as well as cost efficiency and effectiveness will make an important contribution to the implementation of the growth strategy and further investments in the future value creation of the Nemetschek Group.

The Nemetschek Group's strategic orientation, key topics and corporate goals are carefully anchored in the strategic plan and form the guiding principle for corporate development. The strategic plan is discussed and reviewed in detail at regular intervals by the Executive Board and the segment heads together with the global Nemetschek management team and in cooperation with the Supervisory Board. Identified deviations from the targets set out in the strategic plan are countered with targeted countermeasures. If necessary, targets are adjusted to ensure that the Nemetschek Group's strategy always meets current market, competitive and customer requirements.

## **1.3 Research and Development**

Research and development are a very high priority at Nemetschek. In the 2023 financial year, €201.6 million (previous year: €182.6 million) were invested in research and development.

Around 24% of Group revenues therefore went toward research and development in the 2023 fiscal year (previous year: around 23%) and into new and further development of the solution portfolio. Furthermore, roughly 39% (previous year: 40%) of employees work in research and development, emphasizing once more the high priority that this area of business has for the Nemetschek Group.

The development of new, innovative solutions and enhancement of tried and tested ones rested largely on internal resources and only drew on the services of third parties to a small extent. In terms of expenditure, 88% (previous year: 90%) was on internal R&D employees (including cost of goods sold and depreciation and amortization) and just 12% (previous year: 10%) on external service providers.

Through its research and development activities, the Nemetschek Group is pursuing an aim of further expanding its innovation in the AEC/O and media markets, and identifying technological trends at an early stage, developing them into marketable solutions, and establishing them in the market. Proximity to and cooperation with clients is a key component of this. Ideas and potential for improvement are identified in close exchange with clients and then evaluated by the brands in the respective segments.

In each segment, the Segment Heads, together with their segment's brands, draw up a road map as part of the annual planning process where the strategic product developments at brand level and across brands are laid out. Regular review discussions are held between the brands and Segment Heads as well as the Executive Board to present and verify the progress in implementing the road map and, if necessary, decide new measures. The Group's brands have their own development departments. There are also cross-brand development centers which the brands access. In addition to the enhancement of the brands' individual solutions, there is a strategic focus on cross-brand development projects in the segments as well as strategic initiatives which also extend across the segments.

## **Innovation Focuses**

All brands continuously enhance their existing solutions. The brands, in their respective segments, worked on tasks such as improving the user-friendliness of their solutions, process optimization, and integrated interfaces and connections for a seamless OPEN BIM workflow. Simultaneously, all brands work on steadily expanding their existing solution portfolios to reflect technological trends and changed client needs and, in doing so, secure their position as innovation leaders in their markets. A special, cross-segment focus for development work in the 2023 fiscal year remained the ongoing development of subscription and SaaS offerings.

The further development of the digital twin platform in particular as well as developments surrounding artificial intelligence were priorities, alongside topics such as sustainability and interoperability.

The Digital Twin business unit, which was inaugurated in the 2022 fiscal year, ties together the entire AEC/O life cycle. Its developments center around the dTwin digital twin platform, which was launched in fall 2023. This open and horizontal SaaS cloud solution provides data-based insights and helps clients to manage building structures efficiently from planning through to operation. By bringing together all the relevant data and information from across the building life cycle and real-time data from building operation using sensors and other sources that can be connected via open interfaces, Nemetschek's new dTwin solution closes the gap between planning, construction, and operation, enabling an open, data-driven Building Lifecycle Intelligence™ approach. The initial focus for this is on clients involved in building operation and management.

Another important focus for development activities is innovation from the use of artificial intelligence, with work being done on various initiatives across the Group. In late 2023, Nemetschek announced product expansions and strategic partnerships that use artificial intelligence (AI) technologies to improve processes in the construction life cycle and in the media industry, increase productivity, and promote creativity. The objective of the initiatives is to provide clients in the AEC/O and 3D animation industries with trustworthy and ethically sound artificial intelligence.

Nemetschek's Graphisoft brand, for example, debuted an AI-based visualizer for its BIM software solution, Archicad. Using an AI engine that generates high-quality imaging, the software's users can shorten the early design process by generating multiple design visualizations without modeling them in 3D. The AI visualizer will be available for Nemetschek's Allplan and Vectorworks brands in 2024, too.

Allplan has, in addition, begun a technology partnership with Al start-up elevait. Through its partnership with elevait, a specialist in the field of artificial intelligence, it is aiming to use existing volumes of data systematically through the application of artificial intelligence and, in doing so, drive efficiency increases and quality improvements in the construction industry.

The Nemetschek Group sees major business potential in the field of artificial intelligence and is working intensively on enhancing its portfolio of products and solutions steadily.

Complementing its own innovation strength, the Nemetschek Group also wishes to build more on external innovation strength and invest in smaller, young, and highly innovative enterprises, i.e., start-ups. Read more about this in << 1.2 Growth Drivers, Goals and Strategy >>. For this reason, further interests in young and innovative companies were acquired during the 2023 fiscal year. The focus of these investments' innovation is on artificial intelligence, sustainability in the construction sector, efficiency, costs, and project management. Moreover, cooperation and partnership with innovative businesses, colleges, and universities is part of the Nemetschek Group's DNA and the subject of gradual, ongoing development.

Maintaining contact with science and teaching has been a key concern since the Nemetschek Group was founded in 1963. Nemetschek traces its origins to higher education, where its software solutions have had a presence for decades. The brand companies provide students and professors with free software licenses and online training material as part of their "campus programs." This applies to core markets in Europe and, these days, many other markets too, especially the US.

On top of that, Nemetschek regularly helps out university programs with its involvement in invitations to student competitions for supporting young and talented people in architecture and engineering. For example, Nemetschek provides support to the Leonhard Obermeyer Center at the Technical University of Munich as a partner. Close collaboration with universities and colleges simultaneously safeguards the Nemetschek Group's innovation capabilities as it is placed close to new topics, trends, and innovative developments through the close ties to higher education.

## **1.4 Corporate Management and Governance**

## **General Information**

A key success factor in the Nemetschek Group's structure is its combination of a flat group structure with corresponding processes and synergies on the one hand and flexibility and entrepreneurially led brands on the other.

The strategic alignment of the Nemetschek Group and operational governance is overseen by the Executive Board and the Segment Heads of Nemetschek SE. This includes the strategic positioning of the Nemetschek Group in the relevant sales markets globally and its short- and medium-term revenues, earnings, liquidity, and investment planning. It also involves an orientation toward the competitive and market environments.

Business management takes place within the segments. Strategic targets are used as a basis for setting the targets and annual objectives of the segments and associated brand companies. In the annual planning process, these targets and annual objectives are coordinated with the brand companies, fleshed out with specifications by the brand companies, and backgrounded with quantitative and qualitative subtargets for marketing, sales, research and development, and administration. The annual planning, subtargets, and medium-term planning are coordinated between the CEOs of the individual brands and the relevant segment heads, then within the Executive Board of the Nemetschek Group in the next step. The Supervisory Board monitors and advises the Executive Board throughout the above processes.

Throughout the year, the Group's targets are monitored and evaluated each month using a Group-wide management information system with detailed reporting of key performance indicators for revenue, growth, and earnings. These indicators are compared with previous years' and plan data. The respective brand CEOs, Segment Heads, and the Executive Board discuss any deviations from the plan on a monthly basis and decide on possible measures.