

## 5 Opportunity and Risk Report

### Opportunity and Risk Management

The entrepreneurial activities of the Nemetschek Group involve opportunities as well as risks which primarily reflect the diversity and international nature of its business activities. The Group's risk appetite is aligned with its business policies, which aim for sustainable and profitable growth. A management and control system is used to identify and assess these opportunities and risks at an early stage and to decide on how to treat them. This system for managing opportunities and risks is a key element for detecting developments that are critical or advantageous for the company at an early stage. It also has a role alongside the strategic company planning, systematic planning processes, and internal reporting processes. The Nemetschek Group pursues an aim of making the best possible use of opportunities and identifying risks at an early stage in order to initiate suitable measures and thus ensure the future success of the Nemetschek Group. The Nemetschek Group takes a combined top-down and bottom-up approach to opportunity and risk management. Within this approach, responsibility for the early identification of overarching Group-wide opportunities and risks along with suitable measures generally lies at Group level. Responsibility for operational risk, and for capturing and managing it, lies with the brands on a decentralized basis. The Operational Risk Managers are responsible for summarizing, assessing, evaluating, and reporting risks and the associated countermeasures. Another important component of the opportunity and risk management system is the internal audit, which continually monitors the functionality, efficacy and effectiveness of the processes.

The recognition and management of opportunities are embedded as integral parts of the strategic, corporate planning, and forecasting processes. This ensures that both a medium- and short-term perspective are taken with regard to additional growth potential for the Nemetschek Group. Accordingly, opportunity management evaluates relevant and feasible opportunities that are in line with the Group's strategic goals and offer a competitive advantage. Opportunities identified are assessed in terms of quantity and quality using business models.

Integrating opportunity and risk management into the organization of corporate controlling ensures that the opportunity and risk management system is aligned with the planning and reporting processes and their criteria. To improve comparability, steps are taken to ensure that both opportunities and risks arising from business operations are additionally evaluated across the Group, based on uniform quantitative and qualitative criteria and categories.

The current risk situation of the Nemetschek Group is updated, documented, and analyzed quarterly, as part of a separate opportunity and risk inventory. This applies to both opportunities and

risks that are strategic and relevant to the Group as a whole and to operational, decentralized opportunities and risks. Risk owners are designated for all opportunities and risks that are identified and classified as relevant.

Material, relevant risks are passed on, limited, or mitigated through appropriate measures, or they may be accepted. Risks are mainly passed on through the use of insurance policies. Risks are also limited or mitigated by adjusting business models or processes.

The Supervisory Board is regularly informed in the form of reports about the material identified risks faced by the Nemetschek Group and the efficiency of its risk management system.

### Evaluation of and Reporting on Opportunities and Risk

The Nemetschek Group systematically analyzes and evaluates opportunities and risks. The identified opportunities and risks are quantified, classified, and assigned one of four categories:

- » Financial Opportunities and Risks
- » Operational Opportunities and Risks
- » Legal, Tax, and Compliance Risks and Cybersecurity Risks, and
- » Financial Risks

In order to take suitable measures to deal with risks that could threaten the continued existence of the Nemetschek Group, any risks identified are evaluated and then classified based on their estimated likelihood of occurrence and the extent to which they are expected to affect the earnings, assets, and finances, the share price, or the reputation of the Nemetschek Group. Opportunities are also quantified.

A revision and adjustment of opportunity and risk potential took place during the 2022 fiscal year. The following is a presentation of the adjusted bandwidths used for gauging the potential severity from a risk (after mitigation measures). In particular, these bandwidths take into account the sustainable and profitable growth of the Nemetschek Group and its finances.

**RISK POTENTIAL PROBABILITY OF MATERIALIZATION**

Level	Probability of materialization	Potential severity	Potential severity
Very low	≤ 10%	EUR 0.0 ≤ 0.25 million	EUR 0,0 ≤ 5.0 million
Low	>10% ≤ 25%	> EUR 0.25 ≤ 0.75 million	> EUR 5.0 ≤ 10.0 million
Medium	> 25% ≤ 50%	> EUR 0.75 ≤ 2.0 million	> EUR 10.0 ≤ 20.0 million
High	> 50% ≤ 75%	> EUR 2.0 ≤ 4.5 million	> EUR 20.0 ≤ 50.0 million
Very high	> 75% ≤100%	> EUR 4.5 million	> EUR 50.0 million

The following is a report on the opportunities and risks that are material for the Group. It explains the measures that are taken to mitigate the risks and their severity and at the same time support the creation and seizing of opportunities. Generally, the four segments of the Nemetschek Group share a similar opportunity and risk profile and are exposed to comparable opportunities and risks.

The most significant risks at the Nemetschek Group during the 2022 fiscal year, across all risk categories, were again:

- » Foreign-exchange risk
- » Macroeconomic and industry-specific market risks, and
- » Parts of operational risks (corporate strategy, sales, and products)

Overall, we can conclude, based on the likelihood of materialization and severity, that none of the individual business-specific risks identified from the brands' operating businesses present a risk that we believe to be material to the Nemetschek Group. Significant risks are those of the "High" and "Very high" level. In addition, no risks to the continued existence of the Nemetschek Group were identified.

### Economic Opportunities and Risks

#### Macroeconomic and General Conditions

Opportunities/risks from general economic, political, and regulatory conditions (including social conflict, instability, and pandemic)

#### Opportunities

The Nemetschek Group sees possibilities for the current economic and political conditions to ameliorate more quickly than forecast. A brightening of the presently gloomy economic environment could improve our clients' investment behaviors, causing the demand for the Nemetschek Group's products and solutions to rise above the planned level. Moreover, government initiatives and subsidies may result in higher government expenditure, including for investment in infrastructure or digital transformation. The Nemetschek Group has the capacity to profit from this, too. It is intensively monitoring the development of government initiatives in its regional target markets so that it can respond to initiatives and programs promptly.

The increasing importance of sustainability and political efforts to achieve it may offer positive stimulus for the Nemetschek Group's business. Nemetschek welcomes the Green Deal initiative of the European Union and its member states to mitigate climate change more rapidly, including the opportunities it offers. In offering its products and services, the Nemetschek Group is actively involved in the development of an economy that is oriented toward sustainability and believes there are possibilities to profit from the potential opportunities. However, the current assessments are subject to change and opportunities may therefore only be realized to a partial or small extent.

The challenges that were overcome during the Covid-19 pandemic may also produce opportunities. For instance, further digital channels for communication and sales to our clients were implemented, collaboration intensified, and relationships strengthened. The Covid-19 pandemic also impacted the way our employees work and led to greater job flexibility for our workforce. The flexibility that was achieved may have positive impacts for the Nemetschek Group in the future. On top of that, the Covid-19 pandemic resulted in an acceleration of digitalization and digital transformation across all industries. If this trend should accelerate further, the Nemetschek Group could profit from it through its product portfolio.

#### Risks

The Nemetschek Group is active in various markets and regions. Business activities are influenced by market factors such as geographical and cyclical economic trends and political and financial changes, but also by the occurrence of natural disasters and pandemics. Because of the current geopolitical situation, the general conditions deteriorated over the last year and this led to an increase in macroeconomic risk.

Overall, the global economic outlook is currently subject to major uncertainty. The latest forecasts from the IMF and German Council of Economic Experts based on their assessment of macroeconomic development say that the global economy's growth will drop further in 2023, coming in at 2.9% (IMF) and 1.9% (German Council of Economic Experts) [<< 7 Outlook 2023 >>](#).

Russia's invasion of Ukraine does not have any direct, material impacts on the Nemetschek Group's business. The transactions

that the Nemetschek Group was able to conduct in Ukraine and Russia prior to the outbreak of war accounted for less than 1% of the Group's sales. However, some of the Group's companies do make use of a small amount of research and development services from Ukraine. There could be negative consequences for the relevant development activities if the war persists for any longer. The indirect consequences of the war may have negative impacts of Russia's invasion of Ukraine on the Nemetschek Group. The Nemetschek Group rates the impacts on the energy supply in parts of Europe's economy and the increased cost of materials, along with the associated rise of inflation and the fallout from that, as the greatest macroeconomic risk currently. Any exacerbation or broadening of the war, or a significant increase of the imposed sanctions and the potential backlash from them, could lead to a significant deterioration of macroeconomic conditions.

The emergence of new political conflicts or the exacerbation of existing ones could have negative impacts on the global economy. For example, an escalation of the Taiwan–China conflict would have major consequences. A further intensification of the trade dispute between the US and China or a generalized increase in protectionist measures in individual countries would also have negative impacts on global economic growth and thereby influence the investments that businesses make accordingly.

Another worsening of the Covid-19 pandemic or a reinforcement of restrictions in individual countries to combat the pandemic may lead to a deterioration of the forecast economic growth. Moreover, the Covid-19 pandemic has shown how vulnerable the deeply interconnected global economy is to natural catastrophes and pandemics. However, based on the experience gained in the recent years of the pandemic and the measures that were introduced, the Nemetschek Group currently judges this risk to be smaller than it was in previous years.

The various crises that exist at present may result in a slowdown of globalization and in parts of global supply chains shifting back to where they previously were. This development may also negatively impact the development of future economic growth.

The emergence of one, or a combination, of the above risks could result in a significant deterioration of the forecast macroeconomic conditions. The construction industry could slow down as a consequence of poorer economic development or higher inflation, with the associated increase in interest rates, and this could also lead to our clients changing their intent to buy, with the result that planned purchases become postponed or abandoned. One or more clients defaulting would also be a possible scenario if there were strong economic upheaval. This could negatively impact the Nemetschek Group's earnings, finances, and assets.

The Design segment – which produces roughly 50% of the Nemetschek Group's sales revenues – is positioned at the beginning of the building life cycle and would feel any general economic malaise first. The Build segment would only be affected downstream. The Manage and Media segments target end clients, which increases risk diversification. In addition, the Manage segment is not directly dependent on the building process, as the focus in this segment is rather on increasing efficiency in the management of properties.

Nemetschek continually monitors developments in key economies and their construction industries by means of widely available early warning indicators such as the market indicator of the Euroconstruct market institute, or the Construction Confidence Indicator (CCI), as well as by analyzing its own marketing situation. The highly targeted markets in Europe, North America, and Asia are continuously analyzed. Thanks to its international business orientation, the company has broad risk diversification. There is currently no single client with a significant share of sales, so there is no "cluster risk." The Nemetschek Group's clients are also characterized by a high level of loyalty. The Group is therefore highly diversified, both in terms of regional distribution and client mix. The high proportion of recurring sales revenues, at over 65% of total revenues, is also a risk-minimizing factor. The Nemetschek Group's strategy sets out the integral aims of further expansion of recurring revenues and further internationalization as key areas of focus, and these aims are implemented for the long term.

The Nemetschek Group plans its investments and corporate decisions in the medium to long term, so short-term deviations should not have a decisive influence on the overall long-term picture. If necessary, Group or segment strategies are adjusted.

### **Industry Opportunities and Risks**

There are significant opportunities and risks in the market and industry environment that could cause a noticeable change in the financial situation of the Nemetschek Group. The order situation and the financial strength of the construction and media industry have an influence on the investments of this industry in software solutions and thus on a significant portion of the business development of the Group.

#### **Opportunities**

The current risks in the construction industry can also offer opportunities for software companies such as the Nemetschek Group. The Covid-19 pandemic, for example, has accelerated digital transformation in working environments as well as the construction industry. Compared to other industries, digital transformation has little presence in the construction industry, yet it has a key role

especially when it comes to efficient material usage, efficient construction site management, and building operation and management with low resource consumption. In this current market period where market participants are particularly conscious of cost-effectiveness and efficient resource usage, expenditure on digital transformation can be the key to reshaping value chains for lasting efficiency. If enterprises such as the Nemetschek Group could increase their clients' awareness accordingly, this would potentially cause digital transformation in the construction industry to come about more quickly than expected and hence allow potential revenue also to be harnessed faster than expected.

Furthermore, the construction industry is continuing to benefit from the public investment in infrastructure and public-sector construction and infrastructure that was initiated by numerous governments during the Covid-19 pandemic. This consequently provides an opportunity to participate in the investment, particularly for the Design and Build segments.

Further opportunities may arise in the Media segment as the creation of digital content and worlds as well as 3D animations is increasingly growing in importance, particularly for the young generation. One example of this is the metaverse, which merges the virtual with the real world. The metaverse offers numerous opportunities for global networking as well as new possibilities in the working world and education. In addition, there is a growing need for digital content and rising demand for gaming. These trends could have a further positive impact on demand for solutions in the Media segment.

### Risks

Long-term positive growth opportunities are forecast for the construction and infrastructure industry thanks to global trends such as urbanization and population growth. In the short term, however, growth may also recede in the construction industry because of the current macroeconomic environment. In particular, high inflation and the interest rate hikes by many central banks to counter it are negatively impacting the development of the construction industry. What's more, the current supply chain issues, uncertain supply of some raw materials, and skilled-labor shortages may lead to the industry's growth potential not materializing as previously assumed. The overall effect of these factors may be to reduce earnings in the business world, which would negatively impact business investment – including in the Nemetschek Group's products and solutions. There furthermore remains uncertainty about how Brexit will impact the countries concerned in the medium and long term, despite trade and cooperation agreements having been signed between the European Union and United Kingdom. It also remains to be seen how these developments will influence British industry. Covid-19 accelerated transformation within the world of work as well. This transformation may also result in major uncertainty continuing to influence the development of investment in commercial construction in certain industries. This development could influence the segment's growth momentum in the medium and long term.

The Nemetschek Group continuously monitors the industry-specific developments in its regional submarkets so that it can respond to change rapidly. The strategic direction of increasing the share of recurring revenues, for example by rolling out subscription models, can counter the risk of clients forgoing investment. With models like these, clients do not make a single investment in a license but instead use the relevant software in return for paying a regular usage fee.

### Opportunities and Risks Arising from Competitors

The software market is a highly competitive one and is marked by the rapid pace of technology and its heavy fragmentation. However, for businesses that operate sustainably, this market also offers opportunities.

#### Opportunities

Thanks to its strong earnings and sound finances, the Nemetschek Group is capable of making sustainable investments in research and development. This means it can enhance the technology of its existing solution portfolio in line with its clients' needs while generating innovation that adds value for clients. The Nemetschek Group could consequently gain a market position that lets it harness further potential revenues.

The AEC/O software industry in particular is also an environment with strongly fragmented competition. Despite a period of market consolidation that has been ongoing for years now, the market continues to be influenced by a large number of small and local companies. The Nemetschek Group is one of the few global enterprises in the industry and sees opportunities to exploit further fields of innovation and potential growth through M&A and targeted support for start-ups. To take advantage of this potential and these opportunities, the Nemetschek Group has created and expanded internal structures that are aimed at M&A and start-ups.

#### Competitive Risks

Market risks could arise from faster-than-expected technological change, innovation by competitors, or the emergence of new market participants such as cloud providers. To counter these risks, the Nemetschek Group systematically analyzes the market and market participants and views innovative competitors as potential targets for acquisition. The Group also invests heavily in its research and development on a continuous basis so that it can actively respond to competition-related risks with innovative new products and solutions and, moreover, seize the separately described opportunities.

With its Design, Build, and Manage segments, the Nemetschek Group covers the entire life cycle of building structures and infrastructure projects. On the other hand, the Media segment largely targets the media industry through a wide range of products and has developed continuously and positively in recent years. Due to this strategic positioning, Nemetschek considers itself well placed and thus less vulnerable to risks than other market participants who operate only in individual market segments.

In summary, the opportunities and risks for the “Economic Opportunities and Risks” risk category can be quantified as follows:

<b>Risk category</b>	<b>Probability of materialization</b>	<b>Severity</b>
Economic risks	medium	medium
Industry sector risks	medium	high
Risks from the competitive environment	low	very low

  

<b>Opportunity category</b>	<b>Probability of materialization</b>	<b>Severity</b>
Economic opportunity	low	low
Industry sector opportunity	medium	medium
Opportunity from the competitive environment	medium	low

## Operational Opportunities and Risks

### Corporate Strategy

Opportunities and risks can also result from strategic corporate decisions and change the company’s opportunity and risk profile in the short, medium, and long term. The Nemetschek Group generally pursues a growth strategy that is focused on earnings [<< 1.2 Targets and Strategy >>](#). Broadly speaking, the strategic direction is oriented toward identifying and realizing opportunities for the company. However, risks can also arise in connection with the corporate strategy and its implementation, and these risks may negatively impact the company’s earnings, finances, and assets.

At various levels of the company’s leadership, there is reporting on the development of individual strategic initiatives, programs, and projects for driving and realizing the implementation of the strategy. Progress, opportunities, and potential challenges are regularly discussed by the Executive Board and Supervisory Board ensuring that potential deviations are identified rapidly so that corresponding measures can be taken.

### Opportunities

The new structures for the company leadership, which have been successfully established since the 2019 fiscal year, unlock new possibilities and potential for leveraging synergies between the brands and, simultaneously, approaching clients in an even more focused way. What’s more, the integration of certain brands that has taken place offers opportunities to utilize synergies in research and development, product design, and fresh possibilities for market entry.

The Nemetschek Group sees itself as a driver for building information modeling (BIM) and has a strong position in all AEC/O segments with regard to this working method. BIM regulations in various countries are helping to ensure that BIM technologies become increasingly important in the construction industry. These provisions are also driving the BIM standards in other countries and leading to greater acceptance of this working method.

The strategic direction provides for an ongoing transition to new sales and business models (subscription and Software as a Service). It offers accelerated growth opportunities and also ensures greater stability and visibility for revenue development.

The Nemetschek Group has its roots in the Design segment and has successively focused on further high-growth markets across the construction life cycle. Following Nemetschek’s significant expansion of its Build segment in recent years, the company is now focusing more strongly on the building management market. It appeals to this market through its Manage segment and new Digital Twins business unit. The Build and Manage segments in particular continue to enjoy great growth opportunities due to the potential in the market and the still-low level of digitalization in the industry. On top of that, there is also the media sector, a second business cornerstone that Nemetschek addresses alongside the AEC/O industry. The Media segment, which Nemetschek has boosted considerably in recent years, is growing at an above-average pace for the Group and also offers a high level of future growth potential. The comprehensive range of solutions now covers all five key areas of application, from modeling, animation, and rendering, to painting and sculpting. As a result, Nemetschek has significantly expanded its client base. With the expanded portfolio, Nemetschek has already established a good position in the huge 3D animation as well as emerging Metaverse market.

What will be essential for realizing the above opportunities is constant market analysis, allowing new, innovative solutions as well as business models to be developed with many benefits for our clients and USPs.

### Risks

Risk could arise in connection with the company’s strategic direction or the implementation of that direction if the expected market demand for BIM solutions turns out to be lower than expected or if other methods of working become rapidly popular instead. This might result in investments not producing the returns that were expected. There might also be less demand for subscription or SaaS solutions than expected, which would also result in the investments for transforming and expanding the business model amortizing either not at all or only at a time later than expected.

The Nemetschek Group's growth strategy is based on organic growth initiatives as well as growth stimulus from M&A activities. If we cannot acquire businesses at reasonable prices, this might negatively impact the realization of our long-term growth strategy.

The implementation of the growth strategy also comes with challenges arising from the increasing rate of internationalization. This element of the strategy also requires overcoming the barriers to entry in new regional submarkets, while also developing successful and efficient sales structures in them and deploying USPs in the regional submarkets in a way that drives value. Any delays in the implementation process may have a negative impact. Such delays may arise, for example, if sufficiently qualified regional employees or distribution partners cannot be recruited or the regulatory framework conditions are more complex to implement. The Nemetschek Group has well-founded experience in planning and building up regional sales structures. For specific challenges, it also engages, where necessary, external specialists to avoid or limit risks and the consequences arising from them.

The Nemetschek Group continuously evaluates existing as well as new technologies, monitors the market on an ongoing basis, and revises its market assessments based on these findings. Thanks to its close relationships with its clients, a broad range of attractive client solutions, and its role as a leading innovator, the Nemetschek Group can continuously work on creating attractive and innovative solutions with many benefits for clients. This minimizes the risks associated with its chosen strategic direction and allows the chosen strategic approaches to be adapted where necessary.

### **Sales and Marketing**

Different business models, the special characteristics of regional submarkets, and the software solutions themselves demand a great deal from the marketing process. There are both risks and opportunities associated with successfully implementing this process.

### **Opportunities**

The further internationalization of Nemetschek's business is a strategic focus designed to expand regional market shares or to enter new markets. The focus lies on those sales markets that offer the greatest market potential and growth. Alongside Europe, a major focus is on the US market, the largest regional AEC/O software market in the world, and selected Asian markets. This focus also applies for the Media segment.

Moreover, opportunities may arise as the various brands within the Nemetschek Group mutually support each other in different regions. European brands, for example, can benefit from the

experience and sales structures of the U.S. brands and vice versa. Along with this, there is an opportunity for stepping up efforts to address previously peripheral markets, e.g. in Asia Pacific, and to generate additional growth.

In addition to further internationalization, the Nemetschek Group also works toward realizing further sales and marketing opportunities. New forms of market cultivation arising from mergers of individual brands provide an opportunity to offer existing and potential new clients more comprehensive solution packages. This is particularly the case for large, international clients that combine various disciplines under one roof. A further aspect is cross-selling, in which brands jointly address customers. Opportunities may also arise from new sales channels, such as e-commerce, in which customers can subscribe to a solution directly online via the website. Furthermore, the increasing acceptance of and demand for new sales models such as subscriptions or SaaS may lead to higher, resilient, and more predictable revenue. Expansion of the existing product portfolio may also lead to higher revenue in the future, especially in the Media and Manage segments.

### **Risks**

The sales models that the Nemetschek Group offers are based on the use of expert sales partners, resellers, and qualified employees with specialist knowledge. In addition to the classic sales channels, the Nemetschek Group is increasingly relying on e-commerce offers in order to address its client base even better.

The loss of important sales partners or sales employees could have a negative impact on the revenue and earnings of the Nemetschek Group. The brands take this risk into account by carefully selecting, training, and managing sales partners and employees and with the help of incentive and performance systems. In addition to training offers, sales employees are paid a competitive amount of fixed remuneration as well as variable, performance-based bonuses or commissions.

Sales risks also exist in cases where the brands decide to establish their own sales team or sales location in regions where a sales partner previously worked, or if sales partnerships are terminated. In the course of such a changeover, this could lead to discrepancies with the previous sales partner or to negative client reactions. However, such scenarios are analyzed carefully before implementation and discussed both internally and with external market experts.

Further risks may arise when changing the product portfolio as well as when switching to new forms of distribution, such as leasing models, if the appropriate solutions do not yet have the degree

of market maturity that clients expect when launched on the market. Nemetschek handles this risk through careful preparations for market launch, supported by pilot projects with selected customers and, if necessary, rapid adaptation and intensification of development activities. Risks can also arise when introducing new channels for distribution and sales, like when developing e-commerce offerings for instance (including the Group's own online stores). The Nemetschek Group counters these risks through precise planning, comprehensive communication, and the careful testing of corresponding changes.

### **Products and Technology**

A market environment shaped by rapid technological progress places heavy demands on both the products and the technologies used, and on how they are improved.

### **Opportunities**

The development of new solutions and technologies that are focused on the clients' benefits, such as cloud-based solutions or digital twins for example, can enable the exploitation of new growth potential. New business models such as subscriptions and SaaS also provide opportunities for more positive development in the Group's earnings. The Nemetschek Group makes use of its close customer relationships and mobilizes its knowledge, experience, and research and development resources in a targeted manner in order to make use of the opportunities available. Approximately one-fourth of the Group's revenue regularly goes toward research and development for this purpose. M&A as well as targeted equity investments in and support for start-ups provides an opportunity to expand the existing product portfolio in a targeted way, too. The Nemetschek Group has expanded its internal structures in order to fully take advantage of this type of opportunity.

### **Risks**

There is a risk that competitors will gain an innovative edge and thus win clients previously loyal to the Nemetschek Group. Future business success therefore depends above all on the ability to offer innovative products that are tailored to clients' needs. Thanks to its organizational structure of 13 entrepreneurially managed brands within four segments, the Nemetschek Group is positioned close to its clients and markets. This enables changes and trends to be identified, evaluated, and implemented at an early stage. Flat hierarchies, strong connections with decision makers in the company, and cross-functional teams make it possible to avoid potential risks arising from the development of software products that are insufficient for client needs or internal quality standards. The Nemetschek Group also uses close client relationships to analyze the needs of clients. Based on this analy-

sis, it aligns future products and solutions with these client needs and guides the products and solutions to market maturity with appropriate timing.

The software products of the brands sometimes incorporate third-party technology. The loss of or poor quality of the technology could lead to delays in the delivery of the company's own software and to increased expenses for the procurement of replacement technology or for quality improvement. The brands take this risk into account by carefully selecting suppliers and ensuring adequate quality assurance.

The Nemetschek Group continuously invests around one fifth of the Group's revenue in research and development, and the reasons for this include preventing product- and technology-based risks as far as possible or reducing them to a level tailored to the strategy.

### **Products**

The Nemetschek Group's core processes of software development, marketing, and organization are subject to constant review – with a goal of continuous improvement – by the management of the respective segments. The performance and target orientation of these processes are reviewed and optimized as part of strategic and operational planning.

### **Opportunities**

Changes to existing business processes and models are continuously implemented in order to achieve targeted improvements and thus to realize opportunities. Changes can have a positive impact both directly on customer benefits – and therefore also on customer relationships – and indirectly by further optimizing internal company structures and processes, thereby improving the Group's cost structure and its ability to generate value.

### **Risks**

There may exist risks that the required and planned process results may not meet client requirements in terms of time and quality as a result of insufficient availability of resources or changes in general conditions, such as a pandemic and its impact on business processes.

Further risk potential exists in the realignment of the product lines. For example, migration from a product that has been on the market for a long time to a new solution could entail the risk of losing clients, even if the migration were only to take place to another Nemetschek product. In such cases, the Nemetschek Group ensures that communication between the brands remains strong and that the advantages of the migration are explained to clients through comprehensive communication.

Completed or even planned conversions of business processes or models may require new and complex changes in internal systems and processes. The corresponding effort and expense to implement these changes might be greater than expected, which would negatively impact earnings.

There also exists a risk that established processes could be disrupted by internal restructuring or optimization, which would lead to negative consequences.

The Nemetschek Group counters these risks, which are based on changes in processes, using a structured process and targeted communication. Changes are tested at defined milestones and revised if necessary. Internal and external experts are also called on when required.

### Human Resources

The software industry is experiencing a shortage of skilled labor, particularly in the areas of software development as well as marketing and sales. This situation creates challenges that the Nemetschek Group must deal with effectively.

### Opportunities

The Nemetschek Group has grown strongly in recent years. With size-based adjustments in the organization of structures and workflows, changes can be made that provide relief for the current organizational structure and offer appealing development opportunities for Nemetschek Group employees or entry opportunities for external candidates. In addition, the fact that Nemetschek has a more coordinated brand presence as a globally active group of companies offers the opportunity to further increase the attractiveness of the company for existing talent and potential employees. The preexisting, close cooperation with a broad network of universities, particularly in Europe and the US, also offers an opportunity to further grow the reputation and appeal of the Nemetschek Group among university graduates. Financially potent companies such as the Nemetschek Group offer greater appeal as employers particularly in uncertain economic times, and thus gain an opportunity of retaining employees and hiring new ones.

### Risks

The prevailing shortage of skilled labor is an issue that has already existed for a longer time now. If qualified skilled or management employees were to leave the Nemetschek Group and no suitable replacement could be found, this could have a negative effect on business development. This is particularly significant if it also results in a loss of expertise. In addition, the general shortage of skilled workers, which continues to grow, is also an ever increasing challenge. The respective brands are in competition with large software players worldwide, so it has become increasingly chal-

lenging to recruit qualified personnel in recent years. To gain and retain employees, the Group – as well as the brands – offer flexible working models and attractive salaries. The Nemetschek Group also works very closely with universities, provides scholarships, and awards doctoral positions to attract young specialists. Moreover, the company aims to offer its employees an attractive workplace, appealing development opportunities, and consequently to create a bond between the employees and the company.

### Acquisitions, venture investments and integration

Realizing growth potential through M&A and investments in start-ups is a core element of the corporate strategy.

### Opportunities

The Nemetschek Group uses acquisitions to expand its product and solution portfolio, gain access to new technologies and/or regional markets, and thus close gaps in the value chain. New client groups can also be reached and market shares that are considered relevant and promising for the future can be gained. The Group also increasingly focuses on investments in start-ups in order to gain access to innovative technologies and business models and support their implementation in the market.

In order to make the best possible use of acquisition opportunities, employees of the M&A department continually screen the markets for suitable candidates. At the same time, Nemetschek works together with M&A consultants. Furthermore, the brands themselves contribute their expert knowledge and market observations to a professional M&A process. Acquisitions are carefully and systematically reviewed and planned before a contract is signed. There is an established standardized process for M&A, with a special focus on due diligence, valuation and post-merger integration. In addition, opportunities that arise from investments and interest in start-up companies are intended to be developed in a more targeted way. To this end, the Startup & Venture Investments function has been established at holding company to coordinate and support such interests in young companies. With these investments, the Nemetschek Group is very close to young, innovative companies and the technologies of the future. By bringing start-ups and its established brands together, Nemetschek can benefit from new impetus from the start-up scene.

### Risks

There exists a risk that mergees or acquirees do not develop in line with expectations, resulting in the set earnings targets not being achieved. This could negatively impact the Nemetschek Group's earnings, finances, and assets. Goodwill, which arises in the context of company acquisitions, is subject to annual impairment testing. It might be the case that the value of an acquiree proves to be impaired due to commercial developments, in which



case the complete purchase price, or part of it, may need to be written off. This would negatively impact the Nemetschek Group's earnings, finances, or assets. No write-downs were needed in the 2022 fiscal year in this regard.

To counter risks during M&A, potential targets are assessed, evaluated, and planned carefully and systematically before a contract is signed. There is an established, standardized process for M&A activities, and it has a special focus on performing due diligence.

The following table provides a quantification of the above operational opportunities and risks:

<b>Risk category</b>	<b>Probability of occurrence</b>	<b>Severity</b>
Corporate strategy	very low	very low
Sales and marketing	very low	high
Products and technology	very low	high
Processes	very low	low
Human resources	high	low
Acquisition and integration	low	low
<b>Opportunity category</b>	<b>Probability of materialization</b>	<b>Severity</b>
Corporate strategy	medium	very low
Sales and marketing	medium	very low
Products and technology	medium	very low
Processes	low	very low
Human resources	medium	very low
Acquisition and integration	high	medium

## Legal, Tax, and Compliance Risks and Cybersecurity Risks

### Legal Risks

In an international company such as the Nemetschek Group, risks may arise from contractual, competitive, trademark, and patent laws. With this in mind, provisions are made in the statement of financial position in accordance with the accounting regulations. The Nemetschek Group limits such issues through legal audits by the Legal department and external legal advisers.

In the software industry, developments are increasingly protected by patents. Patent activities mainly concern the American market, although using patents to protect software is also steadily rising in other markets. The infringement of patents could have a negative impact on assets, finances, earnings, the share price, or the reputation of the company.

In sales, the Nemetschek Group works not only with its own sales force, but also with external retailers and cooperation partners.

The same applies to external marketing agencies. Sales and marketing partners might either not fulfill their contracts with Nemetschek at all or might fulfill them on unacceptable terms, or might renew them. Sales or marketing agreements might also be terminated, which could lead to legal disputes and thus have a negative impact on the business activities, finances, or earnings.

Legal risks can also arise in the areas of employment and tenancy law, for example if employees are dismissed or tenancy agreements are terminated, extended, or renewed.

To mitigate the above risks, the Legal department is involved in all important processes and major contracts, advises on complex legal matters, and ensures standardized workflows, legally required submissions and regular reviews.

### Tax Risks

By having global subsidiaries, the Nemetschek Group is subject to the local tax laws and regulations that apply to each one. Changes to these regulations may lead to higher tax expenses and higher cash outflows. Furthermore, changes could affect the deferred tax assets and liabilities recognized. However, it is also possible for changes in tax regulations to have a positive effect on the Nemetschek Group's earnings. In the USA, for example, Nemetschek benefits from a lower tax rate resulting from the tax reform introduced in 2017.

The Nemetschek Group's future tax situation is influenced by uncertainty about tax reform in the US, as a not-insignificant part of its profits are generated in that country. In addition, as a result of its ongoing growth momentum, including its exceeding the EUR 750 million revenue threshold in 2022, the Group will be subject to the impending regulations of the OECD BEPS (Base Erosion and Profit Shifting) Initiative 2.0 and its local implementations. They range from increased transparency, such as country-based reporting, to requirements for minimum taxation. The highly probable implementation of the EU Minimum Tax Directive is expected to have an impact on the taxes that the Group pays.

### Compliance and Governance Risks

The regulatory environment of Nemetschek SE, which is listed on the German MDAX and TecDAX, is complex and has a high level of regulation. A possible violation of the regulations could have negative effects on assets, finances, earnings, the share price, or the company's reputation.

To a small extent, clients of the Nemetschek Group include governments or public-sector companies. Business activity in the construction industry is partly characterized by orders of a larger volume. Cases of corruption or even allegations of corruption could make it more difficult, or even impossible, to participate in public tenders and could have negative effects on further econo-

mic activity, assets, finances, earnings, the share price, or the company's reputation. Against this backdrop, Nemetschek has adopted a Group-wide Code of Conduct as well as a Group anti-corruption policy, both of which are binding on all employees. Compliance and corporate responsibility have always been important components of the Nemetschek Group's corporate culture. An e-learning tool as well as personal training are used to communicate with employees about this issue on a sustained and Group-wide basis. This helps to raise Group-wide awareness, allowing employees to detect potentially critical situations and to make the appropriate response.

With our relevant Group policies and other regulations, such as our Code of Conduct, our Supplier Code of Conduct and targeted compliance communication measures, we raise our employees' awareness of compliance and train them on the topic, too. These measures, combined with our "zero-tolerance" philosophy in relation to compliance, are intended to help to prevent potential violations and reduce risk.

The requirements for compliance, data retention, data security, and the protection of personal data are continually increasing. On one hand, there are new and extensive regulations and legal provisions planned in the current regulatory environment, while on the other hand the requirements that individual clients have are also rising. The European Commission is planning to implement regulations that demand high security standards for software products (the EU Cyber Resilience Act). The relevant provisions are planned to take effect no earlier than 2025. The result of these developments may be that product development costs rise or that revenue growth slows down if the provisions are not complied with in a timely manner. The Nemetschek Group is working intensively on the implementation of the future requirements. Projects have been initiated at Group level and among the brands to ensure consistently legally compliant implementation in the Nemetschek Group's products and solutions. There is regular exchange between the holding company and the brands regarding the provisions and impacts of the General Data Protection Regulation (GDPR). Violations of the General Data Protection Regulation (GDPR) may result in fines of up to €20 million or, in the case of a company, up to 4% of its total annual worldwide revenues in the preceding fiscal year, whichever is higher, depending on the type of violation of GDPR provisions pursuant to Article 83 of the GDPR. In addition, local data protection authorities can also impose other sanctions on the data controller in accordance with Article 83 of the GDPR. The Nemetschek Group has designed its processes to be fundamentally data-protection-compliant, and an external data protection officer also supports compliance with the data protection regulations.

### Cybersecurity Risks

Like any other modern company, the Nemetschek Group is exposed to the various threats from cyberspace. In order to actively avert such risks, it has adopted various measures over the last few years to maintain and permanently improve the level of protection. These measures were stepped up or initiated in 2022:

- » A Group-wide information security management system in accordance with ISO 2700x, which includes the management of cyber risks among other things.
- » Information security organizations in the Group and the brands with established lines of reporting to the Executive Board.
- » Close cooperation between the information security officer and experts within the Nemetschek Group.
- » Dedicated information security technologies, processes and organizational measures that are integrated into IT and operational processes.
- » Regular information security training and awareness-raising campaigns for all employees.

The information security measures are constantly monitored to verify their effectiveness. New threats are analyzed and the entire security system is constantly enhanced. Because the Nemetschek Group has a decentralized organizational structure largely comprising brands that operate independently, the IT systems and infrastructure are mostly operated independently of one another within the brands. This leads to a natural diversification of risk. Group-wide cybersecurity insurance provides further protection. It covers all Group companies and is intended to mitigate the financial impacts of a potential cyberattack. New developments in legal and regulatory requirements for the security of software products and services are under observation. Appropriate measures are taken to implement any relevant new requirements.

The following table provides a quantification of the above opportunities and risks in this category:

Risk category	Probability of materialization	Severity
Legal risks	medium	very low
Tax risks	medium	low
Compliance and governance risks	low	low
Cyber-Security risks	medium	low

## Financial Risks

As an international group of companies, the Nemetschek Group is exposed to the financial risks described below. The aim is to actively manage these risks and thereby reduce them. The objectives and methods for dealing with financial risks are also described in detail in the notes to the consolidated financial statements under [« Financial Risk Management Objectives and Methods »](#).

### Liquidity Risk

With the current high amount of financial liabilities, there is a general liquidity risk if earnings deteriorate. At the end of 2022, the Nemetschek Group had liabilities to banks of around EUR 72 million (previous year: around EUR 129 million). The Group continued to generate positive cash flow from operating activities in the 2022 fiscal year, which allows it to continue investing in organic growth and acquisitions. Nemetschek SE ensures the availability of decentralized financial resources partly via central cash pooling and via intra-Group distribution and financing options. As a matter of principle, the Group pursues conservative and risk-averse financing strategies. The Treasury function at the holding company has been significantly strengthened over the previous years and areas such as banks, liquidity, and risk management continuously improved through measures that include further developing governance structures and revising processes and systems.

### Currency Risks

As an international company, the Nemetschek Group is exposed to exchange rate fluctuation, especially in the United States, Japan, the United Kingdom, Norway, Sweden, Hungary, and Switzerland. The further internationalization of the Group's activities will further increase the significance of exchange rate fluctuation for the Group's business activities. At Group level, currency fluctuation only has an effect on the margins generated in foreign currencies, as the operating subsidiaries outside the eurozone generate most of their revenues, costs, and expenses in their local currencies (natural hedging). Nonetheless, currency fluctuation may impact pricing and therefore revenue, which may influence the earnings of certain brands. The development of the US dollar against the euro in 2022 led to overall positive foreign-exchange effects for revenue and EBITDA. Given the currently heavy uncertainty in relation to the further development of inflation and its impact on the monetary policy of individual central banks, currencies may continue to develop in a volatile manner and – if translated into the euro, the presentation currency – significantly impact the Group's and Nemetschek SE's earnings, finances, and assets. At SE, this additionally applies to currency risks arising from financing transactions in foreign currencies with subsidiaries.

## Default Risk and Risk Management

Default risks are managed by managing credit approvals, defining upper limits and control procedures, and by maintaining regular debt reminder cycles.

The company does not expect any bad debts from business partners who have been granted a high credit rating. The Nemetschek Group has no significant concentration of credit risks with any single client or groups of clients. From today's perspective, the maximum risk of default is determined by the amounts shown in the statement of financial position.

The Nemetschek Group only concludes business with credit-worthy third parties. Clients who wish to conclude material transactions with the company on credit terms are subjected to a credit assessment if materiality thresholds are exceeded. In addition, receivables are continually monitored and reviewed so that the company is not exposed to any significant default risk. If default risks are identified, appropriate provisions are made in the statement of financial position. In the context of the current economic environment and the impacts from it, it cannot be ruled out that the creditworthiness of some clients may change and the risk of default therefore may rise. In the past three years, the markets have been heavily impacted by increased bankruptcies, issues with clients refinancing, and projects being delayed because of supply chain delays. The Nemetschek Group and its clients have proved highly resilient in their reactions, preventing any greater systemic risk from materializing. The Group continually monitors this situation and, if necessary, will take appropriate measures and recognize provisions. From today's perspective there is no significant concentration of default risks in the Nemetschek Group. In the case of Nemetschek's other financial assets such as cash and cash equivalents, the maximum credit risk in the event of counterparty default corresponds to the carrying amount of these assets.

### Interest Rate Risk

In 2022, the world's central banks raised interest rates – some of them strongly – because of rising inflation, particularly in Europe and America, and this resulted in an increase in the general interest rate risk. However, due to the Nemetschek Group's current financing structure, the management does not currently see any significant interest rate risk for the company. Long-term financing arrangements are hedged with fixed interest rates. Potential M&A activity on a larger scale may have a material influence on future interest payments. However, in view of the company's pleasing earnings and finances, this interest rate risk would be limited.

In summary, the quantification of the financial risks is as follows:

<b>Risk category</b>	<b>Probability of materialization</b>	<b>Severity</b>
Liquidity risk	very low	very low
Currency risks	high	medium
Default risk and risk management	medium	very low
Interest risk	very high	very low

### Summary Assessment of the Group's Opportunity and Risk Situation

Compared to the previous year, the company's overall risk profile has changed slightly, as have some of the individual risks and opportunities described. The adjustments of the risk profile are mainly based on the macroeconomic environment and outlook, which have deteriorated since the previous year, and on the increased geopolitical uncertainty and the potential fallout from it. This can particularly be seen in the higher severity ratings in the "Financial Risks" category, in which macroeconomic and industry-specific risks are also presented. The consequences of the Covid-19 pandemic and the risks based on them have shrunk further since the previous year.

Overall, Nemetschek is satisfied that the risks identified do not pose a threat to the continued existence of the Group, neither individually nor as a whole. This assessment is supported by the asset structure, the liquidity resources, and the financing structure.

The Nemetschek Group plans to benefit more strongly from the opportunities described above as well as to take advantage of market opportunities so that it may further expand its market position in the coming years. At the same time, we are continuously improving the opportunity and risk management structures we have in place.