JENOPTIK

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Interim Financial Report of the Jenoptik Group

(unaudited)

January to June 2021

At a glance – Jenoptik Group

	Jan. – June 2021	Jan. – June 2020	Change in %	April – June 2021	April – June 2020	Change in %
Order intake (in million euros)	508.4	333.9	52.2	240.0	122.2	96.4
Light & Optics	269.6	141.2	90.9	136.9	66.9	104.7
Light & Production	109.6	63.3	73.0	45.2	3.1	1,351.2
Light & Safety	64.6	41.9	54.3	23.3	19.6	19.1
VINCORION	63.5	84.3	– 24.7	34.7	30.9	12.2
Other[1]	1.1	3.2		– 0.1	1.7	
Revenue (in million euros)	389.3	329.0	18.3	213.3	164.6	29.6
Light & Optics	207.3	139.5	48.6	113.1	70.1	61.3
Light & Production	78.0	72.6	7.5	41.3	33.7	22.7
Light & Safety	42.8	55.7	– 23.2	23.6	29.2	– 19.3
VINCORION	60.0	58.8	2.1	34.6	30.6	13.0
Other[1]	1.1	2.4		0.6	0.9	
EBITDA (in million euros)	73.7	37.9	94.6	53.7	24.3	121.3
Light & Optics	65.5	30.0	118.5	46.2	15.5	199.1
Light & Production	3.7	– 4.4	n/a	3.9	– 0.3	n/a
Light & Safety	3.3	10.6	– 68.5	3.2	5.7	– 44.3
VINCORION	6.3	4.1	53.3	3.3	3.2	3.6
Other[1]	– 5.2	– 2.4		– 2.9	0.3	
EBITDA margin	18.9%	11.5%		25.2%	14.7%	
Light & Optics[2]	31.5%	21.4%		40.7%	21.9%	
Light & Production[2]	4.7%	– 6.1%		9.4%	– 0.9%	
Light & Safety[2]	7.8%	19.0%		13.4%	19.4%	
VINCORION[2]	10.6%	7.0%		9.5%	10.3%	
EBIT (in million euros)	46.2	15.6	197.1	40.2	13.1	207.5
EBIT margin	11.9%	4.7%		18.8%	7.9%	
Earnings after tax (in million euros)	37.7	10.6	257.2	34.0	11.0	209.7
Earnings per share (in euros)	0.65	0.18	253.6	0.58	0.19	202.3
Free cash flow (in million euros)	11.6	16.0	– 27.8	– 4.2	1.6	n/a
Cash conversion rate	15.7%	42.3%		< 0	6.5%	

	June 30, 2021	Dec. 31, 2020	June 30, 2020
Order backlog (in million euros)	586.0	460.1	478.0
Light & Optics	239.3	179.1	139.6
Light & Production	106.1	74.7	89.9
Light & Safety	68.8	46.0	54.1
VINCORION	171.7	160.3	193.6
Other[1]	0	0	0.8
Frame contracts (in million euros)	58.0	42.3	44.4
Employees (head count and incl. trainees)	4,362	4,472	3,998
Light & Optics	1,889	1,845	1,366
Light & Production	941	1,040	1,048
Light & Safety	498	489	480
VINCORION	743	775	792
Other[1]	291	323	312

[1] Other includes Corporate Center (holding, shared services, real estate) and consolidation.

[2] Based on total revenue

Please note that there may be rounding differences in this report compared to the mathematically exact amounts (currency units, percentages). OTTO Vision Technology GmbH (OTTO) has been part of the Light & Optics division since January 1, 2021. In the prior year the company was part of the Light & Production division. For this reason, the figures reported here for the comparative periods differ from the figures in the respective prior-year reports.

Summary of Business Performance, January to June 2021

- Jenoptik posted record figures in order intake, revenue and EBITDA in the second quarter of 2021; these indicators also exceeded the prior-year figures in the first half-year as a whole.

- Strong order intake: In the first half-year of 2021, the Jenoptik Group's order intake increased to 508.4 million euros, a considerable improvement on the prior-year figure of 333.9 million euros. In the second quarter the order intake almost doubled compared with the prior year. The order backlog grew to 586.0 million euros (31/12/2020: 460.1 million euros).
  See Earnings Position – Page 11

- Revenue up on prior year: In the period from January to June 2021, revenue of 389.3 million euros was 18.3 percent higher than in the prior-year period (prior year: 329.0 million euros), particularly due to the contribution made by the Light & Optics division. In the second quarter, revenue grew by 29.6 percent compared with the prior-year quarter.
  See Earnings Position – Page 9

- High profitability: EBITDA increased to 73.7 million euros (prior year: 37.9 million euros), assisted by strong operating performance and a positive one-off effect of around 16 million euros in connection with the acquisition of TRIOPTICS. The EBITDA margin increased to 18.9 percent (prior year: 11.5 percent).
  See Earnings Position – Page 11

- Financial power further boosted: Debenture bonds worth 400 million euros were successfully placed. The balance sheet and financing structure remained highly robust. Due to increased equity, the equity ratio of 53.5 percent was up on the figure of 51.5 percent at the end of 2020. Free cash flow amounted to 11.6 million euros (prior year: 16.0 million euros).
  See Financial and Asset Position – from Page 12

- Division highlights

  Light & Optics: Order intake significantly up on prior year at 269.6 million euros. All areas, including TRIOPTICS for the first time, contributed to the sharp rise in revenue. High profitability thanks to strong operating performance and one-off effect in connection with the acquisition of TRIOPTICS; EBITDA margin at 31.5 percent (prior year: 21.4 percent); sharp rise in free cash flow.

  Light & Production: Order intake substantially up on prior-year period. Revenue also increased on prior year. Restructuring measures contributed to improved profitability; earnings up on prior year.

  Light & Safety: Order intake up on prior-year period, resulting in appreciable increase in order backlog. Revenue and earnings sharply down on prior year due to project-based business, reduction attributable to pandemic-related delays in both deliveries of electronic components and placement of orders.

  VINCORION: Project postponements resulted in significant fall in order intake. Revenue increase due to strong performance in Energy & Drive area. Earnings improved on prior year.
  See Segment Report – from Page 15

- Forecast raised: For the 2021 fiscal year, the Executive Board is now expecting revenue of between 880 and 900 million euros (previously: revenue growth in low double-digit percentage range) and an EBITDA margin of between 19.0 and 19.5 percent (previously: EBITDA margin between 16.0 and 17.0 percent).
  See Forecast Report – Page 23

Business and Framework Conditions

Group Structure and Business Activity

Jenoptik is a global photonics group and a supplier of high-quality and innovative capital goods. The Group is thus primarily a technology partner to industrial companies. In the Light & Safety and VINCORION divisions, the company is also a supplier to the public sector, in part indirectly through system integrators.

Jenoptik provides the majority of its products and services to the photonics market. Our key markets primarily include the semiconductor equipment industry, the medical technology, consumer electronics and electronics manufacturing, automotive and mechanical engineering, traffic, aviation, and security and defense technology industries.

The Jenoptik Group operates in the three following photonics divisions:

- Light & Optics
- Light & Production
- Light & Safety.

In addition, its mechatronic activities are managed under the VINCORION brand.

The three photonics divisions build on extensive expertise in optics, sensors, imaging, robotics, data analysis, and human-machine interfaces.

This organizational structure enables a good market and customer-driven approach to doing business. Business operations have been consolidated according to a common understanding of markets and customers based on the same business models. This helps to increase the reach of our products and solutions and opens up improved growth opportunities.

More information on the Group structure and business activity can be found in the 2020 Annual Report, from page 78 on.

Purchases and sales of companies.

There were no company acquisitions or disposals in the first six months of 2021.

As it continues to focus its business on photonic applications, Jenoptik concluded an agreement on the sale of its crystal growing business to Hellma Materials in early July 2021.

Also in July 2021, Jenoptik announced the sale of its non-optical process measuring technology business for grinding machines to Marposs, allowing it to sharpen its focus on those areas of metrology in which the Group is well positioned on the global market.

Targets and Strategies

At the heart of our strategy and future development is a concentration on photonic technologies for high-growth markets. Over the coming years, Jenoptik aims to push on with its plan to become a global, streamlined photonics company. Our main aim is to target markets where technological expertise justifies a price premium. Our solutions contribute to increased efficiency and precision of our customers' products and processes as well as to resource conservation and more sustainability. A concentration on optics and photonic technologies is at the heart of our "Strategy 2022," and we are also focused on internationalization and innovation. By 2022, we want to increase our R+D output, including developments on behalf of customers, to around 10 percent of revenue. Diversity and international mindedness will also mark out Jenoptik more strongly than ever before.

In order to implement the growth strategy, we

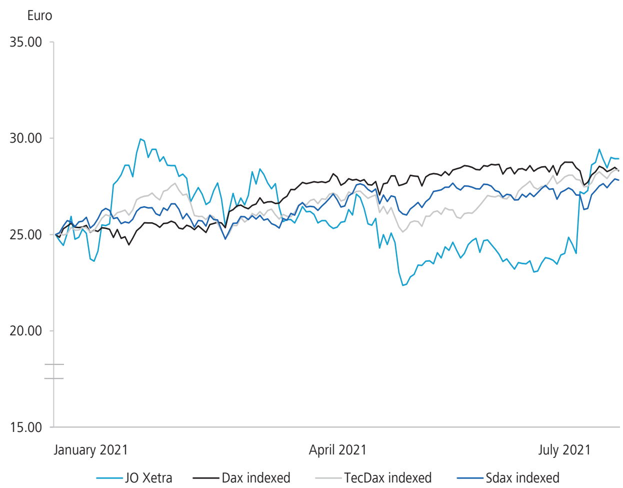
- are focusing on our core areas of expertise in the field of photonics and optics,
- are actively managing our portfolio with a view to additional purchases as well as transformational acquisitions and selective divestments,
- are continuing to work on further internationalization in conjunction with greater vertical integration and customer proximity in our growth regions,
- want to drive innovation even more strongly and be an innovation leader in our markets,
- are ensuring greater sustainability and resource conservation, as well as helping to achieve global sustainability targets, with our photonic products and solutions,
- are expanding our system and application expertise and developing as a solutions provider,
- are continuing to steadily strengthen our financial resources, and
- are promoting an active cultural change within the company.

For more information on the strategic trajectory of the Jenoptik Group, we refer to the 2020 Annual Report and the details given in the "Targets and Strategies" chapter from page 84 on, as well as on the Jenoptik website.

The Jenoptik Share

The mood on the capital markets remained positive in the first half-year of 2021, assisted by vaccination programs and the hope to overcome the coronavirus crisis and a return to normalcy in economic activity. Signs of economic recovery and rising corporate profits, however, also caused share prices to rise. In the first six months, Germany's benchmark index, the Dax, rose 13.1 percent to 15,531.04 points. The German technology index (TecDax) stood at 3,564.07 points at the end of June 2021, a year-to-date gain of 9.8 percent. On the last day of trading in the second quarter, the SDax was up 7.9 percent, at 16,021.03 points.

Over the reporting period, the Jenoptik share was only party to the encouraging growth on the German stock market at times. After starting the first day of trading in 2021 with a closing price of 25.00 euros, the share made significant gains in the first two months, reaching its highest price of 29.96 euros on February 3. From late March on, however, it underperformed the indices, despite the announced growth in revenue and earnings in the current fiscal year. The share ended trading on June 30 at 23.06 euros, equating to a year-to-date fall of 7.8 percent. As of the end of June 2021, Jenoptik's market capitalization was 1,319.9 million euros.



In July, the share was substantially boosted by the increase in guidance for fiscal year 2021. The closing price on July 30, 2021 was 28.94 euros, equating to a market capitalization of 1,656.5 million euros.

The company did not receive any voting right notifications in the first six months of 2021. A detailed list of earlier voting right notifications can be found in the Investors/Share section of the Jenoptik website.

Compared to the prior-year period, an average of 195,587 Jenoptik shares changed hands per day on the Xetra, the floor exchanges, and Tradegate (prior year: 224,563), 12.9 percent fewer than in the prior year. On the TecDax, Jenoptik was in 26th place (prior year: 23rd) in terms of free float market capitalization (89.0 percent) as of June 2021, and 29th (prior year: 26th) in terms of exchange turnover. Among the 70 SDax stocks, the share was 20th (prior year: 11th) in terms of market capitalization and 25th (prior year: 22nd) in terms of exchange turnover.

At the virtual Annual General Meeting on June 9, 2021, the shareholders agreed to pay out a dividend of 0.25 euros per share (prior year: 0.13 euros). This increased the total dividend from 7.4 million euros in the prior year to a new figure of 14.3 million euros. Shareholders also approved all other items on the agenda by a clear majority.

Earnings per share

	1/1 to 30/6/2021	1/1 to 30/6/2020
Earnings attributable to shareholders in thousand euros	37,202	10,520
Weighted average number of outstanding shares	57,238,115	57,238,115
Earnings per share in euros	0.65	0.18

Earnings per share are the earnings attributable to shareholders divided by the weighted average number of shares outstanding.

Jenoptik key share figures

	1/1 to 30/6/2021	1/1 to 30/6/2020
Closing share price (Xetra) on 30/6 in euros	23.06	20.84
Highest share price (Xetra) in euros	29.96	27.44
Lowest share price (Xetra) in euros	22.36	13.82
Market capitalization (Xetra) on 30/6 in million euros	1,319.9	1,192.8
Average daily trading volume in shares[1]	195,587	224,563

[1] Source: Deutsche Börse

At present, a total of twelve research companies and banks regularly report on Jenoptik. At the time this report was prepared, eight analysts recommended buying the share, while four advised investors to hold their shares. As of the end of July, the average target price across all analysts was 30.58 euros.

Due to travel and other restrictions related to the coronavirus pandemic, all roadshows and investor conferences in which the company participated in the first half-year of 2021 were held online. The Executive Board and the Investor Relations team also reported on current results and developments in conference calls following the publication of annual and quarterly figures, and in numerous one-on-one meetings.

Development of the Economy as a Whole and of the Jenoptik Sectors

According to the International Monetary Fund, in the first half of 2021 the global economy increasingly managed to recover from the severe setbacks caused by the corona pandemic in the previous year, in individual countries in part more strongly than expected. Vaccine access, vaccination campaigns and fiscal support such as the economic stimulus in the USA were key factors in a return to normality, particularly in industrialized countries. On the downside, the spread of corona mutations, global supply shortages and raw material shortages or price increases caused uncertainties and had weakening effects.

Growth in the US economy barely accelerated in the second quarter 2021. After 6.3 percent in the first three months, gross domestic product (GDP) most recently increased by 6.4 percent on an annualized basis, as reported by the US Department of Commerce. Economists had expected well over 8 percent. Even though consumer spending boosted the economy as a result of the vaccination campaign and the lifting of corona restrictions, declining construction investments prevented stronger growth, although this was not interpreted as a sign of economic weakness in view of the shortage of raw materials.

China recorded strong year-on-year growth rates in foreign trade. Following record growth of 18.3 percent in the first quarter 2021 – compared to a low figure in the prior year – China's GDP grew 7.9 percent year-on-year from April to June. This was lower growth, but in line with expectations and the long-term trend from the pre-pandemic period.

In recent months, the euro zone recorded its strongest growth since 2006, as reported by the IHS Markit institute in June. The recovery increasingly spread from industry to service sectors, which benefited from the lifting of corona restrictions. The data signaled impressive growth in the second quarter, IHS said. The economic recovery was hampered by a lack of raw materials and delays in global supply chains, for example in the automotive industry. Causes included shipping bottlenecks and increased demand for intermediate products such as semiconductors or construction materials, the Kiel Institute for the World Economy said.

After economic output in Germany in the first quarter 2021 was 2.1 percent below the previous quarter due to the renewed corona wave, the months of April, May and June saw the first signs of recovery in retail, tourism, and stabilization in production, as reported by the Federal Statistical Office. This was mainly due to higher private and government consumer spending. However, supply bottlenecks slowed industrial production, which recently declined slightly in individual months. GDP increased by 1.5 percent in the second quarter compared with the previous quarter, the Federal Statistical Office said in an initial estimate at the end of July. Compared with the prior-year quarter, which was hit particularly hard by the first corona lockdown, price-adjusted GDP increased by 9.6 percent.

Photonics, a key technology for many future markets, weathered the coronavirus year better than other industries, according to a joint analysis by the Spectaris industry association and OptecNet in May 2021. Revenue at German photonics manufacturers fell just 1 percent in 2020, to a total of 39.8 billion euros. Many photonics applications have made a significant contribution to containing the pandemic, and are playing a key role in the digital transformation.

In 2020, the medical technology industry also proved to be more resistant to the coronavirus crisis than many other industries. As reported by Spectaris in late May 2021, German manufacturers generated revenue of 34.3 billion euros in 2020, 2.9 percent more than in 2019. A positive picture overall was facilitated by extremely strong growth in a number of directly coronavirus-related product groups, but smaller companies, in particular, were hit hard by the crisis. The growth in revenue also included numerous investments that were made earlier.

Compared to some other industries, the global semiconductor industry remained resilient in the coronavirus year and in 2021 to date. According to the Semiconductor Industry Association (SIA), global revenue in the first quarter 2021 increased 3.6 percent quarter-on-quarter, or 17.8 percent year-on-year, with a total of 123.1 billion US dollars. The upward trend also continued in the second quarter, with global industry revenue of 133.6 billion US dollars, up nearly 30 percent year-on-year and 8.3 percent compared to the previous quarter. For 2020, SIA finally reported global revenue of 440.4 billion US dollars (prior year: 412.3 billion US dollars).

Global semiconductor equipment manufacturer revenue grew to 71.1 billion US dollars in 2020 (prior year: 59.6 billion US dollars), as stated in the final figures provided by Semiconductor Equipment and Materials International (SEMI). In June, technology company Bosch opened a new semiconductor factory in Dresden, Saxony, where it will produce chips on 300 mm wafers for the automotive industry and the Internet of Things.

Strong demand for chips in a wide range of industries and applications led to a chip shortage in the year to date, especially in the automotive industry. During the coronavirus pandemic, chip manufacturers found new customers in the IT, consumer electronics, and medical technology industries after automakers cut back or canceled orders following a major drop-off in demand for new cars in 2020. Supplies could not keep up when demand rose again in the automotive industry, with the result that many manufacturers limited, paused, or stopped production. According to figures issued by the German Association of the Automotive Industry (VDA), production at German plants fell in June 2021; for the first half-year, it was 16 percent up on the weak prior year. On a global scale, all the major automotive markets recorded double-digit growth rates in new registrations in the first half-year, but were still a total of 8 percent, or 2.7 million vehicles, down on pre-crisis levels.

After a weak year marked by the coronavirus crisis, the German mechanical and plant engineering industry is back on a course of growth, according to the VDMA industry association. Most recently, in May of 2021, orders increased 47 percent on the prior year. Domestic demand was up 33 percent, while orders from abroad grew 55 percent.

With severe restrictions on mobility in place, the coronavirus pandemic had a strong impact on the fields of transportation and traffic safety, not least as shown by the accident statistics published by the German Federal Statistical Office in early July 2021. In 2020, road deaths in Germany plummeted to their lowest level in more than 60 years, or by 10.7 percent compared to the prior year, a downward trend that continued in the first months of 2021. The European Transport Safety Council (ETSC) published its own annual statistics for 2020 in June: As a result of lower traffic volumes, the number of road traffic fatalities in the EU fell 17 percent. The figure has fallen 37 percent since 2010, which experts estimate has saved around 156 billion euros in costs for subsequent necessities such as medical treatment and claims settlement.

The corona pandemic unleashed an enormous crisis in the aviation industry, among aircraft manufacturers, and their suppliers. Although many airlines were saved by government bailouts, they continue to make huge losses, leaving the industry in the midst of a market shakeout, according to industry experts. With a resurgence in private travel, signs of a minor recovery emerged in the first half-year of 2021. Especially in the US, the second quarter saw almost as much commercial air travel as in the period before the pandemic, while airlines ordered new planes. The US and the EU settled their trade dispute over aircraft subsidies in mid-June. The order situation at Boeing picked up following recertification of the 737 Max aircraft. In the first half-year of 2021, Boeing delivered 156 planes, already one more than in the entire prior year. Airbus delivered 297 aircraft, 52 percent more than in the prior-year period.

The German Federal Ministry for Economic Affairs and Energy published its 2020 Armaments Export Report for the German security and defense technology industry in June 2021. Compared to the record year 2019, export licenses fell in value from just over 8.0 billion euros to 5.8 billion euros, with more than half of them for third countries, among them Egypt with major orders in the maritime sector. In contrast to exports, German imports of military equipment increased: According to SIPRI, the Swedish International Peace Research Institute, Germany invested around 44 billion euros in armaments in 2020, more than five percent more than in the prior year, putting it in seventh place worldwide. In June, the German cabinet approved an evaluation report on post-shipment controls. In a two-year pilot project, compliance with the end-use arrangements for small arms and light weapons deliveries was checked, i.e., whether those deliveries are still fully in the possession of the agreed end users. At the end of June, the Bundestag Budget Committee cleared the way for development of the new Future Combat Air System (FCAS) by approving around 4.3 billion euros in addition to the defense budget for basic research with France and Spain.

No important new reports were published for other sectors relevant to Jenoptik. We therefore refer to pages 99ff. of the 2020 Annual Report.

Earnings, Financial and Asset Position

The tables in the Interim Report, which show a breakdown of the key indicators by segment, include the Corporate Center (holding company, shared services, real estate) and consolidation effects under "Others". Jenoptik operates in the following reportable segments: the Light & Optics, Light & Production, Light & Safety divisions, and VINCORION.

Earnings Position

In the 2020 fiscal year, Jenoptik reported figures adjusted for structural and portfolio measures (merger costs, consolidation or closure of sites, restructuring, cost-cutting programs, and costs in connection with M+A activities). These adjustments are no longer being made in the current fiscal year. Prior-year figures are also non-adjusted. In the information provided on business performance in the segments, it should be noted that OTTO Vision Technology GmbH (OTTO) was reclassified into the Light & Optics division (formerly Light & Production) as of January 1, 2021. This reclassification has been accounted for accordingly in the prior-year figures.

Jenoptik posted record figures in order intake, revenue, and EBITDA in the second quarter of 2021; these indicators also exceeded the prior-year figures in the first half-year as a whole. The Group is also in a good financial and balance sheet position. Business with the semiconductor equipment industry remained at a very good level. The biophotonics business and TRIOPTICS continued the very good development, and there were also signs of recovery in the automotive industry. In the aviation industry, however, growth remained weak due to the coronavirus pandemic.

Over the first six months of 2021, the Group generated revenue of 389.3 million euros (prior year: 329.0 million euros), a significant 18.3 percent up on the prior-year figure.

In the Light & Optics division, revenue growth was facilitated by sustained strong demand in semiconductor equipment business and good growth in the Biophotonics and Industrial Solutions areas. The inclusion of TRIOPTICS, in particular, made a contribution to the division's rise in revenue. The slight pick-up in demand from the automotive industry was reflected in the Light & Production division's revenue figure, which was up on the prior year. The decrease in revenue in the Light & Safety division is primarily attributable to the fact that its business is project-based, but also to pandemic-related delays in deliveries of electronic components. VINCORION's revenue was down year-on-year, partly due to weaker business in the Power Systems area and with the aviation industry.

TRIOPTICS was the main contributor to the significant increase in revenue in the Asia/Pacific region in the first six months of 2021. Group revenue in the Americas increased slightly. In these two strategic priority regions, combined revenue came to 164.4 million euros, or 42.2 percent of total revenue, and was thus up on the prior-year figure of 126.4 million euros or 38.4 percent. Europe also saw revenue growth, while the Middle East/Africa region declined over the period covered by the report. The share of revenue generated abroad was unchanged at 74.2 percent (prior year: 74.2 percent).

Revenue

in million euros	1/1 to 30/6/2021	1/1 to 30/6/2020	Change in %
Group	**389.3**	**329.0**	**18.3**
Light & Optics	207.3	139.5	48.6
Light & Production	78.0	72.6	7.5
Light & Safety	42.8	55.7	– 23.2
VINCORION	60.0	58.8	2.1
Other	1.1	2.4	

R+D Output

in million euros	1/1 to 30/6/2021	1/1 to 30/6/2020	Change in %
R+D output	**37.6**	**35.7**	**5.2**
R+D expenses	20.5	22.1	– 7.2
Capitalized development costs	5.3	4.5	16.1
Developments on behalf of customers	11.8	9.1	29.9

The cost of sales rose to 265.0 million euros (prior year: 219.3 million euros), and thus at a slightly stronger rate than revenue. This was in part due to higher material costs, higher personnel expenses following the acquisitions undertaken in 2020 and salary increases, as well as PPA impacts amounting to minus 1.9 million euros. The gross profit of 124.3 million euros was, however, up on the prior-year figure of 109.7 million euros; the gross margin came to 31.9 percent (prior year: 33.3 percent).

Over the first half-year of 2021, research and development expenses came to 20.5 million euros (prior year: 22.1 million euros). Development expenses on behalf of customers included in cost of sales increased to 11.8 million euros (prior year: 9.1 million euros), in particular due to developments in the Light & Optics division. Development costs to be capitalized increased slightly, mainly in connection with development projects in the Light & Optics division and in VINCORION. The Group's R+D output came to 37.6 million euros, an increase on the prior-year figure of 35.7 million euros, equating to a share of group revenue of 9.7 percent (prior year: 10.9 percent).

In the first six months of 2021, selling expenses amounted to 48.1 million euros (prior year: 41.9 million euros). This increase is mainly due to the acquisition of TRIOPTICS and higher depreciation/amortization in connection with PPA impacts. At 12.4 percent, the selling expenses ratio was slightly down on the prior year level of 12.7 percent.

Administrative expenses of 30.6 million euros were virtually unchanged (prior year: 29.6 million euros), although the prior-year figure does not include TRIOPTICS' administrative expenses. The latter, however, were offset by factors such as lower personnel expenses in the Group, in part following restructuring measures. The administrative expenses ratio fell to 7.9 percent (prior year: 9.0 percent).

Impairment gains and losses in connection with the valuation of trade receivables and contract assets amounted to minus 1.1 million euros (prior year: 1.7 million euros).

Other operating income and expenses came to 22.3 million euros (prior year: minus 2.3 million euros). The other operating income item includes a one-off effect of around 16 million euros in connection with the valuation of conditional purchase price components arising from the acquisition of TRIOPTICS. The prior year included restructuring costs in the other operating expenses item.

Programs to limit the impacts of the COVID-19 pandemic such as short-time working allowances and government grants, especially abroad, were utilized in the amount of 2.9 million euros (prior year: 4.7 million euros). They resulted in lower personnel costs, in particular, and thus had a positive influence on profitability.

EBITDA

in million euros	1/1 to 30/6/2021	1/1 to 30/6/2020	Change in %
Group	73.7	37.9	94.6
Light & Optics	65.5	30.0	118.5
Light & Production	3.7	– 4.4	n/a
Light & Safety	3.3	10.6	– 68.5
VINCORION	6.3	4.1	53.3
Other	– 5.2	– 2.4	

EBIT

in million euros	1/1 to 30/6/2021	1/1 to 30/6/2020	Change in %
Group	46.2	15.6	197.1
Light & Optics	53.6	24.5	118.2
Light & Production	– 1.9	– 10.4	81.6
Light & Safety	0.0	7.1	– 99.6
VINCORION	2.8	0.7	316.8
Other	– 8.3	– 6.3	

Profitability improved significantly over the reporting period from January through June 2021, assisted by strong operating performance, particularly in the second quarter. In addition to a significant rise in revenue, this also reflected the positive impacts arising from the restructuring measures implemented in 2020. The EBITDA item also includes the above-mentioned one-off effect of around 16 million euros in connection with the acquisition of TRIOPTICS (for detailed information, see the Notes, page 31). The EBITDA margin increased to 18.9 percent (prior year: 11.5 percent). EBITDA grew to 73.7 million euros (incl. PPA impacts of minus 1.8 million euros), and was thus 94.6 percent up on the prior-year figure of 37.9 million euros (prior year: adjusted 42.2 million euros, costs for structural and portfolio measures of 4.4 million euros).

In the first half-year of 2021, income from operations (EBIT) of 46.2 million euros was also well above the prior-year figure of 15.6 million euros. The group EBIT margin was 11.9 percent (prior year: 4.7 percent). The EBIT item also includes impacts arising from the purchase price allocations worth minus 8.9 million euros as a result of acquisitions in prior years (prior year: minus 3.6 million euros).

Overall, financial income and financial expenses remained virtually unchanged, despite higher interests for financing and compounding, as the prior-year figure included negative currency impacts arising from the valuation of financial investments. Investment income fell to 0.3 million euros (prior year: 1.4 million euros). Over the reporting period, the financial result thus reduced to minus 3.4 million euros (prior year: minus 2.2 million euros).

At 42.8 million euros (prior year: 13.4 million euros), the Group achieved significantly higher earnings before tax. Income taxes amounted to 5.1 million euros (prior year: 2.8 million euros). The overall tax rate fell to 11.8 percent (prior year: 20.8 percent), due to both regional profit distribution as of the reporting date and the tax-neutral income from the measurement of the conditional purchase price components in connection with the acquisition of TRIOPTICS. The cash-effective tax rate was 12.3 percent (prior year: 22.7 percent). Group earnings after tax increased sharply to 37.7 million euros (prior year: 10.6 million euros). Group earnings per share came to 0.65 euros (prior year: 0.18 euros).

Following the strong order intake seen in the first quarter of 2021, the positive development was sustained into the second quarter, with year-on-year growth of 96.4 percent. In the period from January through June 2021, the order intake grew by 52.2 percent to 508.4 million euros (prior year: 333.9 million euros). Within the Light & Optics division, all areas, incl. TRIOPTICS, contributed to this rise. The order intake in the Light & Production division also grew considerably, as it did in the Light & Safety division, which posted significantly more orders, particularly in North America. In the latter division, the order intake is strongly influenced by projects and thus subject to fluctuations. VINCORION, by contrast, posted an order intake appreciably down on the prior year. Overall, the significant rise in the Group's order intake led to a strong increase in the book-to-bill ratio, to 1.31 (prior year: 1.02).

Order situation

in million euros	1/1 to 30/6/2021	1/1 to 30/6/2020	Change in %
Order intake	508.4	333.9	52.2

	30/6/2021	31/12/2020	Change in %
Order backlog	586.0	460.1	27.4
Frame contracts	58.0	42.3	37.1

Employees (head count and incl. trainees)

	30/6/2021	31/12/2020	Change in %
Group	4,362	4,472	– 2.5
Light & Optics	1,889	1,845	2.4
Light & Production	941	1,040	– 9.5
Light & Safety	498	489	1.8
VINCORION	743	775	– 4.1
Other	291	323	– 9.9

The order backlog grew to 586.0 million euros (31/12/2020: 460.1 million euros). Of this order backlog, 395.4 million euros or 67.5 percent (prior year: 286.3 million euros or 59.9 percent) are due to be converted to revenue in the present fiscal year.

As of June 30, 2021, there were also frame contracts worth 58.0 million euros (31/12/2020: 42.3 million euros). Frame contracts are contracts or framework agreements where the exact sum and time of occurrence cannot yet be specified precisely.

The number of Jenoptik employees fell 2.5 percent or by 110 persons in the first half-year of 2021, to 4,362 (31/12/2020: 4,472 employees). While employee numbers in the Light & Optics division rose slightly due to the reclassification of OTTO, they fell in both the Light & Production division and VINCORION, in part due to the restructuring measures implemented. In the US, employees were transferred to the Light & Optics division in the Others segment. At the end of June 2021, 1,087 people were employed at the foreign locations (31/12/2020: 1,112 employees).

As of June 30, 2021, the company had a total of 160 trainees (31/12/2020: 189 trainees).

Detailed information on the development of the divisions can be found in the Segment Report from page 15 on.

Financial and Asset Position

Over the first six months of 2021, COVID-19 continued to impact on the operating activities of the Jenoptik businesses and thus on the Consolidated Statement of Financial Position and the Consolidated Statement of Cash Flows. Nevertheless, the Group continues to ensure healthy balance sheet ratios and an ample supply of liquidity.

In March, Jenoptik placed sustainability-linked debenture bonds worth 400 million euros on the capital market on attractive terms. Of this sum, 130 million euros were disbursed in March; the remaining 270 million euros will be paid out in September 2021. The debenture bonds were significantly oversubscribed and comprise several tranches with terms of five, seven, and ten years, which were issued not only in euros but also, to a lesser extent, in US dollars. Investors from Germany and abroad were offered both fixed and variable interest rate options. The funds from the debenture bonds will give the Group room for maneuver for investments in its core business of photonics and in acquisitions. They will also be used to finance the purchase price of the remaining 25 percent in TRIOPTICS at the end of 2021. In addition, utilization of the syndicated loan agreement was reduced by 110 million euros in April, and existing debenture bonds in the amount of 14 million euros were repaid early.

At the end of June 2021, the debt-to-equity ratio, that of borrowings to equity, was 0.87 (31/12/2020: 0.94). This was due to a stronger increase in equity compared to borrowings.

As of June 30, 2021, cash and cash equivalents reduced. By contrast, financial debt remained almost unchanged, with the result that net debt increased slightly to 214.5 million euros (31/12/2020: 201.0 million euros). Here, too, the Group has sufficient financial leeway to ensure the company's planned strategic growth. As of June 30, 2021, the Group also had unused lines of credit worth over 200 million euros.

Jenoptik invested 20.0 million euros in property, plant, and equipment and intangible assets over the reporting period, impacting on liquidity (prior year: 21.2 million euros). At 12.0 million euros, the largest share of capital expenditure was spent on property, plant and equipment (prior year: 14.4 million euros), including new technical equipment and an expansion in production capacities. Capital expenditure declined significantly in the Light & Production division; the prior year had included expenditure for the new build at the Villingen-Schwenningen site. Capital expenditure for intangible assets rose to 8.0 million euros (prior year: 6.8 million euros). Investment was mainly attributable to costs in connection with setting up and launching an SAP S/4 HANA system and the development costs from internal projects which have to be capitalized. Scheduled depreciation and amortization increased to 27.4 million euros (prior year: 22.6 million euros), mainly due to impacts arising from the purchase price allocation (PPA impacts) for the companies acquired in the 2020 fiscal year.

The increase in working capital contributed to a reduction in cash flows from operating activities as of June 30, 2021, to 26.0 million euros, despite higher earnings before tax (prior year: 26.7 million euros).

At the end of June 2021, cash flows from investing activities came to minus 19.3 million euros (prior year: minus 40.6 million euros). Over the reporting period, this item was influenced by operating investment activities (capital expenditure for and proceeds from disposals of intangible assets and property, plant, and equipment). The prior-year cash flows from investing activities item had also included payments for the acquisition of INTEROB and net cash inflows from short-term investments.

In the period covered by the report, slightly higher net cash outflows from operating investment activities combined with reduced cash flows from operating activities before interest and taxes resulted in a lower free cash flow of 11.6 million euros (prior year: 16.0 million euros). The free cash flow is calculated on the basis of the cash flows from operating activities (before interest and taxes) less the inflows and outflows of funds for intangible assets and property, plant, and equipment. In the first six months of 2021, the cash conversion rate came to 15.7 percent (prior year: 42.3 percent), reflecting the significant increase in EBITDA, which was in part influenced by non-cash income.

Cash flows from financing activities fell to minus 21.5 million euros in the first half-year (prior year: minus 26.4 million euros), and were particularly influenced by the proceeds from the issue of the debenture bonds placed in March (tranche with value date in March 2021). In addition, utilization of the syndicated loan agreement was reduced and existing debenture bonds were repaid early. The cash flows from investing activities item also includes the 14.3-million-euro dividend paid to the shareholders of JENOPTIK AG in June.

At 1,353.7 million euros as of June 30, 2021, the total assets of the Jenoptik Group were up on the 2020 year-end figure (31/12/2020: 1,338.8 million euros).

Non-current assets changed only slightly compared with the year-end figure for 2020 and were worth 849.8 million euros (31/12/2020: 848.9 million euros). Although intangible assets increased in value from 487.1 million euros to 493.4 million euros, primarily due to currency effects and the capitalized development projects in the Group, these gains were almost completely offset by the decline in property, plant, and equipment and lower deferred taxes.

Current assets rose to 503.9 million euros (31/12/2020: 489.9 million euros). This was mainly down to the increase in inventories, to 221.8 million euros (31/12/2020: 191.4 million euros), due to services performed in advance for future revenue. There was only a slight increase in contract assets, particularly in the Light & Production division. By contrast, trade receivables fell 15.5 million euros, in particular due to a high level of receivables at year-end 2020 following strong revenue in the fourth quarter. The impacts specified in the items of the statement of cash flows led to a reduction in cash and cash equivalents from 63.4 million euros at year-end 2020 to 49.8 million euros. Overall, cash, cash equivalents, and current financial investments came to 55.0 million euros on June 30, 2021 (31/12/2020: 68.3 million euros). The assets held for sale item includes the crystal growing business as a recognized disposal group, which will be sold to Hellma Materials.

As of June 30, 2021, the working capital rose to 288.6 million euros, compared to year-end 2020 (31/12/2020: 268.1 million euros / 30/6/2020: 215.6 million euros). On the assets side, the strong increase in inventories was not offset by the decrease in receivables. On the liabilities side, the increase in contract liabilities was largely offset by the decline in trade accounts payable. The working capital ratio, that of working capital to revenue based on the last twelve months, remained unchanged on year-end 2020, at 34.9 percent, but was up compared to the prior-year period, as TRIOPTICS was included in revenue on only a pro rata basis from the end of September 2020 on but fully included in the balance sheet items (31/12/2020: 34.9 percent / 30/6/2020: 26.9 percent).

As of June 30, 2021, equity of 723.9 million euros was above the level at year-end 2020 (31/12/2020: 689.4 million euros). In addition to the increase in net profit for the period, currency differences and actuarial effects also had a positive impact here. By contrast, the dividend for the shareholders of JENOPTIK AG and the minority shareholders of TRIOPTICS, in total 14.8 million euros, had an equity-reducing effect. The equity ratio rose to 53.5 percent (31/12/2020: 51.5 percent).

Non-current liabilities increased to 254.7 million euros (31/12/2020: 233.0 million euros), in the first half-year of 2021 mainly influenced by the issue of the debenture bonds in March. Five debenture bonds, worth around 130 million euros, were value-dated on March 31, 2021 and are included in non-current financial debt, which rose from 138.4 million euros at the end of 2020 to 193.4 million euros. This balance sheet item also included the debenture bonds issued in 2015 (31/12/2020: 69.0 million euros), which were reclassified to current liabilities. Due to higher interest rates and a positive development of plan assets, pension provisions decreased to 30.0 million euros (31/12/2020: 35.2 million euros). Lower conditional purchase price components from the acquisitions made in 2020 and the reclassification of purchase price components to current liabilities led to a reduction in other non-current liabilities.

Current liabilities reduced to 375.1 million euros (31/12/2020: 416.4 million euros), in particular due to the repayment of the 110-million-euro syndicated loan, as well as the repayment of 14 million euros from the debenture bonds issued in 2015 in April 2021. Trade accounts payable also decreased. Provisions were reduced as a result of lower personnel provisions and a fall in provisions in connection with the restructuring measures. The increase in the other current non-financial liabilities item is chiefly due to the accrual of vacation entitlements throughout the year and Christmas bonuses. There was also an increase in contract liabilities due to project progress, and in other current financial liabilities following the reclassification of purchase price components for the acquisitions undertaken in the prior year from non-current liabilities.

There were also no changes to assets and liabilities not included on the balance sheet; for more information on this, we refer to the details on page 117 of the 2020 Annual Report.

Segment Report

The revenue, order intake, and order backlog figures provided in the Segment Report concern business with external parties only (for further information on the segments, see the Notes, page 29).

Light & Optics

When reading the information provided on business performance in the Light & Optics division, it should be noted that OTTO Vision GmbH (OTTO) was reclassified into the division (previously Light & Production division) as of January 1, 2021 for the purpose of better utilizing synergy. Prior-year figures were adjusted accordingly.

On the closing date of September 24, 2020, Jenoptik acquired the optics specialist TRIOPTICS based in Wedel, Germany. The company specializes in measurement and production systems for optical components. TRIOPTICS was integrated into the Light & Optics division. The company was not included in the financial statements until the closing date and is thus not shown in prior-year figures such as revenue, earnings, order intake, and order backlog for the first six months.

Light & Optics at a glance

in million euros	30/6/2021	30/6/2020	Change in %
Revenue	207.3	139.5	48.6
EBITDA	65.5	30.0	118.5
EBITDA margin in %[1]	31.5	21.4	
EBIT	53.6	24.5	118.2
EBIT margin in %[1]	25.8	17.5	
Capital expenditure	9.4	8.3	13.6
Free cash flow	36.7	16.4	124.0
Cash conversion rate in %	56.1	54.7	
Order intake	269.6	141.2	90.9
Order backlog[2]	239.3	179.1	33.6
Frame contracts[2]	17.2	12.6	36.4
Employees[2]	1,889	1,845	2.4

[1] Based on total revenue
[2] Prior-year figures refer to December 31, 2020

In the first half-year of 2021, the Light & Optics division generated revenue of 207.3 million euros, a significant 48.6 percent above the prior-year figure of 139.5 million euros. Compared to the first quarter of 2021, the division also posted an appreciable revenue increase of 20.1 percent, from 94.2 million euros to 113.1 million euros. Over the first six months of 2021, business with the semiconductor equipment industry remained at a strong level. The Biophotonics and Industrial Solutions areas generated higher revenue than in the comparable period in the prior year, and TRIOPTICS also made a strong contribution to growth, of 41.0 million euros.

On a regional level, revenue increased across the board. In Asia/Pacific, it more than doubled, from 25.3 million euros to 56.2 million euros, primarily due to the contribution made by TRIOPTICS. Overall, the Light & Optics division's share of group revenue was 53.3 percent (prior year: 42.4 percent).

At 65.5 million euros, EBITDA was more than double the prior-year figure of 30.0 million euros (increase of 118.5 percent). In addition to the very good operating performance, this was also due to a one-off effect of around 16 million euros in connection with the conditional purchase price components arising from the acquisition of TRIOPTICS (for detailed information, see the Notes, page 31). TRIOPTICS also contributed operationally to the increase, despite the PPA impacts of minus 1.8 million euros. The division's EBITDA margin came to 31.5 percent, significantly up on the prior-year figure of 21.4 percent.

EBIT increased to 53.6 million euros (prior year: 24.5 million euros), incl. the above-mentioned one-off impact and the PPA impacts of minus 6.0 million euros (prior year: minus 0.1 million euros).

From January through June 2021, the division posted a significant increase in its order intake, by 90.9 percent to 269.6 million euros (prior year: 141.2 million euros). Growth was seen in all areas – particularly in the semiconductor equipment industry and in the Biophotonics areas. In addition, growth was bolstered by new orders from TRIOPTICS worth 49.1 million euros. Set against revenue, this resulted in the book-to-bill ratio improving from 1.01 in the prior year to 1.30 over the reporting period.

As of the end of June 2021, the good order intake meant that the order backlog, worth 239.3 million euros, was sharply up on the figure at year-end 2020 (31/12/2020: 179.1 million euros).

In the light of good business performance and TRIOPTICS' contribution, the free cash flow (before interest and taxes) increased to 36.7 million euros (prior year: 16.4 million euros). The cash conversion rate rose from 54.7 percent in the prior-year period to 56.1 percent in the first half-year of 2021, reflecting the significant increase in EBITDA, which was partly influenced by non-cash income.

In the light of rising demand for optics and sensors for the semiconductor industry, Jenoptik is planning to expand its manufacturing capacities and invest in a state-of-the-art production building and a new office complex in Dresden. For this purpose, the Group acquired a 24,000-square-meter plot of land at the Airportpark Dresden industrial park in May 2021. Construction is due to commence in the second half of 2022, with production at the new factory to begin in early 2025.

In early July 2021, Jenoptik announced that the Group concluded an agreement for the sale of its crystal growth business (2020 revenue of around 6 million euros) to Hellma Materials, thereby allowing it to continue to focus its business on photonic applications.

Light & Production

When reading the information provided on business performance in the Light & Production division, it should be noted that OTTO was reclassified into the Light & Optics division as of January 1, 2021. Prior-year figures were adjusted accordingly.

In the Light & Production division, signs of recovery in the automotive industry became apparent, particularly in the second quarter. Despite this, the impacts of the coronavirus pandemic from the prior year, especially the lower order backlog at the beginning of 2021, have not yet been fully overcome.

Over the first half-year of 2021, the division generated revenue of 78.0 million euros, 7.5 percent more than in the comparable period of the prior year (prior year: 72.6 million euros). While the Laser Processing and Industrial Metrology areas posted growth, Automation & Integration was still at around the prior-year level, mainly due to project postponements.

The Light & Production division achieved higher revenues in all regions, with the greatest growth in Europe (incl. Germany) – from 33.7 million euros to 36.5 million euros. The division's share of group revenue fell slightly to 20.0 percent (prior year: 22.1 percent).

EBITDA in the division increased to 3.7 million euros over the reporting period (prior year: minus 4.4 million euros), with, among other things, first impacts related to the restructuring and cost-cutting measures implemented in the 2020 fiscal year making a positive contribution. In the prior year, the EBITDA item included restructuring costs. The EBITDA margin improved from minus 6.1 percent in the prior-year period to 4.7 percent in the first half-year of 2021.

EBIT came to minus 1.9 million euros (prior year: minus 10.4 million euros), incl. PPA impacts of minus 2.7 million euros arising from the acquisitions of Prodomax, INTEROB, and Five Lakes Automation (prior year: minus 3.2 million euros).

Improved sentiment in the automotive industry, the key sector for the Light & Production division, was reflected in its order intake. In the first six months of 2021, the value of the order intake rose sharply on the prior-year period, which was strongly affected by the COVID-19 pandemic, to 109.6 million euros (prior year: 63.3 million euros), an increase of 73.0 percent. In the period covered by the report, the division received several orders for its Automation & Integration business in North America, worth a total of over 40 million US dollars. The orders from automotive customers in the Tier 1 segment include automation lines producing structural assemblies for several major car manufacturers. The book-to-bill ratio of 1.40 in the first half-year of 2021 considerably exceeded the prior-year figure of 0.87.

As a result of the sharp rise in order intake, the division's order backlog at the end of the reporting period, worth 106.1 million euros, was sharply up on the figure at year-end 2020 (31/12/2020: 74.7 million euros).

Despite improved earnings before tax, the increase in working capital in conjunction with the commencement of work on projects and the reduction of provisions led to a reduction in the free cash flow (before interest and taxes) to minus 3.1 million euros (prior year: 1.0 million euros).

As part of focusing its metrology business, Jenoptik announced in early July 2021 that an agreement had been reached with Marposs to sell its non-optical process measuring technology business for grinding machines (2020 revenue of around 7 million euros).

Light & Production at a glance

in million euros	30/6/2021	30/6/2020	Change in %
Revenue	78.0	72.6	7.5
EBITDA	3.7	– 4.4	n/a
EBITDA margin in %[1]	4.7	– 6.1	
EBIT	– 1.9	– 10.4	81.6
EBIT margin in %[1]	– 2.5	– 14.4	
Capital expenditure	1.4	2.5	– 42.0
Free cash flow	– 3.1	1.0	n/a
Cash conversion rate in %	< 0	< 0	
Order intake	109.6	63.3	73.0
Order backlog[2]	106.1	74.7	42.1
Employees[2]	941	1,040	– 9.5

[1] Based on total revenue

[2] Prior-year figures refer to December 31, 2020

Light & Safety

Business in the Light & Safety division is predominantly project-based. This resulted in a 23.2-percent fall in revenue, to 42.8 million euros, in the first half-year of 2021 (prior year: 55.7 million euros). Due to pandemic-related delays in the supply of electronic components, fewer deliveries were made than planned. New orders were also received later than originally expected. In addition, larger projects in the Americas and the Middle East/Africa had contributed to revenue in the prior-year period. In the second quarter, revenue of 23.6 million euros was slightly up on the prior-quarter figure of 19.2 million euros, and both these regions declined in the first half-year of 2021. Revenue in the Americas fell by 40.2 percent to 9.7 million euros (prior year: 16.1 million euros), and was also down in the other regions. The division's share of group revenue decreased to 11.0 percent (prior year: 16.9 percent).

The fall in revenue was also reflected in the division's profitability. Over the reporting period, EBITDA decreased to 3.3 million euros (prior year: 10.6 million euros). In line with revenue trends, it also improved over the first half-year, with EBITDA of 3.2 million euros in the second quarter well up on the figure of 0.2 million euros in the first quarter. The EBITDA margin fell appreciably from 19.0 percent to 7.8 percent in the first half of 2021.

The division's order intake is subject to typical fluctuations in project business, and in the first half-year of 2021 saw a strong rise to 64.6 million euros (prior year: 41.9 million euros). The book-to-bill ratio increased to 1.51 (prior year: 0.75), also reflecting lower revenue.

In the first half-year of 2021, Light & Safety received several orders for traffic safety technology in North America, in total worth around 20 million euros. The orders were awarded as part of "Vision Zero," a multinational traffic safety project that aims to drastically reduce the number of traffic accidents and deaths or serious injuries on the roads. These orders are expected to contribute to revenue already this year.

The division's order backlog grew 49.5 percent in value to 68.8 million euros (31/12/2020: 46.0 million euros).

Significantly lower earnings before tax and the increase in working capital on commencement of new projects resulted in a significantly lower free cash flow (before interest and taxes) of minus 8.3 million euros (prior year: 6.3 million euros).

Light & Safety at a glance

in million euros	30/6/2021	30/6/2020	Change in %
Revenue	42.8	55.7	− 23.2
EBITDA	3.3	10.6	− 68.5
EBITDA margin in %[1]	7.8	19.0	
EBIT	0.0	7.1	− 99.6
EBIT margin in %[1]	0.1	12.8	
Capital expenditure	2.8	1.5	91.0
Free cash flow	− 8.3	6.3	n/a
Cash conversion rate in %	< 0	59.1	
Order intake	64.6	41.9	54.3
Order backlog[2]	68.8	46.0	49.5
Frame contracts[2]	19.6	8.9	120.8
Employees[2]	498	489	1.8

[1] Based on total revenue

[2] Prior-year figures refer to December 31, 2020

VINCORION

In the first half-year 2021, VINCORION generated revenue of 60.0 million euros, thereby just rising above the prior-year figure of 58.8 million euros. While demand in the Energy & Drive area grew, revenue falls were posted in Power Systems and, due to the pandemic, business with the aviation industry. Quarter-on-quarter revenue grew from 25.4 million euros in the first quarter to 34.6 million euros in the second quarter.

On a regional basis, VINCORION generated its strongest growth in the Americas and Europe (incl. Germany), where revenue increased to 13.5 and 46.0 million euros respectively (prior year: 10.3 and 43.9 million euros). By contrast, and in line with project volumes, revenue was down in the Middle East/Africa region. The division's share of group revenue reduced from 17.9 percent to 15.4 percent.

Cost-cutting measures were also implemented by VINCORION and helped to improve the operating result, with EBITDA in the reporting period increasing to 6.3 million euros, compared to 4.1 million euros in the prior year. The EBITDA margin improved from 7.0 percent in the prior year to a present 10.6 percent.

Project postponements, particularly in the Power Systems area, and weaker business in the Aviation area due to the pandemic, led to a significant fall in the order intake for the reporting period, to 63.5 million euros (prior year: 84.3 million euros). The division's book-to-bill ratio declined to 1.06, compared with 1.43 in the prior year.

In the second quarter, VINCORION received an order to supply 100 hydraulic rescue hoist systems for military transport helicopters. The order is worth around 11.5 million euros, staggered until 2028. Deliveries are scheduled to commence in the third quarter of 2021.

Due to lower revenue, VINCORION's order backlog remained at a strong value of 171.7 million euros (31/12/2020: 160.3 million euros).

The free cash flow (before interest and taxes) came to minus 0.1 million euros (prior year: 0.1 million euros).

VINCORION at a glance

in million euros	30/6/2021	30/6/2020	Change in %
Revenue	60.0	58.8	2.1
EBITDA	6.3	4.1	53.3
EBITDA margin in %[1]	10.6	7.0	
EBIT	2.8	0.7	316.8
EBIT margin in %[1]	4.7	1.1	
Capital expenditure	6.3	4.4	43.2
Free cash flow	− 0.1	0.1	n/a
Cash conversion rate in %	< 0	2.4	
Order intake	63.5	84.3	− 24.7
Order backlog[2]	171.7	160.3	7.2
Frame contracts[2]	21.1	20.8	1.6
Employees[2]	743	775	− 4.1

[1] Based on total revenue

[2] Prior-year figures refer to December 31, 2020

Opportunity and Risk Report

Within the framework of the reporting on risk and opportunity management, we refer to the details on pages 133ff. of the 2020 Annual Report published in March 2021 and, with regard to the ongoing challenges associated with the pandemic in our VINCORION and Light & Production divisions, to our Quarterly Statement for the first quarter of 2021.

What remains a highly volatile global situation with regard to the spread of infection (e.g., mutations) and the potential resulting action to contain the pandemic may continue to have an impact on Jenoptik's business activities. With regard to the measures put in place to mitigate the risks relating to our employees' health, we refer again to our prior reports.

Our entire business remains subject to risks in the supply chain resulting from a range of stress factors, but these factors are currently being closely monitored and managed. In our Light & Optics division, for example, these include accelerated growth in the semiconductor market and high levels of associated demand for raw materials and intermediate products, as well as the increasing demands placed on our suppliers as technology evolves. There are risks for all business areas with regard to the continuous supply of electronic and, to some extent, plastic components, which can, however, be managed at the present time through close coordination between production, purchasing, and suppliers.

As the global situation is highly dynamic at present, the risks of the pandemic for Jenoptik still cannot be assessed conclusively.

There were no other major changes in the opportunities and risks described in the report during the course of the first two quarters of 2021.

At present, no risks have been identified that, either individually or in combination with other risks, could jeopardize the continued existence of the company.

Forecast Report

Outlook for the Economy as a Whole and the Jenoptik Sectors

The International Monetary Fund (IMF) updated its growth forecast in July 2021: According to this, the industrialized countries will see a further normalization or recovery of their economies overall, which is why the IMF increased its forecast for them compared with the last outlook in April 2021. By contrast, the economic outlook deteriorated above all for poorer emerging and developing countries, particularly in Asia. According to the IMF, vaccine access has emerged as the principle fault line along which the global economic development splits into the two blocs of recovery or set back. Global economic output will increase by 6.0 percent year-on-year in 2021, partly due to base effects or low prior-year figures. In the trade dispute with Europe, the US also reached an agreement in June to ease tensions. Both sides agreed to suspend reciprocal punitive tariffs for the next five years.

The IMF forecasts the fastest growth in a generation for the US economy due to the stimulus packages and vaccination campaign. An extensive investment program passed by the US Senate in June 2021 is designed to strengthen the US economy in competition with China. It provides for investment of around 190 billion US dollars in technology and research, with an additional 54 billion US dollars to be spent on research and production of semiconductors and telecommunications equipment.

For the euro zone, the EU Commission expects considerable growth of 4.8 percent in the current year; in the fourth quarter, the pre-crisis level could be reached again. Economic output will increase at different rates in the individual countries, but this is mainly due to so-called base effects, according to which GDP in countries such as Germany will grow at a below-average rate because it had declined less sharply in the previous year, and so the increase in 2021 will be lower. Material shortages, supply bottlenecks and delays could cost the German economy around 25 billion euros this year, estimates the Kiel Institute for the World Economy. Industrial production could be impacted well into the third quarter. Risks to economic development continue to be the Corona mutations and their spread.

Growth forecast of gross domestic product

in percent / in percentage points	2021 (forecast July)	2021 (forecast April)	2022
World	6.0	6.0	4.9
USA	7.0	6.4	4.9
Eurozone	4.6	4.4	4.3
Germany	3.6	3.6	4.1
China	8.1	8.4	5.7
Emerging countries	6.3	6.7	5.2

Source: International Monetary Fund, World Economic Outlook, July and April 2021

Following the crisis year 2020, many photonics companies are expecting a surge in growth, as revealed in a survey conducted by the German Spectaris industry association in cooperation with Optecnet Deutschland. 75 percent of the companies surveyed believe revenue will grow in 2021, by an average of up to 14 percent on the weak prior year. If this were the case, the total revenue at German manufacturers would approach 46 billion euros. Domestic revenue could increase 9 percent, foreign revenue almost 16 percent, with drivers of growth being products for the analytical, bio, and laboratory technology sector, as well as for the growing field of digital communication. According to market researcher Triton, revenue in the German global photonics industry could grow by an average of 8.1 percent annually to 921.7 billion US dollars by 2028, up from the 2020 figure of 459.9 billion US dollars.

Ten bigger corporations have joined forces in their ambition to create the basis for the industrialization of quantum technology in Germany and Europe, and to this end founded the "Quantum Technology and Application Consortium" (Qutac) in summer 2021. The goal is to further develop the existing foundations of quantum computing into usable industrially relevant applications, especially for the technology, chemical, pharmaceutical, insurance, and automotive industries.

According to the SIA, the global semiconductor market will grow significantly in 2021 and 2022, as semiconductors are increasingly a part of the breakthrough technologies of today and the future. Specifically, the SIA is anticipating revenue growth of 19.7 percent, to 527.2 billion US dollars, in the current year and further growth of 8.8 percent in 2022.

According to the latest "Mid-Year Total Semiconductor Equipment Forecast" published by Semiconductor Equipment and Materials International (SEMI) in July, global spending on semiconductor manufacturing will rise 34 percent to 95.3 billion US dollars in 2021 and to more than 100 billion US dollars in the following year. Korea, Taiwan, and China remain the regions with the highest volumes, but growth is also expected in all other parts of the world. In late June 2021, SEMI also reported that semiconductor manufacturers worldwide are investing heavily in new fabs ("semiconductor fabrication plants") to meet the growing demand for semiconductors in many industries and applications, including communications, computing, healthcare, and automotive. As a result, a total of 29 new fabs are to be built, the majority in China, Taiwan, and America. Following the construction of the Bosch fab in Dresden, US company Intel may follow with its own new fab in Germany.

According to a study conducted by consultants AlixPartners, the shortage of semiconductors means that up to 3.9 million fewer vehicles will be built by the end of 2021. The Duisburg-based Center Automotive Research run by Ferdinand Dudenhöffer puts the shortfall as high as 5.2 million fewer vehicles. Industry experts believe that the chip bottlenecks in the automotive industry could become even worse in the second half of the year. Dudenhöffer sees two limiting factors for automobile production: The semiconductor shortage will have an impact until the beginning of 2023, after which battery cells will be in short supply, and competition between industries for semiconductors is increasing, as they are not only needed for e-mobility, infotainment, and assistance systems, but also for factory automation, robotics, and other infrastructures based on power semiconductors. As part of the "Fit for 55" climate package, the EU Commission wants to ban the conventional combustion engine from passenger cars by 2035. Instead, it will then only be possible to purchase zero-emission new cars; the charging network infrastructure will be expanded at the same time. The VDA is critical of these plans and calculated that the internal combustion engine in Germany would have to be phased out as early as 2030 in order to achieve the staggered emissions targets. Major automakers are already investing heavily in electromobility, with some planning to offer only electric vehicles already before 2030.

Economic recovery in the German mechanical and plant engineering industry resulted in the VDMA industry association raising its 2021 forecast in June. It believes production in the industry will grow 10 percent this year, with risks comprising the still difficult situation in the supply chain and the possibility of renewed border closures.

The robotics and automation industry (R+A) in Germany will generate revenue of 13.4 billion euros in 2021, an increase of 11 percent, according to the forecast issued by the VDMA's R+A sector group. Strong recovery and a trend reversal are expected; the prospects into 2022 are excellent, as some complex projects now starting up will be billed with a time delay. The trade association sees good chances of achieving or exceeding the record result of 2018 as early as 2022. Important drivers include green technology strategies to help achieve climate neutrality and better use of resources, for example the production of fuel cells for hydrogen propulsion or high-performance batteries.

In June 2021, the European Parliament's Transport Committee adopted a document confirming the EU Commission's strategy for greater traffic safety: Under its plans, road traffic injuries and fatalities are to be reduced by 50 percent by 2030, key performance indicators (KPIs) for road safety will be defined by 2023, and speed limits will be recommended for the different EU states. In Germany, an alliance of associations is calling not only for a general speed limit on German autobahns but also for the maximum speed outside built-up areas to be reduced to 80 km/h and a standard speed limit of 30 km/h to be introduced within cities after the Bundestag elections in the fall. This would help to reduce traffic noise, accidents, and CO_2 emissions. The World Health Organization (WHO) is also calling for a speed limit in urban areas of 30 km/h, or 20 mph in the Anglo-American system. In the summer of 2021, the German government initiated an amendment to the law on automatic number plate recognition (ANPR) systems. The existing rules on collecting ANPR data will be extended to cover other investigative purposes. One issue to be clarified, for example, is whether number plate scanning will also be temporarily permitted without filters or generally for all traffic.

In the aviation industry, despite the modest recovery seen recently, aircraft manufacturer Boeing had to sharply reduce its delivery targets due to new production defects in the 787 Dreamliner, with around 100 aircraft likely to be affected. Airbus plans to restructure the group over the next few years, with the aim of reorganizing aircraft production in Germany and France. To this end, new companies are to be established in each of the two countries, which will be wholly owned by Airbus.

In the security and defense industry, the contract between Germany, France, and Spain for the new FCAS fighter jet system to replace the Eurofighter and the French Rafale jets is due to be signed in September. At present, not all issues concerning development, intellectual property, and long-term financing have been resolved. All three partner countries are to bear equal shares of the costs, work, and development packages. Germany is expected to contribute 4.5 billion euros by 2027; overall, the project could run to a total cost of around 100 billion euros by 2040.

No new major forecasts have been issued for the other sectors. We therefore refer to pages 146ff. of the 2020 Annual Report.

Future Development of Business

Even given the ongoing situation caused by the COVID-19 pandemic, the Jenoptik Group is pursuing its goal of securing profitable growth in the medium and long term. This will be aided by an expansion of the international business, the resultant economies of scale, higher margins from an optimized product mix, increasing service business, and improved cost discipline. In part due to the debenture bonds placed in March 2021, Jenoptik enjoys a good asset position and a viable financing structure, giving the company room for maneuver to finance both organic and inorganic growth through potential acquisitions.

Jenoptik is a diversified company with its three photonics divisions and its mechatronics business, and also has a well-balanced portfolio of products and services that ensures stability during crises and help the company to offset fluctuations. Business performance continues to be different in the various sectors and divisions. In recent months and also at present, the semiconductor equipment business is performing very positively, and is set to continue doing so due to the digitization trend. A significant recovery after the pandemic-related decline in the prior year can be seen in the biophotonics sector, with some positive signs also discernible in the automotive market. By contrast, rapid recovery is still not expected in the aviation industry.

The structural adjustment and portfolio management projects launched in 2020 are already beginning to show results, which are expected to intensify in the coming months and then take full effect in the 2022 fiscal year, helping to accelerate growth and improve the Group's profitability.

The Jenoptik Group posted record figures in order intake, revenue, and EBITDA in the second quarter of 2021. The main contributor to this rise was the Light & Optics division, particularly in the above-mentioned areas, and TRIOPTICS, which was consolidated for the first time. TRIOPTICS is expected to increase its revenue by at least 20 percent in the current fiscal year and achieve an EBITDA margin well above the group average. There were also signs of recovery in the automotive industry. Based on very good operating performance in the second quarter of 2021 and in expectation of a strong second half, the Executive Board now expects to exceed the previous guidance for revenue and EBITDA margin. For the 2021 fiscal year, management is now expecting revenue of between 880 and 900 million euros (previously revenue growth in the low double-digit percentage range / prior year: 767.2 million euros) and an EBITDA margin (EBITDA = earnings before interest, taxes, depreciation, and amortization, including impairment losses and reversals) of between 19.0 and 19.5 percent (previously EBITDA margin of 16.0–17.0 percent / prior year: 14.6 percent).

All statements on the future development of the business situation have been made on the basis of current information available at the time the report was prepared. A variety of known and unknown risks, uncertainties, and other factors, e.g. changes in the portfolio, may cause the actual results, the financial situation, the development, or the performance of the company to diverge significantly from the information provided here.

Consolidated Statement of Comprehensive Income

Consolidated Statement of Income

in thousand euros	1/1 to 30/6/2021	1/1 to 30/6/2020	1/4 to 30/6/2021	1/4 to 30/6/2020
Revenue	389,265	328,975	213,278	164,563
Cost of sales	264,963	219,320	142,380	108,817
Gross profit	**124,302**	**109,655**	**70,898**	**55,746**
Research and development expenses	20,534	22,134	11,088	11,016
Selling expenses	48,084	41,858	23,263	19,734
General administrative expenses	30,622	29,554	14,426	13,435
Impairment gains and losses	– 1,137	1,718	– 446	1,030
Other operating income	27,843	7,905	20,502	4,239
Other operating expenses	5,538	10,174	2,009	3,769
EBIT	**46,229**	**15,558**	**40,169**	**13,062**
Result from other investments	286	1,384	113	1,384
Financial income	2,747	2,724	1,663	1,112
Financial expenses	6,459	6,316	2,993	1,856
Financial result	**– 3,426**	**– 2,208**	**– 1,217**	**641**
Earnings before tax	**42,803**	**13,351**	**38,952**	**13,702**
Income taxes	– 5,056	– 2,782	– 4,960	– 2,725
Earnings after tax	**37,747**	**10,568**	**33,992**	**10,977**
Results from non-controlling interests	545	48	1,074	88
Earnings attributable to shareholders	37,202	10,520	32,918	10,889
Earnings per share in euros (undiluted = diluted)	**0.65**	**0.18**	**0.58**	**0.19**

Consolidated Comprehensive Income

in thousand euros	1/1 to 30/6/2021	1/1 to 30/6/2020	1/4 to 30/6/2021	1/4 to 30/6/2020
Earnings after tax	**37,747**	**10,568**	**33,992**	**10,977**
Items that will never be reclassified to profit or loss	3,308	– 1,956	414	– 532
Actuarial gains / losses arising from the valuation of pensions and similar obligations	4,290	– 582	400	842
Equity instruments measured at fair value through other comprehensive income	0	– 1,375	0	– 1,375
Income taxes	– 983	0	13	0
Items that are or may be reclassified to profit or loss	8,229	– 4,520	– 305	2,012
Cash flow hedges	– 1,384	– 331	1,171	2,558
Foreign currency exchange differences	9,892	– 4,819	– 1,070	96
Income taxes	– 279	630	– 406	– 642
Total other comprehensive income	**11,537**	**– 6,476**	**109**	**1,480**
Total comprehensive income	**49,283**	**4,092**	**34,101**	**12,456**
Thereof attributable to:				
Non-controlling interests	736	25	1,005	86
Shareholders	48,548	4,067	33,096	12,371

Consolidated Statement of Financial Position

Assets in thousand euros	30/6/2021	31/12/2020	Change	30/6/2020
Non-current assets	**849,813**	**848,943**	**870**	**581,250**
Intangible assets	493,356	487,075	6,281	236,191
Property, plant and equipment	261,987	263,499	– 1,511	248,129
Investment property	4,201	4,175	26	4,219
Investments accounted for using the equity method	13,800	13,410	390	13,248
Financial investments	2,842	2,926	– 83	860
Other non-current assets	2,518	3,276	– 759	673
Deferred tax assets	71,109	74,583	– 3,474	77,930
Current assets	**503,904**	**489,900**	**14,004**	**491,513**
Inventories	221,771	191,406	30,365	176,795
Current trade receivables	122,523	138,010	– 15,487	105,598
Contract assets	79,509	74,735	4,774	66,925
Other current financial assets	6,374	6,492	– 118	3,098
Other current non-financial assets	16,261	10,958	5,303	15,646
Current financial investments	5,168	4,894	274	64,874
Cash and cash equivalents	49,806	63,405	– 13,599	58,577
Assets held for sale	2,492	0	2,492	0
Total assets	**1,353,717**	**1,338,843**	**14,874**	**1,072,762**

Equity and liabilities in thousand euros	30/6/2021	31/12/2020	Change	30/6/2020
Equity	**723,857**	**689,391**	**34,466**	**657,802**
Share capital	148,819	148,819	0	148,819
Capital reserve	194,286	194,286	0	194,286
Other reserves	368,907	334,668	34,238	314,162
Non-controlling interests	11,845	11,618	228	535
Non-current liabilities	**254,734**	**233,029**	**21,704**	**188,563**
Pension provisions	29,980	35,178	– 5,199	31,478
Other non-current provisions	16,467	17,039	– 572	17,418
Non-current financial debt	193,353	138,410	54,942	130,803
Other non-current liabilities	4,542	29,545	– 25,003	6,617
Deferred tax liabilities	10,393	12,858	– 2,465	2,247
Current liabilities	**375,126**	**416,423**	**– 41,296**	**226,397**
Tax provisions	3,034	2,624	411	1,698
Other current provisions	43,216	52,482	– 9,266	34,881
Current financial debt	76,116	130,871	– 54,755	19,232
Current trade payables	77,692	89,747	– 12,055	79,479
Contract liabilities	57,498	46,274	11,224	54,278
Other current financial liabilities	87,627	75,327	12,300	12,324
Other current non-financial liabilities	29,627	19,098	10,530	24,505
Debt held for sale	315	0	315	0
Total equity and liabilities	**1,353,717**	**1,338,843**	**14,874**	**1,072,762**

Consolidated Statement of Changes in Equity

in thousand euros	Share capital	Capital reserve	Retained earnings	Equity instruments measured through other comprehensive income	Cash flow hedges
Balance at 1/1/2020	148,819	194,286	326,456	882	– 1,890
Net profit for the period			10,520		
Other comprehensive income after tax				– 1,375	– 179
Total comprehensive income			10,520	– 1,375	– 179
Acquisition of non-controlling interests			– 1,565		
Other adjustments			– 23		
Balance at 30/6/2020	148,819	194,286	335,388	– 493	– 2,069
Balance at 1/1/2021	148,819	194,286	359,196	– 83	897
Net profit for the period			37,202		
Other comprehensive income after tax				0	– 980
Total comprehensive income			37,202	0	– 980
Transactions with owners (dividends)			– 14,310		
Balance at 30/6/2021	148,819	194,286	382,088	– 83	– 83

Cumulative exchange differences	Actuarial effects	Equity attributable to shareholders of JENOPTIK AG	Non-controlling interests	Total	in thousand euros
8,000	– 21,765	654,788	656	655,444	Balance at 1/1/2020
		10,520	48	10,568	Net profit for the period
– 4,305	– 594	– 6,453	– 23	– 6,476	Other comprehensive income after tax
– 4,305	– 594	4,067	25	4,092	Total comprehensive income
		– 1,565	– 146	– 1,711	Acquisition of non-controlling interests
		– 23		– 23	Other adjustments
3,695	– 22,359	657,267	534	657,801	Balance at 30/6/2020
– 1,918	– 23,423	677,774	11,617	689,391	Balance at 1/1/2021
		37,202	545	37,747	Net profit for the period
9,000	3,326	11,346	191	11,537	Other comprehensive income after tax
9,000	3,326	48,548	736	49,283	Total comprehensive income
		– 14,310	– 508	– 14,817	Transactions with owners (dividends)
7,082	– 20,097	712,012	11,845	723,857	Balance at 30/6/2021

Consolidated Statement of Cash Flows

in thousand euros	1/1 to 30/6/2021	1/1 to 30/6/2020	1/4 to 30/6/2021	1/4 to 30/6/2020
Earnings before tax	**42,803**	**13,351**	**38,952**	**13,702**
Financial income and expenses	3,713	3,592	1,330	744
Depreciation and amortization	27,449	22,592	13,517	11,495
Impairment losses and reversals of impairment losses	0	– 292	0	– 292
Profit / loss from asset disposals	– 132	– 127	– 2	– 13
Other non-cash income / expenses	– 19,672	– 996	– 16,355	– 579
Change in provisions	– 10,945	– 18,364	– 12,060	– 16,313
Change in working capital	– 20,288	12,497	– 24,839	1,072
Change in other assets and liabilities	8,319	2,539	5,646	– 3,362
Cash flows from operating activities before income tax payments	**31,248**	**34,791**	**6,188**	**6,453**
Income tax payments	– 5,208	– 8,099	– 3,326	– 6,116
Cash flows from operating activities	**26,039**	**26,692**	**2,862**	**337**
Capital expenditure for intangible assets	– 7,992	– 6,828	– 4,474	– 2,656
Proceeds from sale of property, plant and equipment	261	2,403	109	2,217
Capital expenditure for property, plant and equipment	– 11,962	– 14,370	– 6,015	– 4,432
Acquisition of consolidated entities less acquired cash	0	– 27,184	0	– 3,135
Proceeds from sale of financial assets within the framework of short-term disposition	197	25,000	0	10,000
Capital expenditure for financial assets within the framework of short-term disposition	0	– 20,000	0	0
Proceeds from other financial investments	530	286	197	286
Capital expenditure for other financial investments	– 435	– 30	– 190	– 30
Interest received and other income	126	90	83	25
Cash flows from investing activities	**– 19,275**	**– 40,633**	**– 10,290**	**2,275**
Dividends paid	– 14,432	0	– 14,310	0
Acquisition of non-controlling interests	0	– 1,711	0	0
Proceeds from issuing bonds and loans	138,340	13,169	4,155	1,304
Repayments of bonds and loans	– 134,804	– 27,621	– 132,376	– 25,364
Payments for leases	– 6,678	– 5,994	– 3,370	– 3,002
Change in group financing	– 604	– 1,831	591	– 1,221
Interest paid and other expenses	– 3,362	– 2,406	– 1,908	– 1,588
Cash flows from financing activities	**– 21,540**	**– 26,395**	**– 147,218**	**– 29,871**
Change in cash and cash equivalents	**– 14,776**	**– 40,336**	**– 154,646**	**– 27,259**
Effects of movements in exchange rates on cash held	1,119	– 140	– 7	54
Change in cash and cash equivalents due to changes in the scope of consolidation and valuation adjustments	58	28	515	448
Cash and cash equivalents at the beginning of the period	63,405	99,025	203,945	85,334
Cash and cash equivalents at the end of the period	**49,806**	**58,577**	**49,806**	**58,577**

Disclosures on Segment Reporting

January 1 to June 30, 2021

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Consolidation	Group
Revenue	207,946	78,066	42,788	60,042	21,566	– 21,144	389,265
	(140,216)	(72,538)	(55,741)	(58,782)	(25,238)	(– 23,541)	(328,975)
thereof intragroup revenue	653	27	0	10	20,454	– 21,144	0
	(761)	(– 83)	(0)	(10)	(22,853)	(– 23,541)	(0)
thereof external revenue	207,293	78,039	42,788	60,032	1,113	0	389,265
	(139,455)	(72,622)	(55,741)	(58,772)	(2,385)	(0)	(328,975)
Europe	102,624	36,540	28,203	46,030	1,113	0	214,510
	(76,632)	(33,680)	(28,943)	(43,926)	(2,385)	(0)	(185,566)
Americas	39,140	33,666	9,653	13,508	0	0	95,966
	(30,303)	(32,486)	(16,135)	(10,312)	(0)	(0)	(89,236)
Middle East / Africa	9,359	211	551	188	0	0	10,309
	(7,257)	(169)	(5,433)	(4,122)	(0)	(0)	(16,982)
Asia / Pacific	56,169	7,622	4,382	308	0	0	68,480
	(25,263)	(6,287)	(5,230)	(411)	(0)	(0)	(37,191)
EBITDA	65,523	3,669	3,337	6,336	– 5,513	325	73,678
	(29,985)	(– 4,432)	(10,599)	(4,133)	(– 2,439)	(13)	(37,859)
EBIT	53,570	– 1,919	32	2,804	– 8,587	329	46,229
	(24,547)	(– 10,437)	(7,111)	(673)	(– 6,352)	(17)	(15,558)
Research and development expenses	9,246	3,098	6,884	1,257	77	– 27	20,534
	(9,983)	(3,922)	(6,010)	(2,240)	(56)	(– 78)	(22,134)
Free cash flow (before income taxes)	36,745	– 3,142	– 8,333	– 130	– 12,932	– 654	11,555
	(16,403)	(973)	(6,259)	(101)	(– 114)	(– 7,626)	(15,996)
Working capital[1]	118,560	70,430	17,981	87,735	– 4,551	– 1,543	288,613
	(114,578)	(66,595)	(12,064)	(82,914)	(– 7,795)	(– 227)	(268,130)
Order intake (external)	269,585	109,601	64,586	63,458	1,130	0	508,360
	(141,219)	(63,336)	(41,857)	(84,294)	(3,215)	(0)	(333,920)
Frame contracts[1]	17,241	0	19,648	21,084	0	0	57,973
	(12,637)	(0)	(8,897)	(20,756)	(0)	(0)	(42,289)
Assets[1]	662,325	298,624	118,238	203,297	1,011,446	– 940,213	1,353,717
	(626,139)	(307,905)	(114,888)	(199,898)	(1,008,142)	(– 918,129)	(1,338,843)
Liabilities[1]	241,952	219,229	76,200	146,663	285,911	– 340,096	629,860
	(261,161)	(227,408)	(71,187)	(147,658)	(266,200)	(– 324,164)	(649,452)
Additions to intangible assets, property, plant and equipment and investment properties	9,400	1,425	2,823	6,282	2,912	288	23,130
	(8,276)	(2,457)	(1,478)	(4,388)	(4,134)	(0)	(20,734)
Scheduled depreciation and amortization	11,953	5,588	3,306	3,532	3,074	– 4	27,449
	(5,730)	(6,004)	(3,489)	(3,460)	(3,913)	(– 4)	(22,592)
Number of employees on average (excluding trainees)	1,788	965	481	715	290	0	4,239
	(1,348)	(1,043)	(477)	(750)	(309)	(0)	(3,928)

EBITDA = Earnings before interest, taxes, depreciation and amortization

EBIT = Earnings before interest and taxes

Prior-year figures are in parentheses.

[1] Prior-year figures refer to December 31, 2020

Notes to the Interim Consolidated Financial Statements for the First Six Months of 2021

Parent Company

The parent company is JENOPTIK AG headquartered in Jena and registered in the Commercial Register at the local court of Jena in Department B under the number HRB 200146. JENOPTIK AG is listed on the German Stock Exchange in Frankfurt and included in the TecDax and SDax, amongst others.

To some extent, the Jenoptik Group's business activities are subject to the influence of seasonal fluctuations. In the past, revenue and earnings contributions were higher in the fourth quarter, in particular, than in the preceding quarters, reflecting stronger year-end business. Consequently, the interim results are only of limited value in forecasting the results for the full fiscal year.

Accounting in accordance with International Financial Reporting Standards (IFRS)

The accounting policies applied in preparing the 2020 consolidated financial statements were also applied in preparing the interim consolidated financial statements as at June 30, 2021, which were prepared on the basis of the International Accounting Standard (IAS) 34 "Interim Financial Reporting", with the exemption of the standards applied for the first time in fiscal year 2021. The 2020 consolidated financial statements were prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union. These policies were individually described in detail in the Notes to the 2020 Annual Report. The Annual Report is available on the website under www.jenoptik.com using the path Investors/Reports and Presentations.

The interim consolidated financial statements were prepared in euros, the currency used in the Group, and figures are presented in thousand euros, if not otherwise stated. Please note that there may be rounding differences as compared to the mathematically exact values (monetary units, percentages, etc.).

The following IFRS were applied for the first time in the fiscal year 2021:

Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16: Interest rate benchmark reform – phase 2. In August 2020, the IASB passed amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4, and IFRS 16 in respect of the reform of the reference interest rates. The amendments provide for temporary relief when a reference interest rate (IBOR) is replaced by an alternative near-risk-free rate (RFR) and this has an impact on the financial reporting.

The amendments are valid for fiscal years commencing on or after January 1, 2021 and are to be applied retrospectively. There is no requirement for any amendment to previous periods. There are no financial instruments that are linked to the IBOR as the reference interest rate. The amendments to the IFRSs concerned therefore have no impact on the Interim Financial Statements.

Extension of the application period of the amendments to IFRS 16: Rental concessions in connection with COVID-19. In March 2021 the IASB resolved to extend the application period for support in connection with the accounting of COVID-19-related rental concessions until June 30, 2022. As there were no rental concessions at Jenoptik related to COVID-19, this has no effect on the Interim Financial Statements.

In addition, the following accounting policies and valuation methods are relevant to the Interim Financial Statements as of June 30, 2021:

Non-current assets or disposal groups held for sale. Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. The criteria for an asset or disposal group to be classified as held for sale under IFRS 5 are only considered to be met if the sale is highly probable. A transaction is considered highly probable if, on the reporting date, there are no significant risks to its completion, normally requiring the conclusion of binding contracts or at least agreement on all material terms of the contract.

Assets and liabilities classified as held for sale are reported separately as current items in the statement of financial position and measured at the lower of carrying amount and fair value less costs to sell. There is no scheduled depreciation/amortization of non-current assets.

Estimates

The preparation of the consolidated financial statements in accordance with IFRS to be applied in the EU requires that assumptions are made for certain items, affecting their recognition in the statement of financial position or in the statement of comprehensive income as well as the disclosure of contingent receivables and liabilities. All assumptions and estimates are made to the best of the Group's knowledge and belief in order to provide a true and fair view of the net assets, financial position and result of operations of the Group.

The underlying assumptions and estimates are continually reviewed. This gives the author of the Interim Financial Statements a certain amount of discretionary leeway. Against the background of the ongoing COVID-19 pandemic, there remains increased uncertainty as to estimates and risks with regard to significant adjustments to carrying amounts. The assumptions and estimates made in preparing these Interim Financial Statements correspond to the disclosures in the Notes to the Consolidated Financial Statements as of December 31, 2020, starting on page 163.

The Group of Entities Consolidated

The Consolidated Financial Statements of JENOPTIK AG include 44 fully consolidated subsidiaries (31/12/2020: 49) of which 12 (31/12/2020: 14) have their legal seat in Germany and 32 (31/12/2020: 35) abroad. The scope of consolidation of the Jenoptik Group also includes 3 companies (31/12/2020: 3) that are included in the Consolidated Financial Statements using the at-equity method.

The decrease in the number of fully consolidated companies results, in particular, from intra-group mergers. In addition, two non-operating companies were dissolved. This did not have any impact on the Group.

There were no acquisitions or sales of companies in the first half-year of 2021.

On the closing date of September 24, 2020 Jenoptik successfully completed the acquisition of Trioptics GmbH, Wedel, Germany, through JENOPTIK Optical Systems GmbH. Its inclusion in the Interim Financial Statements as of June 30, 2021 in accordance with IFRS 3 remains based on provisional figures. The provisional aspect relates to the determination of the net assets acquired from the TRIOPTICS entities. The first-time consolidation will be finalized in the third quarter of 2021.

Material Transactions

In March, Jenoptik placed sustainability-linked debenture bonds worth 400 million euros on the capital market on attractive terms. Of this sum, 130 million euros were disbursed in March; the remaining 270 million euros will be paid out in September 2021. The debenture bonds were significantly oversubscribed and comprised several tranches with terms of five, seven, and ten years, which were issued not only in euros but also, to a lesser extent, in US dollars. Investors from Germany and abroad were offered both fixed and variable interest rate options. The funds from the debenture bonds will give the Group room for maneuver for investments in its core business of photonics and in acquisitions. They will also be used to finance the outstanding purchase price liabilities arising from the acquisition of TRIOPTICS. In addition, utilization of the syndicated loan agreement was reduced by 110 million euros in April, and existing debenture bonds in the amount of 14 million euros were repaid early.

Despite the significant growth of TRIOPTICS in the current year, which is above the group average (see Forecast Report on page 23), some of the revenue and earnings contributions originally planned for 2021 will probably not be realized until 2022. As the 2022 year is no longer relevant to the purchase price mechanism, and taking into account a mutual bonus/malus arrangement between the contracting parties for the year 2021, conditional purchase price liabilities arising from the acquisition of TRIOPTICS could be reversed through profit or loss, and receivables from contingent consideration could also be capitalized. The income from the fair value adjustment of conditional purchase price components of TRIOPTICS, amounting to 15,739 thousand euros, is included in other operating income. The development of conditional purchase price components in total is set out on page 35.

On June 9, 2021, the JENOPTIK AG virtual Annual General Meeting resolved to pay out a dividend of 0.25 euros per share. Payment of the dividend reduced cash flows from financing activities by 14,310 thousand euros. In addition, divdends of 508 thousand euros were awarded to minority shareholders of TRIOPTICS, of which the amount of 123 thousand euros already paid out also reduced cash flows from financing activities.

There were no other transactions with a significant influence on the interim consolidated financial statements of Jenoptik in the second quarter or cumulated as at June 30, 2021.

Classifications of material financial statement items

Revenue. A breakdown of revenues from contracts with customers by divisions and geographical regions is presented in the segment report on page 29. The breakdown of revenues into revenues recognized over time and revenues recognized at a point in time in accordance with IFRS 15 is shown in the table below. The revenues recognized over time included services such as customer-specific development projects and customer-specific volume productions particularly carried out in the Light & Optics division, customer-specific one-off productions as well as services rendered, for example from customer-specific development projects and from traffic service provision contracts.

Inventories

in thousand euros	30/6/2021	31/12/2020
Raw materials, consumables and supplies	90,536	80,336
Unfinished goods and work in progress	96,208	79,076
Finished goods and merchandise	30,584	29,659
Payments on-account	4,443	2,335
Total	221,771	191,406

Property, plant and equipment

in thousand euros	30/6/2021	31/12/2020
Land, buildings	166,460	169,644
Technical equipment and machinery	54,326	54,784
Other equipment, operating and office equipment	27,689	28,734
Payments on-account and equipment under construction	13,512	10,336
Total	261,987	263,499

Intangible assets

in thousand euros	30/6/2021	31/12/2020
Goodwill	396,671	390,161
Acquired patents, trademarks, software, customer relationships	66,890	74,110
Development costs arising from internal development projects	18,971	13,999
Internally generated patents	1,225	1,236
Other intangible assets	9,598	7,569
Total	493,356	487,075

Current trade receivables

in thousand euros	30/6/2021	31/12/2020
Trade receivables from third parties	119,109	132,456
Receivables from due requested advance payments	3,111	5,277
Trade receivables from non-consolidated associates and investments	303	277
Total	122,523	138,010

in thousand euros	Light & Optics	Light & Production	Light & Safety	VINCORION	Other	Group
External revenue	207,293	78,039	42,788	60,032	1,113	389,265
	(139,455)	(72,622)	(55,741)	(58,772)	(2,385)	(328,975)
thereof recognized over time	80,654	41,668	18,754	13,044	1,113	155,233
	(59,135)	(41,952)	(15,262)	(11,036)	(2,385)	(129,770)
thereof recognized at a point in time	126,639	36,371	24,034	46,989	0	234,033
	(80,320)	(30,670)	(40,479)	(47,736)	(0)	(199,205)

Prior-year figures are in parentheses.

Assets and liabilities held for sale. On July 5, 2021, a contract for the sale of the germanium crystal growth business of the Light & Optics division was agreed. The assets and liabilities associated with the transaction are classified as held for sale as of June 30, 2021, in accordance with IFRS 5. There were no impairment losses on the disposal group. Closing is subject to regulatory approval which is expected within the second half of the year.

Non-current financial debt

in thousand euros	30/6/2021	31/12/2020
Liabilities to banks	148,360	90,685
Liabilities from leases	44,993	47,726
Total	193,353	138,410

Current financial debt

in thousand euros	30/6/2021	31/12/2020
Liabilities to banks	63,538	118,565
Liabilities from leases	12,578	12,306
Total	76,116	130,871

Other current non-financial liabilities

in thousand euros	30/6/2021	31/12/2020
Liabilities to employees	16,946	6,888
Liabilities from other taxes	7,564	8,394
Liabilities from social security	2,283	1,624
Liabilities to employer's insurance association	1,157	1,335
Accruals	1,504	467
Miscellaneous current non-financial liabilities	174	389
Total	29,627	19,098

Financial Instruments

The carrying amounts listed below for shares in non-consolidated associates and investments, cash and cash equivalents, contingent liabilities and derivatives with and without hedging relations correspond to their fair value. The carrying amounts of the remaining items represent an appropriate approximation of their fair value. In the following presentation, the non-current and current portion of each item of the statement of financial position are shown.

Financial assets

in thousand euros	Valuation category according to IFRS 9[1]	Carrying amounts 30/6/2021	Carrying amounts 31/12/2020
Financial investments			
Current cash deposits	AC	0	197
Current financial investments (stocks, bonds)	FVTPL	5,168	4,698
Shares in non-consolidated associates and investments	FVTOCI	844	841
Shares in entities which are subject to the equity valuation	-[2]	13,800	13,410
Loans and other financial investments	AC	1,998	2,084
Trade receivables	AC	122,525	138,011
Other financial assets			
Receivables from finance leases	-	124	192
Receivables from contingent considerations	FVTPL	3,135	0
Derivatives with hedging relations	-	544	1,956
Derivatives without hedging relations	FVTPL	158	291
Other financial assets	AC	7,533	6,638
Cash and cash equivalents	AC	49,806	63,405

[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
FVTOCI = Fair value through other comprehensive income
[2] Valuation according to IAS 28

Financial liabilities

in thousand euros	Valuation category according to IFRS 9[1]	Carrying amounts 30/6/2021	Carrying amounts 31/12/2020
Financial debt			
Liabilities to banks	AC	211,898	209,250
Liabilities from leases	-[2]	57,571	60,031
Trade payables	**AC**	**78,465**	**90,573**
Other financial liabilities			
Payables from contingent considerations	FVTPL	2,168	16,595
Derivatives with hedging relations	-	1,331	385
Derivatives without hedging relations	FVTPL	595	138
Other financial liabilities	AC	87,300	86,928

[1] AC = Amortized costs
FVTPL = Fair value through Profit & Loss
[2] Valuation according to IFRS 16

The classification in the hierarchy of fair values for the financial assets and liabilities which are measured at fair value is shown in the following overview:

in thousand euros	Carrying amounts 30/6/2021	Level 1	Level 2	Level 3
Current financial investments (stocks, bonds)	5,168	5,168	0	0
	(4,698)	(4,698)	(0)	(0)
Shares in non-consolidated associates and investments	844	0	0	844
	(841)	(0)	(0)	(841)
Receivables from contingent considerations	3,135	0	0	3,135
	(0)	(0)	(0)	(0)
Derivatives with hedging relations (assets)	544	0	544	0
	(1,956)	(0)	(1,956)	(0)
Derivatives without hedging relations (assets)	158	0	158	0
	(291)	(0)	(291)	(0)
Payables from contingent considerations	2,168	0	0	2,168
	(16,595)	(0)	(0)	(16,595)
Derivatives with hedging relations (liabilities)	1,331	0	1,331	0
	(385)	(0)	(385)	(0)
Derivatives without hedging relations (liabilities)	595	0	595	0
	(138)	(0)	(138)	(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 directly or indirectly observable parameters, are allocated to level 2. Level 3 contains measurement parameters which are not based on observable market data.

The fair values of all derivatives are determined using the generally recognized measurement 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, it is done on a straight-line basis.

The fair value of contingent liabilities was measured by taking into consideration the expected and discounted payment in- and outflows as of the reporting date.

The receivables and liabilities from contingent consideration recognized as of June 30, 2021 resulted from the conditional purchase price components agreed as part of the acquisitions of INTEROB and TRIOPTICS. The liabilities from contingent consideration to INTEROB are recognized at fair value in the amount of 2,168 thousand euros. The liabilities from contingent consideration to TRIOPTICS were fully reversed as of June 30, 2021 and a contingent consideration receivable of 3,135 thousand euros was capitalized due to the existing bonus/malus arrangement (see Material transactions on page 31). The fair values of the conditional purchase price components were determined, taking into account discounting appropriate to the term and risk. The payment of the contingent component from the acquisition of TRIOPTICS is expected to be made in 2022, payment of the conditional purchase price components for INTEROB in 2023. Fair value adjustments to contingent liabilities recorded through profit or loss are recognized in other operating income or expenses. Accumulated interest is recognized in the financial result.

The development of financial assets and liabilities measured at fair value through profit and loss and assigned to level 3 can be found in the table below:

in thousand euros	Shares in non-consolidated associates and investments	Receivables from contingent considerations	Payables from contingent considerations
Balance at 1/1/2021	**841**	**0**	**16,595**
Gains (+) and losses (-) recognized in operating result	0	3,135	15,303
Gains (+) and losses (-) recognized in financial result	0	0	– 876
Currency effect	3	0	0
Balance at 30/6/2021	**844**	**3,135**	**2,168**

Relief and support measures

Significant accounting and valuation impacts in connection with COVID-19 again resulted from government grants that the Group has taken up in order to mitigate the economic consequences of the pandemic and the overall economic situation. These relate, in particular, to short-time allowances and other government benefits, in part granted abroad. If the national requirements for financial support are virtually certain to be met, the entitlement is recognized under other non-financial assets. By June 30, 2021, grants totaling 2,936 thousand euros (prior year: 4,702 thousand euros) had been recognized in profit or loss, resulting, in particular, in lower personnel expenses and thus a corresponding improvement in earnings. As of the balance sheet date, there were outstanding receivables from grants amounting to 255 thousand euros (31/12/2020: 2,462 thousand euros).

Related Party Disclosures

For the period under review no material business transactions were performed with related parties.

German Corporate Governance Code

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The current declaration given by the Executive Board and Supervisory Board pursuant to § 161 of the German Stock Corporation Act [Aktiengesetz (AktG)] regarding the German Corporate Governance Code has been made permanently available to shareholders on the Jenoptik website www.jenoptik.com using the path Investors/Corporate Governance. Furthermore, the statement can also be viewed on site at JENOPTIK AG.

Litigations

JENOPTIK AG and its group entities are involved in several court or arbitration proceedings. Provisions for litigation risks, respectively litigation expenses, were set up in the appropriate amounts in order to meet any possible financial burdens resulting from any court decisions or arbitration proceedings. In case these ligitations could have a material impact on the economic situation of the Group, they are described in the Annual Report 2020. As at June 30, 2020, no further litigations arose that based on current assessment could have a material effect on the financial position of the Group.

Events after the Balance Sheet Date

On July 13, 2021, contracts were signed to sell the non-optical process measurement technology business, a subdivision of the Metrology business area within the Light & Production division. Since then, the book values of the division's assets and liabilities have been classified as held for sale. A devaluation of the disposal group to a lower fair value less costs to sell is not necessary. The transaction is expected to close in the third quarter of 2021.

There were no further events after the balance sheet date of June 30, 2021, that were of significance to the Group or had a significant influence on Jenoptik's earnings, financial or asset positions at the time this report was prepared.

Assurance from the Legal Representatives

To the best of our knowledge, we assure that the interim consolidated financial statements prepared in accordance with the applicable principles for the interim financial reporting give a true and fair view of the net assets, financial position and result of operations of the Group and that the interim group management report presents a fair view of the performance of the business including the operating result and the position of the Group, together with a description of the significant opportunities and risks associated with the anticipated development of the Group.

Jena, August 10, 2021

Dr. Stefan Traeger
President & CEO

Hans-Dieter Schumacher
Chief Financial Officer

Dates

November 10, 2021
Publication of Quarterly Statement
January to September 2021

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