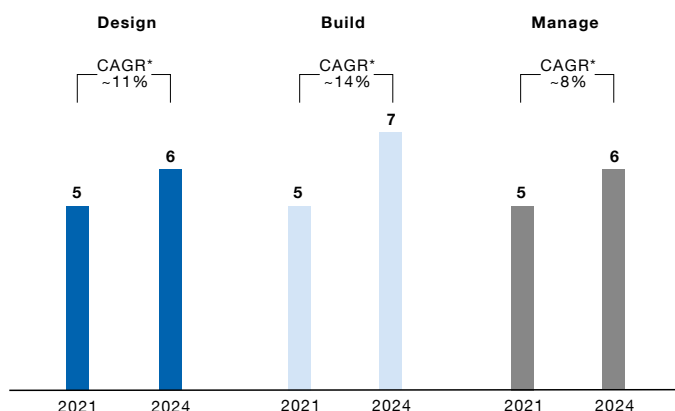


## GLOBAL AEC/O SOFTWARE MARKET

End-user expenditure in EUR billion



\* Compound Annual Growth Rate.

Sources: Cambashi BIM Design Observatory, Nemetschek Research.

The AEC/O software industry can be described as a fragmented competitive environment. Therefore, depending on the segment and region, the Nemetschek Group faces competition from different companies. Although the market has increasingly consolidated over recent decades, there are still a large number of small local companies. By contrast, the Nemetschek Group is one of the few global companies actively driving forward the process of consolidation through acquisitions.

In the Media & Entertainment segment the Nemetschek Group addresses the 3D animation market, which has great market potential and high rates of growth.

The global 3D animation market is estimated to be worth USD 18.3 billion in 2021 and will rise to around USD 40 billion by 2028. This corresponds to an average growth of around 12 % annually. Rising demand for high-quality content and animation by creatives and increasing use of visual effects (VFX) in films and videos are some of the key factors, along with integration of artificial intelligence (AI) in 3D animation, driving the market growth. In addition, the proliferation of VFX in the entertainment industry and the recent trend of using VFX in advertising and infomercials to showcase products with 3D elements is driving the growth of the 3D animation market.

## 1.2 Targets and Strategy

As in previous years, the strategic positioning of the Nemetschek Group is based on three key characteristics. These three characteristics apply to the medium term and form the basis of the company's strategic approach:

**#1:** With its software solutions, the Nemetschek Group supports **digitalization** along the entire construction lifecycle – from the planning and construction phase to the operating and

renovation phase. This strategically integrated approach makes it possible to bundle and focus investments and expertise on the customer-oriented segments and thus offer end-to-end support for customers in the building lifecycle. At the same time, the Nemetschek Group's solutions enable the workflow in the construction lifecycle to be improved thanks to their end-to-end approach. Added to this are digital solutions for visualizations, 3D modeling and animation, which, in particular, find a market in the media and entertainment industry as well as the construction industry.

**#2:** With four segments under the umbrella of a strategic holding company, the **group structure** enables the Nemetschek Group to bundle the competencies of its 13 brand companies in the best possible way in the customer-oriented segments of the AEC/O industry and in the Media & Entertainment area. This structure is intended to increase the benefits and added value for the customer. The focus here is on the integration and cooperation of several brands in order to offer an integrated and more networked range of solutions. The objective is to further improve cooperation between the various professional groups in the construction industry and to make this cooperation more efficient. The brands are "experts" in their specific customer segment, and therefore have a high level of expertise in their respective market segment. The segment and brand approach ensures that market changes can be quickly recorded, analyzed and evaluated and that customer requirements can be responded to promptly. At the same time, they benefit from synergies at segment and Group level with regard to internationalization and sales strategies, the exchange and sharing of best practices, and development activities.

The **Design** segment pursues the strategy of providing a broad and integrated range of services to the respective customer segment. A strategic component here is bringing together brands with a common customer base. This offers the opportunity to exploit synergies between the brands and create further added value for customers by bundling competencies, expertise and technologies.

The aim of the merger of the Graphisoft and Data Design System brands that took place in the year under review was to expand their range of integrated, multidisciplinary planning solutions. The step-by-step merger of the Allplan brand with Precast Software Engineering (in 2021) and the SDS/2 brand (in 2022) combined knowledge, expertise and technology to enable a seamless, integrated BIM workflow to be mapped from planning through to production and construction. In this process, the platform-based BIM solution takes "buildability" into account right from the start to ensure continuous BIM workflows, including during the transition from the planning phase to the construction phase. The smooth transfer of data, including all relevant information for the construction companies, is essential for keeping construction projects within their cost and budget framework.

These strategic measures enable the respective brands to benefit from complementary competencies in order to drive growth further. Thus it is not only “smaller” brands that benefit from the presence and sales strength of the internationally focused Graphisoft and Allplan brands. In particular, this integrated product portfolio now enables them to address the needs of integrated, multidisciplinary customer groups in an even more targeted way. To this end, the brands are also focusing increasingly on direct sales alongside the indirect sales model. A mix of licensing and rental models, which is also being extended to include digital sales methods such as e-commerce selling, has proved successful in ensuring the best possible benefits to customers.

The **Build** segment’s strategy pursues the aim of advancing the digitalization of construction companies and thus making a material contribution to increasing efficiency in the construction process. Small and medium-sized enterprises (SMEs), whose digitalization strategies are often still in the early stages, represent a market that offers growth opportunities and has seen little penetration to date. The aim is to meet a construction project’s cost, scheduling and quality requirements reliably through an intuitive product range that offers maximum customer benefits. Due to the still comparatively low degree of digitalization in Europe and Asia, there are opportunities for growth through internationalizing Bluebeam’s collaboration solution, which is already widespread in den USA. Bluebeam’s product and sales approach is due to change to a rental model to enable it to meet customers’ requirements in an even more targeted way and further increase its attractiveness for new customers. The subscription-based business model makes it possible to integrate product innovations into an existing product at any time. With this model, a customer has automatic access to the current software version with the latest features. To derive even more benefit from existing customer synergies between the Bluebeam and dRofus brands, the dRofus brand has been allocated to the Build segment as of the 2022 financial year.

The **Manage** segment’s aim is to digitalize the management of buildings through an innovative software portfolio. There is enormous potential here, not only with respect to increasing efficiency in the use of buildings, but also in terms of taking a more targeted approach to users’ needs and operating buildings in a sustainable and environmentally friendly way. The Manage segment systematically uses the latest technologies such as the Cloud, the Internet of Things (IoT), artificial intelligence and machine learning for this, pursuing the strategy of a modular and integrated software platform that maps the relevant work processes in property, facility and workplace

management (IWMS, Integrated Workplace Management System). Furthermore, Nemetschek provides an intelligent smart building solution that uses IoT sensors and big data analysis to improve productivity and efficiency for building managers.

Owing to the still relatively low level of software penetration, particularly in the area of workplace management systems, the current geographical focus is on developing existing markets in Europe as well as internationalization in selected countries in which the Nemetschek Group sees the greatest market potential. The Manage segment works with a network of local sales partners to enable it to meet customers’ needs in an optimum fashion and accelerate its access to the market.

The **Media & Entertainment** segment has also been significantly strengthened by acquisitions in recent years. Following the acquisition of Redshift (rendering solution) and Red Giant (solutions for motion design and visual effects), Maxon expanded the Maxon family again at the end of 2021 with the acquisition of the Pixologic business operations (provider of ZBrush sculpting and painting software).

Maxon One, which is offered via a rental model, combines all Maxon products in one complete package. Maxon has positioned itself in the large and rapidly growing 3D animation and emerging metaverse market with an end-to-end software portfolio along the entire digital content creation value chain. In addition, close cooperations with hardware manufacturers such as Intel, AMD and Apple guarantee optimized software solutions that support current technologies. From a regional perspective, Maxon is already globally active and is pursuing the aims of continuing its international expansion and exploiting opportunities arising from the diversified customer demand that is typical of the market, while continuing to advance the switch to rental models. The objective here is, firstly, to target new customers, and, secondly, to bring innovations to customers even more quickly.

Across all the segments, there is a focus on reducing the complexity resulting from the diversity of brands. Internal processes are being streamlined and optimized. This includes harmonizing the internal back-end systems in the areas of Human Resources, ERP (Enterprise Resource Planning) and CRM (Customer Relationship Management).

**#3: OPEN BIM.** Nemetschek’s clear commitment to OPEN BIM and the associated open interfaces increase interoperability, collaboration and communication with different disciplines along the construction lifecycle. In addition, the integration of competitors’ software programs is also possible, substantially

extending the circle of users. At the same time, Nemetschek is focusing on future topics that will shape and change the construction industry. These include topics such as machine learning, artificial intelligence, and the use of IoT devices and sensors. These topics are part of the Nemetschek Group's development activities.

The key growth drivers for the Nemetschek Group are internationalization, which goes hand in hand with the corresponding sales strategy, and innovations taking place at brand and segment level. The growth strategy is aimed at growing organically faster than the market average and also strengthening this growth through acquisitions.

### Internationalization

As part of the implementation of its growth strategy, Nemetschek focuses on the three large regions of Europe, the Americas and Asia/Pacific. In recent years, the Nemetschek Group has continually expanded its market position outside Germany and at the same time strengthened its position in the target sales markets. In the 2021 financial year, the regional distribution of revenues remained virtually unchanged for against the previous year, with around 76% of Group revenues generated outside Germany (previous year: 76%). The Americas are the world's largest single market for AEC/O software, and thus represent a key sales market for the Nemetschek Group. Nemetschek has developed well in this highly competitive and expanding market in recent years and now generates 34% of its revenues (previous year: 34%) in the Americas region, with the USA as the most important single market. The brands in the USA and Europe mutually support each other in their expansion. The good market position of the US companies makes it easier for European Nemetschek brands to expand abroad and vice versa.

BIM regulations also play a major role in the strategic focus on the regions mentioned above and the respective countries. In some countries, the use of BIM software solutions is already mandatory for state-funded projects, such as in the USA, Singapore, the UK, Scandinavia or Japan. These countries thus offer excellent general conditions for the Nemetschek Group.

### Rental Models (Subscription/Software as a Service, SaaS) and Sales Approach

Sales in the brand companies are handled directly by the company's own sales teams and indirectly via resellers and distribution partners. Both sales channels have proven their worth and are used flexibly depending on market conditions.

The Nemetschek Group offers its customers a high degree of flexibility in obtaining the software. It operates a licensing model, which includes the option of a service contract or a rental model (subscription or software as a service). With rental models, Nemetschek can tap into new customer groups, as the customer can use the software flexibly and without a one-off license fee. At the same time, the visibility and predictability of revenues increase. Nemetschek will continue to offer its customers both options in the future. The offer and implementation of rental models is at different stages of progress in the four segments. The goals and strategies pursued by the Nemetschek Group in its segments are shown in its [«6 Outlook 2022»](#). In doing this, the Nemetschek Group addresses the different needs of customer groups, depending on discipline and region.

### Innovative Solutions

Around 22% (previous year: around 24%) of Group revenues flowed into research and development in the 2021 financial year and thus into new and further developments of the solution portfolio. In each segment, the Segment Managers, together with their brands, draw up a roadmap for the next three years as part of the annual budget process, in which the strategic product developments at brand level and across brands are recorded. The degree of implementation of the roadmap is presented and verified in regular review meetings between the brands and the respective Segment Managers.

The brands have their own development departments. There are also cross-brand development centers, e.g. in Bulgaria, to which the brands have access. Nemetschek has also built up development expertise in other countries such as Slovakia and India.

In addition to the further development of the individual brands, the strategic focus is on cross-brand development projects in the segments and strategic initiatives that extend across the segments.

The digital transformation in the construction industry and the path toward a networked construction lifecycle go hand in hand with a continuous exchange of data and information as well as the management and provision of ever-increasing amounts of data (big data) for the planning, realization and management of buildings and infrastructure projects with continuous workflows. The focus of Nemetschek's solutions is therefore on reducing information loss and data disruption. New fields of development activities include topics such as Artificial Intelligence (AI) or the Internet of Things (IoT).

The various disciplines along the construction lifecycle very often still work in isolation, making collaboration and an integrated workflow difficult. This is where the development activities of the Nemetschek Group come into play. The aim is to provide workflow solutions for higher quality and efficiency in the planning, construction and administrative process, in order to avoid conflicts by eliminating redundancies and to reduce costs and time for coordination and quality inspection.

### **Acquisitions/Investments in Start-ups and Ventures**

The Nemetschek Group pursues a strategy of profitable growth with the aim of growing inorganically through acquisitions in addition to organic growth. Suitable target companies in the respective segments are identified internally at holding company and segment level and by the brand companies themselves, and also by external partners and consultants.

The target companies should either extend or round off the technological expertise in the workflow of construction processes and strengthen the expertise in the Media & Entertainment segment. Another target is to gain complementary market shares in international markets. Strong management and an established business model are key parameters in the evaluation of potential acquisitions. Regionally, the focus is on the European and North American market. Now that the integration of the companies acquired in the Manage and Media & Entertainment segments in recent years has been completed or is in progress, the current focus is on strengthening the Build segment. It has also been possible to exploit opportunities arising in the Design segment. The objective is to offer the architect, engineer and construction company customer groups continuous workflows and therefore enable the associated efficiency increases via end-to-end process solutions. The Nemetschek Group thus intends to implement further additions to the solution portfolio and continue to expand its strong market position as a full-service provider.

After an acquisition, the holding company accompanies the brands during their integration into the segments and the group and integrates the new brands into processes and the reporting system established throughout the company. At the same time, they have become an important part of an internationally operating group and thus benefit from corresponding structures and possible synergies.

In addition to acquisitions at segment level, acquisitions at brand level are also possible and desirable. The brands can identify suitable target companies directly and purchase them with the support of the holding company. However, essential criteria such as technological expansion, regional expansion, distribution structure and financial solidity must be met.

In order to benefit even further from the technological advances in the growing AEC/O industry, the Nemetschek Group has defined a venture and start-up strategy in addition to the established M&A area. The focus for acquisitions or investments is therefore also on smaller, still young and innovative companies in addition to the

companies already established on the market. This provides Nemetschek with early access to new and innovative technologies with high growth potential and enables it to support these companies right from the start. Investments and interests in start-up companies are coordinated and supported at holding company level via the newly established Start-up & Venture Investments function.

In 2021, the Nemetschek Group has taken minority stakes in three young and innovative companies from Germany, the USA and Norway as part of financing rounds. These include the German start-up Sablono for digital lean technology in construction, the US start-up Reconstruct Inc. for remote quality control and remote progress monitoring, and the Norwegian company Imerso AS with an innovative platform for automating construction quality monitoring, combining artificial intelligence, reality capture and BIM technologies.

For example, supporting the Venture Lab Built Environment at the Technical University of Munich is also part of the Nemetschek Group's venture strategy to advance innovation and thus help shape the construction industry of the future.

These start-up investments will also be continued in the future, because product excellence and innovative strength are the key to being able to offer customers real technological added value in the future.

Even though acquisitions represent an important growth option for the Nemetschek Group, it always has the alternative of opening up new business areas organically or expanding existing ones thanks to its now very broad expertise along the entire construction lifecycle and in the media environment. A "make or buy" consideration permanently takes place as part of the implementation of the growth strategy.

The strategic directions described, along with the relevant targets and milestones, are set out in a strategic plan and are regularly discussed within the Executive Board and with the Supervisory Board. Countermeasures are developed and implemented where deviations from the targets set out in the strategic plan are identified. Targets are also adjusted where required. There were no adjustments to the strategic objectives in the 2021 financial year.