

5 Opportunity and Risk Report

Opportunity and risk management

The entrepreneurial activities of the Nemetschek Group involve opportunities as well as risks, which reflect the diversity of its business activities. 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. The Nemetschek Group aims to grow sustainably and profitably and to increase the company value in the long term. In order to gain further market shares, national and international market positions must be continuously expanded and solutions must be developed and adapted to market and customer requirements. To this end, all opportunities are to be used in the best possible way, and risks are to be identified at an early stage in order to initiate suitable countermeasures and ensure the future success of the Nemetschek Group.

The general responsibility for the early identification of opportunities and risks and possible countermeasures lies with the Executive Board and the Segment Managers. They are supported in this by the management of the subsidiaries and the specified Risk Managers of the subsidiaries and Nemetschek SE. The Risk Managers are responsible for summarizing, assessing, evaluating and reporting risks and the associated countermeasures. Another important component of the risk management system is the internal audit, which continually monitors the functionality and effectiveness of the processes.

To improve comparability, risks are evaluated across the Group based on uniform quantitative and qualitative criteria and categories. The current risk situation of the Nemetschek Group is updated and documented quarterly as part of a risk inventory.

At the same time, the Executive Board and the Segment Managers are responsible for identifying and managing opportunities that could offer 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. The management in the subsidiaries supports the Executive Board and the Segment Managers in identifying, analyzing and evaluating existing opportunities and proposing alternative courses of action. Opportunities are assessed in terms of quantity and quality using business models.

Accounting-related risk management and internal control systems

Generally, risk management and the internal control system comprise the accounting-related processes and all risks and controls with regard to financial reporting. This refers to all parts of the risk management system and the internal control system that could have a material impact on the consolidated financial statements. The aim of the risk management system with regard to accounting processes is to identify and assess risks that could conflict with the conformity of the consolidated financial statements

under the applicable regulations. Identified risks are to be assessed in terms of their impact on the consolidated financial statements. The aim of the internal control system is to use controls to create sufficient certainty that the consolidated financial statements are in compliance with the regulations, despite the identified risks.

Both the risk management system and the internal control system apply to Nemetschek SE and to all subsidiaries relevant to the consolidated financial statements and all processes relevant to the preparation of the financial statements.

The assessment of the materiality of misstatements is based on the probability of occurrence and the effect on revenue, EBITDA and total assets. Furthermore, the capital market and the influence on the share price play a significant role.

Key elements of risk management and control in financial reporting include the allocation of responsibilities and controls in the preparation of financial statements, Group-wide guidelines on accounting and the preparation of financial statements, and appropriate rules for access to IT systems. The principle of dual control and the separation of functions are also key principles in the financial reporting process.

The assessment of the effectiveness of internal controls with regard to financial reporting is an integral part of the audits carried out by Internal Audit in 2019. The Supervisory Board is informed four times a year about the main risks identified for the Nemetschek Group and the efficiency of the risk management system and the accounting-related internal control system.

Opportunity and risk assessment and reporting

The Nemetschek Group systematically analyzes and evaluates opportunities and risks. The opportunities and risks are quantified and classified to this end. 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 probability of occurrence and the extent to which they are expected to affect the earnings, assets and financial position, the share price and the reputation of the Nemetschek Group. The same applies to opportunities.

RISK POTENTIAL PROBABILITY OF MATERIALIZATION

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

Market risks

Economic opportunities/risks (political and regulatory risks, social conflict, instabilities, natural disasters)

The order situation of customers can be influenced by positive or negative developments in the construction industry and the general economic situation.

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. In particular, the global economic environment has become more volatile in recent years, and the economic risks have therefore increased. Particular reference should be made to the trade tensions between China and the USA, which were a major source of uncertainty for global economic growth in 2019.

In the 2019 financial year, the Nemetschek Group especially analyzed the extent to which a deal or no-deal Brexit could influence the business activities of the segments. Although the Group's share of revenue in the UK is less than 5%, the market is forward-looking in terms of the BIM standard, which has shown high growth in recent years.

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 sales orientation, the company has the possibility of broad risk diversification. There is no single customer with a significant share of sales, so there is no "cluster risk." The Nemetschek Group's customers are also characterized by a high level of loyalty. The Group is therefore highly diversified, both in terms of regional distribution and customer structure. The high proportion of recurring sales revenues, at more than 50% of total revenue, is also a risk-minimizing factor.

In the event of an overall economic downturn, the Design segment – which has more than 50% of the Nemetschek Group's sales revenue – positioned at the beginning of the lifecycle of buildings would feel the economic weakness first. The Build seg-

ment would only be affected downstream. The Manage and Media & Entertainment segments target end customers, 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, which is particularly important for property managers in weak phases.

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. In principle, the broad diversification of the portfolio to different end customers and sectors already counteracts cyclical developments.

Industry opportunities and risks

There are significant opportunities and risks that could cause a noticeable change in the economic situation of the Nemetschek Group in the market and industry environment.

The order situation and the financial strength of the construction industry have an influence on the investments of this industry in software solutions and thus on the business development of the Group. On the market side, the company benefits from stable construction activity and growing investment in construction and infrastructure projects. In particular, state investments in infrastructure announced by numerous governments offer further growth potential for the Design and Build segments. The use of software solutions to increase efficiency in property management remains weak, which should result in catch-up effects.

The importance of digitalization is therefore steadily increasing throughout the entire lifecycle of construction projects, providing the Nemetschek Group with a stable environment in all segments. As a result, the potential industry risks associated with customers' reluctance to invest in software have so far not had a significant impact on the earnings position of the SE and the Group. As a leading company in the AEC industry, Nemetschek's size and competence provide good opportunities to further expand its market share and to benefit from technological trends and ongoing digitalization.

Opportunities and risks from the competitive environment

The Nemetschek Group operates in a highly competitive and technologically fast-moving market that is also highly fragmented. Risks could arise from rapid technological change, innovations by competitors or the appearance of new market participants such as cloud providers. To counter this risk, the Nemetschek Group screens the market very closely and also sees young innovative companies as potential M&A targets, which in turn can complement and expand the Nemetschek Group's portfolio.

Nemetschek therefore considers risks from the competitive environment to be low in terms of probability of occurrence and

extent. The company invests heavily in research and development in order to further develop its solution portfolio and to generate innovations aimed at providing customers with added value while retaining their loyalty. With its Design, Build and Manage segments, the Nemetschek Group covers the entire lifecycle of buildings and structures. On the other hand, the Media & Entertainment segment is largely independent of the industry and has developed continuously and positively in recent years. Due to this strategic positioning, Nemetschek is exposed to fewer risks than other market participants. The Group's opportunities for expanding its market position as a leading provider of software solutions for a continuous workflow for the entire lifecycle of buildings lie in further internationalization and in systematically exploiting the potential of existing markets – supported by the consistent use of new technologies.

In summary, this means:

Risk category	Probability of materialization	Severity
Economic risks	medium	very high
Industry sector risks	low	low
Risks from the competitive environment	low	low
Opportunity category	Probability of materialization	Severity
Economic opportunities	very low	low
Industry sector opportunities	medium	medium
Opportunities from the competitive environment	medium	medium

Operating opportunities and risks

Corporate strategy

Opportunities and risks can also result from corporate decisions that change the opportunity and risk profile in the short, medium and long term.

The Nemetschek Group has its roots in the Design segment and has successively focused on further high-growth markets along the construction lifecycle. Having significantly expanded the Build segment in recent years, Nemetschek is now increasingly focusing on the building management market, which it targets with the Manage segment. The Build and Manage segments have a high growth potential due to the existing market potential and the still low level of digitalization.

To strengthen the segment focus, a new Executive Board and governance structure was established at the beginning of 2019. For the first time, each of the four segments has a dedicated Executive Board member or Segment Manager who works closely with the brands within the segment and bundles their expertise in the respective segments to a greater extent. This opens up new opportunities and potential to leverage synergies between

the brands while also targeting the customer in an even more focused manner.

The Nemetschek Group sees itself as a driver for Building Information Modeling (BIM) and has a strong position in all AEC 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 mandates are also driving the BIM standards in other countries and leading to greater acceptance of this working method.

Should the expected market demand for BIM solutions be weaker than expected, or should completely different technologies and working methods prevail, the investments made could still not lead to the expected revenues. Nemetschek takes this risk into account by continually evaluating technology, updating market assessments and by aligning the respective segment strategies to current market conditions. Nemetschek remains convinced that new business opportunities will arise as a result of the trend towards BIM and ongoing digitalization.

Sales and marketing

The further internationalization of Nemetschek's business is a strategic focus designed to expand existing market shares in various regions 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 AEC software market in the world, and the Asian markets, especially Japan.

The Group's various sales models are based on the use of expert sales partners, resellers and qualified employees with specialist knowledge. They contribute to the optimal processing of customer segments, ensure high customer satisfaction and guarantee the sustainability of the earnings position.

The loss of sales partners or sales employees could have a negative impact on the revenue and earnings position of the Nemetschek Group. The brand companies 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 a fixed salary, sales employees are paid variable performance-related bonuses or commissions.

Sales risks also exist in cases where subsidiaries 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 the changeover, this could lead to discrepancies with the previous sales partner or to negative customer reactions. However, such scenarios are analyzed in detail before implementation and discussed both internally and with external market experts.

Since the implementation of the new management structure with Segment Managers, greater importance has also been attached to co- and cross-selling, which in turn provides the opportunity to work even more intensively with existing customers.

In the construction industry, there are signs of increasing acceptance of rental models via Software as a Service (SaaS) or subscription, even though there are regional differences. The Nemetschek Group takes this additional marketing model into account by offering customers the option of leasing software with or without a maintenance contract in addition to the classic license model. Nemetschek deliberately offers both options in order to provide customers with the greatest possible flexibility. This business model opens up new customers and markets and therefore offers long-term growth opportunities. The stronger orientation towards subscriptions also offers the opportunity to generate more revenue per user. Particularly in the Manage and Media & Entertainment segments, the Nemetschek Group is increasingly reorganizing its product range.

Risks may arise if necessary technologies for new forms of distribution, such as rental models, are in demand faster than expected and the appropriate solutions do not yet have the degree of market maturity that customers expect. Nemetschek counters this risk by quickly adapting and intensifying its development activities. In particular, Nemetschek carefully evaluates its subscription offers. Financial models are used to explore “what-if scenarios,” which simulate the decision-making process taking into account a wide range of influencing factors.

Products and technology

There is a fundamental risk that competitors will gain an innovative edge and win Nemetschek customers. Future business success therefore depends above all on the ability to offer innovative products that are tailored to customers’ needs. Thanks to its organizational structure of 16 entrepreneurially managed brands within four segments, the Nemetschek Group is positioned close to its customers and markets. This enables changes and trends to be identified, evaluated and implemented at an early stage. Flat hierarchies, a strong network of decision-makers in the company and cross-functional teams make it easier to assess opportunities promptly and accurately. Last but not least, in order to further advance digitalization, about a quarter of Group revenue is regularly invested in research and development. The Nemetschek Group can only maintain and extend its lead over competitors by continually optimizing its product range. Nemetschek sees good opportunities for future profitable growth resulting from its customer proximity and innovative solutions.

Potential risks exist in the development of software products that do not adequately meet customer needs or internal quality standards.

The software products of the brand companies 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 brand companies take this risk into account by carefully selecting sup-

pliers and ensuring adequate quality assurance. Another third-party supplier example is that they may migrate from on-premise solutions to cloud solutions. This may mean that the brands have to adapt their solutions accordingly. Risks could arise if the development of migration to the cloud is slower than the third-party migration.

Process risks

The Nemetschek Group’s core processes of software development, marketing and organization are subject to constant review and 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. Nevertheless, there could be fundamental risks that the required and planned process results may not meet customer requirements in terms of time and quality due to insufficient resources or changes in general conditions.

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 customers, even if the migration were to take place within the Group. In such cases, the Nemetschek Group ensures that communication between the brands is strengthened and that the advantages of the migration are explained to customers through comprehensive communication.

The use of licenses by third parties for brands that are not used in compliance could also have consequences.

Furthermore, there could be cyberattacks on the respective brands, i.e. targeted attacks on specific infrastructures of important computer networks. As a result, business or private confidential data or information could be leaked. In the worst case scenario, entire systems could fail. The Nemetschek Group has implemented appropriate measures to protect against these risks and ensure data security.

Human resources

If management employees or other qualified 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 worldwide is also a major challenge for the Nemetschek Group. The respective brands are in competition with large software players worldwide, so it has become increasingly difficult to recruit qualified personnel in recent years. To gain and retain employees, the brands offer flexible working models as well as attractive salaries. The Nemetschek Group also works very closely with universities, provides scholarships and awards doctoral positions to attract young specialists.

Acquisition and integration

Acquisitions are an integral part of the corporate strategy. The Nemetschek Group uses acquisitions to expand its solution portfolio, gain access to new technologies and/or regional markets and thus close gaps in the value chain. New customer groups are also reached and market shares are gained that are considered relevant and promising for the future. The Group invests in start-ups to gain access to innovative technologies.

In order to make the best possible use of acquisition opportunities, employees of the M&A and Business Intelligence departments continually screen the markets for suitable candidates. At the same time, Nemetschek works together with M&A consultants. Furthermore, the brands themselves contribute their knowledge and market observations to a professional M&A process. Acquisitions are carefully and systematically reviewed and planned before signing a contract. There is an established standardized process for M&A with a special focus on due diligence and post-merger integration.

The structure of the Nemetschek Group with its independent brands is a major advantage in winning the bidding process. Experience has shown that company founders prefer to belong to an international group while maintaining their identity and a high degree of operational independence. This group structure offers excellent opportunities to acquire attractive companies. At the same time, there is the entrepreneurial risk that the acquired company will not develop economically as expected and will not achieve the revenue and earnings targets pursued upon its acquisition. After an acquisition, companies will therefore be integrated quickly into the Nemetschek Group's reporting, controlling and risk management system.

Goodwill is subject to an annual impairment test. There was no need for write-downs in the 2019 financial year. However, future write-downs cannot be ruled out.

In summary, this means:

Risk category	Probability of occurrence	Severity
Corporate strategy	low	low
Sales and marketing	low	low
Products and technology	low	medium
Process risks	low	low
Human resources	medium	medium
Acquisition and integration	low	medium

Opportunity category	Probability of occurrence	Severity
Corporate strategy	medium	medium
Sales and marketing	medium	medium
Products and technology	medium	medium
Process risks	low	low
Human resources	medium	medium
Acquisition and integration	high	high

Legal, tax and compliance risks

Tax risks

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

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 the net assets, financial position and results of operations, the share price and the company's reputation.

To a small extent, customers of the Nemetschek Group include governments or publicly owned companies. Business activity in the construction industry is partly characterized by orders with larger volumes. Cases of corruption or even allegations of corruption could make it more difficult to participate in public tenders and could have negative effects on further economic activity, the assets, financial and earnings position, the share price and reputation of the Group. With its Code of Conduct, Nemetschek has therefore set up a binding anti-corruption program for all employees. Compliance and corporate responsibility have always been important components of the Nemetschek Group's corporate

culture. In order to communicate the subject sustainably and across the Group, a modern training tool is used so that employees can recognize potentially critical situations and react to them correctly.

Security, compliance, data retention and security requirements are becoming increasingly stringent, which is associated with rising product development costs and, if not met in a timely manner, could also slow down revenue growth. The Nemetschek Group is addressing this issue and, on the holding level, is continuously advising the respective brand companies.

Legal risks

In an internationally active 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 balance sheet in accordance with the accounting regulations. The Nemetschek Group limits such risks via legal audits by the legal department and external legal advisors.

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 the net assets, financial position, results of operations, share price and reputation of the Group.

In sales, the Nemetschek Group works not only with its own sales force, but also with external dealers and cooperation partners. The same applies to external marketing agencies. Sales and marketing partners could either not fulfill their contracts with Nemetschek at all or could fulfill them on unacceptable terms, or could renew them. Sales or marketing agreements could also be terminated, which could lead to legal disputes and thus have a negative impact on the business activities, financial position and results of operations.

Legal risks can also arise in the areas of employment and tenancy law, for example if employees are dismissed or brands terminate, extend or renew tenancy agreements.

In summary, this means:

Risk category	Probability of materialization	Severity
Tax risks	low	low
Compliance and governance risks	low	low
Legal risks	medium	low

Financial risks

With high financial liabilities, there is always a liquidity risk in the event of a deterioration in the earnings situation. At the end of 2019, the Nemetschek Group had liabilities to banks of around EUR 188 million (previous year: around EUR 130 million). However, the Group generated positive cash flows, which will allow it to continue investing in organic growth and acquisitions in the future. Nemetschek SE ensures the availability of decentralized financial resources via central cash pooling. As a matter of principle, the Group pursues conservative and risk-avoiding financing strategies.

Currency risks

As an internationally active company, the Nemetschek Group is exposed to exchange rate fluctuations, especially in the United States, Japan, the United Kingdom, Norway, Sweden, Hungary and Switzerland. The further internationalization of the Group's activities will increase the significance of exchange rate fluctuations for the Group's business activities. These risks are to be excluded or limited by concluding hedging transactions. Currency fluctuations only have a limited effect at Group level, as the operating subsidiaries outside the eurozone generate most of their revenues, costs and expenses in their local currencies (natural hedging). Nevertheless, currency fluctuations in one of the countries can have consequences, particularly in terms of sales and pricing, which can affect the revenue and earnings situation of individual brands. In 2019, the development of the US dollar against the euro led to positive currency effects on revenue and EBITDA.

Due to the uncertainty surrounding the further development of Brexit, currency fluctuations of the British pound could also be a consequence here.

Default risks and management

Default risks are managed by handling credit approvals, setting upper limits and control procedures, and 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 customer or group of customers. From today's perspective, the maximum risk of default is determined by the amounts shown in the balance sheet.

The Nemetschek Group only concludes business with credit-worthy third parties. Customers who wish to conclude material transactions with the company on credit terms are subjected to a credit assessment if materiality limits are exceeded. In addition, receivables are continually monitored so that the company is not exposed to any significant default risk. If default risks are identified, appropriate provisions are made in the balance sheet.

From today's perspective, there is no significant concentration of default risks in the 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 instruments.

Interest risk

Due to the Nemetschek Group's current financing structure, the management does not see any significant interest rate risk.

In summary, this means:

Risk category	Probability of materialization	Severity
Currency risks	high	medium
Default risk and risk management	low	low
Interest risk	very low	very low

Summary assessment of the Group's opportunity and risk situation

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. Compared with the previous year, there were no material changes in 2019 in the overall risk position or the individual risks described. The Executive Board is convinced that the risks are limited and manageable. The financial basis of the company remains solid. At 40.7%, the Group equity ratio is still at a high level and the liquidity situation is sufficient. The Nemetschek Group plans to participate more strongly in the opportunities described above, to take advantage of market opportunities and to further expand its market position in the coming years.