b>		<b>3,680</b>	<b>3,539</b>	<b>4.0</b>
Optics & Life Science		1,149	1,123	2.3
Mobility		1,326	1,229	7.9
Defense & Civil Systems		897	881	1.8
Other <sup>1)</sup>		308	306	0.7

<sup>1)</sup> Including consolidation

## Summary by Quarter 2017

		1st quarter 1/1 – 31/3	2nd quarter 1/4 – 30/6	3rd quarter 1/7 – 30/9	4th quarter 1/10 – 31/12
<b>Revenue</b>	<b>million euros</b>	<b>163.7</b>	<b>184.7</b>	<b>178.4</b>	<b>221.1</b>
Optics & Life Science	million euros	59.0	66.0	66.4	68.1
Mobility	million euros	54.8	63.0	62.8	89.5
Defense & Civil Systems	million euros	50.2	55.2	49.7	64.2
Other <sup>1)</sup>	million euros	-0.3	0.6	-0.5	-0.7
<b>EBIT</b>	<b>million euros</b>	<b>11.0</b>	<b>18.2</b>	<b>22.9</b>	<b>25.8</b>
Optics & Life Science	million euros	9.7	12.7	14.6	13.6
Mobility	million euros	0.9	1.5	6.2	9.9
Defense & Civil Systems	million euros	3.2	5.8	3.3	6.9
Other <sup>1)</sup>	million euros	-2.8	-1.8	-1.2	-4.5
<b>EBIT margin</b>	<b>%</b>	<b>6.7</b>	<b>9.8</b>	<b>12.8</b>	<b>11.7</b>
Optics & Life Science	%	16.5	19.2	21.9	19.9
Mobility	%	1.7	2.3	9.9	11.1
Defense & Civil Systems	%	6.3	10.6	6.7	10.7
<b>Order intake</b>	<b>million euros</b>	<b>220.6</b>	<b>184.7</b>	<b>170.9</b>	<b>226.7</b>
Optics & Life Science	million euros	77.1	72.0	73.7	72.7
Mobility	million euros	73.7	70.6	56.4	102.9
Defense & Civil Systems	million euros	69.8	42.0	42.6	51.8
Other <sup>1)</sup>	million euros	-0.1	0.1	-1.7	-0.7

<sup>1)</sup> including consolidation

### Dates

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Publication of Financial Statements 2017

**May 9, 2018**

Publication of Interim Report January – March 2017

**June 5, 2018**

Annual General Meeting of JENOPTIK AG 2017

**August 9, 2018**

Publication of Interim Report January – June 2017

**November 13, 2018**

Publication of Interim Report January – September 2017

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For better readability, the masculine forms are used normally.

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