

+4%, according to preliminary estimates. Residential construction was the main reason for a slowdown in growth, at only +2% compared to 28% in the previous year. Within residential construction, both houses (-2%) and apartments (-4%) recorded declining developments while renovations rose by +7%.

### Asia/Pacific

Development of the different construction industries in the Asia/Pacific region varied greatly. While, according to recent estimates, the markets in Singapore (+13%) and China (+8%) recorded strong growth, the construction sectors in Japan (+0.3%) and Australia (+0.2%) grew only marginally.

Sources: 94th EUROCONSTRUCT Summary Report, Winter 2022 (November 2022); 2022 North American Engineering and Construction Outlook, Fourth Quarter Edition (September 2022), Building, Real Estate, Construction and Housing, Department of Statistics Singapore, Construction Work Done, Australia (Preliminary), Australian Bureau of Statistics.

### Development of the Media and Entertainment Industry

In contrast to the construction industry, the end markets of the Media segment showed higher and more resilient growth momentum in 2022. This was also reflected in the segment's growth, which is significantly above the Group average.

One reason for the greater resilience of this business area is the broad base of different sub-markets and customer groups that the Group brand Maxon addresses with its innovative solution portfolio. For example, Maxon's professional solutions for the production of 2D and 3D digital content are used for the creation and rendering of visual effects in movies, TV shows and commercials, as well as for applications in the gaming industry and in the fields of medical illustration, virtual reality (VR), augmented reality (AR) and architectural and industrial design.

The majority of these markets benefit from strong structural growth drivers. This allows them to continue to grow, strongly in some cases, even in the event of a weakening of the global economy, as seen in the second half of 2022. For example, revenues from the virtual reality market rose by 36.6% to approx. USD 2.6 billion in 2022. An average annual growth rate of 24.1% is also expected for the years up to 2026. The broader 3D animation market, which stood at USD 18.4 billion in 2021, is expected to increase further to USD 40.0 billion by 2028, an average annual growth rate of almost 12%.

Sources: Research & Markets: Global 3D Animation Market (June 2021), PwC Global AR and VR market (2022).

## 3.2 Business Performance in 2022 and Key Events Influencing the Company's Business Performance

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

2022 was characterized by geopolitical crises, high inflation, rising interest rates and the resulting macroeconomic challenges. The consequences of the Russian war of aggression on Ukraine and the ongoing Covid-19 pandemic had an impact on global economic development, most notably in the second half of 2022. Nevertheless, the Nemetschek Group was able to develop well in this very demanding environment.

Revenue generated in the 2022 financial year increased by 17.7% (adjusted for foreign currencies: 12.1%) to EUR 801.8 million (previous year: EUR 681.5 million). In the previous year, revenue growth was 14.2% (adjusted for foreign currencies: 15.6%). EBITDA increased to EUR 257.0 million (previous year: EUR 222.0 million), so that the EBITDA margin remained high at 32.0% (previous year: 32.6%).

In 2022, the Nemetschek Group implemented an Annual Recurring Revenue (ARR) indicator in order to present the future growth momentum and success of the ongoing business transitions to subscription-based and SaaS models, and thus also all the recurring revenues, more transparently. ARR increased to €581.7 million (previous year: €456.5 million). ARR growth stood at 27.4% (currency-adjusted: 22.0%) – significantly above the revenue growth for the Group as a whole (currency-adjusted: 12.1%). This represents a strong indication for continued high growth potential over the next 12 months.

The revenue growth in the 2022 financial year was almost exclusively based on organic growth. The acquisition-related revenue stream due to the takeover of the business operations of Pixologic Inc. and its consolidation as at January 1, 2022 was not significant in the 2022 financial year.

The M&A activities implemented in the 2022 financial year [<< Acquisitions/Divestments >>](#) had only a very small impact on the growth momentum of the Group.

The Group's goals for currency-adjusted sales growth and EBITDA margin, communicated in March 2022, which included the Covid-19 uncertainties and the start of the switch to the subscription and SaaS models of the subsidiary Bluebeam, could be fully achieved despite the slowdown of the macro-economic framework in the second half of the year. As a result, the Nemetschek Group continued on its profitable growth path despite the challenging environment [<< 4 Comparison of Actual and Forecast Business Performance of the Nemetschek Group >>](#).

The Russian war of aggression on Ukraine shocked and concerned the management and employees of the Nemetschek Group. Immediately after the outbreak of the war, measures were taken to protect and care for the affected employees and also to support aid operations for the Ukrainian people. Furthermore, the Nemetschek Group sees the economic sanctions against Russia as an important instrument for restoring peace and has therefore decided to suspend new business in Russia and all business with sanctioned persons, organizations or regions until further notice. The revenue share from Russia is marginal. In the previous year, the share of business in Russia amounted to around 0.5% of Group revenues and was significantly reduced in 2022, after new business in Russia was discontinued immediately after the start of the war in March. The war in Ukraine also affects the development work of Group companies that use research and development facilities in the country, the work of which is impaired as a result. Overall, however, these immediate effects on the business performance of the Nemetschek Group in the 2022 financial year were not significant.

In addition to the immediate effects on the Nemetschek Group, the Russian war of aggression also influenced the global economy << [3.1 Macroeconomic and Industry-Specific Conditions](#) >>.

In financial year 2022, the Covid-19 pandemic had only a small impact on business operations and development. The general business operation has largely normalized over the course of the year, so physical trade fairs were held again, and the Nemetschek Group was present.

Overall, the business model, which features a broad solution portfolio, strong regional diversification in multiple customer segments and a rising proportion of recurring revenues, proved to be very resistant during the current crises. In addition to actively dealing with the two prevailing global crises, the Nemetschek Group continued to drive forward the strategic initiatives launched in the 2022 financial year to reach key milestones. The focus of the work was on increased internationalization, the expansion of subscription and SaaS, the continuous development of solutions and the acquisition of new customers. The new “Start-ups and Venture Investments” strategic initiative, introduced in the previous year at holding company level, strengthens the growth focus of the Nemetschek Group on new technologies and investments in young companies << [1.2 Targets and Strategy](#) >>.

## Acquisitions/Divestments

### Holding Company Level

The strategic objective of increasing participation in start-up companies and thereby speeding up our own innovative capabilities was successfully continued in the financial year 2022. The Nemetschek Group took a share in a company from the British start-up scene for the first time in the course of the past financial year. The investment in SymTerra, a digital platform for construction site communication, supports the strategic thrust of digitalization and efficiency in the construction industry.

### Segment Level

With the purchase agreement concluded on December 20, 2022 with AV-Tech Group, Graphisoft SE, a Nemetschek Group subsidiary headquartered in Budapest (Hungary), acquired its distributor, Abvent. Abvent has been an important distributor of Graphisoft in France and French-speaking Switzerland for many years. The acquisition will strengthen the Design segment's presence in two of the most important markets in the AEC/O sector in Europe, thus further expanding its market and sales expertise. The subsidiary Frilo Software GmbH, which also belongs to the Design segment, was strengthened in the 2022 financial year by the acquisition of DC-Software Doster & Christmann GmbH. With the acquisition, which was successfully completed on April 1, 2022, Frilo expands its product portfolio in the field of foundation engineering and further strengthens its position as a provider of structural design programs.

Both of these acquisitions in the Design segment had no material impact on revenue and income development in 2022.

Details of these smaller transactions are explained in the notes to the consolidated financial statements under << [Acquisition of Subsidiaries](#) >>.

### Divestments

There were no divestments in the portfolio in the 2022 financial year.

### Cooperation and Partnerships

In order to expand its market position and meet the diverse customer requirements, the Nemetschek Group also relies on cooperation and collaboration with partners from the AEC/O industry or with scientific institutions. These cooperations and partnerships exist both within the Group among the brand companies and between brand companies and external parties. In the 2022 financial year, the partnership with the Technical University of Munich (TUM), which was formed in the previous year in connection with the funding of the TUM Venture Labs Built Environment, was further extended, as were activities in the Madastar Kennedy Network, which also began in the previous year.