Jenoptik Asia current situation

- Total >200 employees in Asia
- Jenoptik has 7 legal entities and 9 offices in whole Asia
- China takes almost 50% revenue share of whole Asia
- There are manufacturing and R&D teams in Shanghai, China for Asia
- Except China, all the other country teams are all commercial (sales, service and application)
- China Wai Gao Qiao FTZ company supports drop shipments in Asia

Comments

- JO China – Shanghai Office
  - R&D ✓
  - Manufacturing ✓
  - Sales ✓
  - >110 employees
- JOIN Bangalore Office
- JO China Beijing Office
- JO Korea Office Pyeongtaek
- JO Japan Office Yokohama
- JO SEA Singapore Office
- JO Australia (3 Offices) Sydney, Melbourne, Perth
Implementation of corporate strategy – Growth in China

Jenoptik’s strong exposure in China

- Jenoptik China started in 2006.
- There are >110 employees in whole China. We are continuing investing sales feet to expand coverage.
- The business has gained significant momentum in recent years. China sales expected to continue to grow with a CAGR of around 25% to reach over 50m EUR by 2023.
- All divisions in China: L&P (Metrology, Laser Processing), L&O (Semi & Advanced Manufacturing, Biophotonics, Industrial Solutions), L&S and VINCORION.
- 2 offices, in Shanghai and Beijing.
- China R&D center for China & Asia; China manufacturing for China & Asia; China application and service team for China and Asia; China project integration team for China & Asia.
- Wai Gao Qiao FTZ company to strengthen the drop shipments for China and Asia.

China revenue split (COO in mill. EUR)

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<tr>
<th>Year</th>
<th>L&amp;P</th>
<th>L&amp;O</th>
<th>Others</th>
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<tbody>
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<td>2017</td>
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<td>2023e</td>
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CAGR > 25%
Implementation of corporate strategy – Growth in China
Update relevant markets – macro/ political data

### Comments

- China’s GDP growth:
  - 6.6% in 2018
  - Projected 6.1% in 2019; est. further decrease beyond 2019: ~6.0%

- Major slow-down trend due to trade policy impacts

- China vs. U.S. tariffs conflict

- Increasing challenges within China manufacturing environment

- Investments in new energy, automotive, AI, manufacturing, Industry 4.0, life science, aviation and defense are significantly booming

- Chinese government strongly encourages high tech investments

- Continuously improving competition environment via Anti-Corruptions Auditing

### Real GDP growth (in %)

<table>
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<tr>
<th>Year</th>
<th>World</th>
<th>Asia/ Pacific</th>
<th>China</th>
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<td>2016</td>
<td>6,1</td>
<td>4,8</td>
<td>3,0</td>
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Source:
- World Economic Outlook, April 2019;
- StraitsTimes.com, June 2019
Implementation of corporate strategy – Growth in China
Update relevant markets – SEMI industry

2018 Global Semi Business Revenues

- China: 34% (growth at +15%)
- Japan: 8% (growth at +9.2%)
- USA: 22% (growth at +11.5%)
- Other Asia: 27%
- Europe: 9%

**Comments**

- Among 2018 global Semi business revenue of 478.4B US$, **China takes 158.4bn US$** (growth at +15%), Japan takes 40bn US$ (growth at +9.2%); Whole Asia takes 322.9bn US$ (growth at +11.5%)

- **Chinese Government** plans to **invest 150bn US$** on the Integration Circuit Chips Industry in the next 10 years

- From 2017 to 2020, globally there are about 62 new invested wafer design and manufacturers; **42% of these new wafer manufacturers are from China**

- Chinese Government strengthens and speeds up the investment after the China-US tariff conflicts

- Chinese Semi customers are more willing and encouraged to work with German (or European) suppliers

*Sources: China Semi Association, iiMedia Research*
Implementation of corporate strategy – Growth in China Market for automotive equipment is slowing down in 2019-2020 (estimated it would pick-up in 2021 and beyond)

Comments

- CN government is trying to influence and regulate the automotive market:
  - VAT tax reduced for car manufacturers
  - Because of air pollution and traffic, car sales got limited in coast cities
  - Highly encourage the NE Vehicles (+62% in 2018, est. +33% in 2019)
  - GB VI of new emission standards

- CN is still a fragmented market with no dominant automotive players (OEM and production equipment suppliers)

- The overall size (China light vehicle production) is still about 26mn units although it is dropping by -8% in 2019

Manufacturing equipment for automotive in CN (lines with output >100k units/year)

Source: IHS Markit, August 2019

Take aways

- The reference China market is dropping by ~8% in 2019, the absolute size is still about 26mn units
- We expect **above average investments into production equipment** for 2021 and beyond because OEMs postpone needed investments
Implementation of corporate strategy – Growth in China
Strategy implementation – Business expansion via more sales feet on the street

Focus during 2019-2020

- Invest more sales feet in the market: double sales HCs of L&O:
  - contact more key accounts
  - develop more pipelines and customized requirements
- With China life science and medical market growth, increase Biophotonics local exposure in China

- Build up L&O R&D center in China for Asia
  - closer to the customers in Asia
  - sell the premium of Jenoptik
  - build up customers’ confidence in Jenoptik’s innovation and technology
- Policy deployment to drive daily management

Shanghai Office
Beijing Office

>4,500 square meters office building space in Pudong, Shanghai
Implementation of corporate strategy – Growth in China
Strategy implementation – Business expansion via increasing coverage, new segments and new solutions

Dealer network expansion

- Build up dealers network (segmented and regional) to expand the coverage
- In-depth Jenoptik technology trainings for dealers’ sales / service team
- Each dealer should strictly go through compliance training and checking (by outside 3rd party company), before signing the agreement

Besides automotive, develop new solutions (non-automotive)

- While continuing penetrating and expanding in automotive segment, develop and build up the competences in new targeted strategic segments (non-automotive), via China R&D and manufacturing
- Build up dedicated technology team to investigate and dig deeper for these new strategic solutions (hydraulic, machine tool, medical and civil aviation), via Jenoptik global resources
Implementation of corporate strategy – Growth in China

Strategy implementation – Developing China organization

Focus 2019-2020:

- Launching the new Jenoptik branding programs in whole China to build up confidence on Jenoptik
- More end users technology seminars
- Compliance trainings (by Internal Officer and outside professional lawyer) for whole Jenoptik team and the all dealers team

Developing China team

- More internal promotions
- More educations for young talents
- More motivation to build up the winning spirit
  - Annual kick-off meeting and town hall meeting
- On time recognition
Thank you