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About the Corporate Responsibility Report

> GRI 102-45; 102-50; 102-52; 102-53; 102-54

Our business model is based on responsible corporate governance that reconciles economic, environmental and social requirements. To this end, we rely on transparency and dialogue with our stakeholders. We also establish global partnerships for sustainable development. In our Corporate Responsibility (CR) Report, we describe the ways in which we embrace corporate responsibility in our day-to-day operations.

Our annual Corporate Responsibility Report also provides a review of our business fields of primary insurance and reinsurance as well as asset management with respect to the objectives we have defined, the measures we realised in the past year and the successes we have achieved.

The measures and activities presented focus mainly on the period from 1 January 2019 to 31 March 2020; the key figures relate to the 2019 financial year (ending 31 December 2019). Our Corporate Responsibility Report has been available online in English since 11 May 2020.

Further reporting

Munich Re’s annual report provides our investors with detailed information on our corporate governance, management and financial matters.

In addition, our combined non-financial statement in accordance with Sections 289b(3) and 315b(3) of the German Commercial Code (HGB) meets the standards of the European Union’s Corporate Social Responsibility (CSR) Directive. Ultimately, our CR Report serves as a link to the standard financial reporting without itself containing any financial aspects.

Selected topics – qualitative and quantitative reporting

To ensure that the Corporate Responsibility Report gives a comprehensive picture of our performance, the topics and content have been chosen according to their significance to our business operations and the interests of our stakeholders as well as their impact on efficiency, economic and social factors.

Verified indicators

The carbon footprint from our operational activities is the key indicator for measuring and assessing our environmental performance. We calculate carbon emissions on a yearly basis from our consumption of energy, paper and water, our business travel and generation of waste. This calculation takes a standardised form and is of a high quality. Since 2015, an external audit company confirmed that the entire Munich Re Group has met its objectives for selected quantitative environmental data (Find the actual report in his document and last year reports in our download center).

Our voluntary commitments

The voluntary commitments such as our acceptance of the UN Global Compact, the Principles for Sustainable Insurance (PSI) and the Principles for Responsible Investment (PRI) form the framework of our corporate responsibility strategy. In the beginning of 2020, Munich Re joined the UN-convened “Net-Zero Asset Owner Alliance” and will ensure its investments are GHG-neutral by 2050.

GRI Standards and Global Compact “Communication on Progress” Report

This report has been prepared in accordance with GRI standards (“core” option). The GRI indicators have been compiled in a separate GRI disclosure. In addition, the Corporate Responsibility Report and the GRI disclosure constitute our annual Communication on Progress Report for the UN Global Compact.
Ladies and Gentlemen,

Acting responsibly is central to the way we create added value at Munich Re, both for our Group and society at large. This principle comes alive in our shared-value approach and is the foundation of our corporate responsibility strategy. We bring our comprehensive risk expertise to bear in providing solutions that reduce risk and mitigate the impact of an unfortunate event on individuals, society and the environment. Further, we take care to engage all stakeholders associated with our organisation in a dialogue that engenders transparency and trust. This applies to our global partnerships for sustainable development as well as our voluntary commitments to standards that support our strategy, such as those embodied by the UN Global Compact (UNGC), the Principles for Sustainable Insurance (PSI), and the Principles for Responsible Investment (PRI).

We believe we can make the biggest difference by focusing on the key action areas of climate change, risk awareness, and digitalisation. In addition, we are committed to systematically integrating environmental, social and governance (ESG) criteria into every area of our organisation’s influence, where relevant and practically applicable.

One of the greatest challenges facing humanity is climate change. As members of the (re)insurance industry we are particularly sensitive to the consequences of climate change because it directly impacts our business. This has made us dedicated experts of the topic and has given us a solid understanding of just how urgently local and global solutions are required on the climate front. For us, it boils down to two main issues. First, it’s about recognising how climate change alters catastrophe risks and to offer solutions to adapt to the effects of climate change, and second, finding ways to slow the pace of climate change.

Key to mitigating climate change is the enabling of new technologies for power generation, transportation, energy storage and industrial production. We see ourselves as being able to play a vital role by crafting the insurance solutions required to enable adoption of these technologies. We have undertaken to make our investment portfolio climate-neutral by 2050, in line with the target of the Paris Agreement to limit the global temperature increase to 1.5°C. Munich Re has joined the Net-Zero Asset Owner Alliance under the leadership of the United Nations.

We also promote the reduction of CO₂ generated by our operational activities and, as a result, we have been carbon-neutral since 2015. Overall, since 2009, we have reduced our Group-wide carbon footprint by app. 44% per employee.

Growing risk awareness is a key issue for us, one that cuts across every aspect of our core business. We identify emerging risks at an early stage and assess them from all possible angles. In addition, we take every opportunity to enhance the risk awareness of our partners in both the private and public sectors in order to make them more prepared and resilient in the face of disasters. The above approach is particularly valuable in regions most at risk of suffering from disasters. Our job is to develop solutions that close the protection gap. This enables the creation of innovative risk transfer solutions that strengthen resilience, mitigate the impact of humanitarian disasters, and facilitate sustainable economic growth in the countries concerned.

Digitalisation continues to open up new opportunities for our organisation. In particular, we take full advantage of the ability digitalisation gives us to collect, analyse, and deepen our knowledge and to share it with partners, clients and colleagues. We offer comprehensive training to all employees which, since 2018, has included a dedicated “Digital School”. In addition, we make a significant investment in the analytic expertise of our actuaries and underwriters as well as in developing cyber expert knowledge. We attach equal importance to the responsible use of digital technologies and related services such as big data analysis, Internet of Things (IoT) and Artificial Intelligence (AI), along with the development of standards for evaluating algorithms and, not least, respecting and promoting data privacy.

Munich Re is more than ready and able to meet its corporate responsibilities. We do so both at Group level and at individual employee level, with over 39,600 staff assuming a wide variety of different roles. This Corporate Responsibility Report outlines how we live up to our values and commitments.

I wish you an enjoyable read. Best regards,

Joachim Wenning
MEAG Munich Ergo AssetManagement GmbH manages Munich Re’s investments worldwide and offers its expertise to private and institutional investors.

MEAG handles all main asset classes. This includes interest-bearing securities, equities, real estate, renewable energies, and infrastructure.

As at 31 December 2019, total investments (excluding insurance-related investments) increased compared with the 2018 figure, with the carrying amount rising to €228.8bn (216.9bn) and the market value to €247.3bn (231.9bn). The volume of assets managed for third parties amounts to €38.2bn (15.5bn).
01_Corporate governance
Corporate governance

Creating value through global responsibility

Munich Re adopts a forward-looking, prudent and responsible approach to handling risks. For over 135 years, Munich Re has created long-term value by assuming a diverse range of risks around the world. We are convinced that this business concept will continue to be successful in the future through sustainable action. Responsible corporate governance that reconciles economic, environmental and social requirements forms the basis of this approach. In this context, we rely on dialogue with our stakeholders and the establishment of global partnerships for sustainable development.

The following are the cornerstones of our corporate responsibility (CR) strategy:

- Adopting a shared-value approach
- Focusing on four fields of action
- Meeting voluntary commitments
- Achieving our sustainability targets
- Engaging in dialogue with our stakeholders

Our shared-value approach aims to achieve added value for society as well as for our Group. We address social challenges, making the best use of our strengths and abilities and sharing knowledge with our stakeholders. Our risk expertise thus allows us to develop new perspectives and sustainable solutions.

The strategic focus is on four fields of action:

- We proactively consider environmental, social and governance (ESG) aspects along the entire value chain in our core business activities.
- As an employer, we attach the greatest importance to treating our staff in a responsible and respectful way. We create attractive framework conditions to promote their personal and professional development.
- We practice active environmental management at our sites and are carbon-neutral Group-wide.
- Stemming from our sense of social responsibility, we support a large number of initiatives and projects that are close to our core business and promote social cohesion.

Voluntary commitments, such as the UN Global Compact (UNGC), the Principles for Responsible Investment (PRI) and the Principles for Sustainable Insurance (PSI) of the UNEP FI represent a key element of our CR strategy. Our recognition of these guidelines and our membership of the initiatives mentioned above serve as testimony of our dedication to corporate responsibility. You will find an overview of Munich Re’s voluntary commitments at the beginning of our report.

Our risk expertise, sustainable solutions and actions as a responsible employer make a particular contribution to the achievement of the following seven UN Sustainable Development Goals (SDGs):

The UN Sustainable Development Goals consist of 17 interrelated goals aiming to achieve a more sustainable future by 2030.
Targets and measures anchored in a roadmap

We work continuously to refine and implement our corporate responsibilities, as a result of which we have set ourselves the following targets. Our goal is to achieve these within a clearly defined time frame through application of specific measures.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Target and measure</th>
<th>Progress in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainable corporate governance</td>
<td>Continuous review of our corporate governance on the basis of legal compliance, developments, best practices</td>
<td>In the reporting year 2019 - No material risks were identified in the sections entitled “fighting corruption and bribery” - Our compliance reporting recorded no breaches of anti-corruption legislation or corresponding official proceedings, anywhere in the world - No material data protection event defined in the Solvency II Group Compliance Policy occurred anywhere in our Group, nor were any material proceedings for breach of data protection rules initiated</td>
</tr>
<tr>
<td>Risk awareness and prevention</td>
<td>- In response to the growing security demands and risks of the digital world, on 1 July 2019, the position of Group Chief Information Security Officer (Group CISO) was created in the Integrated Risk Management Division</td>
<td></td>
</tr>
<tr>
<td>Update of the materiality analysis</td>
<td>- Sustainability topics identified in 2018 are still valid with regard to their materiality to stakeholder and business relevance and materiality for Munich Re</td>
<td></td>
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<tr>
<td>Meeting our voluntary commitments with the design of the sustainable procurement process</td>
<td>- Compliance with UNGCC criteria was anchored in approx. 80% of our framework agreements in reinsurance business</td>
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<tr>
<td>Staff training on corporate governance issues</td>
<td>- In 2019, mandatory new tutorials in reinsurance on the Code of Conduct and how to avoid corruption - A new online compliance training programme was introduced at ERGO in 2019, which covers all aspects of the Code of Conduct and is mandatory for all staff in Germany - All Board members and other executive staff at ERGO in Germany must attend a mandatory classroom seminar on compliance, which builds on the online programme - Respective training measures have also been introduced at the various ERGO offices abroad</td>
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</table>

Core business

The focus of our corporate responsibility is on the assumption and diversification of risks in primary insurance and reinsurance, and also in investment. With regard to sustainability, our activities focus on the identified material topics:

- Climate change
- Digitalisation
- Risk awareness

Sustainability in insurance and investment: Refinement of Munich Re’s Group-wide climate strategy

- New underwriting guideline: No insurance cover for the extraction of oil sands and related infrastructure on a single risk basis
- Divestment and no new investments in securities of companies that generate more than 10% of their earnings from oil sand extraction

Sustainability in insurance: Advising and supporting underwriters on the integration of ESG criteria – assistance with binding decisions within 48 hours on accepting or rejecting potential reputational risks referred to the Reputational Risk Committee (RRC)

Sustainability in investment: Advancing the systematic integration of ESG criteria into asset management

- Continuous, ongoing process: In 2019 27% of the cases submitted to the RRC were accepted, conditions were attached for approx. 33% and accepted, and 40% of applications were declined

Sustainability in investment: Expansion of climate-friendly investment in infrastructure projects such as solar parks and wind farms. Long-term objective: Expansion to €2.8bn

- In 2019, invested capital (equity and debt) in renewable energies was approximately €1.3bn
- Investment in green bonds amounted to approximately €1.6bn
- Installations generated approximately 2.8 million megawatt hours of green electricity, supplying power to around 700,000 households, thereby avoiding some 800,000 tonnes of CO2 equivalents

Sustainability in insurance and investment: Identifying and assessing human rights risks and impacts

- Comprehensive analysis of our policies, governance and monitoring processes concerning human rights issues in the value chain

Sustainability in insurance: Advising and supporting underwriters on the integration of ESG criteria – assistance with binding decisions within 48 hours on accepting or rejecting potential reputational risks referred to the Reputational Risk Committee (RRC)

Sustainability in investment: Advancing the systematic integration of ESG criteria into asset management

- In 2019, our sustainability ratio for all forms of investment was >80%

Sustainability in insurance: Expansion of climate-friendly investment in infrastructure projects such as solar parks and wind farms. Long-term objective: Expansion to €2.8bn

- In 2019, invested capital (equity and debt) in renewable energies was approximately €1.3bn
- Investment in green bonds amounted to approximately €1.6bn
- Installations generated approximately 2.8 million megawatt hours of green electricity, supplying power to around 700,000 households, thereby avoiding some 800,000 tonnes of CO2 equivalents

Climate Change: support of the Paris Agreement objective to limit the global temperature increase to well below 2°C

- Commitment to achieve a GHG-neutral investment portfolio by 2050. In order to drive implementation of this strategic objective, Munich Re joined the UN-convened “Net-Zero Asset Owner Alliance” (AZA) in January 2020

Digitalisation: Development of a strategy on the ethical aspects of Artificial Intelligence (AI)

- Under the guiding principle of “Responsible Artificial Intelligence”, Munich Re is currently implementing a strategy based on the five ‘ethics guidelines for trustworthy AI’ drawn up by an expert group at the EU Commission
### Staff

<table>
<thead>
<tr>
<th>Topic</th>
<th>Target and measure</th>
<th>Progress in 2019</th>
</tr>
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<tbody>
<tr>
<td>Promotion of diversity as a strategic success factor for Munich Re Group</td>
<td>Proportion of women in management positions at Munich Re Group in Germany increased to 26.2% (from 25.8% in 2018); Proportion worldwide 30.1% (from 31.6% in 2018)</td>
<td></td>
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<tr>
<td>Increase in the proportion of women in management positions in Germany to at least 25% by 2020</td>
<td>Digital School and data-analytics curriculum offer staff in the reinsurance group a range of opportunities to improve their digital qualifications: 13,000 accesses (2018: 5,000) to the Digital School in 2019; Special training programme established in the reinsurance division for specialists in the field of cyber security (Cyber Expert Pool); Seven cyber experts trained as underwriters (11 in 2018); Group-wide about 200 employees have concluded data analytics curriculum (Black Belt training)</td>
<td></td>
</tr>
<tr>
<td>Targeted, needs-based training for all staff, particularly on the subject of digitalisation</td>
<td>Development programmes &quot;Group Management Platform&quot; for top management in the Group; &quot;Hydrogen&quot; in the reinsurance group, and &quot;MEAG Young Managers&quot; at MEAG; At ERGO, a new global talent programme was launched in spring 2019, focusing on innovation and leadership in the digital world; International graduate trainee programmes for Group (EXPLORE) and for reinsurance; In the reinsurance at the Munich location, we were able to fill approximately 84% of management positions in 2019 from our own ranks</td>
<td></td>
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<tr>
<td>Identification and development of staff with leadership potential</td>
<td>As of 1 January 2020, a profit-sharing approach will be applied worldwide instead of the current system of individual variable compensation. The only relevant KPI for all staff bonuses will be Munich Re’s IFRS result; The current annual performance appraisal sessions will be replaced with “Continuous Conversations” about commitment, feedback and development</td>
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<tr>
<td>Revamping our global performance management and remuneration system</td>
<td>Implementation of the environmental and climate protection strategy 2020 with the following targets: - 35% reduction in carbon emissions by 2020 (base year 2009); - Maintain carbon neutrality across the Group; - Group-wide verification of environmental data, certification of selected units’ environmental and energy management systems, and - 100% renewable energy for the Group by 2020; - Target for 2019: Focus on measures to sensitize our staff to environmentally friendly behaviour</td>
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### Society

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<thead>
<tr>
<th>Topic</th>
<th>Target and measure</th>
<th>Progress in 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental and climate protection at our locations</td>
<td>As a large organisation with more than 39,600 employees, we have a responsibility for environmental protection and have involved ourselves in areas that we can influence in tangible and positive ways</td>
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<tr>
<td>As a responsible business, we are committed to public welfare and cohesion within our society. We promote projects that allow us to both contribute and expand on our risk expertise. In this way, we can increase the effectiveness of individual initiatives and motivate our employees to take part</td>
<td>Continuation of Munich Re’s and ERGO’s Group-wide project &quot;Tackling Climate Change Together&quot; – in collaboration with Climate-KIC (2017-2019)</td>
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<tr>
<td>Rapid disaster relief for people in need after catastrophes</td>
<td>Cooperation with Climate-KIC: - in 2018/19, nine start-ups were accepted for the programme and funded for between 6 and 12 months; - Munich Re and ERGO sponsored Climathons (climate protection hackathons) in four cities in 2019: Munich, Sydney, Vilnius and Tallinn</td>
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<tr>
<td>- Carbon savings target of 35% exceeded; 44% reduction in carbon emissions in 2019; - Group-wide approx. 90% of required electricity procured from renewable energy sources; - Since 2015, all the operational activities of Munich Re Group have been carbon-neutral; - Annual Group-wide external verification of environmental data; 40% of staff employed at ISO 14001-certified locations (2019); - MR Munich, ERGO Germany and MEAG offering a climate friendly menu at each German location</td>
<td>- Munich Re set up a formal partnership with Save the Children in 2019</td>
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</table>
Important motivation arising from stakeholder dialogue
> GRI 102-40; 102-42; 102-43

Munich Re has always valued an open and ongoing dialogue with its stakeholders. This has enabled us to identify the topics that are material for us now and in the future, from our partners’ perspectives. We analyse the outcomes of our stakeholder dialogue at regular intervals and incorporate them into our CR strategy.

Clients:
We serve our clients in all fields of business as a reliable and solution-oriented business partner. To this end, we regularly evaluate their satisfaction with our services by employing analyses and surveys – tailored to the different client structures in insurance and reinsurance. Our client managers in reinsurance also regularly interact with clients on potential needs, trends and challenges, at trade fairs, events and client training seminars. In addition, we maintain contact with insurance customers via the ERGO Customer Workshop.

Employees:
We engage in continuous interaction with our employees worldwide. And we encourage a culture of feedback and transparent communication across a wide range of platforms, such as our intranet, Yammer and other dialogue forums. Events such as town hall meetings, strategy talks with members of the Board of Management and management conferences promote exchange across all levels of management.

Shareholders, analysts and investors:
Professional communication with players in the financial markets features regular dialogue and proactive provision of information by Munich Re. We provide key, detailed information on the general opportunities and risks attached to our business through frequent personal investor calls and at (SRI) roadshows – in addition to scheduled investor and analyst events. We also specifically inform these groups about our sustainability activities and industry trends.

Politics, NGOs, interest groups:
We are in close contact with interest groups, NGOs, UN institutions and public authorities at both the national and international level. In addition, we are an active member of many insurance industry initiatives and associations.

Society and science:
Our experts engage in ongoing dialogue with scientists, associations and organisations around the world, and are involved in a large number of national and international research and development projects. These include the Global Earthquake Model (GEM), German Research Center for Artificial Intelligence (DFKI), the German Data Science Society and the Global Climate Forum (GCF). We seek exchange with wider society, e.g. via public dialogue forums and panel discussions.

>Our investors expect Munich Re to take sustainability aspects into account in our business model and to report on our corporate responsibility activities. With this in mind, these topics are an important part of our stakeholder dialogue.«

_Christian Becker-Hussong, Head of Investor Relations_
**Key topics identified**

> GRI 102-44; 102-46; 102-47; 102-49

We select the topics that are most material to the Munich Re CR strategy. And we then assess these topics in terms of three different dimensions:

- The business perspective;
- The stakeholder perspective;
- The impact of our business activities on the three sustainability dimensions of environment, society and economy.

In 2018, we reviewed and reassessed topics in terms of their materiality for Munich Re. After considering topics from the previous materiality analysis, voluntary commitments, stakeholder dialogue outcomes, external standards such as SDGs, GRI, PRI, PSI, industry trends and interviews with internal experts from all relevant divisions and corporate functions, the results were validated by the Sustainability unit and summarised in a final assessment.

The materiality matrix on the right shows the topics that are material for us. No changes were made in 2019.

Climate change, digital transformation, as well as risk awareness and prevention are our high priority topics. Along with data protection, cyber security and energy transition they belong to the category with the highest level of materiality. These top topics are closely related to our core business. An additional strategic focus is put on healthcare, client satisfaction, sustainable investment, training and talent development.
Munich Re has clearly regulated organisational accountability for corporate responsibility aspects. For example, the responsibility for developing and implementing the Group-wide CR strategy lies with the Central Division Economics, Sustainability and Public Affairs (ESP), which reports directly to the Chairman of the Board of Management. Fundamental strategic decisions on CR topics are taken by the Board of Management, or by one of its committees, which include the Strategy Committee, Group Investment Committee, and Group Risk Committee. The Chief Investment Officer of Munich Re is responsible for corporate responsibility in investment.

Once a year, the Supervisory Board is informed about material sustainability topics on the basis of the combined non-financial statement.

The Group Corporate Responsibility Committee (GCRC) is responsible for managing business-sensitive topics. The committee comprises representatives from the insurance and reinsurance fields of business, the Sustainability unit and other relevant Group functions.

The Code of Conduct obliges staff to act reliably, responsibly, transparently, and with integrity. They must disclose any conflicts of interest to allow these to be professionally and fairly resolved. Staff may not accept or offer financial incentives. Our managers bear a particular responsibility for ensuring compliance with our legal standards, embodying our core values, and thereby creating a recognisable compliance culture.

In 2013, ERGO was one of the first companies to sign the Code of Conduct for the Sale of Insurance Products, issued by the German Insurance Association (GDV). The code requires measures to prohibit corruption and the offering or acceptance of bribes. External auditors have regularly confirmed, most recently in 2017, that such measures have been implemented effectively at ERGO. In addition, ERGO has adopted its own Code of Conduct for its independent sales force.

The Code of Conduct also covers money laundering aspects. The companies affected by the German Money Laundering Act have taken appropriate organisational precautions and appointed money laundering officers and deputies. The ERGO and MEAG money laundering guidelines also regulate fundamental requirements to prevent money laundering and the financing of terrorism. The code of conduct and accompanying guidelines contain direction on the responsible handling of invitations and gifts, donations and sponsorships as well as on dealing with public officials. So-called facilitation payments are explicitly forbidden.
Good corporate governance creates trust

> GRI 102-11; 102-16; 102-18

Responsible and sustainable management at Munich Re is ensured by means of corporate governance, compliance systems, anti-fraud management and sustainable risk management. As a global organisation, we are subject to a large number of national and international legal systems, standards and corporate governance regulations. Within Munich Re, our Code of Conduct obligates the management and staff to behave in a way that is ethically and legally beyond reproach.

At the same time, corporate and Board of Management objectives that are aligned with financial and sustainability considerations ensure that business decisions are always made on the basis of long-term meaningfulness and value preservation.

For us, good corporate governance means the Board of Management and Supervisory Board are working efficiently together, a spirit of trusting cooperation existing between the two bodies and with the staff, and an effective organisational structure. These help to secure the confidence of investors, clients, employees and the general public in our corporate activities.

Online content: More about our Supervisory Board

Compliance ensures integrity in all actions

Compliance with applicable laws and internal rules and principles is binding for all Munich Re Group staff (zero-tolerance limit). To ensure compliant and standardized conduct, we have created Group-wide guidelines, minimum compliance requirements and suitable information and documentation systems as measures for prevention and monitoring. We have assigned responsibility for this to the Group Compliance and Legal unit. Munich Re has established a Group-wide Compliance Management System (CMS), which is a methodical framework for the structured implementation of early warning, risk control, consulting and supervision functions. The CMS comprises seven elements: Culture, risk management, organisation and processes, consulting, communication and training, reporting, monitoring and control, as well as documentation.

Online content: More about CMS

Munich Re Group has a Group-wide system for reporting violations of rules and regulations. This system enables the Group Chief Compliance Officer to promptly report to the Board of Management. Staff members can report infringements and violations to Group Compliance, their direct supervisor, or to Group Audit. In addition, all staff and external whistleblowers can contact an external, independent ombudsman, or make use of the whistleblowing portal.

Violations can also be reported anonymously.

Zero tolerance of corruption and white-collar crime

Munich Re resolutely counters the risk of white-collar crime and bribery with an effective system for combatting fraudulent activities. Minimum standards for the prevention and detection of non-compliant behavior apply, for example, our Code of Conduct at Munich Re dictates an appropriate separation of functions, compliance with the four-eyes principle when signing contracts and when payments are made. These measures include explicit specifications for employee conduct when handling transactions.
In accordance with the “know-your-customer” principle laid down in the Reinsurance Industry Guidelines for combating economic crime, sufficient information about a business partner, their background and the purpose and admissibility of the intended business must be available before a transaction. In addition, when selecting direct business partners, care must be taken to ensure that they comply with all relevant laws and regulations and behave responsibly. The “know-your-customer” principle also makes provision for a transparent and documented selection process for service providers and suppliers, the conduct of due diligence with business partners who act on behalf of Munich Re, and the use of anti-corruption clauses in all contracts that exceed the value of €1m. At ERGO, an anti-corruption agreement/anti-corruption clause must be concluded with the supplier or service provider regardless of the order value.

Specially trained staff members conduct appropriate investigations if there is a concrete suspicion of fraudulent activity. Depending on the individual case, if a violation is proven, action is taken based on labour, criminal and/or civil law.

In principle, Munich Re employees must inform their line manager or responsible internal bodies if they are aware of any violation of anti-corruption regulations. The company’s ombudsman can also be consulted, or an electronic whistleblowing portal can be used to report the observed violation.

Through our approach, we ensure that Munich Re also meets legal regulations in other countries where the Group is obliged to comply with regulations as a result of its international activities. These include, for example, the Foreign Corrupt Practices Act (FCPA) in the USA, and the Bribery Act in the United Kingdom.

For the 2019 reporting year, worldwide, there were no reported violations or proceedings related to suspected corruption.

> GRI 205-2

Training and advice on compliance topics

We offer a wide range of advice, communication and training for staff in connection with the topic of compliance, all tailored to each particular target group. These are intended to enhance sensitivity to compliance topics, strengthen the compliance culture within Munich Re Group and create greater security in the handling of risks. There are regular anti-corruption training courses for staff who have direct contact with clients and business partners. Our governance training events for directors and officers improve their understanding of compliance and strengthen cooperation with the governance functions in the Group.

The following topic areas are compulsory for employees of Munich Re Group:

- Anti-corruption measures
- Data protection (GDPR)
- Code of Conduct

Further trainings for the Reinsurance Group are also conducted, for example, on insider trading law.

Meeting data-protection and information security requirements

> GRI 103

Munich Re has to manage an ever-increasing amount of information and data. It is essential for us to protect the personal data of our staff members and clients, guard our business and sales partners’ corporate information, and our own trade secrets, if we are to be treated as a competent and trusted partner. For this reason, Munich Re has implemented data-protection management systems in each of its fields of business. Each system takes into account the particularities of the respective field, and includes rules, processes and measures to systematically monitor and control how personal data is handled. The goal is to ensure a high standard of data protection across the Group, and to avoid fines. Audited data protection controls are conducted on a regular basis.

For Munich Re Group, the Code of Conduct and various business-field specific standards on data protection and information security contain binding regulations for all employees. For Group companies whose registered office is within the EU/EEA, these relate primarily to the EU General Data Protection Regulation (GDPR). Based on this, Munich Re, ERGO and MEAG have each issued a data protection policy for their activities in the EU/EEA in order to ensure a binding level of data protection in their respective business areas. For internal data exchange with companies of the Reinsurance Group based outside the EU/EEA, Binding Corporate Rules guarantee an adequate level of data protection at all locations worldwide. The Binding Corporate Rules were updated in spring 2019, the process for Europe-wide approval by the data protection supervisory authorities was still ongoing at the end of the year. The existing Binding Corporate Rules will remain valid until this approval process is completed.
The Group-wide guideline on Information Security and Business Continuity Management – the ISM & BCM Policy sets binding targets, minimum requirements, responsibilities, processes and reporting procedures for the protection of information and for ensuring business continuity. Additionally, it takes into account the high degree of interdependencies between the two risk management disciplines – Information Security Management and Business Continuity Management. It also helps to ensure that Information Security and Business Continuity fulfil contractual obligations to clients as well as reporting requirements in a constantly changing environment and in times of crises.

The guiding principle of the ISM & BCM Policy is to foster collaboration and permanent exchange between business and central unit stakeholders, information technology, risk management and data protection officers and is available for each employee.

Munich Reinsurance Company’s Data Protection Officer acts as Group Data Protection Officer for the companies in the reinsurance field of business within the EU/EEA. The only exception are our UK subsidiaries, which, in light of Brexit, have already appointed a data protection officer of their own. Among other tasks, the Group Data Protection Officer aims to ensure uniform compliance with the guidelines across the EU/EEA, monitors the legality of IT-supported data processing, advises the respective companies on their duties under the applicable rules, answers staff questions about data protection, and acts as a first point of contact in communications with the supervisory authorities. He or she reports at least once a year to Munich Reinsurance Company’s Board of Management about material data protection issues and improvements to the data protection management system. ERGO and MEAG have each appointed their own Data Protection Officers, who have corresponding responsibilities and obligations.

In light of its accountability, Munich Re uses an in-house IT tool to ensure compliance with data protection rules: The Compliance Web is designed to use a defined process to automatically submit every IT-supported processing of personal data directly to IT Security and the Data Protection Officer, among others. This allows every new or amended processing task to be documented, checked for compliance with the legal norms, and regularly monitored. The tool also allows us to identify and track, with the help of a privacy impact assessment (PIA), processes that entail a high risk to a person’s rights or freedoms.

All staff members of Munich Re Group are bound to secrecy in all company matters, as long as it cannot be assumed that the information is already public. All information is for internal use only and must be handled confidentially, unless it is expressly intended for external publication and has been classified as such. Munich Re has implemented Group-wide organisational processes and technical security measures to protect its confidential information. In addition, we offer regular training sessions and other measures to heighten awareness. These help to ensure that our confidential data is suitably protected against unauthorized access,
We have established appropriate procurement principles for working with our suppliers. Based on the principles of the UN Global Compact, our procurement principles help protect human rights, abolish forced labour and child labour, uphold both the freedom of association and the right to collective bargaining. Furthermore, they combat corruption and enforce environmental protection. Accordingly – and as a requirement for cooperation – Munich Re expects its business partners to likewise commit to those of our principles that explicitly cover human rights and labour standards.

Procurement departments at Munich Re (primary insurance and reinsurance) are responsible to include relevant corporate responsibility clauses in supplier agreements. We obligate our suppliers to recognize the UN Global Compact. In 2019, compliance with UNGC criteria was anchored in approximately 78% of our framework agreements. Should an infringement occur during the term of contract with one of our suppliers, we will actively seek dialogue with our contracting parties in an effort to remedy any deviations from our guidelines. If this does not prove successful, Munich Re reserves the right to extraordinary termination for good cause.

Online content: More about our procurement

Transparency and legal conformity in all tax matters

Munich Re's policy is to be a responsible company and taxpayer. Due to the nature of our business, we are subject to a great many taxes, which arise in every country in which we operate. Munich Re adheres to applicable tax regulations at both national and international level. We consider declaring profits earned in our business for tax in accordance with the law to be a fundamental legal and social duty.

Compliance with applicable laws and internal rules and principles is binding for all employees of Munich Re. Compliance in general and tax compliance in particular are key components in all of our processes. Munich Re aims to be a law-abiding, transparent and responsible taxpayer. For that reason, we give absolute priority to meeting all of the tax obligations to which Munich Re is subject nationally and internationally.

The Board of Management has approved a policy on tax compliance that lays down minimum tax compliance standards and describes the fundamental components of the tax compliance management system we have in place.
The Policy applies directly to Munich Reinsurance Company and its foreign branches.

All companies in the Group are obliged to apply a policy locally that has the same, or similar, content. Compliance with this requirement is checked annually. The policy on tax compliance sets out clear rules and responsibilities for tax management throughout the Group. An internal escalations process is in place. Employees can report compliance breaches directly to the tax department and anonymously to the whistleblowing portal. In Munich, Munich Reinsurance Company has a by a third party certified tax compliance management system in place. This builds on a credible tax compliance culture, sets targets and establishes programmes as part of a continuous improvement process. The key elements of the Group-wide tax compliance policy can be found in our Tax Transparency Report within our download center.

Locations outside Germany are chosen primarily on the basis of business considerations. We are represented through subsidiaries or branches in all of the world’s main insurance hubs – for example in the USA, the UK, Switzerland and Singapore. Tax rates at the foreign insurance locations are mostly lower than in Germany. Structures which we create have adequate economic substance. We do not enter into any transactions with the sole purpose to obtain a tax advantage. In any event, there is full transparency both locally and in Germany vis-à-vis regulators and tax authorities, and we always act in conformity with all applicable laws.

Our tax expenditure by region can be found in the key figures section.

Responsible approach to lobbying
> GRI 103; 102-13

In the interests of our stakeholders, we contribute our knowledge and expertise to the political decision-making process. In doing so, we place the emphasis on fairness and transparency.

We focus on topic areas that affect our Group and our stakeholders, and in which we possess a level of expertise. With many Munich Re concerns, the corporate interest matches the general societal interest, for example, in the areas of climate protection and data security, or with investments in infrastructure.

We actively participate in a number of industry organisations, including the German Insurance Association (GDV), the Geneva Association, the European Insurance Chief Finance Officers (CFO) Forum, the Chief Risk Officers (CRO) Forum, the Reinsurance Advisory Board (RAB) of Insurance Europe, and the Pan-European Insurance Forum (PEIF). The Public Affairs department in the Central Division Economics, Sustainability and Public Affairs is responsible for lobbying governments, national and supranational authorities, associations and other organisations on behalf of Munich Re Group.

In 2019, our main areas of focus were the following topics and activities:

Digitalisation:
We support the digital agenda of the German Federal Government and the European Commission. Our focus is on the creation of standardised framework conditions and legal security in Europe. A further objective is to facilitate the development of innovative products and services to exploit the benefits of digitalisation. Further information can be found in the chapter on digitalisation.

Global Insurance Capital Standard (ICS):
The creation of a global capital standard for insurance companies poses a major challenge for companies and supervisory authorities. The suitability of ICS will be tested over a five-year observation period (2020–2024).

Sustainable finance:
We are engaged in the design of the EU action plan for sustainable finance by participating in consultations on legislative procedures and in surveys by the supervisory authorities.

Climate change:
We support the resolutions of the Paris Climate Protection Agreement. And we factor climate effects into our business processes at risk measurement, business development and asset management levels. We also participate in public and private initiatives to develop and market innovative insurance solutions for climate risks.

Regulation of systemic risks:
Traditional re- and primary insurance activities are not systemically relevant. At no time has Munich Re been identified as a global, systemically important insurer (G-SII). A holistic approach to assessing and mitigating systemic risks is currently being tested, focusing on systemically relevant activities and providing a comprehensive integration of macroprudential aspects into the regulatory framework.
Cyber risk:
The cost impact of cyber attacks on an economy can rival those of natural disasters. Munich Re is active in the field of services that mitigate cyber risks and provide financial protection following a cyber incident. Underwriting cyber risks in the insurance sector is also gaining increased attention from us. We monitor developments in this sector closely and will continue to contribute to the appropriate handling of associated opportunities and risks.

Munich Re places particular importance on transparency in all lobbying activities. Next to the information in the CR Report, we provide details to the transparency register of the European Parliament and the European Commission on focal points, memberships and the cost of our lobbying activities. Further information can be found in the 
key figures section.

Political involvement
> GRI 415-1

Munich Re Group supports the democratic political process and, to this end, donates to the following German political parties: Bündnis90/Die Grünen, CDU, CSU, FDP and SPD. These parties each receive an identical donation with no conditions attached. Munich Re and ERGO each pay for one half of the expenditure. The donations are transferred exclusively to the parties’ federal headquarters. In addition to the above donations, membership fees are paid to organisations closely affiliated with the parties. Further information can be found in the key figures section.

Independent journalism

Munich Re respects the principle of journalistic independence and favours a strict separation between journalism and public relations work. We therefore comply with the guideline on dealing with journalists issued by the German Public Relations Association (DPRG) and the statutes of the German Council for Public Relations (DRPR).

Online content: more about independent journalism
Respecting human rights at all times in all places
> GRI 102-12; 412-2

At Munich Re Group, our business model is tied to responsible, sustainable and forward-looking action over the long term. We regard the protection of human rights as a particular obligation and strive to do so in line with internationally accepted human rights principles. It is part and parcel of our approach to corporate governance, which builds economic, environmental and social requirements into our definition of success. The Board of Management has confirmed this commitment by clearly stating the Munich Re Group’s declaration of principles on human rights.

Commitments

In addition to observing the standards specified by the UN Global Compact, PSI, and PRI, Munich Re Group is committed to respecting human rights as defined in the following human rights-specific principles:

- UN Guiding Principles on Business and Human Rights
- International Bill of Human Rights, which consists of:
  - Universal Declaration of Human Rights
  - International Covenant on Civil and Political Rights
  - International Covenant on Economic, Social and Cultural Rights
  - ILO Declaration on Fundamental Principles and Rights at Work

Key components of human rights management

Munich Re Group has committed to observing its duty of care on human rights along the entire value chain, and to respect internationally recognised human rights. To this end, we have developed a due diligence process that covers the key components of human rights due diligence:

- Commitment of the Board of Management to respect human rights
- Identifying and assessing human rights risks and impacts
- Implementing measures and monitoring
- Reporting and communication
- Remedy and grievance mechanism

Identifying and assessing human rights risks and impact

In a systematic evaluation of potential risks, Munich Re Group defined the following four dimensions as critical to upholding human rights: employees, procurement, our core business of primary insurance, reinsurance, and investment management. For each of these dimensions, we identify, assess and, if necessary, mitigate potential risks with regard to the infringement of human rights.

We place particular emphasis on core business and investment because of its potentially high impact. With this in mind we have specific analysis tools in place to monitor it.

As regards our insurance business and investments, we systematically take environmental, social and governance (ESG) criteria – including the observance of human rights – into account as part of the risk assessment and decision making processes. Find more information in the core business chapter.

In addition to these ESG guidelines, we have created a risk mapping tool for human rights. This tool is designed to aid all employees in insurance and investment in categorising and evaluating countries and economic sectors as per various indices and human rights topics. We consider the following topics when mapping risks by country: child labour and forced labour; discrimination on the basis of gender, sexuality or religion; corruption; threats to communities; restrictions on people’s liberty or freedom; international and domestic conflicts. When we analyse sector risks, we focus on working conditions, child labour and forced labour, occupational health risks, and the sources of commodities.
Implementing measures and monitoring

For each of the four risk dimensions that we have defined – employees, procurement, our core business and investment management – we have implemented measures, guidelines, and governance instruments. This enables us to reduce or mitigate risks with regard to violations of human rights; these approaches also guide our decision-making in line with conscientious management practices.

**Employees:**
As an employer, we undertake to observe international human rights standards and provide optimum working conditions for our staff. For further information on occupational health and safety, promoting diversity, equal opportunities and labour rights please refer to the human resources section of this report.

**Procurement:**
With regard to all our procurement decisions and activities, we always observe the principles of compliance and we embrace corporate responsibility throughout the value chain. Environmental, social and governance (ESG) criteria play a pivotal role in our procurement of goods and services. Please refer to the procurement section of this chapter for more details.

**Insurance:**
A set of underwriting guidelines defines how all underwriters and client managers are to handle ESG risks in insurance transactions. If we identify human rights risks during risk assessment (underwriting), we engage with the contract partner to discuss mitigation measures. Binding guidelines or best practice recommendations were drawn up for topics and industry sectors deemed sensitive by Munich Re Group; they are applicable for reinsurance, primary insurance and investment. These documents place particular emphasis on child labour and forced labour in mining, farming, and along their respective value chains, as well as the forced resettlement of indigenous communities as part of large infrastructure projects. Human rights risks that threaten our reputation are presented as part of due diligence to the Reputational Risk Committee (RRC), which will take a decision and possibly reject the risky course of action.

**Investment:**
We follow a sustainable approach to investing that respects human rights by observing the Principles for Responsible Investment (PRI) and our Group-wide Responsible Investment Guidelines (RIG). In the interest of raising awareness of human rights, all Munich Re Group employees worldwide must complete training and pass a test on our Code of Conduct every two years. This ensures that they know the key compliance rules and understand the need to always follow these rules at work. This training course includes information on topics such as the German General Act on Equal Treatment, reporting of infringements, data protection, and corruption.

Suitable monitoring systems help us examine the effectiveness of our measures. We strive to continually improve our processes of due diligence and expand our screening of risks; we also regularly raise awareness of human rights among our staff and business partners.

If a violation of human rights is reported, or we learn of it by any other means, the Munich Re unit responsible for compliance will look into the violation. An investigation is launched, which follows a procedure defined in an internal set of guidelines. Every potential instance of misconduct will be investigated and clarified.

If we learn of human rights violations in an existing contractual relationship, we will engage in dialogue with the responsible stakeholders and seek to put risk-mitigating measures into practice.

**Reporting and communication**

We explain in the following documents how Munich Re Group abides by its responsibility for human rights: our Corporate Responsibility Report, our combined non-financial statement, our annual UN Global Compact Communication on Progress (CoP), our annual reports on the Principles for Sustainable Insurance (PSI) and the Principles for Responsible Investment (PRI).

In line with the UK Modern Slavery Act Munich Re and relevant subsidiaries issue an annual statement on the ways in which they combat human trafficking and forced labour.

**Remedy and grievance mechanism**

The compliance whistleblowing portal of Munich Re Group allows employees, clients, suppliers and other business partners to report potential or factual human rights violations. Whistleblowers can access the portal by using the internal web or the publicly accessible Munich Re website. Employees can also report incidents to their direct managers, the Compliance Officer or Group Audit. For more information please refer to the compliance chapter above.
A sustainable approach to core business

The focus of our corporate responsibility is on our core business – which involves the assumption and diversification of risks in primary insurance and reinsurance, as well as investment. We know that we can only achieve long term economic success through responsible action. That is why the objective of sustainable economic value creation is anchored in the core principles of our corporate strategy. In our core business, we set out to achieve the greatest possible impact for our Group and for society by taking into account environmental, social and governance aspects (ESG).

In addition, the fact that we have signed the Principles for Sustainable Insurance (PSI) and the Principles for Responsible Investment (PRI) highlights our commitment to responsible action, as these two voluntary commitments go well beyond what is required by law or by supervisory regulations.

Our actions are guided by the key topics we have identified for reinsurance, primary insurance, and investment. Key topics identified as of our 2018 materiality analysis are still valid: In addition to committing to a strong client focus and the integration of ESG aspects into our business, we attach special importance to responsible products, services and sustainable investment. Further key topics embraced by our core business include climate change, digitalisation and risk awareness, which impact all our activities.

We have also set ourselves a series of sustainability targets. More specifically, our aim is the consistent integration of ESG criteria into all processes at Munich Re in the fields of both insurance and investment. Furthermore, we are committed to continually refining our climate strategy and to adopting ethical standards essential to ensuring we handle artificial intelligence in a responsible manner. Further information on our objectives and the progress achieved in 2019 can be found in the target table in the corporate governance section and in the individual topic areas in this section.

Corporate responsibility in insurance business
> GRI 103; 203-1; 203-2

Our business is the assumption and diversification of risks in primary insurance and reinsurance. We possess strong leverage for sustainable action by linking economic success with added value for society. In insurance business, we principally achieve this through a strong client focus, by offering responsible products and services, and through the integration of ESG aspects. This is also manifested in our Code of Conduct.

Excerpt from our Code of Conduct

As a Group, we aim to ...  
... make a positive contribution to the environment and society with our conduct;  
... observe ESG principles on sustainable economic development;  
... fund projects and work with partners worldwide to support solutions to social challenges.

As a member of staff, this means that ...  
... I consider ESG aspects in my work;  
... I consult the respective bodies when our reputation is at risk;  
... my decisions at work actively support our environmental and climate goals.

ESG criteria integrated into processes and products

We systematically take ESG aspects into account in our insurance business. This applies both to our internal underwriting processes and our products and services.

Many industries and projects can have a major impact on the environment and local communities. If adequate consideration is not given to such consequences, the underwriting risk may increase. The systematic integration of ESG aspects enables us to identify these risks and to minimise them in cooperation with our
clients. We also make use of collaboration with other partners, institutions and non-governmental organisations (NGOs).

This approach is relevant for our business in three different ways:

1. We can identify ESG-related risks faster, thereby adding an additional dimension to our risk management. This also helps us avoid any reputational risks for the Group.

2. We enhance our business partners’ risk awareness on sustainability issues.

3. By uncovering ESG risks, we develop new business opportunities and coverage concepts, which we then translate into sustainable solutions.

Risk-based management established Group-wide

Strategic decisions on the implementation of ESG aspects are generally made in the Board of Management committees. ESG criteria are factored into the remuneration system for the Board of Management, with regard to both, the annual and medium-term bonuses for members of the Board of Management. More detailed information can be found in our Remuneration report.

Transactions involving reputational risks are submitted to the Reputational Risk Committee (RRC) for each field of business. These committees analyse and assess specific reputational issues and ESG risks relating to individual transactions and make recommendations on accepting or rejecting a particular risk. An assessment by the Sustainability unit is mandatory. In 2019, about 27% of the cases submitted to the RRC were approved with no conditions attached. Roughly 33% of enquiries were approved with conditions attached, and 40% were declined. In the Internal Risk Report, we regularly detail any significant reputational risks for Munich Re.

Numerous offers were declined by the respective business units for ESG or other reasons without being submitted to the RRCs. Further information on the approach of the RRC can be found in the combined non-financial statement for Munich Re Group.

We report annually on our progress with the integration of the PSI principles.

We have identified twelve generally valid ESG aspects that are taken into account in our insurance business risk assessment and in investment transactions.

ESG aspects for corporate responsibility in (re)insurance and investment

Environment
- Natural resources and biodiversity
- Pollution
- Greenhouse gas emissions

Society
- Political environment and public perception
- Human rights
- Working conditions
- Cultural heritage
- Resettlement of people
- Health and safety of the community

Governance
- Responsible and careful planning and assessment
- Compliance
- Consultation and transparency
In addition, we have identified seven sensitive topics or sectors. Binding guidelines or best practice recommendations were drawn up for these topics, which are applicable for reinsurance, primary insurance and investment. Questionnaires specially tailored to the topics were integrated into an ESG tool, which helps our underwriters to systematically take ESG aspects into account when performing risk assessments.

The following exclusions apply for our insurance business:
There is a Group-wide policy applicable for banned weapons, stipulating that Munich Re does not insure or invest in companies that manufacture cluster bombs or land mines, or in companies that trade in them or transport them. This applies where such transactions or operations are known. Regarding the coal sector, Munich Re stopped insuring the construction and operation of new coal-fired power plants or new coal mines as individual risks in industrialised countries, as well as in the bulk of emerging markets. There may be a small number of exceptions in countries where a substantial portion of the population (more than 10%) has no access to electricity. These are reviewed on a case-by-case basis. In 2019 we discontinued the insurance and reinsurance of individual risks of oil sands mining projects and related infrastructure. You can find more detailed information on this in the Climate Change section.

### Sensitive issues: Munich Re positions and measures

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<td>Coal:</td>
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<td>Investments in farmland:</td>
<td>Mandatory ESG check for investments</td>
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Establishing an international standard for the safer management of tailings storage facilities – Munich Re expert takes part in the Global Tailings Review

After catastrophic failures of tailings dams in Brazil within the last 5 years, a review is seeking to improve the safety management of tailings globally. Munich Re is actively involved in the review process and continues to promote the establishment of an international standard.

The International Council on Mining and Metals (ICMM), the United Nations Environment Programme (UNEP) and the Principles for Responsible Investment (PRI) share a commitment to the adoption of global best practices on tailings storage facilities. They have co-convened this Global Tailings Review to establish an international standard for the safer management of tailings storage facilities that can be applied to all tailings dams wherever they are located and whoever operates them. The review is supported by an interdisciplinary expert panel and informed by a multi-stakeholder advisory group. As a representative for the insurance industry, Günter Becker, Munich Re’s Head of Mining, is taking part in the multi-stakeholder advisory group and brings his years of industry expertise to the table.

For more information, please visit www.globaltailingsreview.org.

Commitment to the PSI initiative on ESG integration

Munich Re actively contributed to a PSI initiative which in February 2019 presented for the first time a compilation of best practice examples to assess sustainability risks in non-life insurance. The proposed ESG standards are the result of several years of collaboration of leading insurers and key stakeholders at global level. This highlights a systematic approach that insurers can take for ESG risks. Our aim is to continually refine the assessment of ESG risks, while at the same time incorporating the standards developed by the PSI initiative.

Training courses and networks secure competency transfer

The individual business units at Munich Re each have responsibility for the business they write, with regard to both underwriting and ESG aspects. We offer targeted training programmes to qualify our staff and develop their competence in relation to ESG aspects. These are tailored to the individual business activities and regions, include training on the practical implementation of our underwriting guidelines, and provide information on current sustainability topics. The training courses are intended for managers, underwriters, client managers, business analysts and trainees in the business units. The training formats are also open to all other interested staff members and have become an integral part of our client seminars. More than 800 staff members worldwide have already been sensitised to ESG aspects in this way. Our aim is to continually improve our training formats, for example through the establishment of e-learning programmes.

In the field of reinsurance, we have also developed a network of ESG coordinators in the business units. Staff members function as multipliers, actively sharing their knowledge of ESG integration within their own department, for risk assessment, in client discussions and in exchanges with other divisions.

Developing marketable solutions from ESG risks

Our core business constantly faces new kinds of risks and global challenges. We develop innovative solution concepts for ESG risks, while opening up new business opportunities. In keeping with our shared-value approach, we generate benefits for our Group and for society as a whole. In our materiality analysis, we have identified climate change, digitalisation and risk awareness as focus topics. Here we present a selection of sustainable solutions and activities in connection with additional topics.

Inclusive insurance protects livelihoods

Munich Re and the Munich Re Foundation, along with primary insurers and other institutions and international NGOs, are supporting the development of inclusive insurance solutions. These must be adapted to the needs of low-income groups in emerging and developing countries. Only then can they protect people from losing their livelihood.

For instance, HDFC ERGO in India markets a wide range of microinsurance policies in the rural sector, including weather-indexed, health, personal accident and fire, as well as special coverages for farmers. They strive to provide solutions to customers partnering with entities focused on customers at the bottom of the pyramid by developing innovative distribution
solutions. The insurance products are easy to understand, focusing on standardisation to generate economies of scale. Two examples: Around 80% of crop losses in the country are weather-related, but less than a quarter of farmers have insurance against this risk. In 2010, on behalf of the Indian government, HDFC ERGO General Insurance Company was the first private insurance company to introduce weather insurance for crop losses.

In 2018, HDFC ERGO launched a Group Hospital cash policy in the state of Odisha, India, in partnership with HDFC BANK Sustainable Livelihood Initiative. This policy covers all microfinance loan customers under a very nominal premium (less than 3 euros) which gives them a fixed benefit per day in the event of any hospitalization. In the Financial Year 2018, 160,000 customers were insured, generating a premium income of about 375,000 euros. Following the positive uptake, expansion to 15 Indian states is planned.

DKV Seguros in Spain offers further examples of simplified access to insurance solutions on a voluntary basis. For example, even people over the age of 69 can have access to its health insurance products. In addition, the private health insurance Famedic offered by DKV Seguros does not consider factors such as the age and health of its customer groups when pricing premiums, and also offers large discounts for families.

Insurance against crop losses

No other economic sector is more dependent on favourable weather conditions than agriculture and it is not just in developing countries that small farmers and their crops face the threat of destruction from weather-related events. To illustrate this, the losses in agricultural production from two consecutive droughts in Europe (2017, 2018) amounted to some €7bn. According to the Intergovernmental Panel on Climate Change (IPCC), the fluctuation in crop yields in most of the world’s regions is likely to increase in the future. At the same time, global demand for agricultural commodities will continue to rise in order to feed an ever-growing world population. Adaptation and mitigation are the first steps in agricultural risk management. These are complemented by agricultural insurance. Besides financial reinsurance and traditional reinsurance, an increasing number of alternative risk-transfer products are establishing themselves in the agricultural sector as efficient risk management tools. Digitalisation in agriculture and remote-sensing systems such as satellites are paving the way for new insurance solutions. Our main focus here is to cover peak risks from natural disasters.

As part of a public-private partnership with crop insurers and the public sector, Munich Re offers crop-failure insurance solutions for the agricultural sector.

Online content: Find our solutions for the agricultural sector
Reducing the financial risks from infectious diseases
Munich Re has joined forces with the World Bank, the World Health Organisation and other financial sector companies to create the first insurance solution to fight dangerous epidemics and pandemics in developing countries. The Pandemic Emergency Financing Facility (PEF) creates a mechanism to quickly channel first-relief surge funding to developing countries facing a major disease outbreak with the potential of developing into a pandemic. The insurance component of the PEF will provide maximum coverage of US$425m for an initial period of three years. In the event of an epidemic or pandemic, it allows funds to be promptly used to combat and contain an outbreak and the associated financial risks. In 2018, the PEF made its first-ever financial commitment, approving a grant of US$12m to bridge the funding gap for Ebola countermeasures in the Democratic Republic of the Congo. Munich Re is pushing for an extension of the mechanism to cover the period after 2020.

ERGO HDFC launches a cover for vector borne diseases
Many infectious diseases such as dengue fever, malaria, chikungunya, Japanese encephalitis and numerous others are being transmitted by mosquitos. They may be small, but are not to be underestimated. Mosquitoes can prove to be deadly, putting millions of lives at risk each year. More than half of the world’s population share their natural habitat with these insects and are regularly exposed to the risk of diseases. HDFC ERGO identified the necessity and importance of this protection and provides an innovative insurance product, the “Mosquito Disease Protection Policy”. Launched in May 2019 and sold over 10,000 times in the first month alone, the policy offers coverage for hospitalisation due to any mosquito-borne disease, which adds to the burden of expense or affects the cumulative bonus of any standard health insurance. Alternatively, the policyholder may opt for a lump sum amount to be paid on providing the proof of hospitalisation.

Innovative risk transfer solutions
Munich Re focuses on the development of alternative risk transfer solutions for sustainability challenges while Capital Partners, a division of Munich Re, specialises in alternative risk transfer solutions. Innovative solutions are also developed as part of Munich Re’s Public-sector Business Development Initiative. The following examples illustrate these activities:

First catastrophe bond for the Philippines against earthquake and tropical cyclone
Munich Re, as part of a syndicate, has supported the World Bank (International Bank For Reconstruction and Development, IBRD) in the structuring and issuance of a catastrophe bond for the Republic of the Philippines against the natural perils of earthquake and tropical cyclones: This is the first cat bond covering an Asian sovereign nation, and the first one to be listed on the Singapore Exchange. The Philippines are among the most disaster-prone countries in the world. The ILS (Insurance-Linked Securities) transaction comprises two tranches with financial protection of up to US$75 million for losses from earthquakes and US$150 million for losses from tropical cyclones for a period of three years. The risk transfer complements existing disaster risk financing mechanisms to strengthen the financial resilience of the country against natural disasters. It provides quick financing for emergency response and emergency relief in the aftermath of extreme tropical cyclones and earthquakes. It is hoped that this first-mover transaction will spur greater use of traditional and non-traditional risk transfer solutions to address the protection gap in South-East Asia.

Humanitarian Impact Bond
The International Committee of the Red Cross (ICRC), with substantial assistance from Capital Partners, developed the first Humanitarian Impact Bond (HIB) and Munich Re also invested in this initiative. With the help of the HIB, the ICRC can now fund the operation of rehabilitation centres in Central Africa. Depending on how successfully these centres operate, the governments that subsidise the humanitarian activities there reimburse the investor for what they have paid in, along with an additional return.
Customer satisfaction is key to success
> GRI 103; 417-1

Maintaining a close and trusting relationship with our clients is of crucial importance for the success of our insurance business. For that reason, we want to understand our clients’ needs and develop the best solutions for them in a process of dialogue.

In reinsurance, we manage this dialogue and service on the basis of clients’ needs and clients’ income potential. The process includes an analysis of the markets and major players, and the implementation of individual reinsurance solutions for our clients. The client managers are supported by a central sales unit, which ensures transparency in relation to the Group-wide product and service landscape.

Munich Re conducts regular global surveys of all of its reinsurance clients – the next survey will start in May 2020. It looks at the Net Promoter Score (NPS) and client satisfaction in connection with various aspects of the business relationship. Additionally, we introduced a set of questions about the importance of ESG criteria. To supplement the centrally managed survey, the operational units obtain regular feedback from their clients.

In order to maintain our lead over the competition, and to allow us to respond proactively to suggested improvements from our clients, we offer a comprehensive training programme for all staff members who have direct client contact. The aim is to develop an understanding of the clients’ strategies and requirements, so that we can work out solutions together.

We additionally promote direct exchange with our clients through the ADVANCE programme for high potential leadership talents from selected clients. In 2018, Munich Re gave this – its top-talent programme – a new strategic focus, centred on finding solutions to future challenges in the insurance industry, and on the joint development of forward-looking business ideas. We are proud that the participants rewarded the programme with an NPS of 100.

In the field of primary insurance, ERGO demonstrates its strong client focus with clear communication, high quality consulting, transparent and easily accessible products, along with numerous opportunities to give feedback. ERGO also offers different dialogue formats in order to obtain personal feedback and new client input. As participants in the ERGO Customer Workshop, or as a member of the ERGO Customer Advisory Council, clients can help ERGO with criticisms and suggestions, and contribute to the design of its range of services.

To make access to products and services as easy as possible for clients, ERGO continually expands its digital offerings, for example through its digital subsidiary, nexible, or with a range of products that can be purchased simply, via voice dialogue.

Particular emphasis is placed on easy-to-understand products in order to offer clients a high level of transparency on the services ERGO offers. To this end, with the help of external experts, ERGO has developed its own comprehensibility standards, and fully revised its contract documents and product information.
Management of our investments is based on three pillars:

1. Systematic integration of ESG criteria
2. Renewable energy technologies
3. Defined exclusion criteria

This approach helps us identify further risks and opportunities by going beyond standard financial analysis. We are convinced that the integration of ESG criteria leads to better investment decisions in the long term.

Corporate responsibility in investment

> GRI 103; 201-2; 203-1; 203-2

Because our business model as an insurer has a long-term focus, sustainability criteria play a key strategic role in investment. We are obligated to invest our clients’ money sensibly and profitably in a manner that adheres to strict security and return requirements. Which is why, for both our investment and insurance business, we consider it essential to consider Environmental, Social, and Governance (ESG) aspects and to offer responsible products and services.

To support the Paris Agreement objective to limit the global temperature increase to well below 2 °C, Munich Re is expanding its climate strategy with a recent commitment to a GHG-neutral investment portfolio by 2050. In order to drive implementation of this strategic objective, Munich Re has joined the UN-convened “Net-Zero Asset Owner Alliance” (AOA) in January 2020.

The Principles for Responsible Investment (PRI) provide a framework for sustainable action in the field of investment. In order to ensure that we adhere to our sustainable investment approach, we have established a binding Group-wide Responsible Investment Guideline (RIG), which covers all requirements regarding PRI and ESG that concern Munich Re Group investment management, especially on the subject of exclusion criteria for investments.

In general, strategic decisions for sustainable investments are made by the Board of Management or one of its committees (Strategy Committee, Group Investment Committee). The Chief Investment Officer (CIO), as a member of the Board of Management, is responsible for the Investment Management of Munich Re Group. The Group Investment Management (GIM) unit is responsible for the sustainable investment strategy of the Group, having established a dedicated ESG team.

Munich Re’s investments are largely bundled under the umbrella of MEAG, our internal asset management arm. This insures that the Group’s investments are managed in conformity with uniform policies and principles. The sustainability specialists of MEAG focus on the continuous strengthening of ESG integration across all asset classes, which is one of MEAG’s priorities for 2020.
Responsible Investment Guideline (RIG):

The RIG is applicable to Munich Re, including its reinsurance and primary insurance branches worldwide. It applies to the complete investment portfolio of Munich Re, no matter whether managed by the company itself, by MEAG or any other third party. The RIG includes the following regulations:

[1] At least 80% of the investments of each business field in shares, corporate, government or covered bonds, real estate and alternative investments should be invested in assets that are members in one of the established sustainability indices or meet other accepted sustainability criteria. […]

[2] Munich Re does not invest in companies that produce, trade in or transport banned weapons if such production, trade or transport is material for the respective company. […]

[3] Trading and holding investments in food-related commodities (e.g. grains and oilseeds, livestock, dairy, etc.) and related derivatives is not allowed. […]

[4] Investments in equities or bonds of companies that derive more than 30% of their revenues from the mining of coal or the generation of electricity from coal are not permitted.

[5] Investments in equities or bonds of companies that derive more than 10% of their revenues from the mining of oil sands are not permitted.

[6] The Group Corporate Responsibility Committee (GCRC) evaluates and prioritises sensitive issues for Munich Re Group. There are position papers in place for the following sensitive issues: oil sands, frackin and mining. All these position papers include specific questionnaires regarding ESG aspects. For Arctic drilling there is a position paper and guideline in place. […]

[7] The position paper and guideline on investment in farmland are to be taken into account as part of the due diligence on investment decisions in relation to farmland. This applies both to investments in funds and to direct investments for the purpose of leasing and/or farming.

[8] Investments in government bonds and bonds of government-related institutions of countries assessed in a certain category according to the MSCI ESG rating are not permitted.

The systematic integration of ESG criteria is an elementary component of our investment strategy. Individually defined ESG criteria are incorporated into the selection processes for all classes of assets. And all portfolio managers and credit analysts at MEAG locations worldwide have received comprehensive training on ESG criteria.

An overview of the individual investment segments and their focus on sustainability is provided below. The infographic on the next page further illustrates the MEAG investment process for shares and corporate bonds.

By highlighting the sustainability criteria, the composition of the asset classes was slightly adjusted.
Liquid assets:

Shares, corporate bonds and covered bonds:
MEAG’s portfolio managers and credit analysts make systematic use of MSCI ESG analyses, amongst other data sources, in order to evaluate the return/risk profile of various investments. MSCI ESG-ratings are integrated into MEAG’s front office system, giving portfolio managers and credit analysts access to the rating scores. This ensures that risks and opportunities arising from sustainability issues are integrated into the investment decision. Furthermore, MEAG engages with issuers through dialogue and voting.

Government bonds:
MEAG’s portfolio managers use sustainability country ratings from MSCI for their analysis. In cases where countries fail to satisfy our criteria, MEAG refrains from investing in their government bonds or the bonds of quasi-governmental organisations.

Illiquid assets:
Sustainability is especially important in illiquid asset class investments. These investments are usually of a particularly long-term nature and Munich Re has a lot of influence where, for example, rather than owning a few percent of a company we own the whole asset. With this in mind, we have implemented our own processes for sustainability assessments using expert advisors who draw on our Group-wide know-how.

Real estate:
We always consider sustainability in the purchase, construction and renovation of real estate – and we observe our ESG criteria when performing due diligence for new investments. This includes examining the geographic properties of a site, evaluating the construction materials, technical facilities used, and considering the social aspects of the investment project. When working on existing properties, requirements for energy efficiency and the choice of suitable construction materials, partners and proven technologies apply. MEAG encourages its tenants to use its buildings in a sustainable way and has produced an information brochure on the subject.
Infrastructure and renewable energies:
In view of the extremely long investment periods associated with infrastructure and renewable energy projects, we carefully examine all risks associated with these investments. To this end, we have defined specific ESG criteria for the investment category, which form part of due diligence. The criteria address climate change, community involvement and governance risks. In addition, we examine meteorological and climate-related factors (such as solar irradiation for solar installations, or wind force for onshore wind farms). And we also consider political parameters such as the relevant national energy policy.

MEAG’s infrastructure assessment teams also work closely with technical experts from Munich Re during the due diligence process to ensure all relevant risks are taken into account from a sustainability perspective.

Agriculture and forestry:
Over and above financial considerations, our investment process evaluates important factors during due diligence, which must be addressed to meet the aims of an investment. These include ESG criteria that, for example, take climate-related aspects such as wildfires and precipitation into account. In addition, we also put the know-how of local forest managers to good use. Nearly 100% of MEAG’s forest investments were voluntarily submitted to a third-party standards body (PEFC and/or FSC) as at end of 2019. Both FSC and PEFC have set specific national standards for forest management including social and environmental criteria.

When buying forest, we consider the following aspects:
- No acquisition of primary forest or of recently cleared primary forest areas
- No purchase of unprotected, ecologically valuable areas
- No land grabbing
- When acquiring new forest that is not yet certified, MEAG cares that the forest will become certified according to FSC/PEFC standards

When managing our forest investments, we pay attention to the following criteria:
- Sustainable management of the acquired land, e.g. independent certification in forestry and organic agriculture
- Funding and participation in projects with positive ESG effects, e.g. creating jobs in rural areas, binding carbon through new plantings or preserving the habitat of endangered animal species.

€2.9bn invested in renewable energies and green bonds

Munich Re Stewardship Initiative: Longleaf Pine Restoration – Our commitment to biodiversity

Once dominating the landscape of East Texas, over time the Longleaf Pine Ecosystem has been reduced to a small fraction of its historical acreage. The ecosystem associated with the longleaf pine is one of the most diverse assemblages of species on the U.S. continent and includes a host of “species of concern”, e.g. the Red Cockaded Woodpecker and the Texas Trailing Phlox.

The local forest property manager of Munich Re in Texas partnered with the non-profit organisation Texas Longleaf Task Force (TLTF) with the primary purpose of restoring the increasingly rare longleaf pine ecosystem. A project on a Munich Re owned property was identified: An existing, mature natural longleaf pine stand totalling 57 acres. This stand will be managed long term with the primary goal of ecologically enhancing the area to reflect the historical longleaf pine savannah ecosystem. During the summer of 2019, undergrowth has been removed for greater sunlight penetration to the forest floor and to encourage the growth and diversity of native grass species. On regular basis prescribed burns will be conducted to maintain the improved habitat and mimic historical fire occurrences.
Private equity:
Since 2018, we have considered ESG criteria as part of the due diligence we conduct for private equity investments as well as the application of an appropriate Responsible Investment Guideline for the target fund.

Cash:
Our portfolio managers use MSCI ESG analyses in addition to finance data to evaluate the risk and return profile for different investments.

Participations (subsidiaries):
Corporate Governance principles are Group-wide implemented in the due diligence process of participations.

In addition to the selection process, our portfolio managers incorporate ESG issues into our shareholder policies and practices. This is reflected, for example, by the MEAG voting policy.

Our investments: Focus on renewable energy technologies

Through our investments, we aim to promote the use of future technologies in avoiding greenhouse gas emissions. With this in mind, MEAG invests, on behalf of Munich Re, in infrastructure projects around the world such as solar power plants and wind farms.

In 2019, invested capital (equity and debt) in renewable energies was approximately €1.6bn and should be steadily increased over the next few years to €2.8bn, investment in green bonds amounted to approximately €1.3bn. These investments help mitigate climate change. For example, in 2019 our installations generated approximately 2.8 million megawatt hours of green electricity, supplying power to around 700,000 households, thereby avoiding some 800,000 tonnes of CO₂ equivalents.

Sustainable focus for MEAG investment fund

MEAG offers its private and institutional clients a selection of sustainable investment products, as outlined below:

- The MEAG Nachhaltigkeit equity fund invests throughout the world, primarily in companies with responsible management practices. Producers of tobacco and alcoholic beverages, and arms manufacturers are excluded, as are companies in the gambling industry. MEAG Nachhaltigkeit is the fastest growing retail fund at MEAG.

- MEAG FairReturn invests mainly in bonds and shares from European issuers who act sustainably. Issuers are selected on the basis of their environmentally friendly and socially responsible track record, as well as good corporate governance and financial performance. Companies from contentious business fields are not considered.

- The MEAG EM Rent Nachhaltigkeit fund chiefly invests in bonds from governments and companies in emerging and developing countries with stable growth and sustainable policies. Once again, companies from contentious business fields are not considered. The volume of these products is approximately €1bn.

- As its name suggests, the MEAG Infrastructure Debt Fund offers institutional investors targeted investments in infrastructure projects, for example, in renewable energies, transport, or social infrastructure. The overall commitment from third-party investors as of December 2019 was €660m.

Munich Re Group has agreed to acquire the 330 Madison Avenue building in New York City, designed by Ely Jacques Kahn, LEED Gold certified.
Munich Re is a pioneer in the analysis of how anthropogenic global warming and natural climatic variability impact losses caused by weather-related natural disasters. For the past four decades, we have researched ever clearer evidence of this fact, although to differing degrees depending on region and type of hazard.

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Solution-oriented responses to climate change
> GRI 103; 201-2; 203-1; 203-2

Climate change, predominantly the result of human activity, is real and has a major influence on weather-related natural disasters. Science provides solutions to climate change

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How our climate strategy guides our actions

The assessment and management of climate change-related risks and opportunities is an integral component of Munich Re’s strategy. All material and strategic issues relating to it are handled by Munich Re’s Board of Management or one of its committees, which include the Strategy Committee, the Group Investment Committee, and the Group Risk Committee. The Board of Management is supported by dedicated climate change experts and their teams within Munich Re Group. These include the Chief Climate and Geo Scientist, leading experts on the research of climate risks and natural hazards, and the leading expert on climate liability, as well as experts on green technology solutions, responsible investing, and sustainability.

In addition, at least once a year, the Supervisory Board is informed about material sustainability topics on the basis of the [combined non-financial statement](#) which includes our core climate protection activities and goals.

In general, our holistic strategic approach covers both business-related activities and corporate responsibility measures. It is made up of the following five pillars:

<table>
<thead>
<tr>
<th>Climate Strategy – Munich Re Group</th>
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### Business-related activities

<table>
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<tr>
<th>Risk evaluation</th>
<th>Risk-transfer solutions</th>
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<tr>
<td>Recording and evaluation of the impact of climate change on the frequency and intensity of natural hazards.</td>
<td>Realisation of business growth areas as a leading provider of risk-transfer solutions for renewable energies and other products aimed at adapting to and mitigating climate change.</td>
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<table>
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<tr>
<th>Asset management</th>
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<tr>
<td>Making investments GHG-neutral by 2050 and supporting the expansion of renewable energies and infrastructure projects by pursuing a sustainable investment strategy.</td>
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### Corporate responsibility

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<tr>
<th>Carbon neutrality strategy</th>
<th>Involvement in climate initiatives</th>
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<tbody>
<tr>
<td>Munich Re Group carbon neutral since 2015</td>
<td>e.g. Munich Climate Insurance Initiative (MCII), InsuResilience</td>
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</table>
Munich Re pioneered analysing the consequences of climate change in the financial services and insurance sector in the 1970s. We began by investigating the causes of increasingly costly losses from weather-related natural catastrophes. Today, we are part of a comprehensive scientific network that gives us access to the latest findings on natural disasters and climate change. Among other things, our many years’ experience, in conjunction with this network, has produced new tools for digital analysis and solutions that improve the insurability of natural hazards. The findings of these analyses are consolidated on an ongoing basis and translated into key recommendations for action by Munich Re.

We also adopt a particular approach to research. This entails collecting loss data ourselves and participating in the particular research projects needed to provide comprehensive risk analysis. On this basis, for example, simulation models are built that allow our underwriters to carry out risk assessments for complex, very large risks. We use models developed in-house as well as recognised third-party models to do this.

Munich Re is strongly associated with climate science, both through collaborative work with scientific facilities, including joint peer-reviewed publications, and by sponsoring research programmes. To this end we routinely analyse publications on climate change and regularly participate in research projects with scientific institutes. By way of example, we are currently taking part in an investigation into severe thunderstorms in Europe. This includes analyses of changes in the risk from hail and tornadoes throughout Europe, and maps future changes in these risks using various climate models.

Munich Re also supports another research project, which uses models to investigate the extent to which specific, severe weather events have become a more likely phenomenon as a result of climate change. The aim of this research is to enable preventive and adaptive measures to be applied in a more targeted manner to protect people and property.

As part of the risk assessment, we examine the recommendations of the international Task Force on Climate-related Financial Disclosures (TCFD). These go far beyond simply climate reporting. They also expedite the holistic integration of risks and opportunities from climate change and the low-emission economy into the corporate value chain. At the same time, they represent a strategic approach to highlighting climate risks and developing new business opportunities. As part of the United Nations Environment Programme Finance Initiative (UNEP FI), Munich Re and 20 other leading insurance companies are participating in a pilot project, initiated by the PSI, to implement the TCFD recommendations. The objective is the development of modern risk assessment tools and industry-wide standards. The tools and indicators under development use the latest generation of scenario analyses to assess climate-related risks for tangible assets and investments.

Risk transfer solutions offer concrete assistance and promote innovative technologies

Adaptation to climate change

As a (re)insurer, Munich Re assumes a portion of the financial burden of those affected by natural disasters, allowing them to return to their daily lives more quickly after a loss event. Particularly in emerging and developing countries, a higher insurance density allows the economic shocks that follow disasters to be cushioned more effectively, while supporting sustainable economic growth at the same time. Many of these countries are strongly affected both by natural disasters and the consequences of climate change. Generally speaking, there is an urgent need for greater protection and adaptation to the consequences of natural disasters due to climate change in order to mitigate the humanitarian and financial impact. We aim to play a preventive role and to improve adaptation measures for the consequences of climate change that have become unavoidable.
Wildfire: Each year, wildfires cause billions in losses – particularly in the USA. What’s more, higher temperatures and prolonged spells of dry weather are also changing the risk situation in other regions. A complex interplay of man-made and natural factors has made wildfires a hazard that is difficult to quantify and – in many places – an increasingly common sight. Even if hazard zones can be clearly identified, fires can occur in unexpected locations and cause major damage. Measures that are needed to build resiliency and avoid losses include development concepts that avoid fire-hazard areas in the first place, improving the fire resistance of buildings, and the removal of dry, combustible brushwood.

Floods: Climate change is increasing the probability of extreme precipitation in many regions, which will lead to more frequent and disastrous flash floods. Flooding accounts for some 40% of all loss-related natural catastrophes since 1980, with losses worldwide totalling more than US$1tn. Only 12% of these losses were insured. To protect against flooding, many dykes, flood walls and retention basins have been built along rivers. Loss prevention at an individual level involves measures to improve the flood resilience of buildings and structures and avoiding development in hazardous areas.

Online content: Find more about climate change related hazards such as wildfire, floods, severe storms and droughts
We want to make the benefits of insurance more evident for all stakeholders, for example, for governments and supranational organisations such as development banks and primary insurers. To this end, we have increased our focus on developing and emerging countries, where we support reducing the natural disaster insurance gap through our involvement in the Insurance Development Forum. In addition, we are a member of the IDF Steering Committee at Board of Management level, and participate in developing projects to protect against natural disasters as part of public-private partnerships, e.g. in the Sovereign & Humanitarian Solutions working group. These projects could help spread insurance covers more widely in individual countries or transnationally in the form of regional risk pools.

Munich Re also participates in a number of sovereign and public-private risk transfer schemes for natural catastrophes in both developed and developing countries. Covers with parametric triggers are one example of an innovative risk transfer solution. In this instance, following a natural disaster of a specific strength – measured in terms of wind speed or volume of rain – payment is made immediately without damage needing to be proven in detail. This mechanism is particularly suited to financing emergency assistance, or to ensuring the fiscal stability of the countries affected. These risk transfer solutions are usually developed in the form of a public-private partnership – offered in conjunction with supranational development banks or governments – and implemented in cooperation with private insurance companies.

The Caribbean Catastrophe Risk Insurance Facility (CCRIF), of which e.g. Haiti is a member, illustrates how an insurance pool of this kind operates in practice. When the island state was hit by Hurricane Matthew in 2016, the CCRIF paid out over US$23m to the Haitian government within just a few days. Despite the fact that this covered only a small portion of the total damage, the payment allowed emergency measures to be taken promptly, while international aid campaigns were still in the preparation phase. The total of CCRIF payouts to Caribbean member states for the period of 2007–2019 exceeded US$152m. There are also similar programmes in place for Africa, Pacific island states, and in several provinces of the Philippines.

Active climate protection by promoting climate-friendly technologies

We need a new approach, worldwide, to limit global warming. Achieving this target requires new technologies for power generation, transportation, energy storage and industrial production. Our focus is on crafting insurance solutions that will smooth the path of these technologies to market by enhancing their appeal to investors and strengthening their financing viability.
And we are well placed to do this because Munich Re has specialist technical expertise in this area and many years’ experience in renewable energies and energy efficiency.

We also frequently play a pioneering role in the market, for example, by offering new types of insurance cover. A good example of this is the 25-year performance guarantee we make possible for manufacturers of photovoltaic modules. This gives our clients added security for the quality of their products and relieves the module manufacturer of the need to make provision for any warranty claims. Also associated with the field of renewable energies, our Wind Energy Yield Cover solution insures the availability and performance of turbines, as well as wind output.

On a global level, we are the first insurer to offer a performance cover for battery storage, thus enabling battery manufacturers the opportunity to offer their customers long-term performance guarantees. The product, which covers the repair costs and replacement value of battery modules (exceeding a specific cost threshold), makes it significantly easier for manufacturers to ramp up deployment of battery capacity. And this has the effect of making renewable energy more dependable and widely available. The product was launched in 2019 with the US battery manufacturer ESS Inc. as first customer. ESS produces stationary battery modules that allow energy from solar parks and network operators to be stored over long periods. In addition, we offer performance guarantee covers for fuel cells, LED lighting technology and bioenergy plants.

Our Green Tech Solutions team, which was specially established to develop innovative solutions, operates as a business enabler, and provides investors, project developers, plant manufacturers and start-ups with a wide range of ways to succeed on the market.

**Online content:** More about Green Tech Solutions

Further innovation includes a solution we developed to promote investment in renewable energies in Africa. As part of the UN initiative, Sustainable Energy for All (SE4ALL), which targets the sub-Saharan region, Munich Re developed the African Energy Guarantee Facility (AEGF) risk transfer solution in collaboration with the European Investment Bank (EIB) and two primary insurers. This offers protection against political risks in order to facilitate private investment in the use of renewable energies. As a sustainable (re)insurance pool, the AEGF structure involves risk transfer tranches, which can be assumed by insurers and private financial institutions. Notably, AEGF offers an insurance capacity of US$1.4bn for political risks to a total of 25 African countries.

**Online content:** More about AEGF

Our Group-wide positions on coal and oil sands support the promotion of new, climate friendly technologies and, wherever possible, replacing climate damaging technologies. We have anchored these positions in our Responsible Investment Guideline as well as in our underwriting guidelines. These stipulate that, in single risk business, Munich Re will no longer insure new coal-fired power plants or new coal mines in industrialised countries, or in the majority of emerging markets. There may be a small number of exceptions in countries where a substantial portion of the population (more than 10%) has no access to electricity. In such countries, cases are analysed on the basis of clear criteria. These include a country’s dependency on coal, the natural endowment of renewable energy sources, the climate strategy of the company or country in question, and the technical standards applied. Oil sands will also no longer be insured as a single risk. Munich Re does not invest in shares or bonds of companies that generate more than 30% of their revenue from coal. Since September 2019, Munich Re has not invested in shares or bonds of companies that generate more than 10% of their revenue from oil sands extraction.

**Asset management makes the most of climate protection potential**

In support of the Paris Agreement objective to limit the global temperature increase to well below 2°C, Munich Re has expanded its climate strategy with a recent commitment to having a GHG-neutral investment portfolio by 2050. In order to drive implementation of this strategic objective, Munich Re joined the UN-convened “Net-Zero Asset Owner Alliance” (AOA) in January 2020.
In addition, we have defined particular areas for investment in order to promote the use of low-carbon technologies and avoid GHG emissions. In particular, we focus on direct investments in renewable energies and green bonds. Expanding investments in renewable energy and infrastructure projects contributes to climate change adaptation and mitigation. The volume of capital invested in renewable energies such as solar parks and wind farms totalled €1.6bn at the end of 2019. And our long-term target is to increase this figure to €2.8bn.

Carbon neutrality in Munich Re Group’s operational activities

We exploit the potential of our own operational processes to ensure climate-friendly action. As part of our Groupwide environmental and climate protection strategy, we have set binding targets for reducing CO₂ emissions per employee by 35% by 2020 (basis year 2009). Operational activities throughout our Group have been carbon-neutral since 2015. There is more detailed information on our environmental management system and further activities in the section on Environment.

Example of environmental and climate friendly investment:

Waste to energy – MEAG acquires stake in Dublin Waste to Energy PPP project

MEAG acquired a stake in the Dublin Waste to Energy PPP project from DIF Capital Partners. The waste incineration plant is the largest of its kind in Ireland and one of the main pillars of the climate action plan. Part of a public-private partnership (PPP) and located in the port of Dublin, the facility can currently burn up to 600,000 tons of domestic and commercial waste annually and generate electricity for 60,000 households from non-recyclable residual waste. In addition, close attention is always paid to compliance with strict environmental standards.

Further information on this topic can be found in the Investment section.

Involvement in climate initiatives

For many years, Munich Re has played an active role in a range of public and private climate protection organisations, such as the United Nations Environment Programme and ClimateWise. We wish to contribute our expertise as a valuable partner for political decision-makers, organisations and enterprises.

In 2020 Munich Re joined ClimateWise, a growing global network of leading insurance industry organisations hosted by the Cambridge Institute for Sustainability Leadership. The network was specifically set up to back the insurance industry in its efforts to communicate, disclose and respond to the risks and opportunities associated with the climate-risk protection gap (the increasing distance between total economic losses attributed to climate change and insured losses). This applies particularly in emerging and developing countries where, typically, the insurance gap is extremely large. With this in mind, it is essential to promote adaptation to climate change and offer insurance-related risk management mechanisms to reduce economic shocks from natural disasters.

Munich Re also supports the InsuResilience Global Partnership initiative. Founded in 2015 by the G7 countries and expanded in 2019, this initiative aims to enable an additional 500 million poor and vulnerable people in developing and emerging countries to access insurance products covering weather and climate risks by 2025. The initiative is primarily financed by industrialised countries and the insurance industry has offered US$5bn of risk capital. However, the InsuResilience Global Partnership also relies on the active involvement of governments in emerging and developing countries, as well as close cooperation with civil society, insurers and the scientific community.

The Munich Climate Insurance Initiative (MCII) was founded in 2005, following an initiative by Munich Re and representatives from the World Bank, NGOs and academia. Since then, MCII has participated in the global climate negotiations (Conferences of Parties, COPs) where it has provided suggestions on climate risk management. MCII has also contributed technical support in the discussions on dealing with losses from climate change under the UNFCCC Loss and Damage programme and the Warsaw International Mechanism.

Closer to home, we back “Tackling Climate Change Together” a Munich Re and ERGO initiative which funds and supports the work of cleantech pioneers. To this end we cooperate in a start-up accelerator programme with Climate-KIC, the largest public-private climate initiative in the EU. Find more in the Society section.
Using digitalisation responsibly

Using digitalisation responsibly

> GRI 103; 203-1; 203-2

Digitalisation is key to a successful future for the insurance industry. It will transform the industry’s entire value chain as well as change our clients’ requirements. With this in mind, the industry needs to invest in hardware, technology and the necessary training to develop employees and experts. And that’s why digitalisation is an integral part of the Munich Re business strategy.

In the context of digital transformation, we have defined data protection, cyber security, and the responsible implementation of Artificial Intelligence (AI) as key aspects of corporate responsibility.

In particular, we focus on the following fields of activity:

**Business opportunities and the digitalisation of Munich Re’s value chain**

Digitalisation offers us the opportunity to extend business boundaries via new business models. And Munich Re already offers its clients a variety of new products and solutions in both primary insurance and reinsurance. Our cyber (re-)insurance knowledge and products put us in a position where we can fulfil our social role as a risk carrier as well as provide our clients with financial protection in case of a cyber-attack.

In order to build our competitiveness and efficiency we are also actively engaged in the digital transformation of our own value chain, which has significant implications for our employees in their daily work. As an employer, we act with particular caution and responsibility to support our employees in this transformation process.

High priority is also given to data protection and cyber security. It is our aim to not only protect our clients from cyber risks but also Munich Re Group itself. For us, it is crucially important to protect the personal data of our employees and clients, the information of our business and sales partners, and our own company secrets. Ultimately, we are committed to being a competent and trustworthy business partner, so much so that we have anchored this principle in our Code of Conduct. Detailed information on this topic can be found in the section on corporate governance.
Training our developers and employees
Digital technology is transforming the workplace, especially at companies that are highly data- and knowledge-driven, such as Munich Re. Additionally, in the course of digitalisation, the volume of available data has increased significantly. This paves the way for innovative business models and numerous new fields of application, such as AI-based loss identification and the analysis of sensor data. At the same time, data analysis is becoming increasingly complex, requiring ongoing training of experts, along with a cross-sector transfer of knowledge. This is the only way to compete successfully against global competitors in one of the key fields of application for digitalisation.

In order to support the digital readiness of our employees we have established a learning culture that focuses on Munich Re's digital priorities. We also provide target-group-specific basic and further training for our developers, users and managers through, for example, our Digital School, data analytics curriculum, and Cyber Expert Pool.

We set up the “Digital School” in 2018. It is a comprehensive digital training programme for all employees in the reinsurance business field. The objective of the school is to ensure that each employee has at least a basic knowledge of the digital technologies and trends that affect us. The Cyber Expert Pool was launched in the same year as the school to focus on the reinsurance side of our business. It is a special training programme for cyber security experts aimed at qualifying candidates with suitable professional experience in cyber security to work on cyber underwriting. In addition to the above, Munich Re invests significantly in the data analytics expertise of its actuaries and underwriters by offering a “Black Belt Curriculum”. You can find more information on our training programmes in the employee section.

Responsible handling of artificial intelligence (AI) and big data
Artificial intelligence and big data will play a central role in the future of the insurance industry. They will impact everything from product design, underwriting, and claims management to internal accounting processes. And applying strong ethical principles is essential to protect the rights of our clients when using new data-based algorithms. Munich Re is aware of its responsibilities with regard to the use of AI-based systems and processes and is responding accordingly.

In order to live up to this responsibility we have established a Group-wide framework for the compliant development of AI algorithms used in new risk solutions and we collaborate with academia and research institutes in this regard. Additionally, we support the development of European guidelines and standards and provide target-group-specific trainings to developers, managers and users within Munich Re to ensure that our employees use AI responsibly.

The High-Level Expert Group on Artificial Intelligence appointed by the European Commission adopted Ethics Guidelines on Artificial Intelligence in 2019. The Guidelines put forward a human-centric approach to AI and list key requirements that AI systems should meet in order to be trustworthy. These requirements will go through a piloting process, in which Munich Re will take part.

Munich Re has also developed a human rights-based “Responsible AI strategy” in accordance with the European Commission guidelines, which cover issues such as privacy, surveillance, discrimination, bias, unintended consequences, and misuse by bad actors. Our strategy is based on the following principles:

Principles of “ethics guidelines for trustworthy AI”
- Respect for human autonomy
- Prevention of harm
- Fairness
- Explicability

Needs-oriented solutions
We only want to use AI in the sectors that promise added value for our clients or our employees. In this context, we rely on targeted applications with a clear connection to insurance, such as:
- A risk assessment that is shorter and simpler for the applicant
- Prompt claim review and payment
- Insurability of new kinds of risk
When developing AI applications, we consider social and economic aspects. At the same time, we are guided by the legal, social and cultural standards of all the countries we operate in.

Prevention of unacceptable effects
We monitor the impact of the decisions made by AI algorithms to prevent undesirable effects being created or aggravated. By way of example: AI algorithms could be used in healthcare, what might have repercussions for treatment and insurance cover. In our view, it is unacceptable if a higher risk for a serious illness results for the person concerned due to decisions made by an AI algorithm.

Data governance
The persons affected must have full control of their data and be in a position to decide independently on their use. Consumers should always have the choice on whether or not to provide personal data for a service or a third party.

We implement these requirements by way of the following concepts:

AI governance
A central component of AI governance is compliance with applicable laws and internal Group rules and principles, irrespective of the technology used. In conformity with existing rules on human decision-making, there must be an appropriate balance between the degree of autonomy and regulation of AI systems on the one hand, and the associated risks on the other. Our AI governance also provides for clear responsibilities when dealing with artificial intelligence.

Technical robustness
We ensure technical robustness when developing our systems. In this way, we ensure that AI operates within secure boundaries even in the event of malfunctions. In this context, malfunctions include unforeseen events and manipulative attacks from outside that interfere with the AI system.

Non-discrimination
When developing algorithms, we pay close attention to preventing any form of discrimination. We attach great importance to ensuring that our algorithms do not adopt or amplify existing forms of discrimination that are frequently found in historical data. We also check that our database, to the best possible extent, covers all relevant groups of persons, for example in terms of age, gender, nationality and ethnicity.

Transparency
We attach great importance to ensuring the greatest possible transparency of our algorithms. Cooperation with scientific and research institutes gives us access to the latest processes that make the behaviour of AI systems comprehensible.

Social impact of AI – promote exchange, protect against risks
AI will have multiple repercussions on society that are impossible to predict today. For that reason, ethical guidelines for dealing with AI can only be achieved in dialogue with politicians and scientists. Our AI experts are members of several bodies, where they exchange information with other companies and draw up guidelines for dealing responsibly with the technology. In addition, Munich Re has become a shareholder in the German Research Centre for Artificial Intelligence (DFKI). This move will strengthen cooperation between the world’s leading representatives from the fields of industry, science and politics. Not only will the partnership help us develop the best processes for our clients, but it will also make the latest knowledge available to our employees and further advance research in this field.

Many social problems can be solved with AI, for example, in the fields of medicine and mobility. We want to take on the role of enabler for these AI technologies by assuming the residual risks from AI decisions. However, an important precondition for insurability is that specific standards are met in terms of quality, stability, non-discrimination, transparency and comprehensibility. For that reason, together with partners such as the DFKI and Applied AI, we aim to define standards for the evaluation of the various AI algorithms.
Increasing risk awareness in society  
> GRI 103; 203-1; 203-2

Munich Re empowers people to cope with existing and future challenges by making the risks they face insurable. Our objective is to identify emerging risks at an early stage and assess them from every possible perspective. This allows us to enhance the risk awareness of our partners in both the private and public sectors. And awareness is critical because, before any risk can be properly insured, potentially affected parties need to understand it very well. This is why risk awareness is a key issue that cuts across every aspect of our core business.

The insurance industry can help make societies more resilient in the face of disasters. And this is particularly true in poorer regions of the world, where improving risk management and resilience are critical elements in mitigating the impact of humanitarian disasters and facilitating sustainable economic growth.

Below, we give some examples of the ways in which we endeavour to enhance risk awareness in the following fields of action:

- Mitigating the risks from natural disasters
- Collaborating with partners to strengthen resilience

Mitigating the risks from natural catastrophes

Each year, natural catastrophes destroy assets worth multiple billions around the world. And the number of recorded losses resulting from natural disasters has been increasing for some years, now driven by socioeconomic changes but in some regions also due to the rise in the number of extreme weather events. Industrialized countries have responded by reducing the insurance gap between actual and insured damage, but there is still a considerable gulf in developing and emerging countries, which remain particularly vulnerable to catastrophes.

Back in the early 1980s, only about a quarter of losses resulting from natural disasters were insured, even in highly developed countries. Today, this has improved to the point where just less than half of all losses are covered in industrialised nations. However, the situation in many developing and emerging countries has not improved in decades. The proportion of insured losses is still well below 10% and sometimes almost zero. More widespread insurance coverage would help put emerging countries, in particular, in a better position to withstand the economic shock that follows natural disasters and become more resilient.
We are a founding member and active participant in the Australian Business Roundtable for Disaster Resilience and Safer Communities (ABR). Australia is highly prone to natural disasters, which include devastating floods, cyclones and bushfires. The ABR was founded to promote the development of a sustainable and nationally coordinated approach to managing natural disasters. Most members of the initiative are leading companies or aid organisations.

In the United States, Munich Re America, American Modern Insurance Group and Hartford Steam Boiler (HSB) partner in supporting the Insurance Institute for Business & Home Safety (IBHS). Independent experts and scientists use natural catastrophe and hazard scenarios to check the safety and construction standards of buildings for private and commercial use. The results of this research are then incorporated into the US building commissions and regulations as a recommendation.

IBHS delivers top-tier science and translates it into support for thriving communities. This unique facility enables researchers to more fully and accurately evaluate residential and commercial construction materials and systems through realistic re-creation of severe weather hazards. The research conducted significantly advances building resiliency in the built environment that we insure and reinsure in the U.S.

Furthermore, in order to enhance risk awareness of landslides after monsoon rainfall in India and to develop suitable prevention measures, we support a project initiated by GeoHazards International (GHI). Further information on this subject can be found in the section on Society.

Mitigating the consequences of natural catastrophes is one of the major challenges faced by the insurance industry. And insurers seeking to provide insurance solutions for such extreme risks need in-depth knowledge of the factors driving these risks in order to quantify them and assess their probabilities. When it became apparent that insured losses from natural disasters were increasing back in the 1970s, Munich Re was quick to identify the need for greater expertise in this area. Since then, our insurance specialists have worked with experienced scientists and research organisations to analyse and assess the entire spectrum of natural hazards, including cyclones, severe thunderstorms, floods, earthquakes and volcanic eruptions.

The result of these efforts is that, today, our risk analyses reflect the latest scientific findings and form the basis of our risk models and our range of natural hazards risk transfer products. In addition, our specialised expertise in assessing natural perils helps enhance risk awareness in affected regions and creates a better understanding of the positive effects of loss prevention and insurance, all of which enables us to develop tailor-made risk transfer solutions for particular regions with partners from science, business and the public sector. Find more information on sustainable risk transfer solutions in the climate change section.

Global commitment to risk prevention in relation to natural disasters

Munich Re is involved in a wide range of prevention and adaptation measures aimed at protecting people in exposed regions, for example:

»As many catastrophe losses are not covered by insurance, cooperation between governments and the private sector is becoming increasingly important as a way of closing the insurance gap – especially in emerging countries – and thus supporting sustainable economic development«

_Ernst Rauch,
Global Head Climate & Public Sector Business Development
Our risk assessment tools

Munich Re’s Location Risk Intelligence solution is a cloud-based analysis tool to help clients and partners in assessing risks from natural hazards (Natural Hazards Edition), or climate (Climate Change Edition) around the world – from individual locations to entire portfolios – and thus helps to accelerate business processes and improve both portfolio and claims management. In the „Natural Hazards Edition”, risk assessment is carried out using a series of map layers with hazard and risk ratings based on Munich Re’s NatCat risk models. These models in turn are based on a combination of scientific knowledge on different perils, such as hurricanes, earthquakes, floods, etc., and the evaluation of such historical events and the associated claims experience. The assessments of the „Climate Change Edition” are based on internationally agreed scenarios for greenhouse gas emissions, the so-called Representative Concentration Pathways (RCP) scenarios up to 2100. The map layers used here are a combination of processed global and regional climate models output and the Munich Re NatCat models adapted on the basis of scientific journal papers. Thanks to the modular structure of the SaaS solution, each of the two product versions can be supplemented at any time with the other assessment model.

Online content: More about Location Risk Intelligence Solution

A further Munich Re information service is our NatCatSERVICE which, with approximately 40,000 data sets, is the world’s most extensive database of natural disasters. The service offers data on natural catastrophes that goes back to 1980 and can provide an interactive analysis to match particular situations. Approximately 1,000 new events are recorded and analysed every year and the information documented includes the scale and intensity of individual natural catastrophes around the world, which is incorporated into the analysis of risks and trends. Since 2017, this information has been available for download from the Munich Re website. In addition, clients and interested parties can use the NatCatSERVICE online tool to carry out data analysis to meet their individual needs.

Online content: More about our NatCatSERVICE

### Losses from natural disasters in 2019

| US$ 150 bn | Slightly more than a third of the losses insured |
| US$ 52 bn |

**Costliest event:**
Typhoon Hagibis in Japan

**A humanitarian tragedy:**
Cyclone Idai in Mozambique

© Munich Re NatCatSERVICE
Significant transparency is provided by the Global Earthquake Model (GEM) and the publication of the first digital global earthquake-risk map, which aims to do more than simply map earthquake hazards worldwide. It allows a risk model to be drawn up for each country, incorporating data on the economy and the exposed building stock. This allows estimates of loss potentials to be made alongside an exploration of the benefits of mitigation measures. The GEM emerged from an initiative between researchers and the OECD in 2007, with Munich Re as the sole enabling company and founding sponsor. Today, the GEM operates on an open-source basis, so that user models, for example those of governments, public authorities, organisations, researchers and insurers, can be specifically modified.

**Strengthening resilience against epidemics**

Munich Re and its subsidiary Social Impact Partners have supported the organisation The Global Fund to fight AIDS, Tuberculosis and Malaria (GF). Since 2014, GF has developed a comprehensive risk assessment and provided recommendations on ways to reduce risk. Munich Re provided risk management and insurance expertise to help the GF identify and manage exposures through bespoke solutions, with the ultimate goal to reduce the victims of AIDS, Tuberculosis and Malaria.

Cooperating on various initiatives, the main focus in 2019 was to find solutions for more efficient delivery of high-quality drugs for developing countries, ultimately helping more people in need. Several operational risks of the GF were also analysed with the aim of ensuring prompt responses to disasters or losses, providing adequate means to stop the spread of AIDS, Tuberculosis and Malaria as quickly and efficiently as possible.

Social Impact Partners supported the GF by jointly identifying and selecting risks and developing ideas on efficient ways to mitigate them through traditional and innovative tailor-made risk solutions, pushing the boundaries of insurability. Social Impact Partners also explored the development of a multi-dimensional concept to increase resilience to provide greater resources to fight AIDS, Tuberculosis and Malaria.

**Strengthening the resilience of cities**

More than 50% of the world’s population currently lives in urban centres and, by 2050, the figure is expected to rise to 80%. Unfortunately, many key cities are situated in exposed regions and losses in these locations can be exceptionally high in the event of natural disasters. It is therefore particularly important to increase the resilience of major cities and this has been a key issue for Munich Re for many years. More specifically, our range of solutions and innovative financing concepts helps cities improve risk management. One such example is the Urban Air Pollution Impact Bond, where Munich Re assists city authorities with air-improvement measures and environmental protection. Munich Re also fully supports the PSICLEI Insurance Industry Development Goals for Cities, which set an action framework for the insurance industry to support the sustainable development of cities.
03_Employees
Responsible employer

Highly qualified, efficient managers and employees are the foundation of our corporate success. As a global financial services provider we depend on their expertise, dedication and commitment to innovation. Continuous training and development play a key role in this context. The recruitment, development and retention of experts and managers is one of the two core objectives of our human resources policy. At the same time, we promote diversity and equal opportunities as strategic factors for the success of Munich Re Group.

For our more than 39,600 employees, we create attractive working conditions that offer personal opportunities and strengthen the autonomy of our employees. We attach particular importance to a corporate culture based on responsible and respectful interaction with each other. Promoting the wellbeing of employees and a healthy balance between private life and work forms a substantial component of all our activities as an employer.

»Our staff is the most important asset Munich Re has – a must for a company that sells sophisticated insurance solutions to its clients.«

Joachim Wenning, CEO Munich Re

Respect and esteem in our Code of Conduct:

„We expect all members of staff to observe every individual’s personal dignity, privacy and personality rights. We do not tolerate discrimination (on grounds of disability, age, gender, ethnic origin, nationality, sexual identity, political opinion, race, religion, beliefs or similar), sexual or other personal harassment, or insulting behaviour. We also do not tolerate socially inappropriate behaviour, intimidation or violence, or the threat of such.

Responsible leadership

Our managers’ culture of leadership and their duty as role models are an essential part of our compliance culture. We expect our managers to take responsibility for their staff members and reaching our business goals with integrity. Their own conduct should reflect what they expect from their staff.

As a Group, we aim to ...
... promote diversity and conduct ourselves accordingly, both within the Group and in public;
... have our managers act as role models for their colleagues and employees.

As members of staff, this means that we ...
... support a culture in which ethically irreproachable conduct is recognised, valued and embodied by all;
... treat our colleagues and business partners with fairness and respect.”
Strategic and target-oriented HR management

> GRI 103

The Group Human Resources Department (Group HR) is responsible for personnel issues that affect the entire Group, and suggests strategies which are then implemented – either via policies (e.g. on diversity) or HR committees (e.g. Group HR Committee) – into the various divisions’ business practices. Our personnel management is tailored to the specific needs of the respective business model, with the goal of applying our business strategies as well as possible in the respective environment.

A Group-wide framework of overarching regulations ensures a coordinated approach at Group level with regard to the following topics.

Our targets on the Executive level area of action:

- Management development
- Diversity and equal opportunities
- Executive staff remuneration
- Tailor made training regarding transformation and digitalisation, especially for leadership and management roles

Our targets in the Employees area of action:

- The expansion of health promotion programmes;
- Ensuring employee satisfaction.

The following sections provide information on the many different measures we use to meet our own ambitions. You can find additional information and examples for primary insurance, reinsurance and MEAG in the respective career portals of Munich Re, ERGO and MEAG.

Development and Talent Management

> GRI 404-2

Management

We prepare our high potentials for management positions in their home country or abroad. Our development programme “Group Management Platform” for the Group’s senior management staff connects top management with the Group’s top talents and prepares them for the challenges of the future through application of innovative development formats (147 participants in 2019, 124 in the previous year). At business field level, we have specific programmes: “Hydrogen” for reinsurance and “MEAG Young Manager” in our investment arm are designed for this purpose.

At ERGO, a new global talent programme (ELP) was launched in spring 2019, focusing on innovation and leadership in the digital world.

In 2019, we were able to fill approximately 84% of all open management positions in reinsurance with internal candidates at our Munich headquarters. This shows that our HR development measures are effective. In combination with long-term succession planning for current senior management, we ensure that the quality of our management is at the level we need to remain successful. At the same time, we strengthen the technical and intercultural competences of our employees by means of staff rotation, facilitated by a group-wide internal job market, which is transparent to all staff world-wide.

Staff training

Our employees can take advantage of a wide range of target-group-oriented training measures. This includes technical training, methodology and social competence courses, management topics, IT competences, compliance regulations, occupational health and safety trainings as well as language courses. The courses take place in a variety of formats: on-site classes, e-learning, webinars, group and individual training. In addition, change processes within Munich Re are monitored and supported comprehensively and professionally.
Continuous conversations between managers and employees play a particularly important role in the success of training and development measures. All employees discuss their personal development needs and ideas regularly with their managers.

<table>
<thead>
<tr>
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<th>2019</th>
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<tbody>
<tr>
<td>Employees attending at least one training</td>
<td>92%</td>
</tr>
<tr>
<td>Spend per employee on training activities</td>
<td>€836</td>
</tr>
<tr>
<td>Training per employee</td>
<td>4.8 days</td>
</tr>
</tbody>
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Additional relevant key indicator can be found in the Key Figures section.

Staff training priority topic - Digitalisation
Digitalisation is of high-level strategic relevance for Munich Re. Our innovation strategy sets down clearly defined key topics for digital transformation. This includes such things as the use of large and new data volumes, as well as the application of new analytic methods. It is particularly important that our employees master the tools and work methods required for our professional tasks and areas of operation. The introduction of the "Digital School" in September 2018 in the reinsurance field of business offers comprehensive digital training to all employees. Our goal is to provide every employee with at least basic knowledge of the digital technologies and trends affecting us. The school offers digital-literacy training, such as in the fields of agile methods, data analytics, design thinking, digital leadership and technologies and working in the digital age. The programme includes various training formats, ranging from e-learning courses to advanced personal training such as the Black Belt programme. And employees demonstrate a keen interest in the courses. In 2019, the programme was accessed more than 13,000 times.

To manage the challenges of digitalisation, Munich Re invests significantly in the analytic expertise of its actuaries and underwriters by offering the Black Belt Curriculum. Employees conduct a four-week presence training in collaboration with local partner universities at three locations: Munich, Princeton and Singapore. In 2019, 85 employees completed Black Belt Training successfully. In total, Group-wide about 200 employees have concluded Black Belt Training.

Learning goals of Black Belt Training are:
- Autonomous translation of general business problems into Data Analytics solutions
- Using tools and methods to generate solutions independently
- Effective use of MR DataLake for analytics use cases
- Knowing and applying GDPR, understanding analytics architecture principles and their implication on analytics operations

Why did you choose to train as a Black Belt?
We have to stay relevant to our customers. With this in mind it is important that we identify and understand their challenges and needs. In addition to the traditional reinsurance business, further solutions – especially in the context of digitisation – are becoming increasingly important. Bringing together the specific needs of our customers with Munich Re’s expertise in the area of data analytics enables us to generate added value for both parties.

For me, the Black Belt programme was the ideal opportunity to enrich my knowledge as an underwriter with expertise in the field of data analytics in order to be able to develop new solutions for our customers.

How has Black Belt knowledge changed your work?
Completely! The Black Belt training fundamentally changed my work as an underwriter. For the first two years after completing my training, I was given the opportunity to devote myself entirely to developing new data analytics solutions for our customers. This challenge enabled me to gain a wide variety of experience.

What role does responsible use of data play in Black Belt Training?
Responsible handling of data is of central importance during Black Belt Training. Data protection and data security is a key topic. The trust our customers place in us means we have an enormous responsibility towards them. The highest security standards are absolutely essential and must always be observed to protect our business and our customers.
In the primary insurance field of business, ERGO set up the transformation@ergo programme to build knowledge of primary insurance. Three action fields (competence management, change management and training) were identified, with the goal of preserving and reinforcing the employability of the workforce. The programme offers training in the key competencies of digital transformation (social, agile, innovation, technology, analytical, resilience) that address such topics as management styles in times of digital change, the consequences and opportunities of digital change, and the skills and qualifications required for the digital work environment.

With a focus on our future business, the Cyber Expert Pool was launched for the reinsurance side of our business in 2018. This is a special training programme for cyber security experts aimed at qualifying candidates with suitable professional experience in cyber security to work on cyber underwriting. So far, 18 underwriters have been successfully trained as cyber experts in different international locations.

The total number of training days used by our employees and our expenses for the training measures are listed in the Key figures section.

**Online content:** More about training at Munich Re

**Diversity matters**

> **GRI 405-1**

The different mindsets, cultures and values of our staff are vital to be an excellent partner for our clients. For this reason, we want to continue promoting diversity and equal opportunities in the Group. The Group HR Department manages the subject of diversity and equal opportunities at Group level by means of key data. The divisions take their own measures in accordance with the respective challenges they face. Our Group-wide Diversity Policy sets down the most important principles in this action field and forms the basis for overarching and comprehensive diversity management. The criteria of gender, age and internationality are decisive for our activities.

**Gender**

We work determinedly to increase the proportion of women in management positions. The measures we take to achieve this goal include the following:

- Strong representation of female talents in talent programmes: (e.g. ERGO Leadership Programme 40%, Hydrogen 43%, Group Management Platform 29%)
- (Cross-)mentoring programmes for women
- Training courses for female management staff, advisory services
- Formation of women’s networks (Munich Re “EFEU”; Munich Re of America “Employee Resource Groups”; MEAG “WIN@MEAG”)
- Identification of high-potential female employees, in talent discussion with gender sensitisation
- Strong commitment to the promotion of women through a special internal company agreement (Munich Re Munich): Right to workplace reintegration in the same position with part-time hours following parental or home care leave of up to 12 months when returning to at least a 21-hour contract (or 80% of full-time hours for staff members in key functions and senior executives)

The proportion of women in management positions in Germany rose to 26.2% in 2019 (from 25.9% in 2018), while the proportion of women in management positions worldwide reached a high level of 35.4%.

Find more details in our factsheet on equal participation.

Age
The active support and promotion of employees at every stage of their professional life is another component of our diversity strategy. In addition to flexible, life-phase-oriented working time and time-out models such as sabbaticals or the possibility of converting bonuses into leave time, the reinsurance arm of Munich Re also offers extensive employee assistance programmes that support employees in Germany, for example, in caring for relatives. In addition, we provide educational offers that promote lifelong learning, as well as various other offers that promote our employees’ health. ERGO and our reinsurance arm in Germany have company agreements in place regarding work and family life-balance. In addition, employees can make use of specialized external service providers free of charge.

Internationality
We aim to achieve “internationality” with well-balanced teams and assignments to key functions. At the same time, we promote the development of international expertise by transferring employees to temporary positions around the world, and through development programmes. As a result, 79% of the participants in the 2019 “Hydrogen” reinsurance talent programme, 50% in the ERGO Leadership Programme and 42% in our Group Management Platform are members of our international organisation.

A global, joint initiative was held at ERGO for the first time on the occasion of the “World Day for Cultural Diversity” in 2019. At the event, a digital diversity map was implemented, which offers insights into various local diversity activities - and this included 42 videos from our foreign companies. 20 international companies from 16 countries participated in this worldwide initiative.

>56 nationalities work at Munich head quarter
Since 2012, Munich Re has also been a signatory of the “Charta der Vielfalt” (diversity charter) employer initiative. Further information on other measures, successes and participation in various initiatives can be found on the respective websites of Munich Re, ERGO and MEAG.

Since 2012 Munich Re stated in its Group-wide Diversity Policy:

For Munich Re, diversity is a business need which promotes the acceptance and value of differences between our employees. This includes not only classic aspects such as gender, religion, age, disabilities, nationality or cultural differences, and sexual orientation, but also inherent characteristics such as experience, education, personality or views. Together, we benefit from those differences in achieving Munich Re’s strategic goals and objectives.

Find and nurture talent:
Recruiting and Retention
> GRI 102-41

Munich Re presents itself to employees and applicants as a fair and responsible employer, which places value on employee loyalty and job security. In addition to development and support programmes, our approach includes a fair and transparent remuneration system and extensive company health management as well as flexible working conditions and time models.

Our attractive human resources approach and appreciative culture of cooperation keeps employment at Munich Re appealing to our employees. This is reflected by the fact that the average lengths of service at Munich Re Group and the Reinsurance Company are 13.6 years and 14.6 years, respectively. This, and the fact that employee turnover currently stands at just 5.0% overall (5.1% for the previous year) speaks volumes about our high level of employee loyalty.

Recruiting young professionals
Demographic change is a challenge we take seriously. In addition to programmes for the development of technical experts and managers, Munich Re cooperates with several universities in Germany and abroad. This is aimed at establishing contact with students and graduates at an early stage to facilitate recruitment. The presence of Munich Re on social media and at
trade fairs with an insurance focus is one of our priorities. Our aim is to provide a first-hand and credible impression of Munich Re as an employer and to recruit talented academics.

**Identifying and developing high-potentials**

**Trainee programmes for young professionals**

Our global graduate trainee programmes systematically promote young high potentials and open up a wide range of career entry opportunities for university graduates. The target group includes highly talented young academics with excellent Master’s or PhD degrees from top international universities in the subjects of economics, law, mathematics and engineering.

**Group Trainee Programme EXPLORE**

In the course of our two-year EXPLORE programme, each trainee is employed at eight different stints in the Group, two of them abroad. Participants work in all the Group’s business fields during their training phases at Munich Re, ERGO and MEAG. In addition to on-the-job training and courses and seminars on management topics, the focus is on personal development measures and work on strategic projects. The first programme conducted from 2016 to 2018 had ten participants from five nations, six of whom were women. All the trainees found positions at Munich Re Group immediately after the programme ended. The second round of the programme (since 2018) has participants from seven different countries, this time five women and five men.

**International Graduate Trainee Programme Reinsurance**

In addition to our German Apprenticeship and the combined studies and training programme (AIS) the “International Graduate Trainee Programme” is an important pillar in addressing our reinsurance workforce needs worldwide.

The objective of the “International Graduate Trainee Programme” is to attract new external talents, give them a new perspective and develop them for a career in Reinsurance. In 2019 we trained 43 graduate career entrants in different international locations, each with a key focus on a particular business function, such as in the core area of underwriting: 25 trainees in Munich (19 male & 6 female) and 18 trainees in the International Organisation (8 male & 10 female).

We are proud that in 2019 both the EXPLORE programme and the global reinsurance programme were recognised as a “Fair Trainee Programme”. The certification was made by the Trendence Institute, in cooperation with the Institute for Human Resources Management at Ludwig Maximilians University (LMU) Munich.

**Our way forward: Collaboration, Feedback and Development**

A major focus of our HR work in the reinsurance business area during 2019 was on the global redesign of performance management and of the remuneration system. So called “Continuous Conversations”, regular discussions on commitment, feedback and development will replace the previous annual performance reviews. This future-oriented approach focuses on cooperation throughout the company with the aim of promoting agility and strengthening the autonomy of employees.

The above is informed by the fact that Munich Re wants to establish a culture of open exchange, dialogue and support, where success and performance are honestly acknowledged, and personal development and collaboration are fostered. In addition, it seeks to ensure that impact and responsibility are clearly focused. Continuous conversations create clarity on commitments and what it takes to deliver on them. The conversations are also about multidirectional and frequent feedback to ensure that everybody knows where they stand. Another key focus of Continuous Conversations is development and personal growth.

**We reward success: Remuneration and Pension Schemes**

The basic salary and additional benefits are important components of a fair and motivating corporate culture at Munich Re. As in other areas of our HR policy, the topic of remuneration is regulated by such frameworks as the Group-wide Munich Re remuneration policy.

As part of the redesign of the entire performance management approach, as of 1 January 2020, a global profit-sharing approach was introduced to replace current, individual variable remuneration. The only relevant key figure for the annual bonus for all employees of the reinsurance will be Munich Re Group’s IFRS result. Our intention is to strengthen our global focus on consistent cooperation and joint business success.
Munich Re also offers numerous additional voluntary benefits on top of the basic salary. Our company pension scheme, in particular, plays a major role. It comprises a company pension, additional pension commitments for non-pay-scale employees and managerial staff, and the offer to convert salary components into pension benefits (deferred compensation).

Munich Re and ERGO are both members of the German insurance employers’ association and consequently bound to the respective collective bargaining agreements.

Munich Re Group complies with all the statutory requirements for employee co-determination.

**Stay well: Improving work live balance and healthcare services**

Work-life balance is of particular importance for many employees. For this reason, we have set up internal company agreements for individual locations and divisions allowing a better balance between private and professional life. In addition, Munich Re provides concrete assistance to families. Among other things, in Germany the Group offers services such as childcare in affiliated nursery facilities, an allowance in the case of privately organised childcare, parent-child office spaces, family services, holiday care services and support in caring for family members.

**Flexible working conditions**

Munich Re Group offers its employees a wide range of models for flexibility in terms of time and location in their jobs, so much so that our Flexible Working concept is exemplary in the German reinsurance sector. Bonuses, for example, can be converted into leave time in the form of short sabbaticals to allow employees to benefit from longer periods away from work. Longer sabbaticals are also possible. In consultation with line managers, specific working days and working hours per week can be flexibly defined. These models are digitally supported, thus making it possible to work en route or at home. A dedicated committee has assumed the task of discussing the further development of the Flexible Working concept and making recommendations for its improvement.
**Parental leave & career breaks**

It is very important for us to retain our employees in the company after parental leave. Information events and advice for parents help employees to reconcile work and personal interests and allow them to take advantage of measures for flexible working hours and to choose their place of work (home office). In addition, parents receive support in caring for their children (places to stay and emergency places such as holiday care) and in questions of caring for relatives. Women in particular can also take advantage of career coaching to gain clarity on personal issues of work-life balance. Through all these measures, we facilitate re-entry after a career break and support employees on their career path. For its family-oriented personnel policy at its German locations, ERGO has already been awarded the “audit berufundfamilie®” certificate four times since 2002. Further information on family-friendly offers can be found on the respective websites of Munich Re, ERGO and MEAG.

**Going further for our employees**

Munich Re Group’s support for employee healthcare by far exceeds statutory requirements. At our Munich site, for example, not only are medical care, preventative measures, sports and relaxation programmes offered, but there are also individual measures for the reintegration of employees following a longer illness-related break from work, as well as healthcare counselling services.

At ERGO Deutschland, five company doctors and a social worker are on hand to help in acute cases and are also available to employees for consultation in all issues regarding health. This includes prophylactic examinations, vaccinations, first-aid care and advice on addiction and dealing with stress. “ERGO sports” is one of the most comprehensive company sports programmes in Germany.

To promote the mental well-being of our employees, we also offer expert counselling at several locations in Germany to help employees deal with difficulties at work or at home. In addition, the reinsurance group in Munich cooperates with the Fürstenberg Institute to offer an Employee Assistance Programme (EAP).

**RE_charge your energy**

Munich Re is aware of the important role resilience and energy management plays in preventing stress-induced diseases. With this in mind, it offered a wide range of supporting measures under the motto “RE_charge your energy” at its headquarters in Munich in 2019. Employees had the opportunity to attend different workshops to increase their individual psychological resilience. Relaxation techniques and the support of resource-oriented, resilient behaviour were at the centre of these workshops. On average just under 90% of the provided capacities were used and all workshops received very good feedback (e.g. about 80% would recommend the training to a colleague). Independently of these workshops, employees could attend different workshops to increase their individual psychological resilience. Relaxation techniques and the support of resource-oriented, resilient behaviour were at the centre of these workshops. On average just under 90% of the provided capacities were used and all workshops received very good feedback (e.g. about 80% would recommend the training to a colleague).

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**Munich Re**

Munich Re attaches particular importance to the improvement of working conditions for disabled persons. The most important measures include considering short distances from the garage to the workplace, special-needs-friendly and requirement-based workplace design and equipment, not to mention safe and comfortable lifts. DKV Seguros and ERGO Hestia even focus on recruiting disabled employees for specific positions to promote their long-term integration into the labour market.

Another focus is the design of our office space and work environment for our staff. We constantly optimise our offices for cooperation and to maintain a healthy, secure and attractive environment for our employees.

The voluntary recognition of the principles set down in the UN Global Compact and their enshrinement in our Code of Conduct underscore our commitment to practising a corporate culture characterised by respect and mutual appreciation.

**Additional relevant key indicator can be found in the Key Figures section.**
04_Environment
Environmental and climate protection at our sites

> GRI 103

The environmental impact of our activities is limited at Munich Re, since our business model is not energy- and resource-intensive. However, as a large organisation with more than 39,660 employees, we have responsibilities for environmental protection, and we involve ourselves in areas where we can have a positive impact. More specifically, our materiality analysis identified corporate environmental protection and carbon neutrality as key topics. Our goals and activities related to these topics focus on reducing energy consumption and associated carbon emissions, as well as on ensuring that business travel is as environmentally friendly as possible and, not least, improving the resource-efficiency of our processes by generating less waste and using sustainable materials. In parallel with these activities, we continually sensitise our staff on how to behave in an environmentally compatible manner.

Strategic management using the Environmental Management System

> GRI 103

Munich Re Group has coordinated environmental activities at all sites since 2012 using a standardised, mandatory environmental management system (EMS) that meets the requirements of the international DIN ISO 14001 standard. The EMS is based on the Group’s environmental guidelines and on selected key performance indicators (KPIs) that we use to assess our carbon footprint. It also defines the processes required and our organisational responsibilities. In 2019, 83% of Group employees worked at sites integrated into the EMS. In addition, 40% of Group employees worked at companies externally certified as DIN ISO 14001.

Environmental guidelines Munich Re Group

Taking responsibility

We comply with national and international environmental regulations and other binding obligations and meet our voluntary commitments to environmental protection. In addition, we are committed to the Principles of the United Nations Global Compact, the voluntary commitments of the Principles for Sustainable Insurance (PSI) and the Principles for Responsible Investment (PRI). We also take environmental and climate protection into account as part of our intra-Group commitments (Code of Conduct, procurement guidelines, company car guidelines).

Regular assessment and continuous improvement of our environmental performance

Our environmental management ensures the control and further development of our environmental measures. Our aim is to continually improve environmental protection as well as our environmental performance, and to prevent or reduce environmental impacts. The effects of our business activities are a key indicator for the assessment of our environmental performance. We calculate carbon emissions on an annual basis in a high-quality standardised format. Our aim is to steadily reduce emissions from energy consumption, as well as from business travel, paper, water and waste. We also take account of environmental criteria when procuring products and services and meet UN Global Compact criteria when selecting and engaging our service providers.

Promoting staff environmental awareness

We promote environmental awareness and responsibility among all our staff and motivate them to engage in active environmental protection and continually improve our environmental performance. We create transparency and support staff initiatives and measures.

Communicating with stakeholders

We communicate openly and regularly to inform our stakeholders about our environmental activities and environmental performance. We seek dialogue, raise awareness and share our knowledge of environmental and climate protection, thereby promoting a general culture of environmental protection.
The Board of Management is responsible for the Group-wide strategy for environmental and climate protection, and for all related measures. The function of Group Environmental Manager is embedded in the central Economics, Sustainability & Public Affairs division. Our Group Environmental Manager controls implementation of the strategy, the EMS and coordinates the collection of data. Local environmental managers at the individual sites are responsible for meeting environmental targets and realising programmes associated with them. Their areas of responsibility specifically include preparing and implementing carbon reduction plans at the sites and collecting relevant environmental data. Environmental managers are the direct contacts for employees for all corporate environmental issues, and also act as advisers to local management. They promote the active exchange of information within the EMS network on best practices, as well as manage communication on environment and climate protection topics. At present, local environmental managers at twelve sites within the Reinsurance Division, 20 sites in the ERGO Group, and at one MEAG site all report data to the Group Environmental Manager.

We have adopted the carbon footprint of our operational activities as the key indicator for assessing our environmental record. Accordingly, we calculate the annual carbon emissions that result from our consumption of energy, paper and water, business travel, and waste generation. This is done in a standardised manner conformity with internationally recognised methods and conversion factors, such as the GHG Protocol. An external auditing company confirmed that we met the required standards for environmental indicators throughout the Group since 2015.

Our Environmental Management System and the commitment of our employees are keeping us on course to achieve or exceed our objectives. We met our carbon reduction target of 35% already in 2017 – with 39% less carbon emissions and, in 2019, we achieved a 44% carbon reduction. In the year under review, we procured approx. 90% of our electricity requirements Group-wide from renewable energy sources. And we will renew our environmental and climate protection strategy and targets in 2020.

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**Carbon footprint Munich Re Group**

<table>
<thead>
<tr>
<th>Year</th>
<th>kg CO₂ per employee</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>4,409</td>
</tr>
<tr>
<td>2015</td>
<td>2,994</td>
</tr>
<tr>
<td>2019</td>
<td>2,485</td>
</tr>
</tbody>
</table>

We want to be measured against the implementation of our environmental and climate protection strategy, and orientate ourselves towards the following objectives formulated in 2015, which we want to achieve by 2020:

- Reduce carbon emissions by 35% compared to the base year of 2009 (measured in kg of carbon emissions per employee)
- Achieve permanent carbon neutrality by taking compensation projects into account
- Convert all electricity procurement to renewable energy sources
- Increase the percentage of environmentally friendly consumables procured (e.g. paper, catering) and the procurement of environmentally friendly vehicles
- Enhance motivation of employees to behave in an environmentally friendly way
- Regularly certify environmental and energy management systems at selected sites
- Verify Group-wide environmental data on an annual basis

90% electricity from renewables in 2019
Lowering our environmental impact:
Higher resource efficiency and falling carbon emissions

> GRI 103

We focus on measures that offer maximum leverage in reducing our carbon emissions. These include increasing energy efficiency in the operation of our buildings, substituting fossil energy sources with renewable energy, reducing business travel and using environmentally friendly consumables.

Reduction of energy consumption

Munich Re Group has lowered its energy consumption by almost 21% per employee since 2009. And the carbon emissions of energy consumption per employee have decreased by more than 53%, mainly by purchasing green electricity. Additionally, energy management systems such as DIN ISO 50001 (e.g. at Munich Re headquarter in Munich) or DIN EN 16247 audited by a third party are in place.

ERGO reduces carbon emissions by deleting data that is no longer required

Bye, bye, bytes – inspired by this motto, ERGO employees from ten countries deleted 9,056 gigabytes of data garbage from their PCs in November 2019 as part of so-called “Bit-away-days”. Deleting unused data takes up less storage space. This in turn saves electricity used to operate and cool systems – and creates less carbon, which reduces impact on the environment and the climate. Happily, the campaign not only reduces the burden on our servers and the environment, but also assists children in need. ERGO donated what it saved on energy costs – a total of around €90,000 – to “Save the Children”.

Modern building technology applied in Dusseldorf

ERGO replaced its cooling units in the spring of 2019. New technology along with some minor alterations to the cooling supply enabled us to use our cogeneration systems even more effectively. Compared to the previous solution, this saves around 500,000 kilowatt hours a year – and generates an even larger amount of electricity – so ERGO profits both financially and ecologically.

Business-Travel

Munich Re is a company with an intensive customer relationship, therefore travel activities are unavoidable. Since 2009, the average of business travel distance per employee increased slightly by 4%, but the carbon impact of business travel could be reduced by more than 23% per employee. One reason is the use of environmentally friendly company cars and carbon neutral rail travel. And we make continuous efforts to electrify the company fleets.
Preference for sustainable consumables

Paper, Water, Waste
Paper, water and waste is a relatively minor part of the Group’s carbon footprint – less than five percent. We have reduced water usage by installing efficient equipment and detecting leakage. Additionally, we have raised the percentage of recycled consumables such as paper (50% more recycling paper in 2019 compared to 2018) and we foster paperless administration through use of electric files.

Climate friendly menu
As of October 2019, about 18,000 employees from Munich Re, ERGO and MEAG in Germany have been able to regularly enjoy a “climate-friendly menu” in any of the Group’s canteens in Germany. The menu offers regional products which, where possible, are organically produced.

Why a climate-friendly menu?
It only takes a few facts to make the motivation clear: Agriculture causes 10% of European greenhouse gas emissions. Emissions resulting from the transport and storage of food are also significant. Frozen food comes at the expense of the climate. And the carbon footprint of every food-type can now be calculated. For example, the carbon footprint of beef is extremely high. Pork and poultry have a footprint that is only a quarter that of beef, and vegetables, of course, have a much smaller footprint still. A lot can be achieved with just a few measures: for example, reducing the amount of meat, sourcing fresh-water fish from local waters, or sourcing organic vegetables with “blemishes” from a local start-up.

Environmentally friendly mobility at ERGO
ERGO introduced an Eco and safety driving training for everyone who drives a company car – and with great success: The fleet’s carbon emissions have dropped by 20 percent. We also critically examine whether any business trip can be replaced by a Skype conference. We recently developed a mobility concept and our plan is to gradually integrate new mobility services and technologies. It is important to us that our employees are able to organize their mobility mix independently, in a needs-oriented manner, that is flexible and sustainable. So, for example, we plan to expand car sharing and to test a shuttle service between ERGO’s Cologne and Dusseldorf locations. The latter would be similar to the daily shuttle service from ERGO-Platz to Dusseldorf Airport and, preferably, all-electric. Additionally, we are currently testing an e-vehicle for use in sales. So far, the feedback has been consistently positive.
Interview with Dr. Josep Santacreu, CEO of DKV Seguros, Spain

Over 20,000 delegates from all over the world attended the UN Climate Change Conference at the Exhibition Centre in Madrid, Spain, which is coincidentally also one of the countries in Europe most severely affected by climate change. Reason enough to ask the long-standing CEO of DKV Seguros, Dr. Josep Santacreu, what he thinks about environmental and climate protection.

Environmental protection plays an important role in your company. In 2004, you measured its ecological footprint for the first time. What consequences have you drawn since then? The health of human beings and that of the planet are closely linked, which is why we first set out to reduce carbon emissions in 2004. Since then we have achieved an 83 percent reduction in our carbon footprint.

In 2007, DKV began to offset emissions that could not be reduced and, in the process, became a carbon-neutral company.

A number of measures enabled our 83 percent reduction. Let me highlight the use of recycled paper, the single paper contract for clients, the switch of paper publications to digital ones, employing videoconferencing to avoid traveling, preferring hybrid vehicles for our commercial fleet, and exclusively purchasing green energy in Spain over the past five years.

The latest official data show that our current emission level of 482.25 tonnes stems mainly from business trips, which we could still improve on.

How do you assess the general awareness today with regard to climate and environmental protection?
Five or six years ago, environmental issues were not perceived as serious problems. However, since the Paris Agreement was signed, there has been a rise in awareness, but there is still a long road to travel.

As a health company, our main mission is to create awareness about the close link between environment and human health. To reach the general public, we created the Health and Environment Observatory within the DKV Institute of Healthy Life. In the past ten years, it has been a pioneer in connecting environmental challenges to health in its studies – such as the impact that plastics, noise, or air pollution may have on health.

DKV Seguros has more than 60 branches in Spain with 780 employees. What can employees contribute to environmental protection? We have a network of volunteers called “EKOamigos” spread across the different departments. Their goal is to achieve DKV’s objective regarding the carbon footprint reduction. In addition, ever since 2011, DKV has organized voluntary meetings for employees and their families to plant trees in order to mitigate the effects of climate change and to preserve biodiversity.

What do you personally do to protect the environment and climate? As a father, how could I not be worried about the planet my three daughters are going to inherit? That is why, when the founder asked me to chair and promote the “Plant-for-the-Planet” organisation, I did not hesitate to get involved. It’s my contribution to ensuring future generations have the planet they deserve. Apart from that, I actively try to participate in all the environmental activities set in motion by DKV: tree planting, beach cleaning, recycling workshops… I also try to be sustainable in my everyday life.

As a father, how could I not be worried?
Environmental and social standards with carbon compensation

We have been carbon-neutral in our operational activities at Munich Re Group since 2015. We compensate for unavoidable carbon emissions by purchasing carbon certificates and we follow strict requirements when selecting carbon offsetting projects. For example, at least one of the projects must meet the Gold Standard and be implemented in one of the world’s least developed countries. In addition we place a special emphasis on maintaining societal standards. We primarily support projects that promote health, facilitate education, develop local infrastructure, avoid deforestation and maintain biodiversity. To achieve carbon neutrality for the 2019 financial year, we obtained carbon certificates for the following projects:

- Wind farms in the Shandong region in China
- Efficient cooking stoves in Uganda

Munich Re engages in a number of local and national climate protection initiatives in order to support efforts for climate change mitigation. These include:

- Klimapakt München
- Allianz für Entwicklung und Klimaschutz
- Wirtschaft macht Klimaschutz
Societal responsibility

> GRI 103

As a responsible company, we are committed to public welfare and cohesion within our society. And our corporate responsibility strategy forms the basis of our societal commitment.

Our chosen fields of action involve issues for which we can provide expertise and risk competencies, allowing us to have the biggest societal impact possible. Specifically, we focus on three significant global challenges: combating climate change and its consequences, improving access to healthcare, and increasing risk awareness.

Furthermore, we promote social and cultural projects at our sites and provide support for emergency measures following natural disasters. Our employees also make a significant contribution through corporate volunteer projects – something that we actively promote.

Our societal commitment is regulated by Group-wide guidelines on donations, sponsoring, memberships, and social cooperation agreements. The guidelines include binding principles, consultation and approval processes, decision criteria, and responsibilities for societal contributions. Our Code of Conduct also makes reference to these criteria. Each site selects its own projects and allocates its own resources in accordance with the guidelines. A standardised, Group-wide reporting system for social activity expenditures ensures transparency for our stakeholders. Additional measuring and monitoring of the outcome and range of our activities helps us to increase the effectiveness of our expenditures.

Commitment to people and the environment

> GRI 103

Our activities focus on three action areas: climate change, health, and risk awareness. The projects presented below are examples of our Group-wide commitment to tackling these three action areas.

>760
organisations supported in 2019

Responding to climate change

Our engagement in climate protection is concentrated on the Tackling Climate Change Together (TCCT) initiative which is driven by both Munich Re and ERGO. The initiative supports projects that focus on impacting climate change and sustainable innovation – by contributing experience, expertise, and financial assistance.

Promoting start-ups and cleantech solutions

Climate-KIC (Knowledge & Innovation Community) is the European Union’s largest public-private climate initiative. It includes a successful accelerator for cleantech start-ups, which supports young entrepreneurs who develop businesses focusing on positive climate impact and sustainability. Munich Re and ERGO run an exclusive Corporate Innovation Programme with the DACH Climate-KIC Accelerator. It was launched in September 2017 as an agile approach to scouting and fostering sustainability solutions that tackle climate change challenges.

The entrepreneurial support programme can last up to 18 months for each start-up – depending on how mature a start-up is. Each start-up receives up to €95,000 in financial assistance. Workspaces in various locations are also available for use by entrepreneurs. And Munich Re and ERGO are an ideal fit for the Climate-KIC Accelerator programme as they have extensive expertise in developing solutions aimed at adjusting to climate change and in mitigating its consequences. As an additional benefit, young entrepreneurs receive coaching and regular mentoring from Munich Re and ERGO staff members. Together with Climate-KIC, Munich Re and ERGO actively work towards sustainability innovation.

The above approach gives Munich Re and ERGO access to young businesses, which receive technical and financial support in return – while society benefits from climate-protection solutions.

We have sponsored 15 start-ups across five different batches of entrepreneurs since 2017. The start-ups were chosen based on feasibility, innovativeness, team, long-term outlook, scalability, climate impact benefit, and relevance to Munich Re and ERGO.

The winter batch of 2018/2019 was the biggest to date with nine start-ups selected for the third and fourth accelerator phases. They received €190,000 in direct financial grants from Munich Re and ERGO as well as 660 hours of individual coaching, workshop hours, and expert mentoring. Over the six-month batch period the start-ups also managed to raise an additional €2m.

| 9 start-ups supported in 2018/2019 |
| 660 hours of coaching and expert mentoring |
| €190,000 direct financial grants |
Examples of the Corporate Innovation Programme with Climate-KIC

Affordable wind power plants based on tethered electric aircraft

kiteKRAFT has developed a power generating kite or a “tethered” electric aircraft that flies autonomously in circles (or figures of eight) in similar fashion to the blade tips of a conventional wind turbine rotor. Small onboard turbines on the kite generate energy and replace expensive wind towers. The kite takes off and lands like a helicopter by reusing the onboard turbines as propellers. Kite power plants such as this hold the potential to generate clean and cost-efficient energy and are a more economical alternative than any other wind technology.

kiteKRAFT started as a research project at the Technical University of Munich. The four co-founders all have “deep-tech” backgrounds and have made their research findings accessible to the public through kiteKRAFT products.

The team plans to sell its kite power plants with additional services such as repairs, upgrades and trainings as of 2020. Together with Munich Re and ERGO, the founders are developing suitable insurance solutions for their customers that cover risks such as vandalism, damages resulting from malfunction and bad weather, or loss of earnings due to incorrectly forecast energy yields.

Online content: More about kiteKRAFT

GRZ Technologies

GRZ Technologies Ltd. is a renewable energy storage company founded in 2017.

Using hydrogen for long-term energy storage: The performance fluctuations of renewable energy sources pose a challenge for energy storage. Batteries perform well for short-term storage, but an alternative is needed for long-term (seasonal) storage of energy. Hydrogen is seen as the solution to the problem. However, the key challenge is to store hydrogen in a dense, effective and safe manner.

The hydrogen storage technology GRZ Technologies is the first commercially implemented solution to this problem. The core of the new technology is a hydrogen sorption material that enables dense, safe and effective energy storage. It outperforms other technologies in terms of density and all key performance indicators. The specific design of the system enables an efficient, safe and compact solution as well as the decentralised storage of large quantities of renewable energy. This innovative solution is marketed under the DASH (Dense and Safe Hydrogen Storage) trademark. A pilot plant is already running and the first orders for two commercial systems have been placed.

Online content: More about GRZ Technologies
Climathon: 24 hours of climate protection brainstorming

Munich Re and ERGO sponsored Climathons in four cities in 2019: Munich, Sydney, Vilnius and Tallinn. Under the name “Climathon”, Climate-KIC organizes climate protection hackathons worldwide. Global Climathon Day took place in 145 cities around the world on 25–26 October 2019. The common goal is to develop local solutions to urgent challenges posed by climate change and to improve the resilience of cities. Climathon participants have just 24 hours to craft their concepts. Joint teams consisting of students, founders of start-ups, municipal representatives and local business people each worked on different types of challenges tailored to each city’s needs. Nearly 400 people – including Munich Re and ERGO employees, trainees and clients – took part in the events we sponsored in the four cities. All in all, 49 teams worked on coming up with solutions to 11 different challenges.

Online content: More about the Climathon

Climate education in schools with the “Klimakoffer”

A project named “Climate Change: Understanding it and managing it” makes use of a portable experiment kit or suitcase developed at the Faculty of Physics at Ludwig Maximilians University (LMU). The aim of the project is to make the scientific background and consequences of climate change experimentally accessible to schoolchildren. This is done with 14 graphic experiments that demonstrate everything from radiation balance, absorption of heat radiation by CO₂, and the Albedo effect, to the acidification of the oceans and regional effects of climate change. An understanding of tipping points, various feedback processes, extreme weather conditions and their potential for destruction is also communicated by the project, which effectively manages to convey an extremely current topic directly into the heart of schools. Munich Re supports the further development and dissemination of the project.

Reforestation for climate-stabilising forests

Munich Re supports the afforestation work of the German Forest Protection Association in the Bavarian Alps. After the storm Vaia, forest areas in the Partenkirchen area and north of the main Alpine ridge were badly damaged. Natural reforestation is usually gradual and can take a long time. Munich Re made donations to support the preservation of forest areas and the adaptation of forests to climate change by planting more than 2,100 climate-stable tree species. Stable and species-rich forests make a positive contribution to climate protection by storing CO₂.
Better access to healthcare

Start a four-year partnership to advance cutting-edge cancer studies through research collaboration, funding of grants and employee engagement.

Munich Re Life US entered into a four-year partnership with the American Cancer Society (ACS) amplifying both organisations’ commitment to saving more lives from cancer. As part of the partnership, Munich Re Life US and ACS will collaborate on cancer-related research initiatives involving our respective research and medical teams. In addition, Munich Re Life US will partially fund two critical ACS Research Scholar Grants in the aggregate of $250,000 as well as activate employee giving by launching nationwide philanthropic campaigns and volunteer opportunities. With this partnership, Munich Re becomes the first company in the reinsurance space to support ACS Research Scholar Grants. Recipients are early-stage investigators with innovative ideas that are on the cutting edge of science.

Since 2016, Munich Re has funded a four-year project that works to fight tuberculosis in Indonesia. The project is run by the Global Fund, an international organisation supporting the fight against AIDS, tuberculosis and malaria, and the objective is to reduce the mortality rate and break the chain of infection. Quick tests that can detect bacterial resistance play a key role, as does the strengthening of healthcare systems.

DKV Seguros demonstrates its commitment to corporate responsibility as a founding member of the Cuidam programme, which provides healthcare for needy children worldwide. Children from Africa, South America, Asia and Eastern Europe who previously had no access to medical care can receive treatment there. Since 2004, this programme improved the health of more than 340 children in a sustainable way. The average cost per case is around €15,000.

Increasing risk awareness among the population and promoting risk prevention

Protecting against weather-related landslides

A high level of risk awareness can prevent damage and minimise danger for a population. For this reason, Munich Re is continually supporting the non-profit organisation GeoHazards International (GHI) in drawing up and implementing geological safety recommendations. This means that populations in exposed locations, such as in India, are protected against dangerous landslides thanks to information and training provided to them. Every year in India, monsoon rains trigger thousands of such incidents. The Munnar region in the state of Kerala is particularly affected. GHI works with local government agencies on a range of different measures, for example, in identifying both quick and long-term ways to protect people from landslides. Additionally, improvement of the common methods of construction in hilly areas and changes to underlying policies can protect people from further landslides. Along with other sources, the basis for this work is the Landslide Safety Action Plan that GHI developed with the support of Munich Re in Aizawl between 2012 and 2016. It was held up as an example by the Indian National Disaster Management Authority for other regions to follow.
Disaster Relief

Rapid disaster relief for people in need

For many years, Munich Re has provided financial support for emergency aid measures and reconstruction projects following natural disasters. To this end, we work closely with and support the aid organisation Save the Children. Munich Re set up a formal partnership with Save the Children in 2019.

More specifically, during the 2019 reporting year, Munich Re supported the following projects in connection with disaster relief:

- Aid measures by Save the Children following the devastating tropical cyclones which hit Mozambique in April 2019. About 2,312 individuals were assisted with healthcare, hygiene products, food and education and, in order to increase the safety of children, 300 people were trained in different child protection topics.

- Immediate aid for the Indian population affected by cyclone Fani: On behalf of Munich Re, Save the Children distributed 258 food baskets to families in extreme need right after the disaster hit.

- Following floods and heavy rain in Nepal in July 2019, Munich Re enabled 222 households to be provided with NFI (Non-Food Item) kits by Save the Children, which contained, among other things, such necessities as kitchen utensils, baby supplies and mosquito nets.

- When the North Indian state of Assam experienced severe floods during the second half of 2019, Save the Children delivered 345 hygiene kits to affected households with the support of Munich Re.

- After devastating floods in South Sudan, Munich Re funded the distribution of packs of 200 chlorine tablets by Save the Children. With this help 200 of the most vulnerable families were able to purify their water for safe drinking and to reduce the risk of cholera and other waterborne diseases.
Further engagement in disaster relief

- Aid measures by the International Federation of Red Cross and Crescent Societies (IFRC) to mitigate the consequences of Hurricane Dorian on the Bahamas: Munich Re took part in a cash-campaign, in which families received $810 each in addition to the conventional aid measures from the Red Cross. The aim was to enable local families to rebuild destroyed houses and to resume income-generating activities (e.g. fishing and other small businesses).

- Munich Re donated to the refugee camp in Cox’s Bazar, Bangladesh, which is regularly impacted by monsoons.

Employee Engagement

We also show our commitment to numerous social, cultural and ecological projects at our different sites through corporate volunteering. Many of the initiatives are the result of ideas from our employees and are driven by them. For example, Munich Re Munich supports its employees’ voluntary work meaning that it also contributes to the time given by its employees. As a result, when employees use their own annual leave for volunteering, they can receive up to two extra days of holiday per year. The internal Schinzler Foundation supports our employees’ voluntary work by giving grants to various projects.

11,000

hours of voluntary engagement in 2019

The Schinzler Foundation also initiated the “Wish Tree Campaign” in 2019: Many employees took part in this joint Christmas project in favour of needy children and young people from social institutions in and around Munich. In total, our employees fulfilled a Christmas wish for 525 children and adolescents.

Other examples show the commitment of our employees worldwide. For instance, DKV Seguros arranges a “Marcha Solidaria” in the interests of the community every year. In October 2019, 688 volunteers – along with employees and family members of DKV Seguros as well as customers – collected rubbish on beaches and in forests. This campaign collected 950 kilos of garbage. Based on the sum of kilometres covered and kilos collected, the company donated €14,000 to non-profit organisations that work to protect and clean beaches.
Foundations take on responsibility worldwide

The corporate responsibility of the Munich Re Group is supplemented and complemented effectively by the work of five different foundations:

The Munich Re Foundation – From Knowledge to Action

Munich Re Group concerns itself with facing the great challenges of the world today: population growth, globalisation, diminishing resources, environmental pollution and climate change. The Munich Re Foundation aims to identify risks, work to counteract them and help to overcome them. As critical thinkers and reliable partners, the Foundation can stake a claim to finding long-term solutions. The objective is to prepare people for risks and to improve their living conditions.

By holding regular public discussion forums on societal challenges, the Foundation aims to address issues and challenges that are currently being faced around the globe. The topic for 2019 was “Poor rich world”, with a focus on the global distribution of wealth – also in more or less rich cities such as, e.g. Munich. In 2020, the guiding theme is “Climate change, climate protection – is there still hope?”. Debates revolve around the impact of climate change, also highlighting mitigation options. For 15 years, together with the Microinsurance Network (MIN), the Munich Re Foundation has organised the world’s largest conference related to inclusive insurance (“Micro-insurance”). Experts from some 60 countries discuss how insurance solutions can succeed for impoverished people in developing countries and emerging nations. An additional focus point of the conference is climate risk insurance. In a project stream called RISK Award the Munich Re Foundation promotes the implementation of warning systems tailored to the needs of the people at risk. Furthermore, the foundation funds water generation projects in arid regions. It is also a mission of the foundation to share its expertise on climate change, sustainability, justice, ecological changes, social vulnerability and resilience with school-children, students and decision makers, as well as policy makers.

The Dr. Hans-Jürgen Schinzler Foundation is dedicated to promoting volunteer work carried out by Munich Re employees, particularly as part of the “Social Days” scheme.

The ERGO Youth & Future Foundation helps disadvantaged young people to successfully shape their own future careers.

The DKV Seguros “Integralia” Foundation promotes the social and professional integration of people with physical disabilities in Spain.

The ERGO Hestia “Integralia” Foundation makes it easier for people with disabilities in Poland to take their first step onto the career ladder and aims to encourage other employers to do the same.
06_Key figures, Indices, Annex
Financial indicators

Online content: Find all information about our financial figures on our corporate website

Taxes on income by region

<table>
<thead>
<tr>
<th>Region</th>
<th>Unit</th>
<th>Taxes on income 2019</th>
<th>Taxes on income 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>€m</td>
<td>188</td>
<td>162</td>
</tr>
<tr>
<td>Asia Pacific</td>
<td>€m</td>
<td>11</td>
<td>20</td>
</tr>
<tr>
<td>Europe</td>
<td>€m</td>
<td>277</td>
<td>388</td>
</tr>
<tr>
<td>Other*</td>
<td>€m</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>€m</td>
<td>482</td>
<td>576</td>
</tr>
</tbody>
</table>

* Other includes no country with more than 10% of taxes on income.

Environmental indicators

A key component of our Group-wide environmental and climate protection strategy is the continuous reduction of our consumption of resources and our resulting CO₂ emissions.

In our reporting on our consumption of resources and CO₂ emissions, we focus on the main direct impacts of our business operations on the environment and climate. These are the consumption of paper, energy and water, the waste we produce and the number of business trips we make. The resulting CO₂ emissions are measured and externally quality assured. The continuous reduction in these emissions is the main indicator of success for our environmental performance and has been achieved throughout the Group.

To calculate the Group-wide carbon savings targets, from 2009 to 2015 (~10% kg of CO₂ per employee), we used the conversion factors of the Greenhouse Gas Protocol (GHGP) and the Association for Environmental Management and Sustainability in Financial Institutions (VfU) – from 2011 in each case. Green electricity was not included in the accounting, thereby ensuring that the quantitative values remained comparable over the target period. In 2015, a new environmental and climate protection strategy was approved by the Board of Management and the CO₂ savings target was expanded – from 2009 to 2020 we want to achieve Group-wide CO₂ savings (kg per employee) of 35%. The figures from 2017 to 2019 are only comparable to a limited extent with the 2009 figures. This is because different conversion factors are used for the calculation of carbon emissions, and due to differences in the calculation of carbon emissions from renewable energy.

Sources of CO₂ emissions:

- Scope 1: Direct emissions from primary energy consumption (natural gas, heating oil, emergency diesel power), fuel for company cars,
- Scope 2: Indirect emissions from procured energy (purchase of electricity and district heat),
- Scope 3: Other indirect emissions (business trips, consumption of paper and water, waste).

** Selected quantitative environmental indicators are verified Group-wide by an external auditing company.
### General Information

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td></td>
<td>39,662</td>
<td>41,410</td>
<td>42,410</td>
<td>47,249</td>
</tr>
</tbody>
</table>

| Gross premiums written Munich Re Group  | €bn  | 51.5  | 49.1  | 49.1  | 41.4             |

| Proportion of employees captured by the environmental data collection | % employee | 83** | 83    | 83    | 84               |

| Proportion of employees who were verified by a third party | % employee | 100** | 100   | 100   | no data          |

| Proportion of employees captured by an environmental system certified to ISO 14001 | % employee | 40** | 38    | 38    | no data          |

| Total CO₂ emissions Munich Re Group | Metric tonnes (t) | 98,393** | 103,024 | 113,278 | 217,315          |
|                                      | Metric tonnes (t)/employee | 2.48** | 2.49   | 2.67   | 4.40             |

| CO₂ savings per employee since 2009 | Metric tonnes (t) | 44    | 44    | 39    |                  |

| CO₂ intensity | Metric tonnes (t) CO₂/€m gross premiums written - Munich Re Group | 1.91 | 2.10 | 2.31 | 5.25          |

### Scope 1

<table>
<thead>
<tr>
<th>Direct energy consumption</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2009 (base year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWh total</td>
<td></td>
<td>159,443</td>
<td>165,385</td>
<td>170,440</td>
<td>195,291</td>
</tr>
<tr>
<td>MWh/employee</td>
<td></td>
<td>4.0</td>
<td>3.99</td>
<td>4.02</td>
<td>4.13</td>
</tr>
</tbody>
</table>

| CO₂ emissions from direct energy consumption | Metric tonnes (t) | 44,023 | 45,730 | 47,880 | 65,932          |
|                                           | Metric tonnes (t)/employee | 1.11 | 1.10  | 1.13  | 1.4             |

### Scope 2^1

<table>
<thead>
<tr>
<th>Indirect energy consumption</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2009 (base year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWh total</td>
<td></td>
<td>201,455</td>
<td>217,714</td>
<td>237,893</td>
<td>348,885</td>
</tr>
<tr>
<td>MWh/employee</td>
<td></td>
<td>5.10</td>
<td>5.26</td>
<td>5.61</td>
<td>7.38</td>
</tr>
</tbody>
</table>

| CO₂ emissions from indirect energy consumption (market-based) | Metric tonnes (t) | 27,226 | 31,713 | 39,834 | 117,476          |
|                                                           | Metric tonnes (t)/employee | 0.69 | 0.77  | 0.94  | 2.49             |

| CO₂ emissions from indirect energy consumption (location-based) | Metric tonnes (t) | 63,813 | 68,237 | 79,426 |
|                                                               | Metric tonnes (t)/employee | 1.61 | 1.65  | 1.87  |

^1 Green electricity is considered for the first time in 2016.

### Scope 3

| Other indirect CO₂ emissions (water, waste, paper, travel) | Metric tonnes (t) | 27,144 | 25,581 | 25,563 | 33,352          |
|                                                          | Metric tonnes (t)/employee | 0.68 | 0.62  | 0.6    | 0.71             |

| Total energy consumption (Scope 1 and 2) | MWh total | 360,897** | 383,101 | 408,334 | 543,365          |
|                                          | MWh/employee | 9.10** | 9.25   | 9.63   | 11.50            |

| Percentage of total electricity consumption from green electricity | Share in % | 90** | 86    | 78    | 28               |

| CO₂ emissions from energy (Scope 2 marked-based) | Metric tonnes (t) | 71,249** | 77,443 | 87,714 | 183,408          |
|                                                  | Metric tonnes (t)/employee | 1.80** | 1.87   | 2.07   | 3.88             |

| Energy intensity | MWh/€m gross premiums written | 6.2 | 7.80  | 8.32  | 13.14            |

### Energy consumption by type

| Liquid fuel | MWh | 665 | 742 | 956 | 573 |
| Natural gas | MWh | 158,778 | 164,644 | 169,484 | 194,718 |
| Thereof natural gas for cogeneration | MWh | 134,970 | 138,300 | 140,332 | 65,715 |
| On-site energy generation | MWh | 131,395 | 111,055 | 114,369 | 0 |
| Total electricity consumption | MWh | 125,839 | 133,518 | 142,372 | 236,939 |
| Thereof electricity consumption from renewable sources | MWh | 112,664 | 114,825 | 115,730 | 66,343 |
| District cooling | MWh | 8,047 | 9,481 | 10,888 | 12,998 |
| District heating | MWh | 67,569 | 74,448 | 84,633 | 98,136 |
### Waste

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2009 (base year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste generation</td>
<td>Metric tonnes (t)</td>
<td>9,870**</td>
<td>10,864</td>
<td>11,592</td>
<td>14,054</td>
</tr>
<tr>
<td></td>
<td>Metric tonnes (t)/ employee</td>
<td>0.25**</td>
<td>0.26</td>
<td>0.27</td>
<td>0.30</td>
</tr>
<tr>
<td>Waste for incineration hazardous</td>
<td>Metric tonnes (t)</td>
<td>5</td>
<td>5</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Waste for incineration non-hazardous</td>
<td>Metric tonnes (t)</td>
<td>1,613</td>
<td>2,060</td>
<td>2,601</td>
<td>2,472</td>
</tr>
<tr>
<td>Recycled waste hazardous</td>
<td>Metric tonnes (t)</td>
<td>78</td>
<td>55</td>
<td>81</td>
<td>25</td>
</tr>
<tr>
<td>Recycled waste non-hazardous</td>
<td>Metric tonnes (t)</td>
<td>5,353</td>
<td>6,160</td>
<td>6,299</td>
<td>8,796</td>
</tr>
<tr>
<td>Waste to landfill hazardous</td>
<td>Metric tonnes (t)</td>
<td>17</td>
<td>0</td>
<td>0</td>
<td>13</td>
</tr>
<tr>
<td>Waste to landfill non-hazardous</td>
<td>Metric tonnes (t)</td>
<td>843</td>
<td>803</td>
<td>1,071</td>
<td>1,176</td>
</tr>
<tr>
<td>Organic waste</td>
<td>Metric tonnes (t)</td>
<td>1.323</td>
<td>1.18</td>
<td>1.151</td>
<td>1.032</td>
</tr>
<tr>
<td>Other waste not specified</td>
<td>Metric tonnes (t)</td>
<td>519</td>
<td>467</td>
<td>315</td>
<td>350</td>
</tr>
<tr>
<td>Special waste treatment</td>
<td>Metric tonnes (t)</td>
<td>118</td>
<td>196</td>
<td>54.3</td>
<td>165</td>
</tr>
<tr>
<td>CO₂ emissions from waste</td>
<td>Metric tonnes (t)</td>
<td>2,666**</td>
<td>2,777</td>
<td>2,771</td>
<td>2,895</td>
</tr>
<tr>
<td></td>
<td>Metric tonnes (t)/ employee</td>
<td>0.07**</td>
<td>0.07</td>
<td>0.07</td>
<td>0.06</td>
</tr>
<tr>
<td>Waste intensity</td>
<td>Metric tonnes (t)/€m gross premiums written</td>
<td>0.05</td>
<td>0.22</td>
<td>0.24</td>
<td>0.34</td>
</tr>
</tbody>
</table>

Data for waste have been modified for 2018 due to adjustment of data calculation.

### Water

<table>
<thead>
<tr>
<th>Water Type</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2009 (base year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water consumption</td>
<td>Cubic metres (m³)</td>
<td>665,766**</td>
<td>658,217</td>
<td>676,510</td>
<td>859,181</td>
</tr>
<tr>
<td></td>
<td>Cubic metre (m³)/ employee</td>
<td>17**</td>
<td>16</td>
<td>16</td>
<td>18.2</td>
</tr>
<tr>
<td>CO₂ emissions from water</td>
<td>Metric tonnes (t)</td>
<td>466**</td>
<td>460</td>
<td>473</td>
<td>639</td>
</tr>
<tr>
<td></td>
<td>Metric tonnes (t)/ employee</td>
<td>0.012**</td>
<td>0.011</td>
<td>0.011</td>
<td>0.014</td>
</tr>
<tr>
<td>Water intensity</td>
<td>Cubic metres (m³)/€m gross premiums written</td>
<td>12.9</td>
<td>13.4</td>
<td>13.8</td>
<td>20.7</td>
</tr>
</tbody>
</table>

### Business trips

<table>
<thead>
<tr>
<th>Business trips</th>
<th>Unit</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
<th>2009 (base year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business trips</td>
<td>Kilometres (km)</td>
<td>304,395,351**</td>
<td>291,670,161</td>
<td>296,208,905</td>
<td>350,167,683</td>
</tr>
<tr>
<td></td>
<td>Kilometres (km)/ employee</td>
<td>7,675**</td>
<td>7,043</td>
<td>6,984</td>
<td>7411</td>
</tr>
<tr>
<td>Air travel</td>
<td>Kilometres (km)</td>
<td>192,476,667**</td>
<td>177,345,204</td>
<td>175,985,436</td>
<td>189,257,132</td>
</tr>
<tr>
<td>Road or rail travel2</td>
<td>Kilometres (km)</td>
<td>111,918,684**</td>
<td>113,724,957</td>
<td>120,223,469</td>
<td>160,910,551</td>
</tr>
<tr>
<td>CO₂ emissions from business travel</td>
<td>Metric tonnes (t)</td>
<td>34,363**</td>
<td>33,111</td>
<td>34,186</td>
<td>53,195</td>
</tr>
<tr>
<td></td>
<td>Metric tonnes (t)/ employee</td>
<td>0.87**</td>
<td>0.80</td>
<td>0.81</td>
<td>1.13</td>
</tr>
<tr>
<td>Business travel intensity</td>
<td>Kilometres (km)/€m gross premiums written</td>
<td>5,911</td>
<td>5,940</td>
<td>6,033</td>
<td>8,453</td>
</tr>
</tbody>
</table>

The figure for the year 2017 has been adjusted because of an internal change to the sub-categories for business trips.

---

** The figure for the year 2017 has been adjusted because of an internal change to the sub-categories for business trips.
### Staff indicators

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong> (abs.)</td>
<td>39,662</td>
<td>41,410</td>
<td>42,410</td>
</tr>
<tr>
<td><strong>Employees by field of business</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reinsurance</td>
<td>31.2%</td>
<td>29.8%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Primary insurance</td>
<td>68.8%</td>
<td>70.2%</td>
<td>71.4%</td>
</tr>
<tr>
<td><strong>Group staff by region</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>47.4%</td>
<td>46.3%</td>
<td>47.1%</td>
</tr>
<tr>
<td>Rest of Europe</td>
<td>35.6%</td>
<td>37.7%</td>
<td>37.5%</td>
</tr>
<tr>
<td>North America</td>
<td>13.3%</td>
<td>12.4%</td>
<td>12.1%</td>
</tr>
<tr>
<td>Asia and Australasia</td>
<td>2.7%</td>
<td>2.5%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Africa and Middle East</td>
<td>0.5%</td>
<td>0.6%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Latin America</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Percentage of female employees</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female employees</td>
<td>53.1%</td>
<td>53.9%</td>
<td>54.5%</td>
</tr>
<tr>
<td>Women in managerial positions</td>
<td>35.4%</td>
<td>35.7%</td>
<td>33.5%</td>
</tr>
<tr>
<td><strong>Group staff by age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20 or younger</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>21-25</td>
<td>4.1%</td>
<td>3.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>26-30</td>
<td>8.3%</td>
<td>8.8%</td>
<td>9.2%</td>
</tr>
<tr>
<td>31-35</td>
<td>12.2%</td>
<td>13.3%</td>
<td>13.7%</td>
</tr>
<tr>
<td>36-40</td>
<td>13.8%</td>
<td>14.1%</td>
<td>14.0%</td>
</tr>
<tr>
<td>41-45</td>
<td>14.0%</td>
<td>14.0%</td>
<td>14.0%</td>
</tr>
<tr>
<td>46-50</td>
<td>15.5%</td>
<td>16.0%</td>
<td>16.7%</td>
</tr>
<tr>
<td>51-55</td>
<td>16.0%</td>
<td>15.4%</td>
<td>15.1%</td>
</tr>
<tr>
<td>56-60</td>
<td>11.2%</td>
<td>10.1%</td>
<td>9.5%</td>
</tr>
<tr>
<td>over 60</td>
<td>4.6%</td>
<td>4.1%</td>
<td>4.0%</td>
</tr>
<tr>
<td><strong>No. of staff by type of employment contract</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanent employment</td>
<td>95.1%</td>
<td>94.6%</td>
<td>93.4%</td>
</tr>
<tr>
<td>Temporary employment</td>
<td>4.9%</td>
<td>5.4%</td>
<td>6.6%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Salaried employees</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full-time (abs.) – female</td>
<td>14,471</td>
<td>15,016</td>
<td>15,280</td>
</tr>
<tr>
<td>Part-time (abs.) – female</td>
<td>5,707</td>
<td>6,355</td>
<td>6,679</td>
</tr>
<tr>
<td>Total (abs.) – female</td>
<td>20,178</td>
<td>21,371</td>
<td>21,959</td>
</tr>
<tr>
<td>Full-time (abs.) – male</td>
<td>17,235</td>
<td>17,721</td>
<td>18,031</td>
</tr>
<tr>
<td>Part-time (abs.) – male</td>
<td>1,028</td>
<td>1,190</td>
<td>1,179</td>
</tr>
<tr>
<td>Total (abs.) – male</td>
<td>18,263</td>
<td>18,911</td>
<td>19,210</td>
</tr>
<tr>
<td>Full-time (abs.)</td>
<td>31,706</td>
<td>32,737</td>
<td>33,311</td>
</tr>
<tr>
<td>Part-time (abs.)</td>
<td>6,735</td>
<td>7,545</td>
<td>7,858</td>
</tr>
<tr>
<td>Total (abs.)</td>
<td>38,441</td>
<td>40,282</td>
<td>41,169</td>
</tr>
<tr>
<td><strong>Sick leave</strong></td>
<td>4.7%</td>
<td>4.8%</td>
<td>4.7%</td>
</tr>
<tr>
<td><strong>Employees with access to medical care (doctor, health insurance)</strong></td>
<td>78.5%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Employees with access to health services (e.g. vaccination, health check)</strong></td>
<td>84%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Staff turnover</strong> <em>4</em></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover rate</td>
<td>12.3%</td>
<td>11.7%</td>
<td>15.1%</td>
</tr>
<tr>
<td>Voluntary fluctuation</td>
<td>5.0%</td>
<td>5.1%</td>
<td>5.7%</td>
</tr>
<tr>
<td>Lay-offs (abs.)</td>
<td>523</td>
<td>453</td>
<td>744</td>
</tr>
<tr>
<td><strong>Open positions filled by internal candidates</strong></td>
<td>31.7%*</td>
<td>32.6%*</td>
<td>17.1%*</td>
</tr>
<tr>
<td><strong>Length of service</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years (Ø)</td>
<td>13.7</td>
<td>13.3</td>
<td>13.0</td>
</tr>
<tr>
<td><strong>Further education</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost per employee (€)</td>
<td>836.0*</td>
<td>930.1*</td>
<td>944*</td>
</tr>
<tr>
<td>No. of days' training per staff member (Ø)</td>
<td>4.5*</td>
<td>3.1*</td>
<td>3.0*</td>
</tr>
<tr>
<td>Employees with at least one training*</td>
<td>91.7%</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Employees with at least one online training*</td>
<td>74.6%</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
Staff indicators

<table>
<thead>
<tr>
<th>No. of training courses per employee by category</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digitalisation and Innovation</td>
<td>1.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Environment</td>
<td>0.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Risk awareness</td>
<td>1.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Expertise</td>
<td>1.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Social competence</td>
<td>0.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Language training</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other training</td>
<td>0.4</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

| Employees with flexible working hours | 81%   | -    | -    |
| Employees with access to mobile working      | 70%   | -    | -    |
| Employees with access to sabbatical or add. leave days | 67%   | -    | -    |
| Employees with financial support for staff catering | 76%   | -    | -    |
| Employees with access to child care services | 61%   | -    | -    |
| Employees receiving regular performance and career development reviews | 100.0%| 100.0%| 100.0% |
| Employees covered by collective bargaining agreements | 99.6%| 96% | 96% |

Pay ratio

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>24</td>
<td>23</td>
</tr>
</tbody>
</table>

Social impact (SI) indicators

<table>
<thead>
<tr>
<th>Employees coverage</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99.6%</td>
<td>99.3%</td>
<td>99.8%</td>
</tr>
</tbody>
</table>

Total SI expenses

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>8,800,999 €</td>
<td>8,397,389 €</td>
<td>8,771,058 €</td>
</tr>
</tbody>
</table>

Share of pre-tax profit

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.28%</td>
<td>0.23%</td>
<td>0.43%</td>
</tr>
</tbody>
</table>

Details of social impact expenses in €

<table>
<thead>
<tr>
<th>Activities at our locations</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,930,506</td>
<td>2,094,066</td>
<td>2,118,201</td>
</tr>
</tbody>
</table>

Social impact projects that pay into the three global challenges

1. Combating the effects of climate change
2. Improving access to healthcare
3. Enhancing risk awareness

Disaster relief

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>195,843</td>
<td>147,250</td>
<td>98,509</td>
</tr>
</tbody>
</table>

Donations in kind, sponsorships in kind

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>185,171</td>
<td>71,021</td>
<td>24,761</td>
</tr>
</tbody>
</table>

Political donations

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>173,980</td>
<td>173,100</td>
<td>170,500</td>
</tr>
</tbody>
</table>

Corporate volunteering

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,016,276</td>
<td>796,701</td>
<td>862,397</td>
</tr>
</tbody>
</table>

ERGO foundations

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>561,129</td>
<td>506,562</td>
<td>594,677</td>
</tr>
</tbody>
</table>

Munich Re foundations

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,698,886</td>
<td>1,564,992</td>
<td>1,735,002</td>
</tr>
</tbody>
</table>

Regional classification 2019

<table>
<thead>
<tr>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1,834,803</td>
<td>2,006,873</td>
</tr>
<tr>
<td>Europe (excluding Germany)</td>
<td>826,188</td>
<td>971,576</td>
</tr>
<tr>
<td>North America</td>
<td>2,250,933</td>
<td>2,055,554</td>
</tr>
<tr>
<td>Latin America</td>
<td>11,624</td>
<td>8,083</td>
</tr>
<tr>
<td>Australia/New Zealand</td>
<td>149,895</td>
<td>168,971</td>
</tr>
<tr>
<td>Africa</td>
<td>45,944</td>
<td>54,177</td>
</tr>
<tr>
<td>Asia</td>
<td>46,169</td>
<td>19,779</td>
</tr>
</tbody>
</table>

Regional classification 2019

- Coverage Munich Re Group: ≥90%
- Coverage Munich Re Group: ≥50%
- Proportion of employees captured: Munich Re Group Germany ~50% of Munich Re Group
- Pay ratio: The average target overall direct remuneration of all members of the Board of Management was 22 (24) times the average target overall direct remuneration of all employees (excluding the Board of Management)
Expenses for lobbying in € – not part of social impact expenses

As part of its lobbying activities, Munich Re Group engages in a continuous exchange with a wide range of organisations of which it is a member. The following table shows a selection of the institutions of greatest Group-wide strategic importance that are active across sectors and/or (also) international in scope.

<table>
<thead>
<tr>
<th>Association/Organisation</th>
<th>Membership fees 2019</th>
<th>Membership fees 2018</th>
<th>Membership fees 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Association of German Insurers (GDV)</td>
<td>3,000,000</td>
<td>3,000,000</td>
<td>3,000,000</td>
</tr>
<tr>
<td>Geneva Association</td>
<td>170,000</td>
<td>160,000</td>
<td>140,000</td>
</tr>
<tr>
<td>The European Insurance CFO Forum (CFO Forum)</td>
<td>70,000</td>
<td>40,000</td>
<td>90,000</td>
</tr>
<tr>
<td>Chief Risk Officer Forum</td>
<td>30,000</td>
<td>30,000</td>
<td>30,000</td>
</tr>
<tr>
<td>The Insurance Europe Reinsurance Advisory Board (RAB)</td>
<td>15,000</td>
<td>15,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>
GRI content index

> GRI 102-55

<table>
<thead>
<tr>
<th>GRI standard</th>
<th>Reference</th>
<th>Comments/Omission</th>
<th>UNGC principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 102: General Disclosures 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-1 Name of the organisation</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-2 Activities, brands, products, and services</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-3 Location of headquarters</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-4 Location of operations</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-5 Ownership and legal form</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-6 Markets served</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-7 Scale of the organisation</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-8 Information on employees and other workers</td>
<td>p. 77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-9 Supply chain</td>
<td>p. 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-10 Significant changes to the organisation and its supply chain</td>
<td></td>
<td>No significant changes in the year under review.</td>
<td></td>
</tr>
<tr>
<td>102-11 Precautionary principle or approach</td>
<td>p. 7, p. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-12 External initiatives</td>
<td>p. 19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-13 Membership of associations</td>
<td>p. 17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-14 Statement from senior decision-maker</td>
<td>p. 4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-16 Values, principles, standards, and norms of behaviour</td>
<td>p. 7, p. 12, p. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-18 Governance structure</td>
<td>p. 12, p. 13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-40 List of stakeholder groups</td>
<td>p. 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-41 Collective bargaining agreements</td>
<td>p. 77</td>
<td></td>
<td></td>
</tr>
<tr>
<td>102-42 Identifying and selecting stakeholders</td>
<td>p. 10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

GRI 102: General Disclosures 2016

102-43 Approach to stakeholder engagement p. 10
102-44 Key topics and concerns raised p. 11
102-45 Entities included in the consolidated financial statements p. 3
102-46 Defining report content and topic boundaries p. 11
102-47 List of material topics p. 11
102-48 Restatements of information Where previously published information needed to be updated, this has been indicated in the relevant places.
102-49 Changes in reporting p. 11
102-50 Reporting period p. 3
102-51 Date of most recent report 24 May 2019
102-52 Reporting cycle p. 3
102-53 Contact point for questions regarding the report p. 3, p. 87
102-54 Claims of reporting in accordance with the GRI standards p. 3
102-55 GRI content index p. 80
102-56 External assurance p. 85

GRI 201: Economic Performance 2016

103-1/2/3 Management approach p. 29, p. 34
201-1 Direct economic value generated and distributed corporate website p. 80
201-2 Financial implications and other risks and opportunities due to climate change p. 29, p. 34
201-4 Financial assistance received from government To the best of our knowledge, Munich Re received no financial support from the state.
<table>
<thead>
<tr>
<th>GRI standard</th>
<th>Reference</th>
<th>Comments/Omission</th>
<th>UNGC principle</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRI 203: Indirect Economic Impacts 2016</td>
<td>p. 22, p. 29, p. 34, p. 41, p. 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103­1/­2/­3 Management approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>203-1 Infrastructure investments and services supported</td>
<td>p. 22, p. 29, p. 34, p. 41, p. 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>203-2 Significant indirect economic impacts</td>
<td>p. 22, p. 29, p. 34, p. 41, p. 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 205: Anti-corruption 2016</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103­1/­2/­3 Management approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>205-2 Communication and training about anti-corruption policies and procedures</td>
<td>p. 14</td>
<td>GC 10</td>
<td></td>
</tr>
<tr>
<td>205-3 Confirmed incidents of corruption and actions taken</td>
<td>In the 2019 reporting year, our compliance reporting recorded no breaches of anti-corruption legislation or corresponding official proceedings, anywhere in the world.</td>
<td>GC 10</td>
<td></td>
</tr>
<tr>
<td>GRI 206: Anti-competitive behavior 2016</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103­1/­2/­3 Management approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices</td>
<td>No fines were imposed upon Munich Re Group in the period under review.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 302: Energy 2016</td>
<td>p. 59, p. 61</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103­1/­2/­3 Management approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>302-1 Energy consumption within the organisation</td>
<td>p. 74</td>
<td>GC 7, 8</td>
<td></td>
</tr>
<tr>
<td>302-2 Energy consumption outside of the organisation</td>
<td>p. 74</td>
<td>GC 8</td>
<td></td>
</tr>
<tr>
<td>302-3 Energy intensity</td>
<td>p. 74</td>
<td>GC 8</td>
<td></td>
</tr>
<tr>
<td>302-4 Reduction of energy consumption</td>
<td>p. 74</td>
<td>GC 8, 9</td>
<td></td>
</tr>
<tr>
<td>302-5 Reductions in energy requirements of products and services</td>
<td>p. 74</td>
<td>GC 8, 9</td>
<td></td>
</tr>
<tr>
<td>GRI 305: Emissions 2016</td>
<td>p. 74, p. 74, p. 74, p. 74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>103­1/­2/­3 Management approach</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>305-1 Direct (Scope 1) GHG emissions</td>
<td>p. 74</td>
<td>GC 7, 8</td>
<td></td>
</tr>
<tr>
<td>305-2 Energy indirect (Scope 2) GHG emissions</td>
<td>p. 74</td>
<td>GC 7, 8</td>
<td></td>
</tr>
<tr>
<td>305-3 Other indirect (Scope 3) GHG emissions</td>
<td>p. 74</td>
<td>GC 7, 8</td>
<td></td>
</tr>
<tr>
<td>305-4 GHG emissions intensity</td>
<td>p. 74</td>
<td>GC 8</td>
<td></td>
</tr>
<tr>
<td>305-5 Reduction of GHG emissions</td>
<td>p. 74</td>
<td>GC 8, 9</td>
<td></td>
</tr>
<tr>
<td>GRI standard</td>
<td>Reference</td>
<td>Comments/Omission</td>
<td>UNGC principle</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------</td>
<td>------------------</td>
<td>----------------</td>
</tr>
<tr>
<td>GRI 405: Diversity and Equal Opportunity 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 49, p. 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>405-1 Diversity of governance bodies and employees</td>
<td>p. 77, p. 52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 406: Non-discrimination 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 49, p. 50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>406-1 Incidents of discrimination and corrective actions taken</td>
<td>One discrimination incident was investigated at Home Office in the 2019 financial year. The allegations could not be confirmed. In addition, the training course on the German General Equal Treatment Act (AGG - Allgemeines Gleichbehandlungs- gesetz) is being updated on the topic of #metoo to help foster awareness.</td>
<td>GC 6</td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>407-1 Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk</td>
<td>To the best of our knowledge, no operating sites or suppliers were identified in the period under review at which the right to freedom of association and collective bargaining could be at risk.</td>
<td>GC 3</td>
<td></td>
</tr>
<tr>
<td>GRI 408: Child labour 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>408-1 Operations and suppliers at significant risk for incidents of child labour</td>
<td>To the best of our knowledge, in the period under review no operating sites or suppliers were identified as being at significant risk of incidents of child labour.</td>
<td>GC 5</td>
<td></td>
</tr>
<tr>
<td>GRI 409: Forced or Compulsory Labour 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>409-1 Operations and suppliers at significant risk for incidents of forced or compulsory labour</td>
<td>To the best of our knowledge, in the period under review no operating sites or suppliers were identified as being at significant risk of incidents of forced or compulsory labour.</td>
<td>GC 4</td>
<td></td>
</tr>
<tr>
<td>GRI 412: Human Rights Assessment 2016</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>412-2 Employee training on human rights policies or procedures</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>412-3 Significant investment agreements and contracts that include human rights clauses or that underwent human rights screening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GRI 414: Supplier Social Assessment 2016</td>
<td></td>
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<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 12</td>
<td></td>
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<tr>
<td>414-1 New suppliers that were screened using social criteria</td>
<td>100%</td>
<td>GC 2</td>
<td></td>
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<td>GRI 415: Public Policy 2016</td>
<td></td>
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<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 17</td>
<td></td>
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<tr>
<td>415-1 Political contributions</td>
<td></td>
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<td>GRI 417: Marketing and Labelling 2016</td>
<td></td>
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<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 18</td>
<td></td>
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<tr>
<td>417-1 Requirements for product and service information and labelling</td>
<td></td>
<td></td>
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<tr>
<td>417-3 Incidents of non-compliance concerning marketing communications</td>
<td>No incidents relevant to the Group of non-compliance with regulations or voluntary codes of conduct concerning marketing and communications – or of fines, sanctions or warnings – were identified in the period under review.</td>
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<tr>
<td>GRI 418: Customer Privacy 2016</td>
<td></td>
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<tr>
<td>103-1/-2/-3 Management approach</td>
<td>p. 14</td>
<td></td>
<td></td>
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<tr>
<td>418-1 Substantiated complaints concerning breaches of customer privacy and losses of customer data</td>
<td>In the 2019 reporting year, no material data protection event defined in the Solvency II Group Compliance Policy occurred anywhere in our Group worldwide, nor were any material proceedings for breach of data protection rules initiated.</td>
<td></td>
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<tr>
<td>GRI 419: Socioeconomic Compliance 2016</td>
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<td></td>
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</tr>
<tr>
<td>419-1 Non-compliance with laws and regulations in the social and economic area</td>
<td>No instances of substantial fines or non-monetary sanctions being imposed on Munich Re by state agencies were identified in the period under review.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Open and transparent dialogue with our stakeholders in Germany and abroad on our commitment to corporate responsibility and socially responsible investment (SRI) is an essential part of our corporate culture.

The inclusion of Munich Re Group in numerous sustainability indices and our good to very good performance in many different SRI ratings are proof that we are on the right track:

- Listed in the Dow Jones Sustainability Indices (Europe and World) since 2001
- Listed within DAX 50 ESG of Deutsche Börse – benchmark index with ESG focus contains top 50 companies of German stock market
- Listed in the FTSE4Good Index since 2001
- Listed in the following indices: Euronext Vigeo World 120, Euronext Vigeo Europe 120 and Euronext Vigeo Eurozone 120
- Listed in the Ethibel Sustainability Index (ESI) Excellence Europe and the ESI Excellence Global
- Listed in the following indices: ECPI Global Ethical, ECPI World ESG Equity and ECPI Global Climate Change Equity
- Listed in the STOXX Global ESG Leaders index
- MSCI ESG Rating of “AA”
- Prime status per ISS ESG rating
- Industry leader of peers (Market cap $33–$37bn) in Sustainalytics’ industry rating

Updated 31 December 2019
Principles for Responsible Investment – Investing responsibly

At Munich Re, responsible management has uppermost priority, not least with a view to operating profitably. Our asset management therefore follows the United Nations Principles for Responsible Investment (PRI). We helped to draw up these principles and were the first German company to sign them.

A holistic investment strategy aligned with ESG (environmental, social, governance) criteria also has a long-term beneficial effect on risk and return. That is why, on 27 April 2006, we were one of the first signatories to the United Nations Principles for Responsible Investment (PRI), which we played a prominent role in drafting. Behind these principles is the view that investment decisions often take insufficient account of the need for sustainable development and thus the needs of future generations.

Principles and recommendations for action for investment decisions

Six principles are described more closely in a list of 35 recommendations for action. These enable institutional investors to take account of ecological and social aspects, together with topics related to good corporate governance, in their investment decisions. Munich Re is committed to fulfilling the PRI in an appropriate and forward-looking manner.

The following examples show how Munich Re is putting the six UN principles into practice:

<table>
<thead>
<tr>
<th>No.</th>
<th>Principle</th>
<th>Examples of measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>“We will incorporate ESG issues into investment analysis and decision-making processes.”</td>
<td>We are pursuing the ESG integration approach in the investment process. This means that we use ESG factors as an additional source of information. This holistic approach leads to better investment decisions and improves the portfolio's risk/return profile.</td>
</tr>
</tbody>
</table>
| 2   | “We will be active owners and incorporate ESG issues into our ownership policies and practices.” | Active investor

Active investor

Before taking part in an Annual General Meeting, MEAG checks the following topic areas to ensure its investors' interests are represented as objectively and comprehensively as possible:

- Board of Management and Supervisory Board
- Appointment of the external auditor
- Capital measures
- Appropriation of profits:
- Mergers and acquisitions
- Corporate Governance Code and best practice

MEAG supports the companies with measures that have a long-term, positive effect on business development or a business model, and will vote against measures that would have a negative impact on the Group. This extends to social, ethical and environment-related targets/aspects of corporate governance.

If it is not possible to participate in person, the fund management either nominates a proxy or casts an electronic vote itself using a proxy voting platform.

3   | “We will seek appropriate disclosure on ESG issues by the entities in which we invest.” | Sustainability disclosure

Sustainability disclosure

We communicate our investment criteria openly and address these in dialogue with the companies we work with.

Our aim here is to motivate companies to improve their ESG rating or achieve a positive ESG rating for the first time. Munich Re is thereby contributing to companies keeping a closer eye on ESG criteria.

4   | “We will promote acceptance and implementation of the principles within the investment industry.” | Patron of PRI

Patron of PRI

We communicate and highlight our principles through publications in the media and by participating in presentations and conferences on sustainability.

With individual funds and activities, we show how responsible management can be put into practice:

- Investments in infrastructure with a focus on renewable energies
- MEAG Nachhaltigkeit
- MEAG EM Rent Nachhaltigkeit:
- MEAG FairReturn

5   | “We will work together to enhance our effectiveness in implementing the principles.” | Cooperation to realise the PRI

Cooperation to realise the PRI

Through its PRI membership, Munich Re contributes to the continued development and propagation of the principles.

We are driving forward the exchange of experience with other PRI members in Germany and around the world.

6   | “We will report on our activities and progress in implementing the principles.” | Reporting activities and progress relevant to PRI

Reporting activities and progress relevant to PRI

We participate in the annual PRI Survey. In the Strategy and Governance module of the current PRI assessment, Munich Re was awarded the highest rating of A+ for 2019. Munich Re also answered questions for the asset class fixed income. A good "B" rating was awarded in all four individual modules pertaining to this asset class.

We report on the PRI and our activities relating to it (such as reports and ESG analyst discussions).

Munich Re takes part in ESG ratings and factors the appraisals into corporate decision-making.
Independent Auditor’s Limited Assurance Report

To Münchenere Rückversicherungs-Gesellschaft Aktiengesellschaft in München, Munich

We have performed a limited assurance engagement on the disclosures marked with the symbol ** in the Corporate Responsibility Report of Münchenere Rückversicherungs-Gesellschaft Aktiengesellschaft in München for the reporting period from 1 January 2019 to 31 December 2019 (hereafter “the report”).

Our engagement exclusively relates to the information marked with the symbol ** in the PDF version of the report.

Management’s responsibility

The legal representatives of the Company are responsible for the preparation of the report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (hereafter “reporting criteria”) and for the selection of the information to be assessed.

This responsibility includes the selection and application of appropriate methods to prepare the report as well as making assumptions and estimates related to individual sustainability disclosures, which are reasonable in the circumstances. Furthermore, the legal representatives are responsible for such internal controls that they have considered necessary to enable the preparation of a report that is free from material misstatement, whether due to fraud or error.

Auditor’s declaration relating to independence and quality control

We are independent from the Company in accordance with the provisions under German commercial law and professional requirements, and we have fulfilled our other professional responsibilities in accordance with these requirements.

Our audit firm applies the national statutory regulations and professional pronouncements for quality control, in particular the by-laws regulating the rights and duties of Wirtschaftsprüfer and vereidigte Buchprüfer in the exercise of their profession [Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer] as well as the IDW Standard on Quality Control 1: Requirements for Quality Control in audit firms [IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1)].

Auditor’s Responsibility

Our responsibility is to express a limited assurance conclusion on the information marked with the symbol ** in the report based on the assurance engagement we have performed.

We conducted our limited assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board (IAASB).

This Standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether the information marked with the symbol ** in the report has been prepared, in all material respects, in accordance with the relevant reporting criteria. In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the auditor’s professional judgment.

Within the scope of our assurance engagement, which has been conducted between March and May 2020, we performed amongst others the following assurance and other procedures:

- Inquiries of employees regarding the sustainability strategy, sustainability principles and sustainability management of Münchenere Rückversicherungs-Gesellschaft Aktiengesellschaft in München,
- Inquiries of employees responsible for data capture and consolidation of the disclosures marked with the symbol ** as well as the preparation of, to evaluate the sustainability reporting processes, the data capture and compilation methods as well as internal controls to the extent relevant for the assurance of the information marked with the symbol **,
- Identification of likely risks of material misstatement in the report,
- Inspection of the relevant documentation of the systems and processes for compiling, aggregating and validating data in the reporting period and testing such documentation on a sample basis,
- Inquiries and inspection of documents on a sample basis relating to the collection and reporting of sustainability data and disclosures on the level of selected sites,
- Analytical measures at group level and on the level of selected sites regarding the quality of the reported data.

**Assurance conclusion**

Based on our assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the disclosures marked with the symbol ** in the Corporate Responsibility Report of Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München for the reporting period from 1 January 2019 to 31 December 2019 have not been prepared, in all material respects, in accordance with the relevant reporting criteria.

**Intended Use of the Report**

We issue this report on the basis of the engagement agreed with Münchener Rückversicherungs-Gesellschaft Aktiengesellschaft in München. The assurance engagement has been performed for the purposes of the Company and the report is solely intended to inform the Company as to the results of the assurance engagement and must not be used for purposes other than those intended. The report is not intended to provide third parties with support in making (financial) decisions.

**Engagement terms and liability**

The “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften [German Public Auditors and Public Audit Firms]” dated 1 January 2017 are applicable to this engagement and also govern our relations with third parties in the context of this engagement (www.de.ey.com/general-engagement-terms). In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties. We assume no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we do not update the assurance report to reflect events or circumstances arising after it was issued unless required to do so by law. It is the sole responsibility of anyone taking note of the result of our assurance engagement summarized in this assurance report to decide whether and in what way this result is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

Munich, 11 May 2020

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Nicole Richter Yvonne Meyer
Wirtschaftsprüferin Wirtschaftsprüferin
(German Public Auditor) (German Public Auditor)
Munich Re CR Report 2019 – Contact and imprint

Contact

Please do not hesitate to contact our Sustainability team if you have any questions regarding corporate responsibility at Munich Re.

Please send your questions and comments to responsibility@munichre.com

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