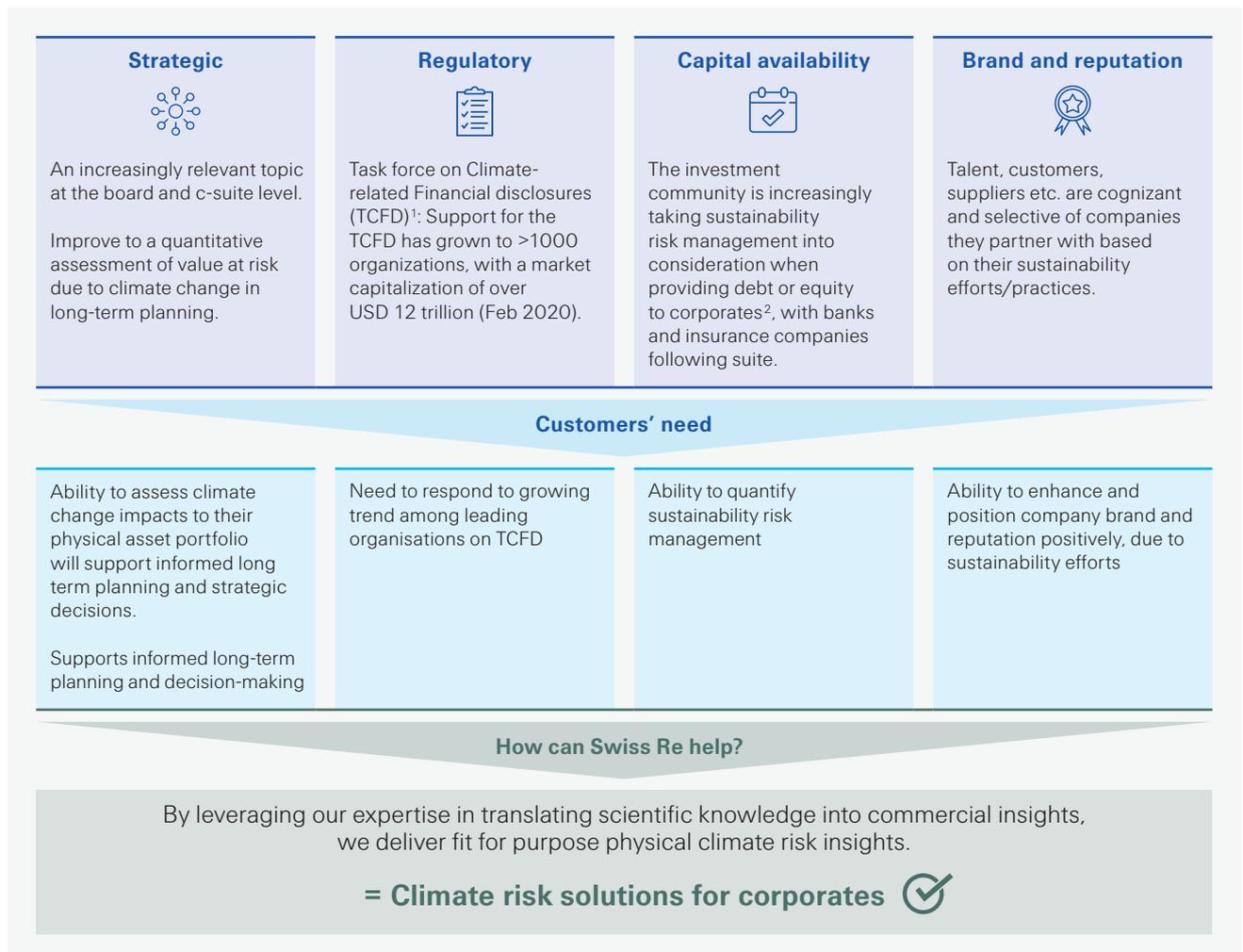# Swiss Re
Corporate Solutions

Climate Risk Solutions for Corporates

Fit for purpose physical climate risk assessment for your portfolio

Companies increasingly appreciate that a focus on sustainability means safeguarding long term business interests, as well as being able to answer to stakeholders, investors, customers and regulators. Climate risk is the defining challenge of our time, and assessing physical climate risk impacts is an important first step towards better understanding its impacts now and in the future.

In particular, companies are recognizing the need to be able to assess their exposure to physical climate risk for the following reasons:

Strategic	Regulatory	Capital availability	Brand and reputation
An increasingly relevant topic at the board and c-suite level. Improve to a quantitative assessment of value at risk due to climate change in long-term planning.	Task force on Climate-related Financial disclosures (TCFD)[1]: Support for the TCFD has grown to >1000 organizations, with a market capitalization of over USD 12 trillion (Feb 2020).	The investment community is increasingly taking sustainability risk management into consideration when providing debt or equity to corporates[2], with banks and insurance companies following suite.	Talent, customers, suppliers etc. are cognizant and selective of companies they partner with based on their sustainability efforts/practices.

Customers' need

Ability to assess climate change impacts to their physical asset portfolio will support informed long term planning and strategic decisions. Supports informed long-term planning and decision-making	Need to respond to growing trend among leading organisations on TCFD	Ability to quantify sustainability risk management	Ability to enhance and position company brand and reputation positively, due to sustainability efforts

How can Swiss Re help?

By leveraging our expertise in translating scientific knowledge into commercial insights, we deliver fit for purpose physical climate risk insights.

= Climate risk solutions for corporates ✓

[1] A voluntary scheme for companies to disclose their management of climate risks
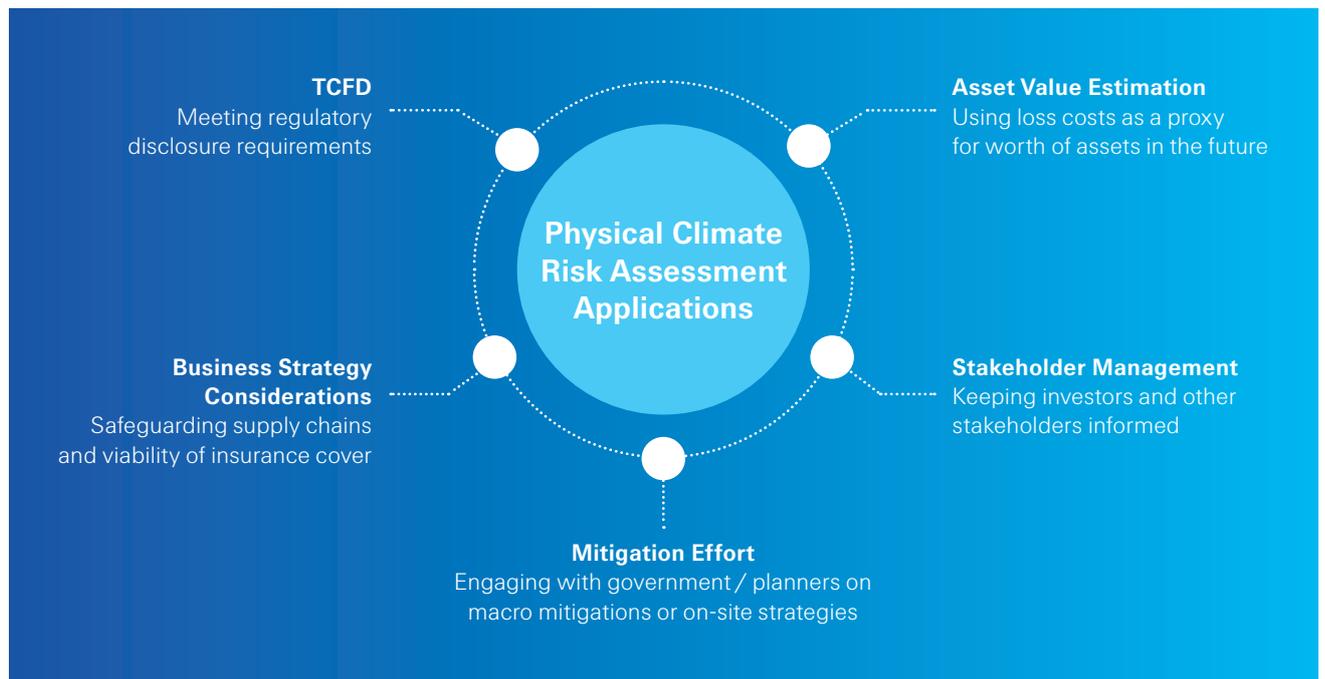[2] ESG investing performance for investment management | Deloitte Insights

How our value-added service quantifies physical climate risks

We believe that physical climate risk assessment is a natural starting point in broader climate engagement, and forms an integral part of broader risk management that enables companies to quantify the impact of physical climate risk on their portfolios which are particularly exposed to the consequences of climatic changes – now as well as in the near-, mid- or long-term future.
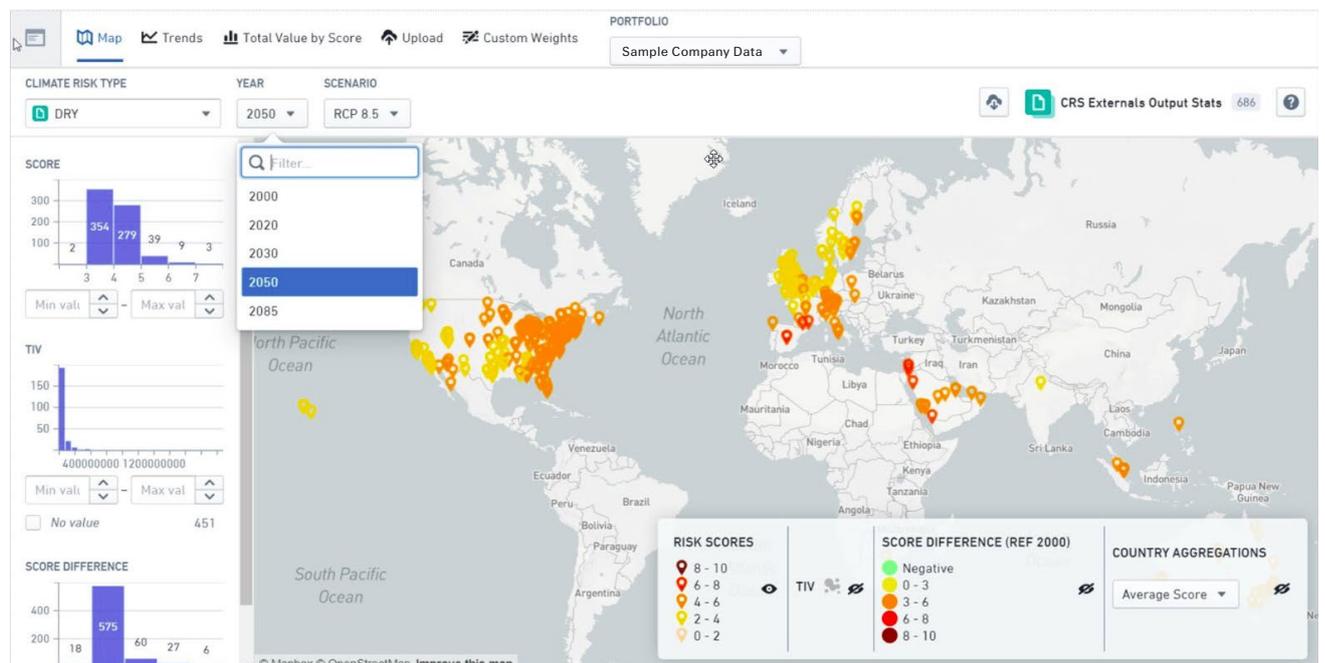
Leveraging global climate model outputs and using a defensible, transparent methodology, we use climate risk scores to identify a portfolio's exposure to climate change risks beyond today. Our Climate Risk Score Framework combines forward-looking climate model data for precipitation and sea-level rise with Swiss Re's global flood and storm-surge zones of today to create a high-resolution assessment of physical climate risk.

With our holistic and tailored service, you can also benefit from 'deep dives' of identified climate hotspots to obtain explicit loss costs. We are also uniquely positioned to provide critical peer review of results from other climate service providers.

TCFD
Meeting regulatory disclosure requirements

Asset Value Estimation
Using loss costs as a proxy for worth of assets in the future

Physical Climate Risk Assessment Applications

Business Strategy Considerations
Safeguarding supply chains and viability of insurance cover

Stakeholder Management
Keeping investors and other stakeholders informed

Mitigation Effort
Engaging with government / planners on macro mitigations or on-site strategies

Visualisation of dry climate risk score in 2050

How is physical climate risk quantified?

Wet	Sea level rise	Dry

Wet
- ✓ Exceedance probability of extreme precipitation
- ✓ Absolute change in precipitation
- ✓ Swiss Re pluvial and fluvial flood zones

River & flash flood

Sea level rise
- ✓ Sea level rise
- ✓ Swiss Re storm surge zones

**Storm surge
(Tropical cyclone, winter storms)
Coastal flooding**

Dry
- ✓ Exceedance probability of extreme temperatures
- ✓ Absolute change in temperature
- ✓ Relative change in precipitation

Wildfire & drought

What differentiates us

Own view of risk	Climate experts with applied commercial knowledge	Aligned incentives "skin in the game"	"State of the art" technology
We share our risk views used in our core business, and through scientifically robust "Climate Risk Scores" methodology.	Our experts tailor Swiss Re's proprietary methodology and industry research to our customers' needs.	We have a vested interest in making the world more resilient by keeping risk pools sustainable and affordable.	Our user-friendly and intuitive platform enables easy navigation and visualization of portfolio risks.

Three tiers of service offerings

Level 1	Level 2	Level 3
Level 1 High Level Portfolio Overview	**Level 2** Climate, 'Hot Spot' Deep Dives	**Level 3** Risk Mitigation and Risk Transfer Options
Product: Customer receives climate risk scores in report form, and a detailed explanation of results from a climate expert. Tool Access can also be made available.	**Product:** Customer receives highly customized analysis and explicit loss cost modelling for identified peril scenarios.*	**Product:** Customer receives specific micro-level mitigation at location level resolution supported by our Risk Engineering Services team. Risk transfer solutions may also be provided.

*Depending on complexity and existing coverage of Swiss Re proprietary catastrophe models.

Alternative service offering

Peer Review of Physical Climate Risk Assessments

Product:
Drawing upon our expertise, customer gets a critical peer review of results from analyses performed by other climate service providers.

Client testimonial: **Ausnet Services**

AusNet Services operates electricity networks in some of the most bushfire prone regions in Australia. Effectively mitigating the operational and financial risks are fundamental to business operation. For Board deliberations on future trends, we commissioned Swiss Re for a thought leadership piece on:

1. The impact of climate risk on bushfire perils, bushfire risk in Australia;
2. Fire risk management practices in California; and
3. Potential financial solutions for managing that risk.

The analysis done on climate drivers for SE Australia and innovative financial solutions was particularly insightful. This highlighted new ways existing data could be brought together to generate leading indicators of bushfire risk in SE Australia and how data could be used to create new financial risk instruments. This material will help ensure AusNet Services has avenues to maintain effective and low-cost financial risk mitigation as insurance markets tighten around the world.

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