



Safeguarding value creation

Our values

Our values are the foundation of our culture. They serve as a compass for decision-making, guide us in all our interactions and are an integral part of our strategic framework, with the aim of creating long-term value for our stakeholders. Our values help us live up to our company’s purpose. And last, but not least, they unite and inspire us.



Empower people to be their best, and respect each other and the world we live in



Communicate proactively and honestly, while being accessible and open



Act with integrity and do business with the future in mind

Safeguarding value creation – Our values

Living our Values programme

The 'Living our Values' programme was launched in 2014 to raise awareness, involve our colleagues and oversee how our values are implemented. The programme employs various measuring tools to monitor how effective we are in living our values, providing management with insights into our values-related behaviour and identifying areas for improvement. This annual assessment of the programme's progress, the Living our Values report, is discussed and approved by the Management Board and Supervisory Board. It was also discussed with the Central Works Council, where a key item for discussion was the participation of the various business units in awareness initiatives around values.

A values-driven culture

To ensure all employees know and live the values throughout their NN careers, they are incorporated into our HR policies and processes: they form the starting point for hiring new employees, are embedded in our i-LEAD profile and form part of our Key Talent Management process. Our new onboarding programme, launched in 2021 to accommodate employees working from home, also explicitly covers the NN culture and values.

Values week

In October 2021, we held our seventh annual NN Values week across 11 countries. Values week provides an opportunity to engage colleagues in how we live our values. The 2021 edition was entitled 'Our values at work' and looked at practical ways we can employ the values.

In the Netherlands, Values week was held as a fully digital event for the second time. Over 1,000 colleagues joined workshops, dialogues and presentations on business- and values-related topics. As the sessions were offered online, International Insurance colleagues were also able to attend, with around 110 colleagues participating.

A survey found that 78% of participants in the Netherlands felt Values week provided a good opportunity to reflect on our values (2020: 81%), 65% felt it stimulated discussion (2020: 68%) and 97% would encourage colleagues to join the next edition (2020: 99%). A digitalised Values week enables colleagues from all business units to participate in sessions organised in the Netherlands. Values week will therefore continue at least partly in a digital format.

Leading by example

Our Management Board and senior leaders are important role models in living our values. Values week opened with six members of the Management Board participating in a live discussion viewed by over 300 colleagues. They discussed the values, open dialogue, clear communication and taking responsibility for mistakes. Management Board members also hosted small, informal sessions with colleagues in order to share personal reflections and their experiences of including values in their day-to-day work.

Our employee engagement survey asks colleagues how their direct managers perform on living our values. Even with people largely working from home, the response to the statement 'My manager consistently acts as a role model when it comes to living our NN values' scored 8.2 (2020: 8.1). Scores are consistent with the generally high appreciation employees show for management in the survey, and in line with the benchmark.

Engaging with senior leaders

We launched our strategy, which is aimed at creating value for all stakeholders, in June 2020. This was during the Covid-19 pandemic, when we were largely working from home. So to engage senior leaders in the strategy and create an open dialogue on its implementation, we developed virtual 'Let's connect' initiatives. In 2021, these included a virtual International Leadership Meeting for some 250 leaders, and a 'Let's connect tour' where over the course of 19 virtual sessions our CEO connected with over 500 senior leaders from across all units to explain and personally discuss the strategy.

Segment	2021	2020	2019
Care 'In our team we genuinely care about our customers and treat them with respect'	8.2	8.4	8.2
Clear 'In our team we are easy to approach and communicate proactively and honestly'	8.1	8.3	8.0
Commit 'In our team we take responsibility for our actions and deliver on our promises'	8.1	8.3	8.1

Safeguarding value creation – Our values continued



Monitoring progress

We monitor the effectiveness of the Living our Values programme in our annual employee engagement survey. The Management Board and the Living our Values Project Group use the outcomes to evaluate where we need to focus attention. The 2021 results saw a slight (-0.2) though not significant decrease on 2020 engagement levels at overall group level. We do not, however, see this as cause for concern, as it fits with a worldwide engagement trend (-0.2), whereby an increase in engagement following the early days of Covid-19 was followed by a gradual normalisation to pre-Covid scores by the end of 2021.

Consumer perceptions

We measure the perception of our values, care, clear, commit, among our customers and the general public through the Global Brand Health Monitor (GBHM).

For customers, the 2021 year-end results show that the values remain strongly embedded in the NN brand, with at least 50% of customers recognising each of the values in most markets. In most markets, 50% or more of the NN customers (totally) agree with the fit of care, clear, commit with the NN brand. However, in 2021, Belgium, Japan, and the Netherlands scored below 50%. Belgium showed a significant increase for care and clear. Despite scoring below 50%, the Netherlands shows a significant increase on all values. The scores have not significantly changed for Japan.

For the general public, most markets show stable scores in comparison with 2020. The Netherlands, Turkey, and Czech Republic show a significant increase on all values. Belgium, Japan, and Spain show significant decreases for care. We also see a significant decrease for commit in Belgium, Japan and Poland.

In 2022 we will continue to work together with the local business units by providing them more guidance on how to translate the brand values in their communication.

Purpose Council

Our purpose: 'We help people care for what matters most to them', expresses the 'why' behind our actions and reflects the kind of company we want to be: one that delivers long-term value for our stakeholders.

The Purpose Council oversees how we are upholding our purpose and progressing on our non-financial targets. It was set up in 2019 to advise and support the Management Board in developing a new purpose statement. Chaired by the Chief Organisation & Corporate Relations, and sponsored by the Group CEO, the Council consists of several Management Board members, heads of relevant staff departments and business representatives.

The mandate of the Purpose Council is to support the Management Board in steering, measuring and reporting on non-financial issues. It performs an advisory, consultative and preparatory role with regard to purpose-related areas such as company culture, including the values, brand and reputation management, employee engagement, diversity and inclusion,

sustainability, environmental, social and governance matters, and community investment. Final decisions related to NN's purpose, values, and non-financial KPIs and targets are made by the Management Board.

The Purpose Council met four times in 2021 to discuss progress on non-financial KPIs linked to our strategic commitments. These KPIs are reported in a strategy dashboard that is updated every quarter.

Two Permanent Education sessions were organised, focusing on NN's climate change initiatives and community investment activities. Other topics discussed included NN's commitment to the Sustainable Development Goals (SDGs) and NN's Sustainable Finance Regulations programme, as well as external developments and changing stakeholder expectations and dilemmas. The Purpose Council also reviewed and commented on the 2021 Living our Values report.

Safeguarding value creation – NN Code of Conduct and other policies

Our Code of Conduct and other policies



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As we accelerate our digital transformation, it is more important than ever that we safeguard the privacy of our customers and treat personal data with care

Janet Stuijt

General Counsel

NN Code of Conduct

Based on the NN statement of Living our Values, the NN Code of Conduct offers clear guidance in a single, easy-to-understand document on how NN employees should behave: how we interact with colleagues and customers; how we deal with information and (personal) data; how we deal with conflicts of interest, fraud, corruption and financial economic crime; how we use equipment and the internet; and how we report and deal with breaches. Every year we review and update the content of the Code of Conduct and Manager Annex, and the underlying policies and standards.

Employees must formally acknowledge annually that they understand the content of the NN Code of Conduct, and can and will apply the underlying policies and standards. Formal acknowledgement of the NN Code of Conduct has been mandatory for all business units for several years. The Code of Conduct has a supplement for management, that contain topics only relevant for managers: the Manager Annex.

In 2021, we achieved an acknowledgement score of 100% for internal NN staff and managers (excluding staff on long-term or sick leave). External employees and/or contingent workers receive the Code of Conduct as part of their contract.

Awareness and e-learnings

In 2019, we launched the online learning platform 'Conduct Matters' to raise awareness on the NN Code of Conduct. It is accessible for all NN employees in local languages. We updated the online learning platform with relevant data in 2020 and 2021, and are reshaping the format to match our hybrid way of working.

Since 2020, we have rolled out several new interactive e-learning courses for employees groupwide. Next to all the local training initiatives these groupwide e-learning courses aim to raise risk awareness around Confidential/Price-sensitive Information (Confidential Matters), Market Abuse/ Insider trading (Trading Matters – all NN insiders), Bribery & Corruption/Conflicts of Interest (Conflicting Matters), Silent Voice Activation/Whistleblowing Procedure (Your Voice Matters). In 2021, the offering was expanded with a e-learning on handling Data and Confidential information with care in a hybrid-working context (Data Matters).

Digital compliance dashboard

In 2021, we continued to improve the digital compliance dashboard, used by the local compliance departments in all NN business units, as part of progress towards a more data-driven compliance function within NN. The dashboard uses various data sources to create a detailed overview of information available in order to facilitate effective and efficient compliance monitoring on various risks in the compliance domain. Future focus will be in expanding the topics on the

dashboard. Data from the compliance dashboard will be included in the strategy dashboard developed for the Management Board. This dashboard contains both strategic and risk-related data metrics.

Risk Culture Check-in, ECF Maturity Reflection

In January 2019, Group Risk and Group Compliance launched the Risk Culture Check-in, whereby all business units perform a self-assessment of the risk culture within their unit (including the independent view of local control functions) and the cooperation of head office control functions with the business units.

The second Risk Culture Check-in was performed in 2020. We used 2021 to integrate, for efficiency and optimisation purposes, the Risk Culture Check-in model with the model for the Maturity Assessment of local control functions. The new integrated model is called the ECF Maturity Reflection.

The ECF Maturity Reflection forms the basis for constructive dialogue with NN senior management on how we manage the risk culture within the company, and where we can improve. The resulting 360-degree loop delivers content to underpin the 'Employee Conduct & Business Culture' statement within our risk management framework. The process is led by Group Risk in close cooperation with Group Legal and Group Compliance.

Safeguarding value creation – Our Code of Conduct and other policies continued

Product insights

In December 2020, we launched 'Product Talks', an online digital learning platform designed to enhance knowledge and skills needed to develop and review NN products and services in line with our Product Policy. Since then, we expanded the number of micro-learnings on the platform, and intensified the cooperation between colleagues from Group Legal, Group Compliance and Group Risk involved in product development or review.

In 2021, NN executed an assessment of the open book unit-linked (UL) products in our international businesses. Most business units implemented active monitoring of the UL funds. Some business units actively changed the set-up of the UL funds and increased the level of transparency to improve the return for the customer. Based on the PRIIPS (Packaged Retail and Insurance-based Investment Products) KID calculations, we actively monitored the balance between the gross product return and the cost levels.

We also shared best practices, and the business units are encouraged to evaluate the adoption and implementation of these best practices in the current or next product planning cycle.

In addition to product and service assessments and improvements, in close cooperation with the business units we executed a behavioural insight scan on the Product Approval and Review Process (PARP) designed to enhance speed and efficiency. Several improvements were discussed, including a new workflow management tool to strengthen the efficiency of the PARP. We expect to implement improvements in the PARP in the first half of 2022.

Reporting misconduct

By living up to our values, we create a safe working environment for our colleagues and protect our and protect the reputation and integrity of our company. Not living up to our values may also expose NN Group and its employees to possible regulatory and/or criminal liability. Internal reporting of criminal or unethical conduct or breaches of (local and EU) law by or within NN is of great importance for a safe working environment, where everyone feels welcome, valued and respected. Whenever breaches of the Code of Conduct or Union (EU) legislation/law occur, NN carefully reviews and assesses whether a further investigation or other action is needed.

The NN Group Whistleblower Policy was updated in December 2021 to comply with the new EU Whistleblower Directive and related local legislation. It enables every employee and certain external parties to report, if they wish anonymously, a concern and/or breach outside regular reporting channels. NN Group guarantees various rights, including protection from retaliation, for any employee or external party who reports a concern/breach in good faith in a work-related context, provides information, or otherwise assists in an investigation. An outline of the Whistleblower Policy can be found in the NN Code of Conduct.

All NN managers are made aware of the updated Whistleblower Policy and processes. In the first quarter of 2022, all NN employees will be informed of the changes via a mandatory e-learning. In addition, the Whistleblower Reporting Officers, who are appointed in all NNs business units, participated in a two-day masterclass in 2021 on the new rules and processes.

Cases involving disciplinary measures

	2021	2020	2019
Fraud-related	0	0	1
Unethical behaviour	2	6	5
Conflict of interest	0	0	0
Total	2	6	6

Whistleblower cases

	2021	2020	2019
Total	1	2	4

In the one whistleblower case listed above, Corporate Security & investigations carried out an investigation in 2021. Concerns are recorded and the number of cases is reported by the Chief Compliance Officer periodically to the Management Board and Supervisory Board.

Other incidents and concerns

Up to December 2021, Corporate Security & Investigations was involved in 41 cases in total. (2020: 66). In two cases, disciplinary measures (warning, reprimand, termination of employment or instant dismissal) were taken. Employees are informed in writing of any disciplinary measures.

Other policies

NN has policies, processes, systems and practices in place to ensure we always do business in line with our values and regulatory requirements. That means, for example, developing products and services designed with the best interests of our customers at heart, and managing our processes and the personal data of customers in line with best practice in terms of transparency, safety and security. In doing so, we demand standards from all our business units and employees that meet and often exceed regulatory requirements.

Safeguarding value creation – Our Code of Conduct and other policies continued

PARP and golden rules

The demand for transparent, simple products from the financial services industry continues to grow. Customers expect value for money, transparency, and products and services that evolve with developments. Any new or modified product or service must first undergo a careful PARP to ensure it is transparent and meets customers' needs. An integral part of PARP are our Customer Golden Rules:

- Offer fair value to customers
- Explain the risks, returns and costs of our products and services
- Regularly assess products, services and distribution practices
- Only work with professional and licensed distributors

Data privacy

As digitalisation continues rapidly, we are conscious that to safeguard the privacy of our customers it is more important than ever to secure their personal data and handle it responsibly. We do this by complying with all legislative data protection requirements, of which the EU General Data Protection Regulation (GDPR) is most important.

Data is vital to serve today's customer effectively. Using big data to analyse customer propositions helps us strengthen our interactions with customers, forge more intuitive partnerships and create superior tailor-made solutions.

Our data and artificial intelligence (AI) analyses are focused on product/market optimisation, process efficiency, and fraud and claim analytics. For all AI use cases, it is vital that the application is trustworthy by design. To help us ensure this, we developed our own AI ethics framework (the 'NN AI Guidelines') in 2020, in line with our values. These guidelines facilitate the development and use of trustworthy AI, and set even stricter requirements than legislation prescribes. The guidelines adhere to the seven principles of trustworthy AI, as set out in the Ethics Guidelines for Trustworthy AI developed by the High-Level Expert Group on Artificial Intelligence (set up by the European Commission).

Our AI Guidelines also enable us to deploy AI in line with the Ethical Framework of the Dutch Association of Insurers (Verbond van Verzekeraars).

In addition, we have been closely monitoring and anticipating the development of a European AI Regulation, which was published in draft form by the European Commission in April 2021.

We are very aware that we need to strike an appropriate balance between individual choices, privacy and social responsibility. So, in addition to our focus on the (personal) data we manage and protect, we also provide cybersecurity services, like Cyberwacht, to consumers who have been hacked. Next to that we help companies to get their basic cybersecurity in order with services like Perfect Day, as the consequences of inadequate cybersecurity can be far-reaching for both individuals and companies.

Financial economic crime

NN guards against money laundering, funding of terrorism, tax evasion and other forms of financial economic crime (FEC), and does not tolerate any deviation from relevant FEC laws or regulations. Primarily because FEC is illegal and unethical, but also because it can harm confidence in NN as a financial services provider.

Digitalisation and increasing dependency on digital contacts with customers and business partners is posing challenges to Know-Your-Customer (KYC) requirements and similar business partner related processes. NN is taking pro-active measures to ensure adherence to these requirements. In the Netherlands, our Best in Data programme, introduced in 2020, has delivered updated FEC processes, leading to improvements in monitoring, transparency and FEC controls. In addition, employee awareness sessions have increased FEC knowledge and the data quality of the business portfolio has improved.

In 2022, for reasons referred above and to keep pace with increasing regulatory requirements, NN will continue to improve operations with regards to the management of financial economic crime related risks.

Unit-linked products in the Netherlands

In the Netherlands, unit-linked products have received negative public attention since the end of 2006. We have taken this criticism to heart, as our aim is to support our customers as best we can.

The Dutch insurance subsidiaries of NN Group reached out to all individual customers who purchased unit-linked products in the past ('activeren'), and continue periodically to reach out to groups of selected customers to encourage them to carefully assess their unit-linked products in order to enable them to address their personal situation and offer them the option to switch to another product or make changes to their policy free of charge. Customers are also entitled to free advice.

As of 31 December 2021, the portfolios of Dutch insurance subsidiaries of NN Group comprised less than 340,000 active unit-linked policies. In a limited number of cases (less than 1,250), Dutch insurance subsidiaries of NN Group have settled disputes with individual customers. These are tailor-made solutions. A limited number of individual customers and several consumer protection organisations have initiated legal proceedings against Dutch insurance subsidiaries of NN Group. Read more on Note 45.

Safeguarding value creation – Stakeholder engagement

Stakeholder engagement and international commitments

NN Group engages in ongoing dialogue with stakeholders on a variety of topics, ranging from products, services and business performance to our role in society. By endorsing national and international initiatives, we underline our ambitions and join forces with other organisations to increase leverage.

Stakeholder engagement

Stakeholder engagement is a vital part of our efforts to earn their trust and support, and of our duty as a responsible and engaged company. NN Group identifies stakeholders based on their potential to influence or be affected by our business. Important stakeholder groups include customers, employees, investors, business partners and society, including regulators and societal organisations. We seek feedback from these groups on key topics that matter to them. This helps us align our business interests with the needs and expectations of relevant stakeholder groups, and is a source of information for strategy development and decision-making.

Our dialogue with stakeholders takes many forms: day-to-day interaction and regular feedback sessions with customers on our products and services; works council meetings and continued dialogue with our employees; roadshows for analysts and investors; regular contact with regulatory bodies, government agencies and other organisations (including non-governmental organisations (NGOs), trade unions and industry associations); and roundtables with policymakers, academics and peers.

National and international commitments

As a company based in the Netherlands, we adhere to Dutch law and the Dutch Corporate Governance Code. We observe the laws and regulations of all markets in which we operate. We also adhere to relevant international standards and guidelines, including the UN Global Compact and the OECD Guidelines for Multinational Enterprises.

To underline our ambitions, NN Group and/or our respective businesses have endorsed various national and international initiatives, and we are a member of various relevant international organisations. For an overview, please visit our website.

Commitment of the financial sector to the Dutch Climate Agreement

In July 2019, NN signed the commitment of the financial sector to the Dutch Climate Agreement and thereby commits to contribute to the financing of energy transition, to disclose the carbon footprint of our relevant investments and publish an action plan in 2022.

Since 2017, NN has disclosed the carbon footprint of our proprietary assets. Our 2021 measurement covers 80% of our total asset portfolio, which comprises the general account assets of the insurance activities, and the assets of NN Bank and NN Group. More detail can be found in 'Carbon footprint proprietary assets' on pages 131-134. We continuously enhance our approach to address climate change into our strategy, policies and activities. We encourage the energy transition, for example through our active ownership activities, and make sustainable and impact investments.

In addition to our ambition to transition our proprietary investment portfolio to net-zero greenhouse gas emissions by 2050, we announced intermediate targets for our corporate investment portfolio.

Furthermore, as a mortgage provider we want to contribute to the reduction of greenhouse gas emission in the houses we finance. NN Bank offers financing options to make homes more sustainable.

Through prevention and advice tools such as Powerly, we encourage and support customers to improve the energy efficiency of homes. Read more in the sections on Responsible investing on pages 44-47, Our response to the Task Force on Climate-related Financial Disclosures on pages 66-76, and NN IP's Responsible Investing Report 2021 on our website.

International Corporate Social Responsibility (ICSR) sector covenant

The ICSR covenant for the Dutch insurance sector aims to ensure that insurers identify and mitigate any potential negative environmental, social and governance (ESG) impacts through their investments.

The covenant's signatories (all Dutch insurers, the government and six NGOs) pool their knowledge and experience, identify ESG risks, and initiate steps to mitigate those risks. Insurers are expected to have due diligence processes in place to address ESG risks and, where necessary, to develop, adjust and improve their policies. Publication of policies and restricted lists are required, as are disclosures on voting and engagement activities with investee companies.

During the year under review, we participated in many of the activities organised by the parties of the covenant. Among others, we co-signed an engagement letter to three companies that process meat and dairy. The goal is to contribute to stopping deforestation in Brazil as a result of soy cultivation. NN Investment Partners (NN IP) acts as one of the three lead investors performing the dialogues with the investees on behalf of all Dutch insurers that signed the letter. Read more in NN IP's Responsible Investing Report 2021.

Safeguarding value creation – Stakeholder engagement continued

For an overview of fixed-income bonds held on the NN Group balance sheet by type of issuer, refer to Note 52.

Net-Zero Insurance Alliance

In 2021, NN joined the Net-Zero Insurance Alliance (NZIA). The NZIA brings together insurers and reinsurers to play their part in accelerating the transition to net-zero emissions economies. Together with all NZIA members, NN is committing to transition its underwriting portfolio to net-zero greenhouse gas (GHG) emissions by 2050. The first steps will focus on developing metrics and setting targets.

Our approach to human rights

Respect for human rights is an integral part of our values, as confirmed in the NN statement of Living Our Values. The principles contained in the UN Guiding Principles for Business and Human Rights guide us in implementing human rights in our business activities and interaction with stakeholders.

Our NN Group Human Rights Statement serves as an umbrella document and relates to various policies, such as our Human Capital policy, Responsible Investing Framework policy, and a Guidance paper on Human Rights for Investors.

Following a review of our human rights policies and processes across our organisation in 2020, we further strengthened our approach on human rights due diligence in our procurement activities. In 2021, we developed a Sustainable Procurement Statement and engaged with suppliers to register in a qualification platform providing information on related policies and processes. In addition, key suppliers are asked to commit to our new Supplier Code of Conduct outlining our expectations of policies and practices on human rights. For more information, refer to page 47.

Stakeholders, engagement, topics and outcomes

Stakeholder group	Engagement	Topics discussed	Outcome
Customers (retail)	Customer interviews, panels and surveys, both online and offline	Customer experience related to any change in products, services and processes	Increase customer engagement and loyalty
Clients (institutional)	Client surveys, (digital) events, roundtables	Client satisfaction, sustainable finance regulation, responsible investing	Informed and engaged clients
Financial advisors, brokers, agents	Advisor survey, roundtables, webinars, (digital) visits	Products and services, performance, strategy, partnering, integration and conversion acquired business	Stimulate good cooperation, increase financial advisor and broker satisfaction, leading to customer satisfaction
Shareholders, analysts, investors	Annual shareholders meeting, analyst calls, investor meetings	Strategy, financial and operational developments, capital position, approach to ESG	Inform and engage shareholders, analysts and investors
Employees	Leadership and other (digital) conferences, surveys, works councils, unions	Values, Code of Conduct, Covid-19 measures, integration process, engagement	Inform and engage employees, values-driven culture
Investee companies	Voting at shareholder meetings, dialogue with company management, engagement	Financial and operational developments, corporate governance, natural resources and climate change, decent work, (non-)financial disclosures	Create value through consistent and transparent voting behaviour, improved disclosures, improved decision-making including on ESG issues
Regulators, government bodies	Meetings, reporting, information exchange	Economic and financial market developments, risk assessments, (pension) regulation, ICSR sector covenant, sustainable finance	Ensure compliance with, and discussion of impact of regulation
Non-governmental organisations	Correspondence, meetings, reports, benchmarks	Climate change, natural resources and human rights, deforestation, biodiversity, benchmarking methods	Exchange vision and insights, engagement with investee companies, participation in working group on biodiversity

Safeguarding value creation – Managing our risks

Managing our risks

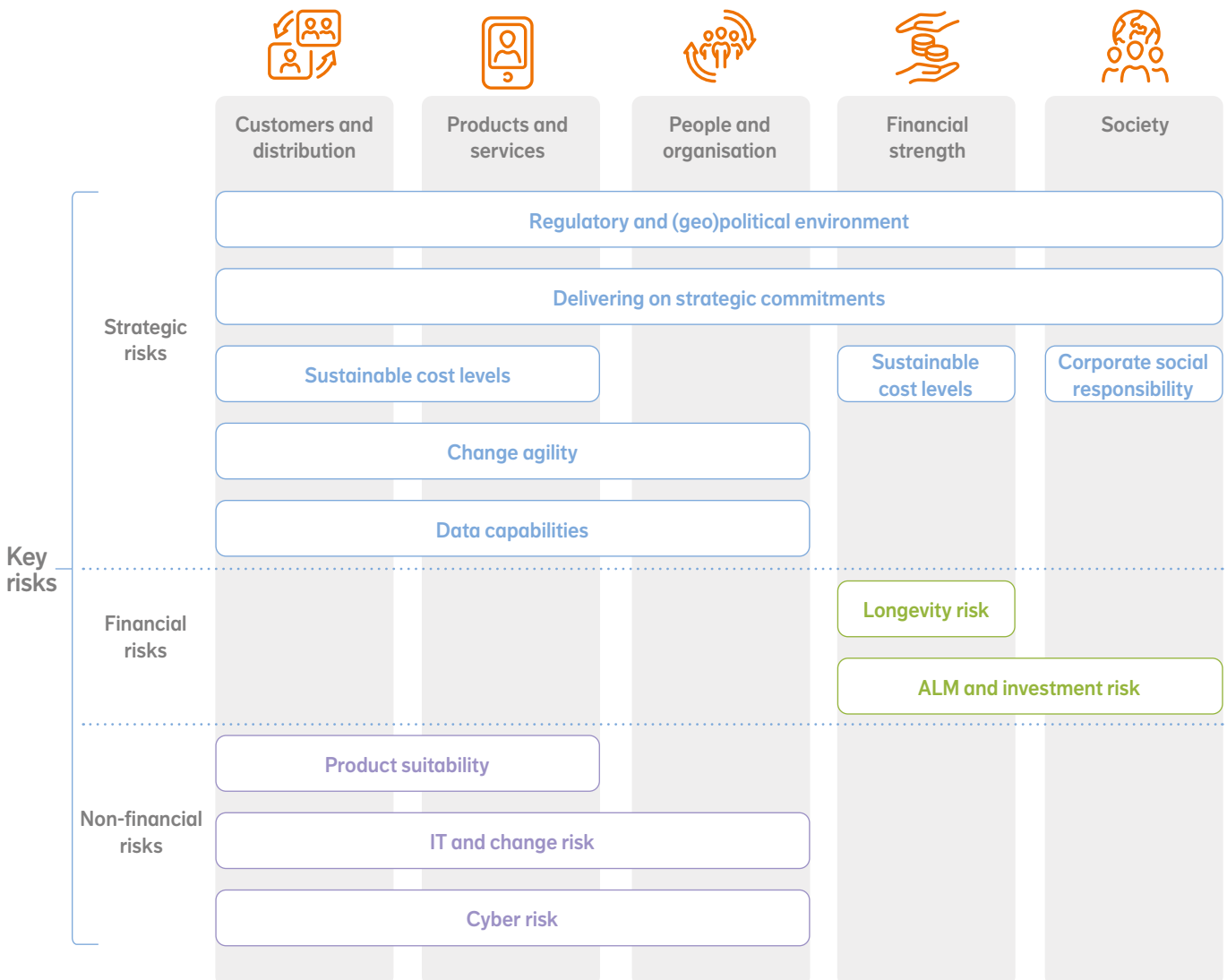
Risks represent uncertainties that could impact NN Group’s ability to achieve its strategic objectives and commitments. Strong risk management helps us monitor developments in our operating environment and act where necessary.

We regularly review the key risks to our strategy using a variety of inputs, including:

- external trends and material topics, as identified by our stakeholders;
- macroeconomic reports and publications from analysts, the CRO Forum (a group of professional risk managers from the insurance industry) and the World Economic Forum;

- scenario analyses and stress-testing by our investment and risk teams;
- risk self-assessments by the management of NN Group and its businesses.

Key risks are categorised into strategic, financial and non-financial risks, based on their similarities. For each category, we express how much risk we are willing to take (= risk appetite) and identify how to manage them (= mitigating measures). The following table shows which key risks can impact each of our strategic commitments:



Safeguarding value creation – Managing our risks continued

The next table provides more information on our key risks (listed in no particular order) and how we manage them. For a more detailed explanation of NN's approach to risk management, please see Note 52 Risk management in our annual accounts.

Strategic risks

Risk appetite: We manage our businesses on a risk-return basis, so we can meet strategic objectives while taking into account the interests of our stakeholders.

Key risk	How we manage this risk
<p>(Geo)political and regulatory environment: Risk of disintegration of existing economic and political structures, adverse regulatory change or increased supervisory scrutiny which may have a profound impact on our business model or performance (e.g. Solvency II regulations, internal model, crisis measures, sustainable finance and reporting, anti-money laundering, etc).</p>	<p>Geopolitical tensions may have an impact on macroeconomic developments, regulatory and legislative uncertainty, volatility in financial markets, the free flow of capital or supply chains. For example tensions between the US and China, Russia-Ukraine conflict, or solidarity between EU and Eurozone members coming under pressure.</p> <p>Rising instability caused by Russia's invasion of Ukraine in February 2022 is expected to have a significant impact on our operating environment. At the time of writing, Russian troops continued to invade Ukraine and hundreds of thousands of Ukrainians had fled their homes. The war has fuelled international tensions, resulting in market volatility, increase in energy prices and impacting capital flows and global supply chains. NN does not have business activities in Ukraine or Russia, and our direct financial exposure to these countries is limited. We will continue to closely monitor the developments. A growing number of people seek refuge in countries where we operate, and together with our colleagues we will support charitable organisations helping Ukrainian refugees.</p> <p>In the short term, NN Group should be able to deal with any possible impact of these potential adverse developments, thanks to our strong solvency and liquidity position and current asset exposures. Our asset exposures can be characterised as having low exposure to other financial companies, relatively high asset duration, a low duration gap and a high allocation to highly rated European countries with relatively strong economies and sovereign currencies that are considered a safe haven in times of crisis. NN manages its asset exposures using a system of concentration limits on sovereign and country exposures, which are subject to regular review and monitoring.</p> <p>Regulatory developments that could significantly impact our businesses include implementation of IFRS 9 and 17, new pension regulations in the Netherlands and new regulations around sustainability. Furthermore, our capital position might be impacted by further changes to the Solvency II framework (e.g. Solvency II 2020 review) or supervisory scrutiny in areas like substantiation of deferred taxes or diversification within our internal capital model.</p> <p>We follow the development of regulations closely and regularly assess their potential impact on our business. NN has a proactive relationship with regulators and supervisors, so that our view will be heard during the process of developing legislation and our concerns can be raised in the relevant forums.</p>
<p>Delivering on strategic commitments: Risk of not delivering on commitments towards our stakeholders, due to undisciplined strategic execution, overambitious targets or a high number of strategic initiatives going on at the same time</p>	<p>In June 2020, as part of its strategic framework, NN made a public commitment to achieving an ambitious set of financial and non-financial objectives that aim to create long-term value for all stakeholders and that go beyond just financial targets. We have also said that, when it comes to portfolio management, we will regularly evaluate and optimise all our businesses against a set of objective criteria. Meeting our strategic commitments requires us to run an ambitious set of activities: (1) disciplined strategic execution, (2) programmes that will help us manage, simplify and transform our existing businesses, and (3) carrying out targeted acquisitions, mergers and divestments. With so many changes underway or in the pipeline, NN runs the risk of not being able to deliver on all these commitments.</p> <p>We have therefore set up a Strategy Dashboard where we can monitor progress against our strategic commitments, and see where we are on-track and where additional attention may be needed. The Management Board regularly reviews our progress on implementing the strategy together with our largest business units. We apply strict programme and change management principles for all strategic-change programmes and integration-separation programmes (e.g. NN IP divestment, the acquisition of MetLife Greece and Poland and Heinenoord). We apply thorough due diligence procedures before entering into transactions, with risk, legal and compliance teams providing independent opinions on potential risks both before, during and after the transaction.</p>

Safeguarding value creation – Managing our risks continued

Key development	How we manage risks
<p>Change agility: Risk of NN Group not being able to timely identify threats and opportunities in the business environment and to successfully and sufficiently implement necessary change</p>	<p>Economic, technological, ecological and demographic developments are impacting the strategic context in which we operate at a faster pace than ever before. Change agility refers to the ability to effectively address new threats and opportunities as they present themselves, rapidly learn and implement new insights or practices and, where necessary, completely change direction quickly and efficiently.</p> <p>The Strategic Transformation Office (STO) is working to enhance NN's change agility by creating, developing, validating and encouraging participation on platforms in the areas of Carefree Retirement, Self-care, B2B Well-being and Business Continuity. Capability-building teams are in place to help maximise business impact through partnerships, resources and education around innovation.</p> <p>The NN Innovation Method, launched in 2019, is helping us become a more flexible and agile organisation, in both our mindset and how we work. We also composed a new leadership profile, i-LEAD, based on which managers are trained to coach and manage their people. For more information, see Data capabilities.</p>
<p>Sustainable cost levels: Risk of expense levels remaining at a too high level compared to competitors</p>	<p>To remain competitive it is important to ensure our revenues and cost base are well aligned. For Netherlands Life, improving IT systems and efficiency is important to keep cost levels in line with the run-off of the closed books, and to grow profitable defined contribution (DC) business. Cost challenges also exist for our Dutch Non-life business, where we have set a combined ratio target range of 94-96%.</p> <p>We target future cost reductions through projects related to digitalisation, product rationalisation, creating a simpler organisation and IT simplification. We also employ an Agile Way of Working in those parts of the organisation where it is beneficial.</p>
<p>Data capabilities: Risk of not being able to attract, develop and/or apply best-in-class big data capabilities for pricing, underwriting and distribution</p>	<p>Artificial intelligence (AI), greater access to Big Data and the Internet of Things are just a few examples of technologies that are enabling companies to act faster, and deliver products and services that meet customer needs more precisely. These developments require different types of skills from employees, such as using data mining and new ways of working. We are striving to find the right people in tight labour markets, while also encouraging current employees to develop new skills. We invest in personal and professional development throughout our employees' careers, offer people unique learning opportunities and advocate job rotation. HR is introducing a global Strategic Workforce Planning framework to identify future capability requirements and take the necessary steps to meet them.</p> <p>In addition to finding people, we also need to further build infrastructure that supports new techniques, such as a data lake, strict data governance and online engagement platforms. The main challenge is to simplify our IT system landscape, while at the same time testing and implementing new technology for developing new ecosystems and customer engagement platforms. A large training programme on Data & AI has been rolled out in both the Netherlands and our international businesses.</p>
<p>Corporate social responsibility: Risk of NN Group not adequately balancing differing stakeholder interests, deviating from societal norms or failing to be transparent in such areas as responsible investments, climate change, equality, diversity, taxes and remuneration</p>	<p>Sustainable value creation is at the core of our strategy. Companies in general, and financial institutions in particular, are under increasing scrutiny from consumers, non-governmental organisations, regulators, professional investors and other stakeholders on how they do business. Norms and values in society are evolving fast and not always codified in formal legislation. By responding adequately to increased stakeholder expectations, we will be able to improve our business, create long-term value, and strengthen our brand and reputation among customers, employees, investors and society as a whole.</p> <p>For this reason, we integrate ESG targets and criteria into our decision-making. We do this by formulating clear policies then monitoring our adherence. For example, we have an ambition to move to a net-zero greenhouse gas emissions investment portfolio by 2050 and have joined the newly established Net-Zero Insurance Alliance. Other examples include our Responsible Investment Framework Policy, Remuneration Framework, and Tax Risk Management Policy. We use our Strategy dashboard to monitor and report on our progress on non-financial KPIs.</p>

Safeguarding value creation – Managing our risks continued

Financial risks

Risk appetite: We want to avoid having to raise equity capital after a 1-in-20-year event or being a forced seller of assets when markets are distressed.

Key risk**How we manage risks**

ALM and investment risk:
Risk of reduced available capital or lower investment returns, due to financial market volatility, a low interest rate environment or ESG factors (such as climate change)

Market risk is taken in pursuit of returns for the benefit of customers and shareholders. We accept financial risks on our balance sheet that we understand and can effectively manage; but we limit concentration, interest rate, currency and inflation risk.

As part of our overall strategy, NN continues to gradually shift to higher-yielding assets within our risk appetite, in order to generate attractive investment returns. Market risks are managed through a well-diversified portfolio under a number of relevant policies and standards, within acceptable risk limits and tolerances, and with the possibility to reduce downside risk through hedging programmes. We reduce interest rate risk by matching asset and liability cash flows where markets are deep and liquid. We have set risk limits and tolerances for our remaining exposure to interest rate risk. Regarding our strategic asset allocation, we aim to optimise capital generation within acceptable risk levels and other restrictions.

The Covid-19 pandemic, as well as monetary policy to mitigate its effects, has impact on both supply and demand in the general economy. Worldwide, supply chain disruptions and labour and energy shortages partially restrict economic growth. Euro area annual inflation has risen to approximately 5% by end of 2021. Potentially, additional inflation might be driven by further rising of energy prices and impact of the Russian/Ukraine crisis. The impact of inflationary developments on our balance sheet and solvency position depend on inflation itself, but also on how other market factors move, a.o. driven by the response by central banks to rising inflation, or market expectations by investors. The risk of structural inflation for NN's business plans and financial position is both direct (operating expenses and claims) or indirect (effect on interest rates, equities, real estate, sales). Netherlands Life fully hedges its inflation linked liabilities on an economic basis. Managing indirect impact of inflation (interest rate movements and financial market volatility) is managed as described earlier in this paragraph.

Sustained low interest rate levels impact our balance sheet, new sales (products offering options/guarantees based on market returns), closed/defined benefit (DB) books, as well as our ability to offer attractive renewal rates. We are improving our investment return by partly replacing low-yielding sovereign bonds by illiquid assets including Dutch residential mortgages, loans and real estate. At Netherlands Life, we are gradually converting the separate account DB pensions business into capital-efficient DC solutions or DB solutions, with transparent embedded profit-sharing.

ESG factors, including climate change, cannot yet be fully assessed or quantified but could in the future affect the viability of NN Group's strategy. Climate change can affect the asset side of our balance sheet (through our investment processes), the liability side (through financial risks related to NN Group's products) and/or our operations (business continuity). Impact may depend on such factors as the type of business, asset portfolio or geography involved. NN is currently working on climate scenario analyses to better understand the impact of both physical and transitional risks, over both the medium and long term. We are also offering and developing a range of products that help customers adapt to and mitigate climate change, as well as further integrating ESG aspects into our proprietary investment strategy.

Longevity risk:
Risk of higher technical provisions or required capital if life expectancy increases faster than expected

NN Group's pension and guarantee product portfolios are exposed to longevity risk, especially in the Netherlands. We expect this exposure to continue to increase for a relatively short period and then steadily decrease over time. We expect the impact of the Covid-19 pandemic will be small. In the short term, the risk may even be lower, due to an increased number of fatalities; but we don't yet fully know what the longer-term impact might be, and it will be only partly offset by mortality risk.

NN continues to explore opportunities to manage longevity risk efficiently from a risk-return perspective and completed an additional longevity reinsurance transaction in December 2021. We also manage our exposure by continuing to move from DB to DC products, taking advantage of appropriate reinsurance opportunities when entering the pension funds buy-out market, and stimulating customers to move to 'longevity-light' products.

NN is joining forces with the Amsterdam School of Economics and other organisations to jointly study the financial and social consequences of changing life expectancy.

Safeguarding value creation – Managing our risks continued

Non-financial risks

Risk appetite: We conduct our business with the NN Group values at heart and treat our customers fairly. We aim to avoid human or process errors in our operations and to limit the impact of any errors.

Key risk**How we manage risks**

Product suitability:
Risk that products do not appropriately cover customers' interests over the full product lifetime

Product suitability is essential to our relationship with customers and creating longer-term value for our stakeholders. NN's Product Policy covers product risk-related requirements, including specific requirements on product suitability.

In the Netherlands, there are ongoing legal and complaints proceedings pending where customers are making claims for compensation related to unit-linked products that were sold in the past. There is no assurance that further proceedings claiming compensation for damages will not be brought before courts and/or Kifid. When these legal claims and proceedings will conclude is uncertain. We aim to resolve individual customer complaints where possible and appropriate, which might include tailored individual settlements with policyholders. However, where necessary we defend our position in proceedings. For more information refer to Note 45, 'Legal proceedings'.

Throughout the company, a Product Approval and Review Process and product risk committees are in place to oversee product design, product suitability, sound underwriting and claims management, and adequate pricing of all existing and new products.

IT and change risk:
Risk of material failures or inadequately managed change in IT systems, networks or platforms, leading to higher expenses, operational losses and/or disruption of operations (due to a high level of change, legacy data quality issues, etc.)

Simplifying and standardising the IT landscape is one of NN Group's strategic priorities. This should lower our cost base in line with the run-off of the portfolios, but also achieve a higher standard of operational excellence by lowering the number of incidents, losses and errors. For new business, NN is introducing and embedding new technologies that help achieve our business objectives, such as cloud technology, AI and sophisticated modelling.

Managing and optimising the current landscape, while also introducing new technologies, may create risks. For example, inadequate management of the high level of change or end-to-end testing of changes, or prioritising migration and decommissioning of systems at the expense of processing regular change requests in time or adequately addressing legacy data quality issues.

The IT Change Board and Steering Committee of the IT Simplification Programme direct and monitor progress of the simplification roadmap and dependencies. As part of any specific migration project, assessments are made regarding the IT and/or operational risks associated with data migration and adequately addressing such risks. A change management process is followed for relevant systems and infrastructure, including steps to ensure security, such as impact analyses, testing, fall-back scenarios and post-implementation review.

Cyber risk:
Risk of cyber-attacks, leading to misuse or loss of information, privacy breaches, discontinuity of operations, or financial or reputation loss

Technical developments are reshaping our business model, as well as impacting on our operations. Increasing data volumes, mobilisation of data access, and making IT more agile and flexible (pay per use) have been important drivers for the adoption of services offered by Cloud Service Providers. Moving to the cloud enables NN not only to be more flexible, but also to make use of scale, knowhow and other benefits that help lower the overall IT risk profile; though it will also change the type of IT-related risks to which NN is exposed. The Covid-19 pandemic has accelerated remote working, increasing the external cyber risks related to end-users and end-points (e.g. laptops, mobile phones and tablets). Although it also mitigates IT risk, the use of standard IT components is itself a risk, as a vulnerability within such a component may create significant exposure, for example the risk of a supply chain compromise such as the Log4j code red exploit.

Group IT has adopted the Standard of Good Practice of the Information Security Forum (ISF) as the basis for managing IT, cyber and cloud risks within NN Group. ISF forms the basis of our NN Group IT Policy and IT Standard, and ensures a consistent view and treatment of our risks in this area. Within central Group IT, the Information & Infrastructure Security (IIS) function leads all efforts within NN Group to enhance our information security, and provides 24/7 protection against cyber threats. Education and awareness-raising at all levels of the organisation are another important part of our security strategy.

NN has an outsourcing policy and framework in place for managing dependencies with third parties, with NN IT security principles included in outsourced contracts. We perform regular monitoring of the performance of third parties versus contract requirements. Cyber insurance has also been taken out, with coverage for first-loss risk and third-party damage.

Safeguarding value creation – TCFD

Our response to the Task Force on Climate-related Financial Disclosures (TCFD)

We describe in this section the specific activities we undertake to manage climate and other related Environmental, Social and Governance (ESG) risks.

At NN Group, we have reported on climate change since the financial year 2017 in accordance with the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD). This section is broadly structured along the four TCFD pillars: governance, strategy, risk management, and metrics and targets. Where necessary, we also cover other risks beyond climate risks, as we have an holistic approach to ESG. We also refer to other sections in the Annual Report:

- For more on our net-zero commitments, see pages 44-47
- For more on our general risk management processes, see Note 52, Risk Management paragraph.

Governance Strategy setting

The NN Group Executive Board ensures that the company has adequate internal risk management and control systems in place so it can be aware of any material risks taken by the company, and know that these risks can be managed properly. Each year, the Executive Board evaluates the company's risk appetite, related limits and tolerances. This evaluation is ratified by the Supervisory Board.

The Executive Board's responsibilities include the formulation and execution of the company's strategy, consistent with its position on long-term value creation. In 2020 and 2021, as part of its overall strategy, NN disclosed additional strategic commitments that concerned, amongst other things, ESG matters (see Our strategy and performance).

The Supervisory Board supervises the strategy pursued by the Executive Board, while the Management Board is responsible for the company's day-to-day management and overall strategic direction. This includes the setting and achievement of the company's objectives including any ESG objectives it deems relevant. More details can be found on our corporate website: NN Group/Corporate governance (nn-group.com).

Within the Management Board, the Chief Organisation & Corporate Relations (COCR), who reports to the CEO, has Corporate Citizenship, including sustainability, in her portfolio. The COCR is the sponsor of any sustainability, climate or responsible investment-related topics discussed by the Management Board. The Chief Risk Officer (CRO), also a member of the Management Board who reports to the CEO, has day-to-day responsibility for NN Group's risk management function. The CRO is tasked with ensuring both the Management Board and Supervisory Board at all times are informed of and understand the material risks to which NN is exposed. This includes risks related to sustainability matters, including climate change. The CRO is also the sponsor of the NN Group annual Own Risk & Solvency Assessment (ORSA), where we evaluate outcomes of scenario analyses, including climate change. To ensure NN Group adheres to ESG-related regulations, the Risk and Compliance functions are tasked with overseeing proper implementation and monitoring ongoing compliance.

In addition, each of our other Management Board members is responsible for promoting and integrating sustainability into their respective businesses or functions as relevant.

Strategy execution

Reporting to the Management Board, the following teams execute its strategy:

- The Corporate Citizenship team advises the Management Board on implementation of the overall approach to sustainability. They work closely with the various businesses and functions to steer and advise on embedding ESG aspects into their implementation of the overall strategy. This includes our net-zero commitments, with a focus on accelerating the transition to a low-carbon economy, a responsible investment (RI) strategy, and ESG-related non-financial KPIs.
- The Investment Office sets the investment direction and decides upon the allocation of NN's investments, in line with the Strategic Asset Allocation, the RI framework, and risk limits and tolerances.
- The Product Management and Innovation teams work on research and development in line with the Management Board's strategy including, for example, ESG aspects of our product design & underwriting activities.
- The Risk, Actuarial and Compliance teams support and challenge management on the material risks to which our customers or NN as a company are exposed. This also includes running scenario analysis to identify the impact of climate and ESG risks.

Since 2020, we have a Purpose Council to advise the Management Board on steering and reporting. We use the strategy dashboard to monitor and report progress on non-financial KPIs.

Given the increasing requirements and focus on ESG and in particular climate change, several teams have set up Centres of Expertise to further develop knowledge and capabilities.

Safeguarding value creation – TCFD continued

To support TCFD implementation at a group level, NN has a Climate Change Dialogue: a multi-disciplinary working group, which holds regular meetings throughout the year to discuss climate scenario analysis work, explore new developments, and identify further actions to improve our insights and disclosures.

A major development having an impact on NN, and of relevance to our customers, are new regulations on ESG/sustainability. In particular, implementing the EU Sustainable Action plan will require significant work, and working groups have been established throughout the business, including a Sustainable Finance Regulation Core Team at Group level to implement the requirements of the Sustainable Finance Disclosure Regulation (SFDR).

Training and education

In 2021, as part of the Supervisory Board's Permanent Education programme, a session was organised to discuss how NN is addressing climate change and responding to evolving stakeholder dynamics. A series of Sustainability and Responsible Investment educational modules were organised for the Management Board. The Management Board also discussed and confirmed NN's approach to climate change risks and opportunities. It also sponsored selected activities carried out by NN's teams to engage in industry initiatives, leading to publications such as 'Insuring the climate transition' from the UN-convened TCFD Insurer Pilot and 'Mind the Sustainability Gap' from the CRO Forum.

Remuneration

NN's remuneration principles are laid down in the Remuneration Policy, under which performance management is based on a number of financial and non-financial performance objectives, whereby financial performance objectives cannot exceed 50% (25% for control functions). The objectives focus on robust and effective risk management, as well as balanced risk taking. In line with NN Group's ambition, the focus of non-financial performance objectives includes customer engagement, our people, contribution to society and climate change. Performance is reviewed via regular check-ins and an annual year-end review. For the Executive Board, this is

carried out by the NN Group Supervisory Board. Read more on Remuneration Report, page 109.

ESG-related governance related to investments

NN's Responsible Investment (RI) Framework policy describes our approach to integrate ESG factors, including climate change, in our investment process. NN Group has set up an RI governance structure to facilitate multidisciplinary discussions and exchange of information between the right people at the right time. The various bodies within the RI governance have specific mandates to enable them to effectively advise the Management Board of NN Group on (adjustments to) the RI Framework policy and restrictions. The key governance bodies are:

- The NN ESG Policy Committee, which evaluates and monitors progress on the RI ambition. The committee is chaired by the CEO of NN Investment Partners (NN IP) and comprises the Chief Investment Officers (CIOs) of NN Group and NN IP, the Chief Sustainability Officer of NN IP, and representation of NN Group Corporate Citizenship. The committee advises the Management Board on our positioning on RI, including Group RI-related policies and the restricted list.
- The NN Paris Alignment Council develops and oversees our approach to aligning the proprietary investment portfolio to the Paris Agreement goals. This includes defining related action plans and targets, and monitoring progress. The council is chaired by the NN Group CIO, and includes representatives of NN Group staff and NN IP.

In addition, NN IP has its own governance bodies to support implementation of RI policies and activities. The NN IP Executive Team provides strategic direction and oversees implementation of the RI Framework policy in investment processes, as well as the execution of NN IP's climate change policy, which determines climate change governance within NN IP and describes how it addresses climate-related risks and opportunities. To ensure proper support and implementation of these policies, the Executive Team receives input from NN IP's ESG Committee.

To support the investment teams in integrating ESG into the investment process, and drive the development of and engagement with RI, NN IP also has a dedicated RI team.

As a result of the sale of NN IP, the group's governance bodies for RI will be revised in 2022.

ESG-related governance within our insurance activities

To align with NN Group's strategy and further integrate sustainability within NN Non-life, a Sustainability Taskforce was launched early 2021. The objectives of the taskforce include setting up a governance structure to enable NN Non-life to define a sustainability strategy, setting up a risk management framework to assess the impact of sustainability in general, and climate change in particular, on underwriting risks and opportunities; and defining an approach to develop sustainability related targets and metrics.

At year-end 2021, a Sustainability Programme was set up to accelerate sustainability progress within NN Non-life over the coming two years. Specific tracks (e.g. on risk management and product development) have been defined and a reporting structure put in place to inform the NN Non-life Sustainability Steering Group. The steering group is chaired by a member of the NN Non-life Management Board with representation from each business line of NN Non-life, which will set-up their own 'local' sustainability governance. Climate change will be a major focus of the Sustainability Programme. For example in the development of new propositions, our Product Approval Review Process, our Physical Risk Climate Change Tool, and carbon footprint calculations for our underwriting portfolio.

Strategy

One key commitment in NN Group's strategy concerns our contribution to society: we want to contribute to the well-being of people and the planet, we do business with the future in mind and contribute to a world where people can thrive for many generations to come. For more information, refer to Our strategy and performance.

Safeguarding value creation – TCFD continued

Having integrated addressing climate change into our strategic commitments, we aim to:

- Help accelerate the transition to a low-carbon economy in order to limit the rise in average global temperature to 1.5°C.
 - Through our investments, advocate investing in companies that are well positioned to transition to a low-carbon economy, and deal appropriately with ESG matters as part of their business activities. We have a specific net-zero strategy with commitments and targets for both investments and our direct operations. For our insurance and banking activities, we are in the process of developing metrics and targets to help steer the transition within our portfolios.
- Develop and offer products and services that address the environmental challenges our customers face (e.g. by developing new products and services contributing to a low-carbon economy, or insuring them against climate-related impact).

We also focus on the following activities to further realise our strategic commitments:

Defining net-zero commitments

For our proprietary investment portfolio, NN has committed to transition to net-zero greenhouse gas (GHG) emissions by 2050. Guided by the Institutional Investors Group on Climate Change (IIGCC) Net-Zero Investment Framework, our approach has two dimensions: (i) decarbonisation of the investment portfolio and (ii) increasing investment in climate solutions. Playing our part in helping the real economy decarbonise serves as a guiding principle. To ensure appropriate action, in 2020 we started to develop asset-class specific approaches.

In 2021, we introduced a Paris Alignment Strategy for sovereign bonds, corporate investments and real estate, as well as a strategy for investments in climate solutions. We also formulated intermediate objectives for 2025 and 2030 (read more on page 75, Metrics and targets).

In October 2021, we extended our net-zero ambition to our insurance activities, committing to develop an approach that enables the underwriting business to set targets and help facilitate the transition to global net-zero emissions. In the same month, NN Group also joined forces with other large insurers in the UN-convened Net-Zero Insurance Alliance (NZIA) to start developing a framework for strategy development and target-setting for the insurance industry.

For our direct operations, NN has adopted targets for 2025 and 2030 that put us on a path to achieve net-zero GHG emissions by 2040 (read more on page 75, Metrics and targets). These targets cover the emissions from our buildings, lease cars, and business air travel. To help us reach these targets, we signed two ambitions with the 'Anders Reizen' ('Travel Differently') coalition designed to reduce the footprint of our lease cars and business air travel.

Phasing out coal in our portfolio

In 2019, we adopted a policy to phase out our investments in companies involved in thermal coal mining and coal-fired power generation, reducing our exposure to 'close-to-zero' by 2030. At the end of 2021, the approximate amount of assets covered by the coal phase-out strategy for the proprietary portfolio was EUR 1.1 billion, down from EUR 1.6 billion in 2020. This portfolio's gradual reduction reflects bond maturities and changes in corporate involvement in coal activities. We monitor the portfolio closely, and may selectively divest some of our holdings to ensure that by 2030 we no longer hold companies in our portfolio that have more than 5% involvement in coal-related activities.

To create consistency across our business, we have aligned our policy for insurance underwriting with the investment side. We believe the policy sends a strong signal for an urgent phase-out of coal in order to achieve the Paris targets, and also helps mitigate the climate-related transition risks in our portfolio.

Capitalising on opportunities

Our strategy seeks to leverage opportunities for financing a low-carbon, climate-resilient future. For example by offering our asset management customers sustainable and impact strategies, and by providing insurance products that protect against physical climate impacts and support low-carbon business models.

In 2021, NN IP further expanded its green bond offering by launching a sovereign green bond fund. Market developments in the green bond space have led to strong investor interest in green bonds. Since the launch of its first fund in 2016, Assets under Management (AuM) in NN IP's green bond strategies have grown to EUR 4 billion.

Our banking business' Woonnu aims to stimulate sustainable housing in the Netherlands. Woonnu's consumer mortgage loans reward steps taken by the consumer to reduce their carbon footprint by improving the energy efficiency of their property. Since the start in September 2020, Woonnu has originated EUR 1.4 billion in sustainable mortgages and entered the top 20 of mortgage originators in the Dutch market.

We also adapt existing features in our insurance offerings. For example we now provide cover for solar panels on residential insurance policies without charging an additional premium. We also support customers through risk prevention and advisory tools like Powerly, which provides tailored advice to Dutch homeowners on improving their home's energy-efficiency and connects them with partners who can carry out improvements.

NN Non-life, has started to assess the 'climate sustainability factors' in current and new products according to the latest (regulatory) insights. These factors relate to the six environmental related objectives of the EU Taxonomy regulation. To define these factors, NN will implement external screening criteria and potentially develop its own criteria.

Safeguarding value creation – TCFD continued

Active dialogue with investees

Our asset manager engages with investee companies on climate-related matters. 'Natural Resources and Climate Change' is one of NN IP's engagement themes and focuses on deforestation, plastics and the transition to low-carbon business models for the utilities and oil & gas sectors. These engagements are often conducted in collaboration with other investors, for example via the PRI and Climate Action 100+. NN also takes part annually in the CDP Non-Disclosure Campaign, encouraging companies to disclose information on climate change, water and deforestation risks. Additionally, we support the CDP Science-Based Target Campaign to encourage companies to set long-term targets on reducing their GHG emissions.

Voting is another instrument through which we can influence companies towards more sustainable behaviours and practices. In 2021, NN IP voted 'for': 84% (out of 64) climate-related shareholder proposals, and 100% (out of 14) Climate action 100+ shareholder proposals.

Joining forces to develop best practices

We also collaborate with peers to develop industry best practices. As a member of the Platform for Carbon Accounting Financials (PCAF), we contributed to the report published in October 2021: 'Updates from implementing GHG accounting for the financial sector in the Netherlands'. This report gives insights into how PCAF members use the global standard for carbon-accounting financials, what they consider the key benefits of measuring and disclosing financed emissions, and the main challenges. In the last quarter of 2021, we also joined the PCAF for insurance so we can join forces with international (re)insurers to develop a standard for measuring insured emissions.

In March 2021, NN Group endorsed the IIGCC Net-Zero Investment Framework and signed the Paris Aligned Investment Initiative (PAII) Asset Owner Commitment. At the same time, NN IP signed the Net-Zero Asset Managers Commitment. NN IP also co-led a working group focused on infrastructure investments as part of the second phase of the Paris Aligned Investment Initiative of the IIGCC. This will further develop the Net-Zero Investment Framework, which is designed to help investors develop strategies to align their portfolios with the Paris goals.

NN's banking business contributed to the establishment of the Energy-Efficient Mortgages (EEM) Netherlands Hub, to support and promote the acceleration and adaptation of energy-efficient housing in the Netherlands. Within this initiative, we aim to develop and maintain a Dutch framework for energy-efficient mortgages that facilitates the translation and application of European regulation to the Dutch mortgage and property market.

In respect of specific insurance underwriting initiatives, we collaborated with UNEP FI and 21 other insurance companies in the PSI TCFD pilot group for insurance to develop risk management approaches, forward-looking scenario-based tools, and methodologies based on the TCFD recommendations. The pilot group published a paper entitled 'Insuring the climate transition' in January 2021.

Joining NZIA in October 2021 (see 'Defining net-zero commitments' above) is an example of how we believe that by collaborating with other international (re)insurers we can all increase our knowledge and impact.

Public policy advocacy

Government policies are key to achieving the goals of the Paris Agreement. As a financial institution, we can play a part in this process by expressing our support for ambitious policy action. We publicly join with other investors and businesses in supporting the need for stronger climate policies. For instance, NN IP supported the '2021 global investor statement to governments on climate change', which calls on governments, among other things, to significantly strengthen their transition plans for 2030 to put us on a pathway to achieve net-zero emissions by 2050 or sooner.

NN Group became a member of the World Economic Forum 'Alliance of CEO Climate Leaders' and supported an open letter to world leaders in the run-up to COP26 in October 2021, in which the group of more than 60 CEOs of large organisations express their willingness to work with governments in a joint effort to accelerate the race to net zero.

Risk management

Climate change presents risks and opportunities, and these are expected to increase over the mid- to long term, which could affect the viability of NN Group's strategy. It is difficult to quantify climate change-related risks because, as both physical and transition risks are characterised by deep uncertainty and non-linearity, their chances of occurrence are not reflected in past data and the possibility of extreme values cannot be ruled out. As such, it is subject of ongoing analysis and monitoring to assess the impact on our business model and balance sheet.

The materiality and time horizons over which climate change-related risks may impact our business activities depend on the specific types of business (life insurance, non-life insurance and banking) and asset portfolios, as well as geography and a range of other factors, as illustrated in the three examples below:

- Our property & casualty (P&C) business is predominantly a one-year renewal business, and consideration of these risks in the underwriting and pricing processes is therefore on a relatively short time horizon (one to three years)
- Many of our product development and strategy updates are based on three-to-five-year time frames
- Our investment and underwriting strategies for life and income insurance liabilities need to consider the impact of climate change over a period well beyond the next five years.

We do not consider climate change or ESG a separate risk, but as a driver creating risks in different parts of our operations. As part of our strategic risk assessment, the Group Management Board identified the following key risks, partially driven by climate change developments: 'ALM and investment risk' (physical and transitional), 'Corporate social responsibility' and 'Regulatory and (geo)political environment'.

Safeguarding value creation – TCFD continued

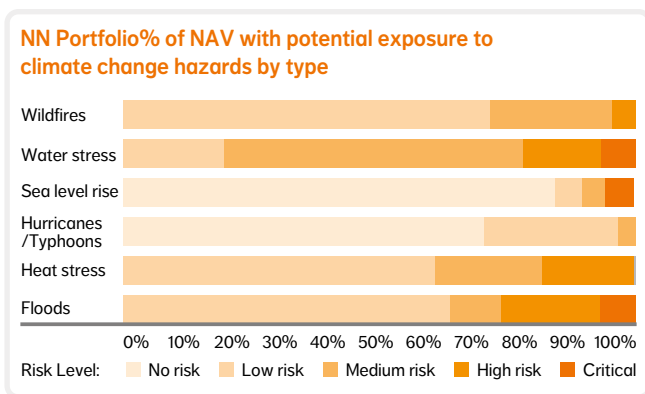
Assessing physical climate risks in real estate

NN Group invests in European real estate both directly and indirectly via non-listed real estate funds. The portfolio is spread over sectors and regions and is therefore exposed to property damage caused by natural events which can lead to a decrease in value of the assets or even stranded assets. To conduct an analysis of the portfolio's potential exposure to the physical risks of climate change, our real estate manager CBRE, used the 'Moody's 427' tool.

The Moody's 427 tool assesses six climate hazards: floods, sea level rise, water stress, heat stress, wildfire, and hurricanes and typhoons. The tool considers the potential severity and frequency of each climate hazard based on a 2030-2040 outlook as each of the predicted climate scenarios (1.5°, 2° or 4°C above pre-industrial levels) produce similar climate impacts for this period. Each asset's potential exposure is assessed against each of the six climate hazards in that specific location considering the building's use e.g. office, retail or industrial. This serves as an initial screening where the results are addressed as qualitative indicators from low to high or critical potential risk exposure.

Portfolio results

The assessment found that the maximum potential exposure of our portfolio to 'critical' risks is 19% and to 'high or critical' risks is 53% (based on Q1 2021 net asset value). As can be seen in the figure, the largest potential impact is primarily from water stress, floods or heat stress. To get a sense of how our portfolio compares to a benchmark, we used a 'neutral portfolio', which is based on the institutionally investible real estate world-wide and applied 427's country rating for each hazard. This analysis showed that NN's portfolio is not located in areas that have significantly greater potential risk of exposure to climate change hazards than the neutral benchmark.



Prioritising engagement

This tool only looks at the severity of 'potential exposure' to hazards. To get a complete picture of physical risk exposure, one also has to look at the resilience of the underlying asset. We are using this assessment therefore as a starting point to ask our real estate manager for a more detailed risk analysis of the relevant assets. Such analysis could show that measures to mitigate the risks have already been taken, or that they are not required due to how the property is used. In cases where the potential climate hazard risks need to be addressed, we encourage the underlying manager to develop an asset mitigation plan to increase each asset's resilience to climate hazards and reduce its vulnerability.

To make the buildings more resilient, a variety of measures can be considered. For instance, to reduce water stress due to drought, measures could include using drought-tolerant plants in the landscaping, encouraging tenants to use water more efficiently, or installing water metering. For buildings that are susceptible to flooding, measures could include, for instance, monitoring drainage systems' ability to cope, or relocating any water sensitive plant and equipment above ground level. Examples of measure to tackle the problem of heat stress could include carrying out regular inspections of façade materials to confirm that premature degraat degradation does not occur, or installing back-up generators in case of power failures.

Clear objectives

This analysis was the first step toward assessing our potential exposure to physical climate risks. Together with our real estate manager, we have set clear objectives for our portfolio:

- For those assets identified as potential high or critical risk within our directly-managed portfolio, engagement with an underlying manager should verify whether further action is needed at a property and investment level, to ensure resilience of the underlying holding(s). In that event, a mitigation plan should be developed and included in the annual asset business plan(s) to make the asset more resilient to physical risks. We aim to have climate change mitigation plans for all relevant assets by 2023. From our real estate funds we expect this to be in place by 2025.
- In order to promote reporting in line with the TCFD framework, we aim for all funds to have TCFD-aligned reporting and consider climate risks in all investments by 2023.

Safeguarding value creation – TCFD continued

In the following sections we discuss each risk and how we mitigate its impact.

The section ends with more on how we apply scenario analysis and stress testing, and the qualitative and quantitative techniques we deploy to better understand the impact of climate change-related risks, for mid-term planning and beyond. We use two case studies to illustrate this (refer to page 70 and pages 76-77).

ALM and investment risk

Definition: Risk of reduced available capital or lower investment returns, due to financial market volatility, a low interest rate environment or ESG factors (such as climate change). Climate change can affect both the asset side (through our investment processes) and liability side (financial risks related to the products that NN Group markets) of the balance sheet. We distinguish:

Physical risk for assets

Definition: Risk of (in)direct financial losses to investments, or lower investment returns, resulting from changes in weather patterns, temperature, hydrological conditions, or natural ecosystems (both acute and longer-term shifts). For instance, a severe windstorm or flooding might damage buildings within our European real estate portfolio, which could result in asset impairments or indirectly affect our customers' ability to pay their mortgages.

Transition risk for assets

Definition: Risk of (in)direct financial losses to investments, or lower investment returns, resulting from the transition to a lower carbon/green economy, which may adversely affect individual businesses, sectors or the broader economy (examples include public policy, technological developments and changing consumer preferences).

Overall, NN anticipates that the global pricing of financial assets will increasingly be influenced by factors such as public policy, technological developments, changing consumer preferences and evolving interpretations of legal frameworks. Such trends and changes are likely to materialise over the medium term and insurers may be exposed to these risks through their investment portfolio. However, our investments are also exposed to specific

short-term risks, such as possible sudden adjustments to market sentiment around climate risks, impacting segments and investments in our portfolio.

Physical risk for liabilities

Definition: Risk of actual claims and benefits paid to customers deviating adversely from expectations, resulting from changes in weather patterns, temperature, hydrological conditions or natural ecosystems. This could lead to higher mortality rates (for life and pensions products), higher morbidity benefits (for disability, accident and health products) or property and casualty claims (P&C products).

Physical risks related to long-term changes in climate, and increases in natural catastrophes, as seen with the 2021 floods in Belgium and the Netherlands. These risks are particularly relevant to our non-life insurance business. Although this applies predominantly to the Netherlands, we also offer a range of relevant non-life products in Belgium, Spain and Poland.

Prolonged, multiple periods of heatwaves or other consequences of rising temperatures, resulting in increased mortality and morbidity, thereby impacting our life and income insurance liabilities. Such long-term threats are difficult to quantify, but we currently expect this to have less impact on our life and income insurance liabilities than other risks, such as changes in demographics. Furthermore, we note that from an overall risk perspective, NN has a larger exposure to longevity risk, which is partly offset by mortality risk.

Transition risk for liabilities

Definition: Risk of actual claims and benefits paid to customers deviating adversely from expectations, resulting from transition to a lower carbon/green economy which may adversely affect individual businesses, sectors, and the broader economy. Examples include public policy developments, businesses and shifts in consumers' preferences.

Transition risks could also arise from a change in the composition of the underwriting portfolio, affected by our efforts to diminish the carbon footprint, explore initiatives to keep the climate-

related underwriting risks insurable, and develop sustainable products and services. Furthermore, asset and liability management of insurers might be impacted by revised macroeconomic and financial assumptions (e.g. risk-free interest rates or claims inflation).

The transition towards a low-carbon economy also creates legal challenges for both customers (liability insurance) and the insurer. We monitor climate-related litigation risks. Most cases are against governments, but complaints against business are on the rise. This can have consequences for NN where we insure such companies. However, given the relatively limited size of NN's general liability insurance portfolio for corporate customers, we consider risks in this area low at this time.

Mitigating climate risks impacting our investments

NN has a policy framework in place to ensure our assets are invested responsibly. The framework includes a requirement to systematically incorporate ESG factors into the investment process. Consideration of ESG factors, alongside traditional financial data, helps to make better informed decisions and optimise the risk-return profile of investment portfolios. At NN IP and our external asset managers, assessing the materiality of ESG factors, including climate change, is an integral part of the investment process, where the analysts identify material risks and opportunities within the investment case. The processes are continuously being improved.

As well as analysing individual investment-level risks, we carry out analyses at a portfolio level to assess potential climate risks and opportunities, and to support the implementation of a broader climate strategy. For example, we measure the carbon intensity of our proprietary investments, which provides us with information on where our highest carbon risk exposure lies and is useful, for example, for engagement purposes. We consider engagement a valuable tool. In the context of managing climate risks, engagement means entering into dialogue with investee companies on the risks of climate change, and the need to transition to a low-carbon economy.

Safeguarding value creation – TCFD continued

Although we prefer to use engagement as a means to affect change, we may decide to exclude a company that isn't willing to engage in dialogue or when we believe insufficient progress is being made. We have environmentally focused exclusion criteria on oil sands and thermal coal mining, which were updated in 2021: companies are now placed directly onto our exclusion list when they derive more than 20% of their total revenues from the extraction of oil sands or thermal coal mining (previously 30%). For NN's proprietary investment portfolio, in addition we implement a policy to phase out thermal coal by 2030 (read more on Strategy, page 67).

We have a clear ambition to transition our proprietary investment portfolio to net-zero GHG emissions by 2050. We believe a strong focus on low-carbon transformation and investing in opportunities will help us manage risks associated with climate change. In aligning our proprietary investment portfolio with our climate goals, we believe that a single approach or target is inappropriate, and have set out to develop asset class-specific strategies and to use the guidance of the Net-Zero Investment Framework:

- For the sovereign bonds portfolio, investments are scored against a set of current and forward-looking alignment criteria, with the preference for allocation to higher climate performing issuers and/or eligible green bonds. In addition, we will seek to increase dialogue with governments.
- For the corporate investments portfolio, NN has developed a methodology to categorise the companies in the portfolio according to their alignment or potential to align to a net zero pathway. For new investments, we use a best-in-class policy to allocate towards companies who are better positioned in their journey to transition to a low-carbon economy. For existing assets, we focus on stewardship and engagement to drive alignment, as we believe this has the best chance of realising real-world impacts.
- In setting a net-zero strategy for NN's non-listed real estate portfolio, we have defined specific net-zero commitments for both our directly-managed and indirect portfolios. Furthermore, we have defined the key measures to achieve our net-

zero targets, one of the most important being improving energy efficiency and expanding the use of renewable energy. For our directly managed portfolio, we are currently performing asset-level analysis, utilising the Carbon Risk Real Estate Monitor (CRREM) to model each building's pathways and define the necessary improvement plans. For our indirect portfolio, our main lever is engagement with the management of the funds in which we invest to increase their ambition to reach net-zero emissions.

- To grow our investments in climate solutions that support the transition, we have developed an internal framework for defining 'climate solutions investments', setting an ambition to increase these investments by an additional EUR 6 billion by 2030. As an initial step in classifying climate solutions investments, and in line with guidance from the IIGCC PAII, we focused on the SDG 7-related areas of energy efficiency and renewable energy. We have underpinned our definitions with external certifications, asset labels and environmental standards where possible and relevant. In setting our definitions, we have tried to align as much as possible with the EU taxonomy criteria. Though it is proving a challenge to assess the extent of alignment, as the taxonomy requires very detailed information that is often not (yet) available, and it is still uncertain what is accepted as evidence for alignment.

Risks in our asset portfolio, like any other market risk, are managed through a well-diversified portfolio, employing a range of relevant policies and standards, within acceptable risk limits and other boundaries, and with the option to reduce downside risk through hedging programmes. For concentration risk, we use concentration limits on corporate and sovereign issuers, asset type and country of risk. For liquidity risk, we assess the ratio between liquid assets and liquidity requirements. More information on how we manage market risks, see Note 52, Risk Management paragraph.

Mitigating climate risks impacting our liabilities (underwriting processes)

Physical risks relate to long-term changes in climate and increases in natural catastrophes, such as the 2021 floods in Belgium and the Netherlands, and are particularly relevant to our P&C business. An increased frequency or severity in weather events, such as windstorms or hail, can lead to higher expenditure (claims and operational costs), so affecting the margins of our P&C insurance products.

During the summer of 2021, southern parts of the Netherlands and Belgium were confronted with flooding events that were partly attributed to climate change related effects. Immediate possible payment advances have been made by NN and additional coverage to customers in Belgium and the Netherlands has been provided, although occasionally claims still had to be rejected. In line with EIOPA's objective to close existing protection gaps as much as possible, NN has expanded the coverage under its policies with protection against a breach of secondary dikes. Furthermore, NN believes that a joint approach with P&C insurers in the Netherlands, reinsurers, and environmental authorities is needed to provide additional protection against losses resulting from breaches of primary dikes. Through our membership of the Dutch Association of Insurers and our intensive involvement in climate change related topics, NN Non-life encourages the investigation of risk mitigating market solutions.

Within our insurance business, we manage physical climate risks in various ways. We offer and develop a range of products that help customers adapt to and mitigate climate change, such as green mortgages, coverage against severe weather events and Defined Contribution lifecycle pension products, which promote sustainable characteristics. For 2022, non-financial Management Board performance targets have been set that integrate ESG criteria into underwriting with a focus on (acceptance) policies, the product approval process and risk management of ESG-related risks.

Safeguarding value creation – TCFD continued

Within our P&C business, NN helps customers take precautionary measures, with the aim of preventing and minimising claims caused by windstorms, fire or other events. We monitor our claims experience and reprice or adjust policy conditions where necessary. NN's P&C portfolio is predominantly renewable on an annual basis, allowing repricing over the short term. We apply such measures cautiously, as longer-term affordability for our customers remains an important consideration for us when making strategic choices.

We let insights from catastrophe models guide our pricing/underwriting risk management process. For this, we use external vendor models (based on meteorological modelling, reflecting observed storms and patterns) to estimate the impact and damage that would be caused by large natural catastrophes, such as windstorms. NN uses a multi-year forward-looking approach.

Catastrophe models are also part of the solvency and capital management risk management process. Portfolio diversification and tracking concentration risks are other key risk mitigating steps. NN's product range offers a broad variety of non-life insurance protection cover options against damage and loss from a wide range of causes. In addition to our P&C products, our portfolio includes income protection products, such as disability and accident insurance, which are less sensitive to windstorm or climate change.

Finally, external reinsurance will, under certain conditions, partially mitigate potential impacts. We have a group-wide catastrophe reinsurance programme in place to protect against the severity and frequency of large natural catastrophes. Reinsurance covers are placed with a broad and diverse range of strongly capitalised external reinsurers, and reduce the losses to NN Group from both large events and multiple smaller ones. Both the applicability of the external vendor models, and the reinsurance structure and cover, are reviewed annually for renewal.

Regulatory and (geo)political environment

Definition: Risk of disintegration of existing economic and political structures, adverse regulatory change or increased supervisory scrutiny that may have a profound impact on our business model or performance (e.g. for example sustainable finance & reporting).

From an overall perspective, the most important political risks related to climate change are (1) political inability or passivity in taking appropriate policy action to make the transition to a greener economy; (2) creating inconsistent regulatory standards or standards that do not align with NN's perspective on ESG matters; (3) regulatory standards that have a high level of complexity and short period for implementation; and (4) an overly one-sided approach (e.g. only via the financial industry).

NN or our customers might be affected by regulatory developments on ESG topics, such as responsible investments, environmental protection, climate change or human rights. Implementing the EU Sustainable Action Plan will require significant work, and though efforts are being made in this respect, for example through the Sustainable Finance Regulation Core Team that NN Group has set up to implement the requirements of the SFDR, nevertheless the plan's inherent complexity presents challenges. In addition, some legislation has been delayed, creating uncertainty.

In 2022, an amendment to the Solvency II directive was made that aims to integrate sustainability risks into the prudential framework, requiring insurers to, among other things, consider sustainability risks in actuarial and risk management, and (as part of the ORSA) to perform a mandatory sustainability risk assessment of the material risks to which the insurer is exposed. NN has installed a project team to implement these requirements.

Corporate social responsibility

Definition: Risk of NN Group not adequately balancing stakeholder interests, deviating from societal norms, or failing to be transparent in such areas as responsible investments, climate change, equality, diversity, taxes and remuneration.

Companies, and financial institutions specifically, are under increasing scrutiny from consumers, non-governmental organisations, regulators, professional investors and other stakeholders regarding how they do business. Norms and values in society are evolving fast and are not always codified in formal legislation. Failure to deal adequately with our stakeholders' increased expectations with respect to doing business in a responsible way or legal action involving our business could lead to reputational damage, consumers being less likely to buy our products or investors being unwilling to invest in our company. There is also an expectation from both supervisors and customers that insurers offer products and services that help customers deal with climate change impact for an affordable price.

Measures to mitigate this risk are generally classified as environmental, social or governance:

- Environmental: how NN deals with climate change, environmental protection, energy transition and sustainability in investing and its own operations;
- Social: how NN does business in a socially responsible way, taking into account equality and inclusion, human and labour rights, and consumer protection; and
- Governance: how NN is structured to ensure its corporate governance system balances the interests of its stakeholders and the company's long-term focus in its decision-making. This includes such topics as balanced objective-setting and countervailing powers, executive and employee remuneration, and managing our tax position.

Balanced decision-making, taking into account all stakeholders' interests, is ensured by applying the principles of the Dutch Corporate Governance Code. NN Group's Governance Manual sets out the roles and responsibilities of the different Management Board committees, as well as a governance model based on three lines of defence (Business Management, Risk/Compliance, Audit).

NN's values, care, clear, commit, are a cornerstone of decision-making. Our Risk Appetite Statement on Sound Business Performance expresses our aim to act as a company with a responsibility to society at

Safeguarding value creation – TCFD continued

large. The NN statement of Living Our Values defines our values, which are reflected in many of our company-wide policies, standards and processes.

We integrate ESG considerations into our investment decision process. We believe there is a strong link between the longer-term positive impact of ESG integration and improved risk-adjusted returns. Focusing on ESG also ensures we live up to our values and demonstrate good corporate citizenship. It helps us better align our core business with the broader expectations of society.

To help close the protection gap, we are developing new products and services that aim to also cover damage that current policies are either not covering or for which claims are expected to rise, driven by increased physical risks. We assess external data to properly price these risks and offer these products to customers.

Scenario analysis and stress testing

The Solvency II supervisory framework requires insurers to hold sufficient capital to cover the losses of a 1-in-200-year event, over a one-year time period. In addition, insurers also consider risks beyond this one-year period, as part of their ORSA, and hold a level of capital in line with their defined risk appetite. NN Group, and each of its regulated (re)insurance subsidiaries, prepares an ORSA at least once a year. The ORSA includes the outcomes of stress tests and/or scenario analyses that are aligned with the identified key risks.

As part of regular risk management activities, risk assessments are performed to identify key risks that pose a threat to NN Group's strategic and capital objectives. In June 2021, NN Group performed a Strategic Risk Assessment (SRA) to assess the key risks as well as emerging risks in the light of current global and sectoral trends. The basis for this risk assessment was NN Group's Risk taxonomy. For ORSA purposes, this gives insight into a) risks that are not modelled and b) risk types that are modelled explicitly, but for which we try to assess whether the required capital is an adequate reflection of the actual risks and whether existing buffers would also suffice for adverse developments during the business plan period. Compared with 2020, the ALM and

investment risk was expanded, for example to include the impact of ESG factors (such as climate change).

Deploying qualitative and quantitative scenario-based analyses helps us better understand the impact of physical and transitional risks, both during the business plan period and beyond. Where possible, these analyses consider a relevant short-, medium- and long-term scenario, aligned with the TCFD recommendations. We use the insights gained as further input for formulating our investment strategy and integrating climate change aspects into our risk management practices.

In 2020-2021, NN Group and our entities performed the following scenario analyses and stress testing:

- A qualitative assessment of transition risks associated with policies for government bonds. This is built on our assumption that countries that have a well-developed long-term strategy towards achieving GHG emissions reductions consistent with the Paris Agreement are more likely to face lower transition risk. Based on this assessment, we looked for a data provider who could provide us with relevant climate assessments that contains forward-looking elements for a much broader range of countries. We began using the Climate Change Performance Index (CCPI) published by Germanwatch, CAN International and the NewClimate Institute, which evaluates and compares the climate protection performance of 57 countries and the EU. The CCPI forms a key part of the proprietary scoring methodology which we developed as part of our Paris Alignment strategy for sovereign bonds.
- A quantitative assessment using geographical data to assess physical (concentration) risks for NN's mortgage book as well as underwriting portfolios in the Netherlands, looking at flooding events (including surface water flood caused by heavy rainfall, river flood and coastal flood) and pole rot (read more on pages 76-77).
- A quantitative assessment of the preparedness of corporates to deal with climate change. Investments in certain industries might lose value when companies cannot adapt to a low-carbon business model.

- A quantitative assessment of physical risks related to our real estate investment portfolio (read more on page 70).
- A quantitative assessment of a series of windstorms, and the potential impact on the solvency position of Netherlands Non-life.
- A quantitative assessment of a disorderly transitional scenario ensuing from prompt and radical global action and policies to limit global warming, which has an impact on our assets (equity, mortgages, real estate) that materialises over the medium-term business planning period, in line with a (2019) PRA scenario.
- A quantitative assessment of the effects on homeowners confronted with the unintended adverse effects of government energy transition policies, including a severe but plausible economic downturn with uncertainty about future property values and reduced sales of existing homes.

The general conclusions from these assessments are:

- The impact of climate change contains high levels of uncertainty and, as such, caution is warranted in drawing conclusions based on scenario outcomes. Furthermore, climate-related scenarios potentially fail to represent the full impact of climate change, as it is virtually impossible to create an all-inclusive scenario.
- Scenario analyses performed so far show any impact from climate change is more imminent for our non-life insurance businesses than our life and pensions businesses.
- Qualitative scenarios and other data-supported analyses can help us gain greater understanding of potential exposures in our portfolios, for example for the mortgage portfolio, where geographical data visualises the concentration of physical risks. Based on current insights, and assuming the Dutch government will continue to execute its infrastructure improvement programme, our exposures until 2050 are limited. But we will of course continue to incorporate new data and assumptions into our regular monitoring.

Safeguarding value creation – TCFD continued

- For our corporate bond portfolio, we consider the potential impact to be moderate and manageable. In recent years, we have been refining our RI strategy and will continue to do so. While maintaining a diversified portfolio, this will help steer our portfolio composition towards companies we believe best positioned to follow a path to decarbonising and/or offering climate solutions.

We will continue to explore potential scenarios, to develop more accurate parameters for quantifying the impact of climate risks and to build our capabilities to make more detailed assessments per type of investment. This will include a specific focus on deepening our understanding of climate-related risks, and focusing on our non-life insurance portfolio by, among other things, using the insights gained from the UN-convened TCFD Insurer Pilot mentioned above.

Metrics and targets

Own operations

At NN Group, we are committed to reducing the environmental impact of our own operations, which have been carbon-neutral since 2015, by reducing our emissions year-on-year and offsetting any remaining emissions. We have committed to reducing our GHG emissions by at least 35% by 2025, and 70% by 2030, compared with 2019. Following this path, we expect to reach net-zero by 2040. This covers GHG emissions from our buildings, lease cars and business air travel. We intend to realise this through energy-efficient technologies, increased use of renewable energy and less travel. For our lease cars, our ambition is electrification of our lease car fleet by 2025 in the Netherlands.

Our investments

Since 2017, we have been tracking the carbon footprint of the main asset categories of the asset portfolio on our balance sheet (defined as the general account assets of the insurance entities, and the assets of NN Bank and NN Group). This helps us identify where risks and opportunities are concentrated, and enables us to track how the carbon footprint evolves over time. The 2021 carbon footprint analysis covers EUR 161 billion of assets, representing 80% of our total asset portfolio. For more detail refer to section 'Facts and figures'.

In 2021, we set the following specific intermediate objectives for the general account assets portfolio to help deliver on our commitment to achieve net-zero emissions by 2050:

- Reduce GHG emissions from corporate investments (listed equity and corporate fixed income) by 25% by 2025, and by 45% by 2030. Our baseline is 125 tCO₂e per EUR million invested as reported at year-end 2021 (relating to underlying emissions data from 2019) and covers scope 1 and 2 emissions. This reference reduction target is supported by portfolio alignment goals that include: (i) an engagement threshold of 75% by 2025, meaning that by that time a minimum of 75% of financed emissions are in sectors that already meet net zero 'aligned' criteria or will be subject to direct or collective engagement actions (at year-end 2021: 66%); (ii) a portfolio coverage target of 45% by 2025, meaning that by that time at least 45% of the AuM is invested in assets in material sectors classified as 'achieving net zero', 'net zero aligned', or 'aligning' (at year-end 2021: 29%).
- Achieve EUR 6 billion of new investments in climate solutions by 2030. At year-end 2021, we had invested EUR 5 billion in green bonds, renewable infrastructure, and energy efficient real estate. Refer to the section 'Facts and figures'.
- Phase out our investments in companies involved in thermal coal mining and coal-fired power generation, reducing our exposure to 'close to zero' by 2030. At the end of 2021, the approximate amount of assets covered by the coal phase-out strategy for the proprietary portfolio was EUR 1.1 billion, down from EUR 1.6 billion in the year prior.

We also defined our net-zero ambitions for our (non-listed) real estate portfolio. Using the CRREM 1.5°C tool to guide the process, we have set the following interim objectives:

- For our directly managed assets, our aim is for all our buildings to be on a 1.5-degree pathway by 2030. This is for scope 1, 2 and part of scope 3 (tenant operational emissions). For operational GHG emissions (i.e. scope 1 and 2) we aim to achieve net-zero by 2040.

- For 100% of standing assets in the direct portfolio to have a Sustainability Certificate as approved by GRESB (beginning of 2021: 83%).
- For our investments in real estate funds, that by 2030 the majority of our funds (>75% based on GAV) are committed to achieving net-zero GHG emissions by 2040 or sooner (scope 1 and 2), and the remainder by 2050 or sooner.

We have also set objectives to take into account physical risks in our real estate portfolio. Refer to 'Assessing physical climate risks in real estate' on page 70.

Our products and services

For our insurance and banking activities, NN is working on roadmaps for the transition to a low-carbon economy so we can set metrics and targets.

We have joined commitments like the commitment of the financial sector to the Dutch Climate Agreement and the NZIA to strengthen our strategy. With this commitment, NN sets its ambition to also bring its insurance underwriting portfolio to net zero by 2050.

Together with the alliance, NN is working on the development of metrics and targets to set a clear pathway towards this goal. In addition, Netherlands Non-life is developing a Climate Change Physical Risk Tool, which will be designed to qualify and quantify the impact of climate change-related perils on the underwriting portfolio. Quantification of the preselected perils will be based on the Representative Concentration Pathways (RCPs) of the Intergovernmental Panel on Climate Change (IPCC) and various time horizons. Based on the outcomes of the initial quantifications, specific geographic and peril-related indicators can be developed and targets defined.

For our banking activities, we are working together with industry peers in the Energy-Efficient Mortgages (EEM) Netherlands Hub, and the PCAF for investments to develop standards and frameworks for energy efficient mortgages and carbon footprint measurement. This work will feed into the development of strategy and targets to contribute to commitment of the financial sector to the Dutch Climate Agreement.

Safeguarding value creation – TCFD continued

Assessing physical climate risks of Dutch mortgages and underwriting book

In 2019, we analysed the impact of (river) flooding and heavy precipitation on our Dutch residential mortgage portfolio, originated and/or serviced by NN Bank. In 2021, we updated the analysis and extended it to cover our non-life underwriting book as well as drought (causing pole rot damage to the wooden foundations of buildings through low groundwater levels).

These risks could impact us in the following ways:

- Customers may file a claim with NN Non-life to compensate for the damage, as per agreed policy terms and conditions, driven by political or societal pressure, or as a goodwill gesture. In general flooding and pole rot are not covered under Dutch insurance policies, while damage caused by heavy rainfall is.
- If damage to a customer's property is not fully insured, nor compensated, customers might receive compensation from the Dutch government. Regarding flood risk, this comes from an emergency fund, as made available under the Dutch Disaster Compensation Act, to be activated by ministerial decree.
- Any remaining damage is the customer's responsibility. Depending on their financial situation, they might not be able to restore the property, or might (partially) default on their mortgage if they cannot pay regular costs, or if the collateral (partially) loses value. This impacts the value of the investments on the insurers' balance or increased loss provisions for NN Bank.

The analysis of flood risk includes coastal and fluvial (river) flooding, including a consideration of current and future (projected) flood defences. We used national datasets from Klimaateffectatlas and global datasets (IPCC) to indicate the aggregated value at risk for a baseline (current) scenario and a 2050 scenario, based on the KNMI'14 (Royal Dutch Meteorological Institute). The results of the analysis are based on the current composition of the mortgage portfolio, aggregated at national, province and postal code level.

For the analysis on pole rot we used the Klimaateffectatlas which presents pole rot risk at a neighbourhood level, and are derived from the estimated percentage of wooden foundations in a neighbourhood, as well as the neighbourhood's vulnerability level (based on groundwater levels, foundation depth, and the type of soil).

The results of the analysis give further insight in parts of NN's portfolios that have a higher risk of flooding or pole rot in 2050. Two figures below give an example view for the mortgage book, showing the aggregated value potentially at risk of flooding or pole rot in the High Probability (<1 in 30 years) category for the projected 2050 scenario.

Similar to the analysis in 2019, the parts of NN Group's mortgage portfolio most exposed to potential flood risk, are located in the greater metropolitan Rotterdam area and regions near the Lek and Meuse rivers, especially in the provinces of Limburg and Gelderland. Areas where high values are exposed to a risk of flooding, but at lower probability levels, are located in the larger cities of the Randstad area (Amsterdam, The Hague) and the northern provinces (Groningen, Friesland).

The impact of pole rot is of a much smaller scale, and limited to certain parts of the Netherlands. The main results from the pole rot analysis for the mortgage portfolio indicate that the most impacted areas are the Randstad area, the regions close to large rivers, and the provinces of Groningen, Friesland and Zeeland. The concentration of NN Group's portfolio is situated in the Randstad area and as a result, postal codes in city centres such as Amsterdam, Haarlem, Utrecht and Schiedam show the largest potential value at risk.

We have performed a similar analysis for our full non-life underwriting book, for all lines of business. Exposures are partially overlapping, but different in some areas, depending on the type of coverage defined in the policy and locations of the insured properties. We use these insights among others to consider products that could provide additional coverage for our customers.

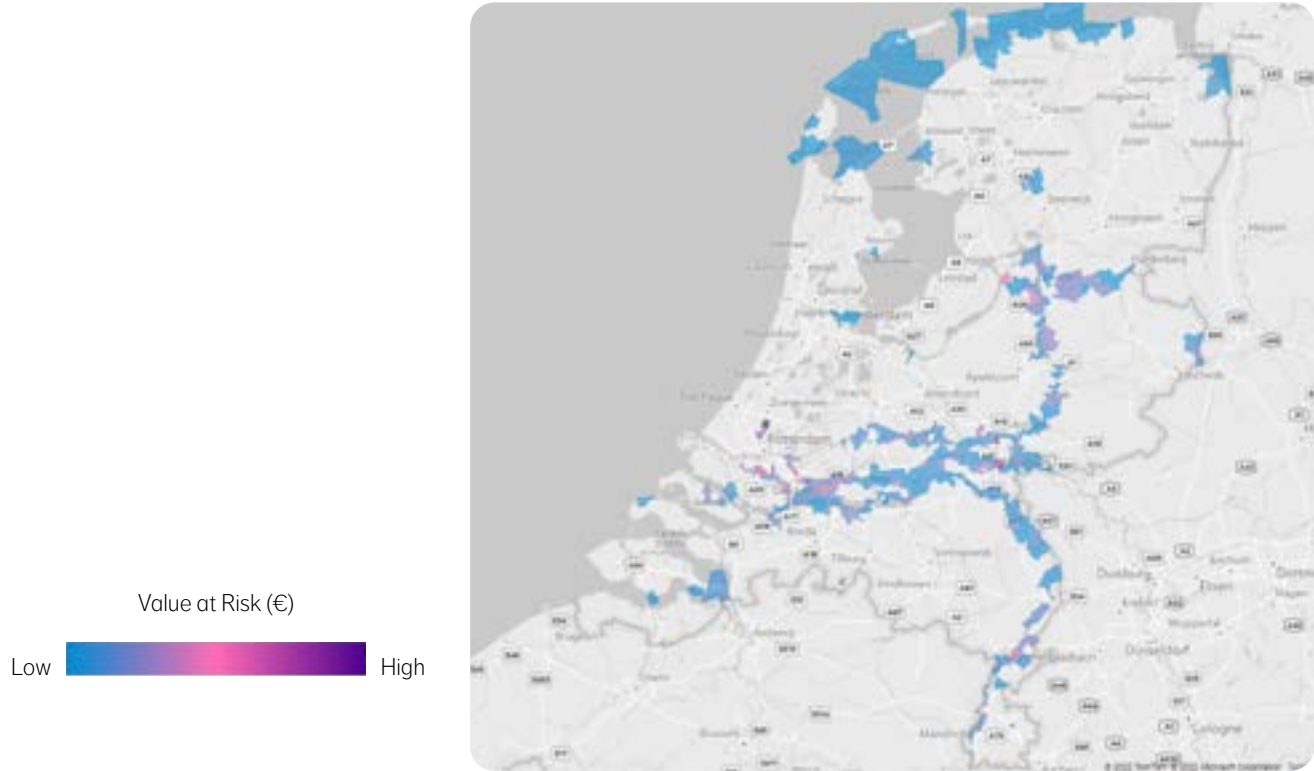
Analysis and limitations

The outcomes of this analysis are considered a first step to further analyse the impact of climate change on our business. Initial results imply that in the short term, climate change will not materially affect our business. In the longer term (2030-2050) it is an area for further consideration, given the considerable investments that will be required by both governments as well as our customers to deal with the impact of these risks.

Exact impact for individual properties cannot be derived from the results of the analysis, as this requires more detailed data and further modelling, which also applies to other types of physical risks. We will continue to monitor the national climate data sources that we have used to incorporate further changes when new studies into the effect of climate change become available. Furthermore, we monitor the Dutch government's policies and protection schemes as it is a key assumption in this assessment that for primary flood defences, all necessary improvements will be made in accordance with the protection levels defined in the Dutch Water Act.

Safeguarding value creation – TCFD continued

Flood risk projected by 2050 at postal code level



Pole rot risk projected by 2050 at city level (Randstad)

