Corporate responsibility in business at Munich Re

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Reconnecting Corporate Responsibility (CR) activities with the business creates shared value – for the company and society

The concept of shared value …

- Shared value creation focuses on connecting societal and economic progress
- Responsible behaviour increasingly relevant for competitive advantage – companies need to do good and do it well

… how we live it at Munich Re

- Corporate Responsibility in Business
- Environmental management
- Social impact projects
A strong commitment towards corporate responsibility

International co-operations

**UNEP FI (since 1999)**
Munich Re has signed the UNEP FI’s climate declaration

**UN Global Compact (since 2007)**
Munich Re has been a member of the UN Global Compact since August 2007. The ten principles of the UN Global Compact provide guidance for action in our business and set the basis for our corporate responsibility activities.

Principles for Responsible Investment (PRI) (since 2006)
Munich Re actively developed the UN Principles for Responsible Investment (PRI), which it signed in April 2006 – the first German company to do so.

Principles for Sustainable Insurance (PSI) (since 2012)
Munich Re played an active part in developing the Principles for Sustainable Insurance (PSI) since 2007 and was a founding signatory in June 2012. The PSI aim at anchoring ESG criteria in the core business along the value chain.
Sustainable Development Goals Implementation at Munich Re

Through our risk expertise, our sustainable solutions and our actions as a responsible employer, we are contributing in particular to the achievement of the following seven UN Sustainable Development Goals (SDGs). Selected examples:

- Public-sector risk transfer solutions (e.g. ARC, PEF, MCII)
- Crop failure insurance
- Inclusive insurance products
- Renewable energy and energy efficiency solutions
- Investment in renewable energies and infrastructure
- InsuResilience initiative

The UN Sustainable Development Goals consist of 17 interrelated goals aiming to achieve a more sustainable future by 2030.
We have implemented an ESG framework for insurance and investment activities

ESG aspects, sensitive issues, Munich Re position and measures

**ENVIRONMENT**
- Pollution
- Natural resources and biodiversity
- GHG emissions

**SOCIAL**
- Political context and public awareness
- Labour and working conditions
- Human rights
- Health, safety and security for the community
- Displacement of people
- Cultural heritage

**GOVERNANCE**
- Responsible and correct planning and evaluation
- Compliance
- Consultation and transparency

Continuous evaluation and refinement of framework and processes, taking regulatory developments and industry-wide standards into consideration

**ESG Tool for Underwriting**
Assessment of different industries, best practice in credit/surety

**Sustainable investment process**
ESG research and ratings included in investment process

**ESG country rating**
ESG information included in Munich Re Country Risk Assessment
Reputational risk committees (RRC) for escalation of controversial underwriting and investment cases

**MISSION**
- Consultation of business segments
- Analysis and assessment of individual cases

**EXAMPLES OF REQUESTS**
- Investment in / (re)insurance of specific entities / Groups
- (Re)insurance of potentially polluting projects
- (Re)insurance of projects in specific countries
- Insurance of clinical trial participants
- Critical products

**WORKING MODE**
- Reporting of critical issues prior to closing of a deal
- RRC responds within 48 hours, giving clear guidance
- Escalation to Board of Management by RRC coordinator in case of non-compliance

Reputational risks are monitored and steered within RRCs
Munich Re’s responsible investment strategy is based on three pillars

1. Systematic integration of ESG criteria
   - The majority of our investments are invested sustainably (placed in assets included in sustainability indices or meeting other accepted sustainability criteria)
   - Individually defined ESG criteria are incorporated into the selection process for all asset classes

2. Investment focus topics
   - Through our investments we want to promote the use of low-carbon technologies to avoid greenhouse gas emissions
   - We focus on direct investments in renewable energies and low-carbon infrastructure and green bonds

3. Defined exclusion criteria
   - We exclude investments in companies generating more than 30% of their revenues from coal mining or coal power generation
   - Exclusion of investments in producers of banned weapons and of investments in food-related commodities

Binding public group-wide Responsible Investment Guideline (RIG) covers all requirements regarding PRI and ESG that concern Munich Re (Group) asset management
Munich Re investments: Key achievements

1. Sustainability ratio for all forms of investment >80% in 2019

2. Munich Re invested capital in renewable energies €1.6bn and green bonds €1.2bn (as of 30.06.2019) avoided CO₂ emissions since 2011: 3,000,000 t

3. Divestments from coal ~ €145m (in 2018)

Shares, corporate bonds
- Systematic analysis of ESG criteria in addition to financial performance
- New investment process

Government bonds
- Use of country ratings based on ESG information
- Exclusion of countries not meeting requirements

Real estate
- During due diligence, ESG criteria taken into account, e.g. construction material, technical facilities, energy efficiency

Infrastructure and renewable energies
- During due diligence, ESG criteria and political parameters taken into account

Agriculture and forestry
- During due diligence, ESG criteria taken into account
Carbon neutrality based on environmental management and CO₂ emission reduction

Our steps to carbon neutrality

**Data** gathering and measuring CO₂ emissions → since 2015 externally verified by a third party

**Reduction** of CO₂ emissions by saving energy, water, paper, waste and business travel and improving carbon impact of consumed goods and services

**Substitute** conventional electricity by green electricity

**Compensate** remaining CO₂ emissions through purchasing carbon credits

A Group-wide environmental management system is in place and approx. 80% of employees are covered

Target Munich Re Group 2020: –35% CO₂ emissions per employee since 2009 → 2018 > –44% CO₂ reduction

Target Munich Re Group 2020: 100% electricity is from renewable sources → 2018 > 86% electricity used from renewable sources

Since 2015: Munich Re Group is carbon neutral
Munich Re's activities relating to climate change focus on the following fields of activity

<table>
<thead>
<tr>
<th>RISK EVALUATION</th>
<th>RISK-TRANSFER SOLUTIONS</th>
<th>ASSET MANAGEMENT</th>
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<tbody>
<tr>
<td>Recording and evaluation of the</td>
<td>Realisation of business growth areas as a leading provider of risk-transfer solutions</td>
<td>Supporting the expansion of renewable energies and infrastructure projects by</td>
</tr>
<tr>
<td>impact of climate change on the</td>
<td>for renewable energies and other products aimed at adapting to and mitigating climate</td>
<td>pursuing a sustainable investment strategy.</td>
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<td>frequency and intensity of natural</td>
<td>change.</td>
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<td>hazards.</td>
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Carbon neutrality of Munich Re
Munich: since 2009, Reinsurance worldwide: since 2012, Munich Re (Group): since end 2015

Involvement in climate initiatives
e.g. Munich Climate Insurance Initiative (MCII), InsuResilience
Technology drivers: Munich Re business opportunities
innovative solutions by “Green Tech Solutions” – enabling new technologies

Established Renewables

- Solar Energy
- Wind Energy
- Hydro
- Inverter

Smart Energy & Disruptive Technologies

- Electrical Energy Storage
- E-Mobility
- Energy Efficiency
- Bio Energy/Waste to Energy
- Fuel Cells
- LED Asset/Installation Performance

Picture source: Gordon Gross - Pixelio
Climate change: technology drivers achieving a complete decarbonisation by 2050: 4 phases

1. Basis technologies
   - Deployment of renewables, energy efficiency
   - CO₂ reduction by 25%

2. System integration
   - Digitalisation, new electric markets, industry, transportation, heat
   - CO₂ reduction by 25-55%

3. Synthetic fuels
   - Electrolysis, hydrogen, methanol
   - CO₂ reduction by 55-85%

4. Final decarbonisation
   - Displacement of all fossil fuels by renewables and net zero carbon technologies
   - CO₂ reduction by 85%-100%

Integrated Energy System

Munich Re’s participation in science and technology networks: know-how generation and development of new business opportunities

Source: Munich Re, based on acatech data
Climate change: risk and business development drivers
sovereign and public-private Nat Cat risk transfer schemes

United States
National Flood Insurance Program (NFIP)

Mexico
Fondo Nacional de Desastres Naturales (FONDEN)

Caribbean
Catastrophe Risk Insurance Facility (CCRIF)

All developing countries
Pandemic Emergency Financing Facility (PEF)

African nations
African Risk Capacity (ARC)

United Kingdom
Flood Re

Algeria
Catastrophe Insurance Pool

Turkey
Catastrophe Insurance Pool (TCIP)

United Nations
Norway
Norsk Naturskadepool (NNPP)

Iceland
Icelandic Catastrophe Insurance (ICI)

New Zealand
Earthquake Commission (EQC)

France
Insee,
France

Philippines
Sovereign Parametric Insurance (PSPI)

Indonesia
Catastrophe Reinsurance Pool (Maipark)

Taiwan
Residential Earthquake Insurance Pool (TREIF)

Switzerland
Swiss Natural Perils Pool (ESS-Pool)

Romania
Programul Roman de Asigurare la Catastrofe (PAID)

Switzerland
Intercantonal Union of Reinsurance (IRV)

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Sri Lanka
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Source: Munich Re
Munich Re's activities relating to digitalisation and cyber security focus on the following fields of activity

### BUSINESS OPPORTUNITIES
- Digital cooperation models (e.g. Digital Partners, SaveUp)
- IoT applications and services (via HSB/relayr)
- Cyber (re)insurance: GWP 2018 US$ 473m
- Cyber embedded service solutions and growing cooperation network, e.g. DXC Technology
- Insurance of AI technology
- Data-driven solutions

### CYBER SECURITY STRATEGY
**Defined mission:**
- to protect Munich Re Group and stakeholder trust

**Main objectives:**
- Provide guidance to the organization
- Ensure consistency between degree of security with risk appetite
- Streamline activities by leveraging expertise and knowhow, existing infrastructures and services

### EMPLOYEES & KNOW HOW
- Digital technology is transforming the workplace
- Goal: supporting the digital readiness of employees and establishing a new learning culture with focus on the digital priorities of Munich Re
- Provision of target-group-specific basic and further training for our developers, users and managers e.g. digital school, data analytics curriculum, cyber expert pool
- Cyber security experts in business units

**Responsible handling of artificial intelligence**

**Social impact of AI – promote exchange, protect against risks**
Munich Re’s sustainability performance again amongst the top 10% insurers worldwide

Sustainable Responsible Investment Ratings

Corporate Responsibility Report

Combined non-financial statement

MSCI
Disclaimer

This presentation contains forward-looking statements that are based on current assumptions and forecasts of the management of Munich Re. Known and unknown risks, uncertainties and other factors could lead to material differences between the forward-looking statements given here and the actual development, in particular the results, financial situation and performance of our Company. The Company assumes no liability to update these forward-looking statements or to make them conform to future events or developments.
Governance – Remuneration system\(^1\) for the Board of Management meets shareholder requirements

|基本薪酬以及福利 | 基本薪酬 | 可变薪酬
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<tr>
<td></td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>可变薪酬方案跨度</td>
<td>一年</td>
<td>0 – 200%</td>
</tr>
<tr>
<td>评估基础</td>
<td>IFRS 汇总结果</td>
<td>总股东回报对比定义同行群组 (^3)</td>
</tr>
</tbody>
</table>

\(^1\) 有效自 2018 年。
\(^2\) 对于 100% 实现目标/绩效评估。
\(^3\) 同行群组：安联（Allianz）、安盛（Axa）、Generali、汉诺威再保险（Hannover Re）、SCOR、苏黎世（Swiss Re）、Zurich。
Criteria for the evaluation of overall performance (Examples for bonus / malus aspects)

**Individual management performance**
- Result of division/line of business, contribution to overall performance
- Individual performance (qualitative and/or quantitative)
- ESG criteria (environmental, social and governance)
- Employee satisfaction
- Any malus factors taken into account
- Special market circumstances or unexpected developments taken into account
- Implementation of strategy, improvements in organisation and processes, innovation
- Conduct (leadership, example set, compliance with guidelines, working relationship with colleagues and Supervisory Board)

**Collective management performance**
- Result of field of business (reinsurance and/or primary insurance)
- ESG criteria (environmental, social and governance aspects)
- Employee satisfaction
- Any malus factors taken into account
- Reaction to special market circumstances and unforeseeable developments

**Situation, success and future prospects of Company**
- Financial situation of Company
- Short-term and long-term profit outlook
- Market environment (interest rates, situation in sector, etc.)
Our group-wide public Diversity Policy sets down the most important principles in regards to Diversity and forms the basis for overarching and comprehensive diversity management. “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.”

Measures to increase the proportion of women in management positions:

- (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 through the performance management process, talent discussion with gender sensitisation
- Strong commitment to the promotion of women through a special internal company agreement (Munich Re Munich)

2018: Women in management positions (with disciplinary responsibilities for staff) 35.7 % worldwide (2017: 33.5%); Women 53.9 % of our Group’s workforce (2017: 54.5 %);