

## 3 Economic Report

### 3.1 Macroeconomic and Industry-Specific Conditions

#### General Economic Conditions

##### Global Economy

The global economy continued to feel the effects of geopolitical crises and conflicts in 2023 but generally proved to be resilient. However, momentum slowed in the course of the year due in part to the subsiding post-pandemic catch-up effects. Moreover, the currently high interest rates and declining, but still high, inflation are continuing to place a damper on corporate spending and consumption as well as on private households.

In its Annual Report 2023/2024 published on November 8, 2023, the German Council of Economic Experts expected global gross domestic product (GDP) to climb by 2.7% in 2023, thus exceeding the rate that had been forecast in its Annual Report 2022/2023. In its World Economic Outlook published on January 30, 2024, the International Monetary Fund (IMF) currently expects growth of 3.1% in 2023, i.e. slightly in excess of its October 2023 forecast of 3.0% (World Economic Outlook Update).

Developments in the regions that are relevant for the Nemetschek Group are discussed below.

##### Eurozone

The geopolitical crises and conflicts already mentioned left clear traces on the Eurozone economy. The economic upheaval in the wake of the energy crisis primarily caused by the Russian war of aggression on Ukraine and the resultant high inflation prompted substantially slower growth in the Eurozone. In September 2023, the European Central Bank raised its key rates for the tenth consecutive time, triggering a significant decline in lending in the Eurozone. The expiry of government support in connection with the Covid-19 pandemic also placed a damper on growth, while the stabilizing factors from the catch-up effects in the aftermath of the Covid-19 pandemic – especially in the service sector – also left traces. Within the Eurozone, the German economy in particular cooled off sharply. Currently, industry and also the construction sector are still benefiting from existing order backlogs, although these are now declining significantly due to the low volume of new orders.

Overall, in its Annual Report 2023/2024 published on November 8, 2023, the German Council of Economic Experts assumed economic growth of 0.6% for 2023. The IMF forecast growth of 0.5% for 2023 in its World Economic Outlook Update published on

January 30, 2024. For Germany, the German Council of Economic Experts projected contraction of 0.4% for 2023, while the IMF's January 2024 update pointed to a slowdown of 0.3%.

The muted economic growth had only a minor impact on the Eurozone employment market in the course of 2023. In its Annual Report 2023/2024, the German Council of Economic Experts forecasts an unemployment rate of 6.5% for 2023, down slightly on the previous year's figure of 6.7%. However, the numbers vary greatly from country to country, ranging from 3.1% in Germany to 11.9% in Spain for 2023. The rapidly growing and long-term shortage of skilled workers in some sectors, including the software segment, is increasingly coming to the fore and may exert a drag on growth in some economic sectors.

##### USA

The US economy proved to be resilient in 2023. Economic growth was particularly driven by strong domestic demand, which was fueled by persistently solid consumer spending and heavy capital spending in the corporate sector – supported by expansionary fiscal policies and investment programs such as the Inflation Reduction Act (IRA) worth US \$738 billion. In particular, heavy spending on commercial construction by the US semiconductor industry was a major source of growth. Given the high interest rates and the consumption of excess private savings that had accumulated during the Covid-19 pandemic, there are signs and risks suggesting that domestic demand could taper off.

Overall, in its Annual Report 2023/2024, the German Council of Economic Experts assumed economic growth of 2.4% for 2023. For the United States, the IMF projects growth of 2.5% for 2023 in its World Economic Outlook Update published on January 30, 2024.

##### Asia

Within Asia, Japan is currently the Nemetschek Group's strongest regional single market in terms of revenues. In 2023, the Japanese economy was also dragged down by high inflation, which was additionally fueled by the Bank of Japan's accommodative monetary policies. The German Council of Economic Experts forecasts what by Japanese standards is a high inflation rate of 3.2% for the country for 2023. All in all, however, the Japanese economy recovered from the previous year's weak performance. Whereas the late waves of the Covid-19 pandemic had left deep traces on the Japanese economy in 2022, rebounding tourism in particular as well as the favorable performance of the automotive industry generated positive impetus in 2023.

Overall, the German Council of Economic Experts expected the Asia region's gross domestic product to grow by 4.5% in 2023, and Japan's gross domestic product to grow by 1.8%. The IMF anticipated growth of 1.9% for Japan in 2023 (World Economic Outlook Update).

### Emerging Markets / Focus India

The emerging markets are growing in importance for the Nemetschek Group. It is already active in individual countries and regions, such as India and Hungary. Conditions in the Chinese economy are also relevant for the Nemetschek Group. Given its size, changes in the Chinese economy as well as the country's economic policies have a direct bearing on the global economy.

Overall, in its Annual Report 2023/2024, the German Council of Economic Experts projects economic growth of 4.7% in the emerging markets for 2023. The IMF's World Economic Outlook Update points to expansion of 4.1% in 2023.

Developments in the emerging countries reveal substantial regional disparities. Thus, according to the IMF, the Asian emerging markets are set to grow by 5.4% in 2023, up from 4.5% in 2022. This increase was also driven by continued sharp growth in India. According to the IMF, the European emerging markets should grow by 2.7% in 2023, up from only 1.2% in 2022. This trend is being heavily influenced by the recovery of the Russian economy, which the IMF assumes will expand by 3.0% again in 2023. The IMF forecasts growth of 2.5% for the Latin American emerging markets in 2023. The year-on-year decline is mainly due to the downward movement in commodity prices in the course of the year. In 2022, high commodity prices had resulted in relatively strong growth rates. Growth in the Middle East and Central Asia should reach 2.0% in 2023. The substantial slowdown primarily reflects declining commodity prices and lower deliveries from oil exporters. The IMF forecasts economic growth of 3.3% in 2023 for the African emerging markets.

Sources: German Council of Economic Experts, Annual Report 2023/2024 dated November 8, 2023 and International Monetary Fund, World Economic Outlook Update dated January 30, 2024.

## Development of the Underlying Industry-Specific Conditions in the Construction Industry

### Europe

Accounting for a good 50% of revenue, the European construction industry remains the main market for the Nemetschek Group. After slowing to just under 3% in 2022 primarily as a result of high interest rates, growth in the construction industry lost further momentum in 2023, falling by 1.7% over the previous year. The main drivers were persistently high interest rates, continued inflation – especially in the construction sector – as well as the geopolitical uncertainties and their possible impact on the economy.

The individual European markets performed very disparately in some cases in 2023. Whereas Sweden (–10.6%), Finland (–10.1%) and Hungary (–8.0%) sustained the heaviest declines, substantial growth rates were achieved in countries such as Spain (+2.8%), Poland (+2.2%) and Portugal (+1.3%). The construction industry in the German market, which is important for the Nemetschek Group (–2.3%), contracted at a slightly greater rate than the European average.

### North America

The United States is one of the most important markets for the Nemetschek Group. Based on the estimates of the North American Engineering and Construction Outlook (FMI, October 2023), the construction industry in the **United States** was significantly more resilient than its European counterpart and was able to continue growing by 5% in 2023 (as of October 2023). With an increase of roughly 12%, economic momentum was a good deal more pronounced in 2022. Whereas commercial building construction (+17%) and the infrastructure sector (+11%) rose sharply, the housing market (–6%) shrank significantly. Within commercial building construction (+17%), the construction of production facilities in particular made a disproportionately large contribution of 58% to growth. This growth is primarily being driven by heavy capital spending in the semiconductor industry on new manufacturing capacities. The housing construction market (–6%) also paints a mixed picture. While the number of single-family homes (–13%) and renovations (–4%) declined significantly in some cases, the number of multi-family homes (+18%) grew substantially but failed to make up for the overall decline in the other two segments.

After achieving strong growth in 2022 of +12%, the construction industry in **Canada** lost substantial momentum in 2023, shrinking by 3% year-on-year in 2023. This was primarily due to the 12% year-on-year decline in housing construction. Within housing construction, single-family homes (–20%), multi-family homes (–7%) and renovations (–12%) were all down.

### Asia/Pacific

The Asia/Pacific construction industry is the world's largest and registered a decline of 1.7% in 2023. However, regional trends were highly disparate in individual cases last year. Thus, China, which is by far the largest market in the region, contracted substantially by 5.4%. On the other hand, most of the other regional construction industries posted what in some cases was strong growth in 2023. Thus, the construction sector expanded by 7.0% in India and by 1.8% in Japan. According to the latest estimates, the construction markets in other parts of Asia grew by an aggregate 3.8%.

Sources: 96th EUROCONSTRUCT Summary Report, Winter 2023 (November 2023); 2023 North American Engineering and Construction Outlook, Fourth Quarter Edition (October 2023), Building, Real Estate, Construction and Housing, Department of Statistics Singapore, Construction Work Done, Australia (Preliminary), Australian Bureau of Statistics, Oxford Economics/Haver Analysts).

### Development of the Media and Entertainment Industry

The global 3D animation market was also adversely affected by the geopolitical crises and conflicts. In addition, the industry felt the effects of the film and TV strike in Hollywood. Consequently, the Media segment was unable to unleash its full growth potential. Despite these factors, the media and entertainment market continued to grow.

One reason for the segment's resilience was the broad base of different submarkets and client groups addressed by the Maxon brand with its portfolio of innovative solutions. For example, Maxon's professional solutions for the production of digital 2D and 3D content are used for the creation and rendering of visual effects in feature films, TV shows and commercials as well as for applications in the games industry and in the fields of medical illustration, virtual reality (VR), augmented reality (AR), architecture and industrial design.

In the long term, these submarkets will benefit from strong structural growth drivers. The media and entertainment market is expected to reach EUR 8.9 billion by 2027, equivalent to an annual average growth rate of 12%.

## 3.2 Business Performance in 2023 and Key Events Influencing the Company's Business Performance

### General Statement on the Economic Position of the Group

2023 was again marked by geopolitical conflicts and crises, high inflation, rising interest rates and the macroeconomic challenges resulting from these factors. The consequences of the ongoing Russian war of aggression on Ukraine as well as the escalating Israel-Gaza conflict influenced world events as well as the global economy. Nevertheless, the Nemetschek Group continued to perform well in this very demanding environment, achieving good business results.

In the course of 2023, business performed better than originally expected and projected in the March forecast for the year despite the simultaneous adoption of subscription and SaaS models.

In particular, the operational strength of the Nemetschek Group's business and the resilience of its business model have shown once again that it can perform very successfully even in a challenging and demanding environment. Given the strong operating performance during the year, the Executive Board raised the original targets for 2023 in October, rendering them more precise [«< 4 Comparison of Actual and Forecast Business Performance of the Nemetschek Group >>](#).

In the financial year 2023, Group revenue increased by 6.2% (currency-adjusted: 8.0%) to EUR 851.6 million despite the ongoing transition of the business model to subscription and SaaS models and a challenging market environment. As a result, currency-adjusted Group growth was at the upper end of the raised forecast corridor of 6% to 8% (previously: 4% to 6%).

Consolidated earnings before interest, taxes, depreciation and amortization (EBITDA) increased to EUR 257.7 million (previous year: EUR 257.0 million). At 30.3%, the EBITDA margin was therefore at the upper end of the forecast corridor of 28% to 30%, as already stated in October.

Annual recurring revenue (ARR) increased by 23.5% (currency-adjusted: 26.7%) to EUR 718.6 million. ARR growth was therefore significantly higher than revenue growth, which indicates a significant growth potential in the coming twelve months.

In line with the Group's strategy, the share of recurring revenue as a percentage of total revenue increased significantly to 76.6%. This was more than 10 percentage points above the previous year's level (66.4%) and also in line with the guidance (share of >75%).