The development of decision-relevant climate change risk assessment with a holistic approach requires an exploratory, iterative and adaptive process that will take time. A holistic approach considers materiality of physical, transition and litigation risks and their interactions at different time horizons (short and long term) on both sides of the balance sheet, including interactions across business functions and decision feedback loops. With each iteration, companies can build up complexity by assessing the interactions of physical, transition and litigation risks, exploring how these risks are manifested within and across business functions and developing potential actions to address them.

The latest developments reveal that the regulatory and supervisory approaches are increasingly evolving in alignment with the earlier recommendations of the GA task force. There is a unique opportunity for the regulatory bodies to further clarify their common objectives and mandates and strengthen their collaboration with the industry. Responses from 11 regulatory bodies3 to our survey revealed eight top regulatory priorities: policyholder protection, the insurer’s financial health, corporate governance and strategy, the insurability and affordability of insurance solutions, financial stability, raising risk awareness, addressing data/risk assessment services and environmental stewardship. Examples of key questions linked to their regulatory priorities are presented in Table 1. A complete table is provided in the full report.

1 The GA task force includes 53 experts from 18 insurance and reinsurance companies (P&C and life) from North America, Europe and Japan.
2 The Geneva Association 2021a, b. Authors: Maryam Golnaraghi and the GA task force.
Re/insurers across the globe are at different stages of assessing the impacts of climate change risks on their business model, with distinct trends by jurisdiction, line of business and size of the company. While re/insurers in all business lines have started exploring the materiality of climate change risks on each side of the balance sheet, for life & health re/insurers in particular, more research is required to assess the contributions and materiality of climate change to their underwriting exposures over various time horizons.

Importantly, boards of directors and executive management should seek to harmonise and align their ‘inside-out’ climate change assessments with their ‘outside-in’ approaches to develop viable climate targets, transition strategy and plan. Companies are also conducting inside-out analysis, i.e. assessing the impact of company’s actions on the climate by setting their climate targets using science-based approaches such as those introduced by the UN Net-Zero Asset Owner Alliance and the Science-Based Targets initiative. A growing number of critics are calling out the possibility of greenwashing, which

<table>
<thead>
<tr>
<th>Key functions</th>
<th>Regulatory questions linked to priorities</th>
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</thead>
<tbody>
<tr>
<td>Governance</td>
<td>1. How does the company consider climate change risks in its corporate governance frameworks and organisational structure? (P3)</td>
</tr>
<tr>
<td></td>
<td>2. Are climate change risks understood throughout the institution? (P3, P6)</td>
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<tr>
<td></td>
<td>3. Is the company ready to disclose climate change risk exposure? (P1, P3, P7, P8)</td>
</tr>
<tr>
<td>Strategy</td>
<td>1. Does the company have a strategic approach towards climate change risks? (P2, P3)</td>
</tr>
<tr>
<td></td>
<td>2. Has the company considered its risk appetite in relation to climate change? (P3)</td>
</tr>
<tr>
<td></td>
<td>3. What are potential mitigation or management actions that the company has taken or is planning to take to address climate change risks and opportunities? (P2, P3, P4)</td>
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<tr>
<td></td>
<td>4. Are climate change risks embedded in the overall strategy of the company? (P3)</td>
</tr>
<tr>
<td>Risk management</td>
<td>1. How does the company perceive the insurability (affordability, accessibility and relevance of insurance products) of certain risks in light of climate change? Has it defined insurability tipping points and what needs to be done to ensure insurability? (P1, P4)</td>
</tr>
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<td></td>
<td>2. How frequently does the company assess climate change risks on assets and liabilities? What is the materiality of climate change risks in these assessments on both sides of the balance sheet? (P1, P2, P3)</td>
</tr>
<tr>
<td></td>
<td>3. Has the company taken steps to engage key constituencies on the topic of climate change risk and resilience, such as by encouraging policyholders to manage their risks? (P1, P6)</td>
</tr>
<tr>
<td>Capital and liquidity management</td>
<td>1. How exposed is the company’s balance sheet to the financial instability risks emanating from climate change? (P2, P5)</td>
</tr>
<tr>
<td></td>
<td>2. Is the company adequately capitalised through severe yet plausible climate scenarios over extended time horizons? (P1, P2, P5)</td>
</tr>
<tr>
<td></td>
<td>3. Does the company consider climate change risks as part of its ORSA and how do climate change risks rank among other risks? (P2, P3, P4)</td>
</tr>
<tr>
<td>Compliance and disclosure</td>
<td>1. How is the company communicating its climate change risk exposure? (P1, P6)</td>
</tr>
<tr>
<td></td>
<td>2. Is the company willing to provide climate-related disclosure to help raise risk awareness of investors and policyholders? (P1, P6)</td>
</tr>
</tbody>
</table>

Note: Symbols P1–P8 refer to regulatory priorities 1 through 8.

Source: Based on responses to a Geneva Association survey of 11 regulatory bodies
The development and utilisation of business use cases make it possible to frame the analysis, engage experts from relevant business functions, mine and use the same data and tools across the company and explore how risks and their interactions may be manifested across business functions and decision feedback loops. The full report provides a 10-step template to help companies design business use cases and offers three examples.
Scenario analysis is a tool for conducting a forward-looking assessment of risks and opportunities, where the company can systematically explore individual or combined factors and make strategic decisions in the face of significant uncertainties, for example:

- Testing the resilience of a company’s business model to climate change risks;
- Assessing the implications of possible actions a company can take;
- Stress-testing the company’s business model under extremely adverse conditions.

The company can explore the type of scenarios that may be applicable by first building a range of qualitative ‘What if?’ questions and then considering areas where quantitative methods may be viable. We offer insights into several benchmark scenarios that are currently most utilised in the financial sector.

Through strong industry collaboration, re/insurers should conduct an analysis of existing data challenges, gaps and needs, and define priority areas and requirements for the future development of tools. Life & health re/insurers still face challenges to identify the types of data that would allow the extraction of climate change attribution and liability exposures.

References
