

## Forecast Report

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

As in the prior year, the International Monetary Fund (IMF) expects the global economy to grow by around 3.1 percent in 2024 and forecasts a slight increase in momentum to 3.2 percent in 2025. Despite slight upward revisions in comparison with the IMF's previous forecast in October 2023, expectations for global growth in 2024 are below the historical (2000-2019) annual average of 3.8 percent, against the backdrop of a restrictive global monetary policy, lower government support measures, and moderate productivity growth.

The IMF's key underlying assumptions include falling commodity prices in the major national economies and stable interest rates until the second half of 2024, before the Federal Reserve, European Central Bank and Bank of England gradually begin to cut interest rates. While a quicker than expected fall in inflation represents an opportunity for the development of the global economy, the IMF sees risks from geopolitical shocks such as the attacks in the Red Sea and their impact on global supply chains.

#### T35 Gross domestic product forecast (in percent)

	2023*	2024*
World	3.1	3.1
USA	2.5	2.1
Eurozone	0.5	0.9
Germany	-0.3	0.5
China	5.2	4.6
India	6.7	6.5
Emerging markets	4.1	4.1

Source: International Monetary Fund, World Economic Outlook (Update), January 2024

\* 2023 estimate / 2024 forecast

For the [USA](#), the IMF expects growth momentum to slow from 2.5 percent in 2023 to 2.1 percent in 2024 and 1.7 percent in 2025. The primary reasons for this are the delayed effects of the tighter monetary policy, a gradual budget consolidation, and an expected weakening of the labor market, all of which are slowing down overall economic demand.

The IMF increased its growth forecast for [China](#), the world's second largest economy, by 0.4 percentage points in comparison with its last forecast, but still sees declining growth momentum at 4.6 percent in 2024 and 4.1 percent in 2025. While a loose monetary policy due to low inflation and increased government spending to develop capacities to protect against natural disasters, among other things, have a positive effect, the IMF believes that a worsening of the problems in the real estate sector could lead to disappointing growth.

Growth in the [eurozone](#) is expected to gradually improve from its very low momentum of an estimated 0.5 percent in 2023, which was influenced by the relatively high impact of the war in Ukraine, to 0.9 percent in 2024 and 1.7 percent in 2025. Greater consumption due to the drop in energy prices and falling inflation, which support real income growth, are expected to be key drivers for the recovery of the economic zone.

According to the IMF's January 2023 assessment, the [German](#) economy should gradually recover after last year's recession with low growth of 0.5 percent in 2024 and 1.6 percent in 2025. The ifo Institute also believes that the German economy is on course for recovery. Inflation is continuing to fall, wage incomes are rising significantly, and employment is at a high level, which should improve purchasing power and increase overall economic demand.

The worldwide [photonics](#) industry is being influenced by a number of long-term trends. Increasing digitization and the resulting steady rise in the demand for microchips, new applications in areas such as mobility and health, as well as an increasing focus on sustainability were key drivers. Overall, market observer Verified Market Research expects the global photonics market to grow by an average of around 6 percent a year by 2030.

The global [semi-conductor industry](#) experienced comparatively weak demand in 2023 due to a noticeable reluctance to consume and high inventories. However, the Semiconductor Industry Association (SIA) expects demand for semiconductors to grow in the long term as chips make the world smarter, more efficient, and better connected. Geopolitical tensions and associated sanctions create uncertainty for the global semiconductor industry and can fundamentally affect regional competitiveness and disrupt supply chains. Both SIA and market observer Gartner expect revenue in the global semiconductor industry to grow substantially in 2024.

Following a decline to around 84 billion US dollars in 2024, the SEMI association expects the global market for [semiconductor equipment](#) to rebound significantly by around 15 percent to 97 billion US dollars in 2025, driven by the development of new capacities, including through various funding programs (e.g. in the USA and Europe). In contrast, Gartner expects the industry to experience a slight decline in revenue in 2024, followed by an increase of around 8 percent in 2025.

Based on assessments by Frost & Sullivan, the global [medical technology](#) market will grow by an average of around 6 percent a year until 2025. Market researcher Fortune Business Insights forecasts the global market for medical technology devices to grow at an annual rate of 5.9 percent through 2030. This market development will be driven, for example, by increasing demand for wearable health devices such as fitness trackers, the spread of chronic diseases, and the shift to home care, which requires portable, easy-to-use equipment.

The VDMA industry association expects production in the German [mechanical and plant engineering industry](#) to fall by 4 percent in real terms in 2024. In addition to the ongoing slump in the global economy, the industry association also believes that the industry's declining order backlog is likely to have a noticeable effect in 2024. According to the German Association of the Automotive Industry (VDA), the business environment for the [automotive industry](#) will be challenging following a period of strong growth in 2023 due to geopolitical and macroeconomic uncertainties.

The global [traffic safety](#) market is expected to experience average annual growth of 9.6 percent to 5.8 billion US dollars by 2026, according to the US market research company MarketsandMarkets. The key drivers for this are the increasing urbanization and expansion in the transport and traffic sector, the further development of smart systems and initiatives for greater road safety such as "Vision Zero".

## Expected Development of the Business Situation

### Planning assumptions for the Group and the divisions

The forecast for business growth in 2024 is based on the [Group planning](#) set out in the fall of 2023.

Jenoptik has the following reportable segments: Advanced Photonic Solutions, Smart Mobility Solutions, and the Non-Photonic Portfolio Companies.

The separate plans from the divisions and operational business units form the starting point, they are harmonized and integrated in the group planning. Potential acquisitions, divestments, and exchange rate fluctuations are generally not taken into account in the planning process.

The system of top key performance indicators covers the revenue, EBITDA margin, order intake, capital expenditure, and cash conversion rate indicators. Other indicators will also be regularly compiled in the future, serving as information for top management.

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

With our strategic Agenda 2025, "More Value", we are targeting sustainable and profitable organic growth in the core photonic markets of semiconductor & electronics, life science & medical technology and smart mobility. We will continue the transformation into a world-leading photonics group.

See the "Business Model and Markets" and the "Targets and Strategy" chapters for more information on the strategy and the division structure

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

Overall, in 2024, the Executive Board anticipates consistently good business performance, leading to an increase in revenue and earnings of the [Advanced Photonic Solutions division](#). We will achieve this by intensifying our business activities as a globally active provider of solutions and products based on photonic technologies, focusing on our key sales markets, strengthening our close and long-standing customer relationships as well as offering innovative products and a wider range of integrated system solutions. In 2024, the regional matrix in the division is to be dissolved and the functions verticalized. We are doing this to intensify our customer focus and strengthen direct responsibility for the operating business. This should help to further improve efficiency. In the current fiscal year, the division should continue to benefit in particular from the high demand for optical and micro-optical system solutions for semiconductor production.

In the current fiscal year, the Advanced Photonic Solutions division will continue to strengthen its operational excellence and expand its capacities. One of the key measures to support future growth is the construction of a new clean-room facility in Dresden, which is scheduled to commence operations at the beginning of 2025.

For the fiscal year 2024, the Executive Board expects further growth also in the [Smart Mobility Solutions division](#). This is to be supported by new products, the expansion of in-house sales channels, and a promising project pipeline. By optimizing the product pipeline, also in the form of new business models such as software-as-a-service, and a broader range of offering in the value chain, the share of recurring revenue in the division is to be increased. On a regional level, Jenoptik is expecting the Smart Mobility Solutions division to benefit from growth momentum primarily in North America. The replacement of older products and approval for new innovative systems will continue to shape our product road map in 2024. This will include enhanced functions in existing systems, but also new applications such as the detection of cell phone use, unused seat belts or the detection of unauthorized noise emissions.

The Executive Board expects a positive development of the [Non-Photonic Portfolio Companies](#) segment in 2024. Accordingly, further growth is expected in the current fiscal year. The aim is to sell the automation specialist Prodomax, which specializes in the automotive industry.

## 2024 earnings position forecast

Based on the high order backlog in the fiscal year 2023 and ongoing promising developments in the core photonics businesses, especially in the semiconductor equipment sector, the Executive Board is optimistic to achieve further profitable growth in the fiscal year 2024. The following figures relate to organic growth, i.e. possible portfolio changes have not been taken into account.

In order to achieve this growth, we continue to assume that the political and economic conditions will not deteriorate. In particular, these include economic trends, the war in Ukraine and the Middle East, regulations at European level, and other macropolitical developments in our sales markets.

For 2024, Jenoptik is expecting [revenue growth](#) to be in the mid-single-digit percentage range (2023: 1,066.0 million euros).

For the current fiscal year 2024, the Executive Board expects EBITDA (earnings before interest, tax, depreciation, and amortization including impairments and reversals of impairments) to increase further noticeably in comparison with the prior year (2023: 209.6 million euros). The [EBITDA margin](#) is due to be between 19.5 and 20.0 percent, including an expected charge of around 0.5 percentage points for the move to the new semiconductor site in Dresden (2023: 19.7 percent).

The [order intake](#) is in part affected by major orders, particularly in the Smart Mobility Solutions division. In the past fiscal year, Jenoptik received new orders worth 1,092.20 million euros and had thus built up a good order base at year-end 2023. 86.7 percent of the order backlog as of December 31, 2023 is due to be recognized in revenue in 2024. For the current fiscal year 2024, the Executive Board expects the order intake to grow in the mid-single-digit percentage range.

The [Advanced Photonic Solutions division](#) is expecting revenue growth in the mid-single-digit percentage range. EBITDA is expected to grow somewhat stronger than the revenue.

The [Smart Mobility Solutions division](#) also expects growth in 2024, with a revenue increase in the high single-digit percentage range. EBITDA is expected to show a stronger rate of growth than revenue.

The [Non-Photonic Portfolio Companies](#) are expecting revenue to grow in the high single-digit to low double-digit percentage range in 2024. EBITDA is expected to grow roughly in line with revenue.

## Group asset and financial position forecast

In the fiscal year 2024 Jenoptik expects, that the [capital expenditure](#) will also be slightly higher than the prior-year level of 110.4 million euros, due in part to postponements associated with the construction of the new semiconductor factory in Dresden. The capital expenditure will be used to expand capacities, thereby securing future growth.

The Executive Board expects that the [cash conversion rate](#) (ratio of free cash flow to EBITDA) for 2024 will around 50 percent (31/12/2023 60.8 percent, free cash flow also included liquidity flows in connection with the sale of real estate).

**Important note.** The actual results may differ significantly from the forecasts of anticipated development described and summarized below. This may especially be the case if one of the uncertainties mentioned in this report were to materialize or worsen, or if the assumptions upon which the statements are based, including with regard to economic and macroeconomic development, market and geopolitical risks, conflicts and war, and the associated sanctions, prove to be inaccurate.

### T36 Targets for Group and segments (in million euros/or as specified)

	Actual 2023	Forecast for 2024 (without major portfolio changes)
Revenue	1,066.0	Growth in the mid-single-digit percentage range
Advanced Photonic Solutions	821.2	Growth in the mid-single-digit percentage range
Smart Mobility Solutions	118.8	Growth in the high single-digit percentage range
Non-Photonic Portfolio Companies	121.1	Growth in the high single-digit to low double-digit percentage range
EBITDA/EBITDA margin	209.6/19.7 %	Noticeable growth/19.5 to 20.0 percent (including an expected charge of around 0.5 percentage points for the move to Dresden)
Advanced Photonic Solutions	182.6	Growth somewhat stronger than revenue
Smart Mobility Solutions	15.3	Growth stronger than revenue
Non-Photonic Portfolio Companies	17.6	Growth roughly in line with revenue
Order intake	1,092.2	Growth in the mid-single-digit percentage range
Cash conversion rate	60.8 %	Around 50 percent
Capital expenditure <sup>1</sup>	110.4	Slightly above prior-year level

<sup>1</sup> Without capital expenditure on financial investments

## General Statement by the Executive Board on Future Development

In the current fiscal year 2024, the Jenoptik Group will continue to push on with its strategic Agenda 2025, concentrating on three core photonics markets. In terms of economic development, our key focus remains on profitable organic growth. We believe that revenue growth, a positive product mix, economies of scale, and more efficient and faster processes will result in higher earnings. It is the opinion of the Executive Board that Jenoptik's very good financial situation and a sustainable and flexible financing structure provide it with sufficient room for maneuver to finance capital expenditure in further organic growth.

Achieving targets is dependent on the development of the economic and political environment, in particular in connection with the conflicts and wars around the world as well as the general economic development.

Based on the high order backlog and ongoing good developments in the core photonics business, particularly in the semiconductor equipment industry, the Executive Board is confident about the fiscal year 2024, and expects revenue growth in the mid-single-digit percentage range for the current fiscal year. The EBITDA margin is due to be between 19.5 and 20.0 percent (including charges of around 0.5 percentage points for the relocation to the new site in Dresden).

In 2024, we will again invest a significant portion of our funds in developing innovative products and expanding capacities.

Based on the information available at the time this report was created, the Executive Board expects the Jenoptik Group to see positive business development in 2024.

Jena, March 15, 2024

JENOPTIK AG



Dr. Stefan Traeger  
President & CEO



Dr. Prisca Havranek-Kosicek  
Chief Financial Officer



Dr. Ralf Kuschnereit  
Member of the Executive Board