CARBON TRUST OVERVIEW

Climate Risk & Transition Planning

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Because climate risks are different to traditional risks, they are more difficult to manage

How will your business adapt to be part of the solution rather than the problem?

Systemic

Climate change affects all of society across all sectors and geographies

Non-Linear

Past trends are not necessarily strong predictors of future outcomes

Foreseeable

Outcomes are dependent on short term actions, with certainty that significant change will materialise

Irreversible

Once we move beyond certain thresholds, risks will be permanent and often self perpetuating

TCFD provides a framework to contextualise how climate change impacts can create or destroy value

…and test the resilience & flexibility of your business model and explore its vulnerabilities

1. External risk drivers

Transition risks
- Policy & legal
- Technology
- Market
- Reputation

Physical risks
- Acute
- Chronic

Opportunities
- Resource efficiency
- Energy sources
- Products/Services
- Markets
- Resilience


Policy and regulation

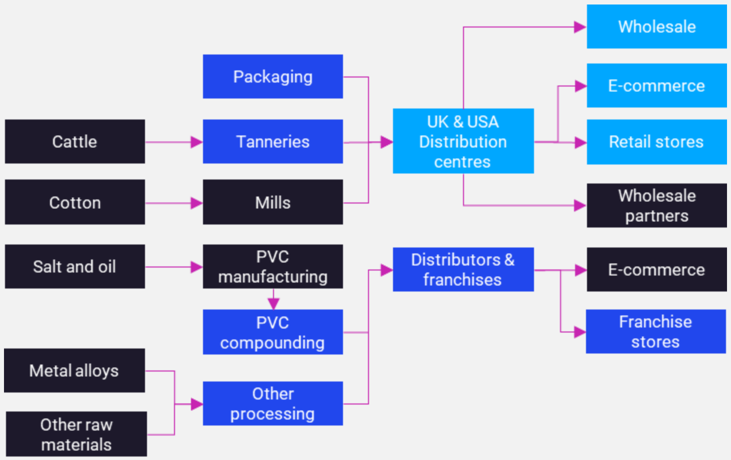

Innovation & technology breakthroughs


Consumer behaviour shifts


Physical impacts of climate change

2. Business value chain stages

Raw materials | *Production* | *Transport & packaging* | *Sales*



Procurement and production costs

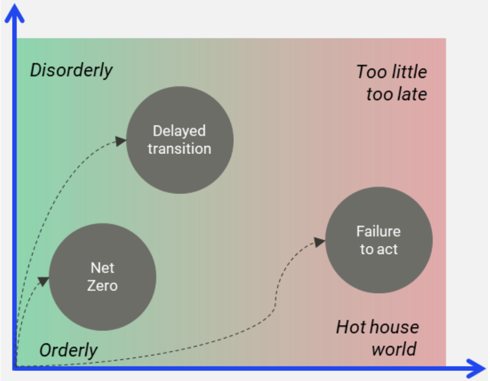
Operating costs

Financing investments

Revenues

Asset valuations

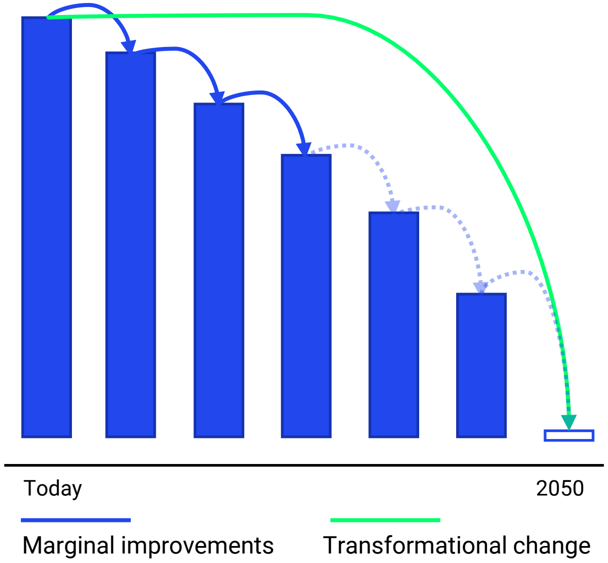
3. Climate scenarios

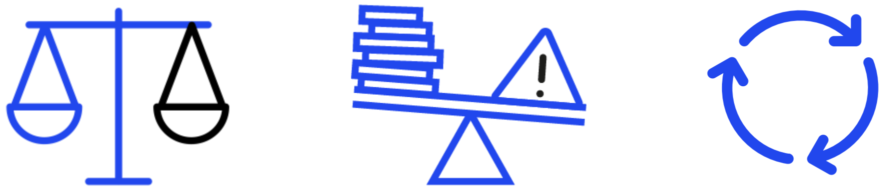


Along the journey to Net Zero there will be lots of tough decisions to be made

The first question to ask is **what do you need to do today to make sure your business remains relevant in a Net Zero world?**

Follow-up questions include:





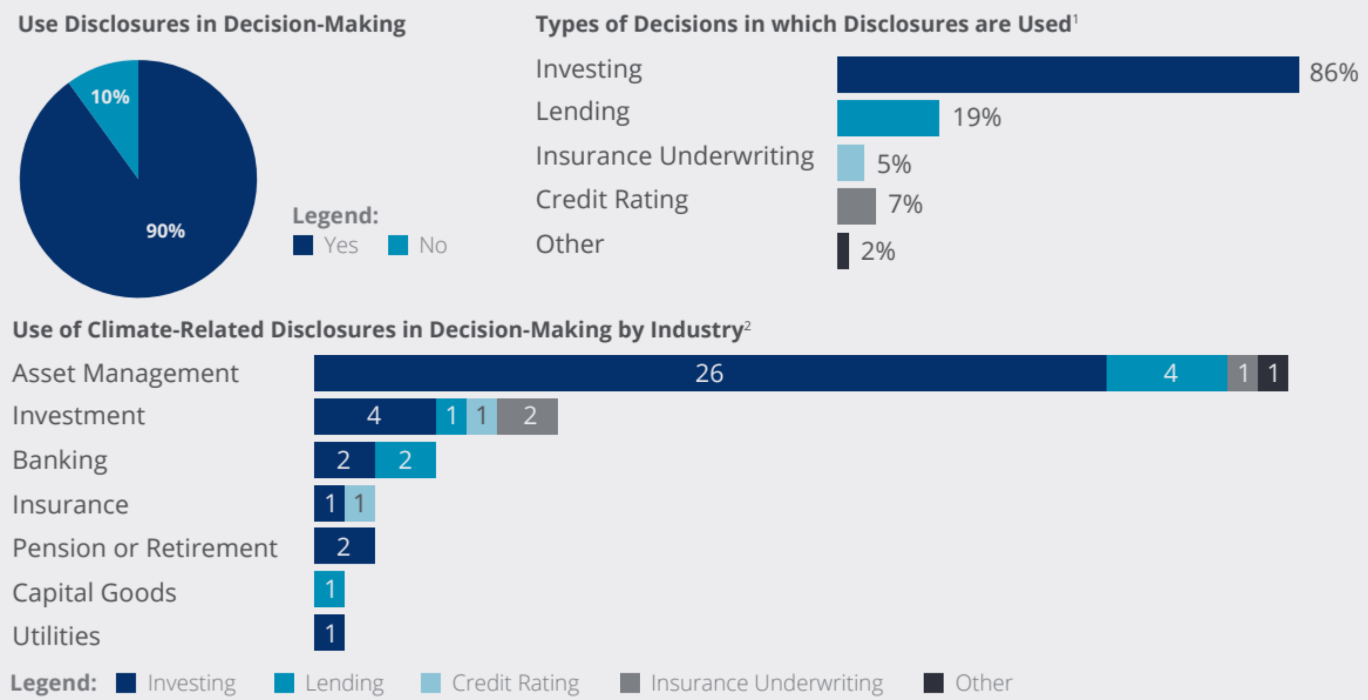
What are the most cost-effective levers for decarbonisation?

How do I best respond to climate risk (e.g., accept, avoid, transfer, mitigate)?

Do I need to make transformational changes to my business model? If so, when?

Getting the answers right is important because TCFD reporting is increasingly used for decision-making

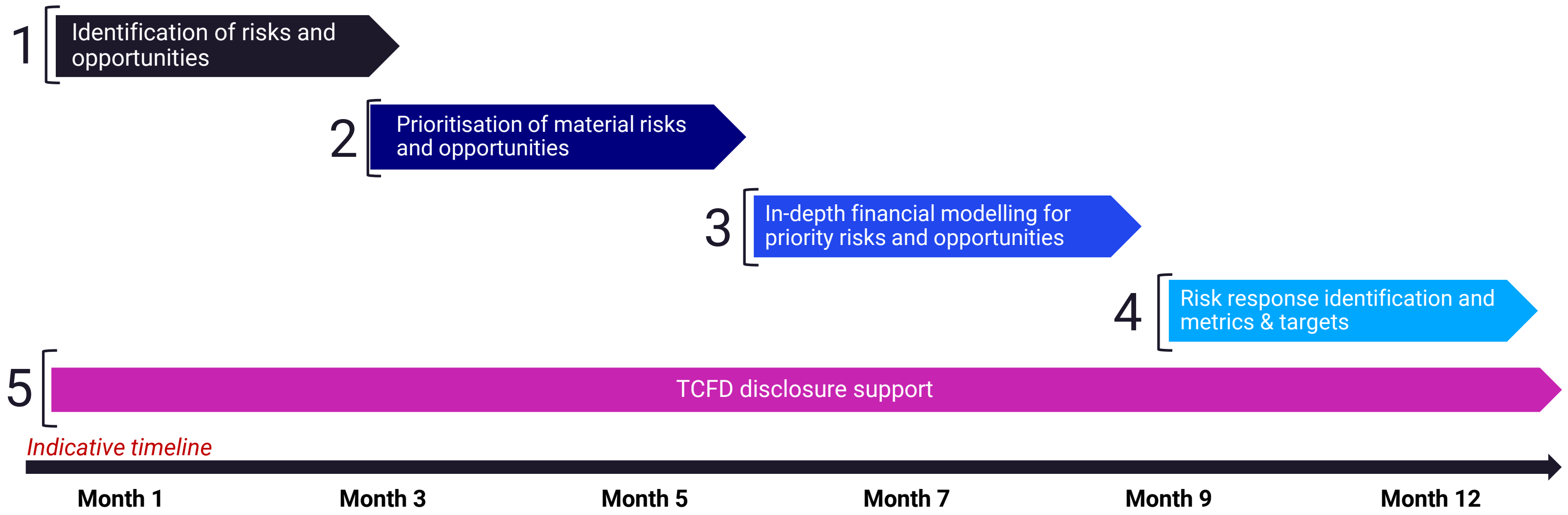
Climate risks & opportunities are starting to be priced into financial systems



Source: TCFD 2022 Status Report

Our recommended approach consists of the following key steps

Which are tailored to the specific needs



Our approach is modularised and tailored around the specific needs of our clients. We usually recommend two main phases:

- **Engagement 1**: steps 1, 2 and 5 (incl. scenario analysis).
- **Engagement 2**: steps 3, 4 and 5.

We dive deeper to proactively explore risks beyond recognisable hotspots and identify opportunities for value creation and resilience

Proactively explored by us

Opportunities and resilience

Value chain resource use, renewable energy & circularity
Where is there a lot of resource (and land) use?

Systemic dependencies
Where are your reliant on others for business continuity?

(Social) licence to operate & stakeholder expectations
What do your customers/ stakeholders care about and how can you evolve to meet these needs?

Readily recognised by all

Transition risks | **Physical risks**

Carbon hotspots

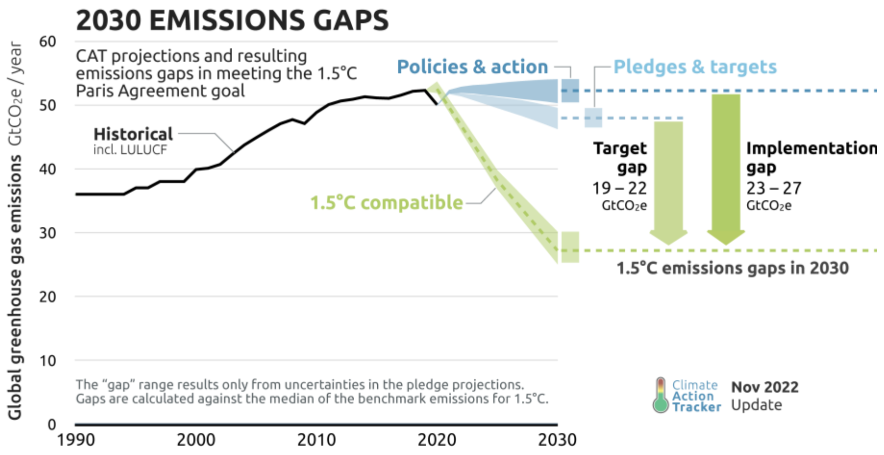
Major emissions in the value chain from key processes, products, raw materials and countries

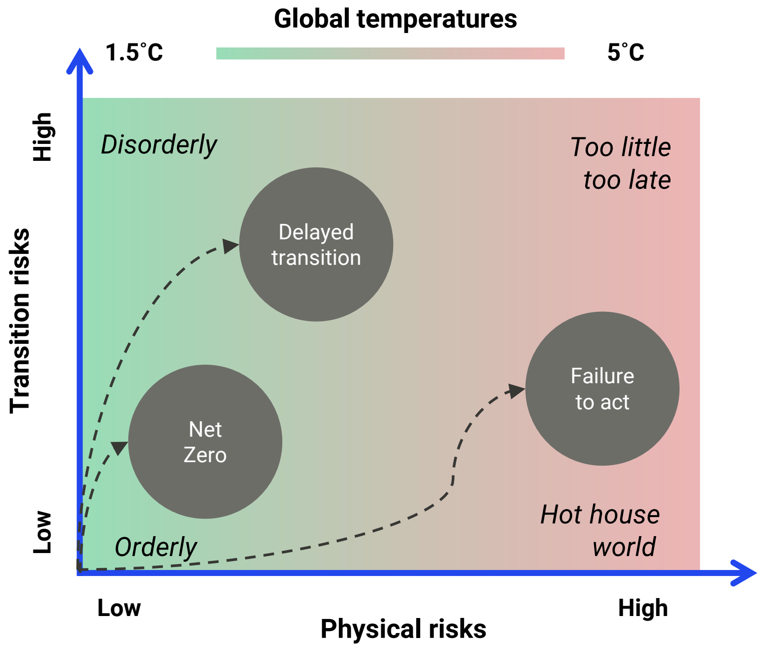
Geographic hotspots

Considering location of major operational assets and where inventories accumulate

The Net Zero transition will present a combination of physical & transition risks, as well as opportunities

Using scenario analysis is critical to stress your business model against hypothetical futures – and ensure you remain relevant in a Net Zero world





Introduction to scenario analysis

Climate-related risks and opportunities (CROs) impact assessment largely relies on scenario analysis

What is scenario analysis?

- “What if” analysis that evaluates a range of hypothetical outcomes by considering a variety of alternative future states of the world under a given set of assumptions and constraints.

What scenarios should be considered?

- The TCFD recommends for at least two scenarios to be considered. As part of our analysis we generally use:
  - A ***Current Policies*** scenario aligned to current policies and pledges, representing a lack of climate action and consequent temperature increase (~3°C).
  - A ***Stress*** scenario, representing extreme pressures on the world and therefore on the economy. For transition risks, this will be a net zero-aligned scenario (1.5°C or less global temperature increase), and for physical risks, this will be an extreme temperatures scenario (well over 3°C or more global temperature increase).

How should scenarios be selected?

- Organisations should consider how the selected scenarios are relevant to:
  - The **purpose** of the analysis
  - The **sector and geography** in which the company operates

Quantification of financial impact

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Select scenario parameters

- Each CRO is linked to a **scenario parameters**
- These are available from external sources

Select value drivers

- Scenario parameters are then matched to **affected assets' value drivers**
- These are available from company data, annual reports, or sectorial statistics

Procurement costs

Operating costs

Energy costs

Transportation and logistics costs

Raw material costs

Carbon taxes

Revenues

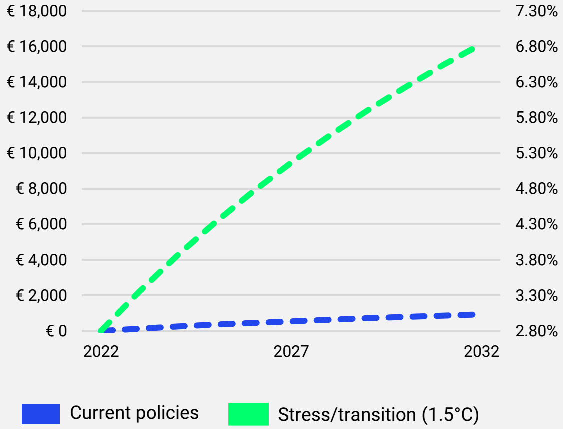
Sales

Demand

EBITDA

Assess financial impact

- Financial impact is calculated looking at **how value drivers change as parameters change**
- Calculations will depend on the specific CRO under exam



Value-at-Stake (VaS) – Underlying approach for in-depth financial quantification

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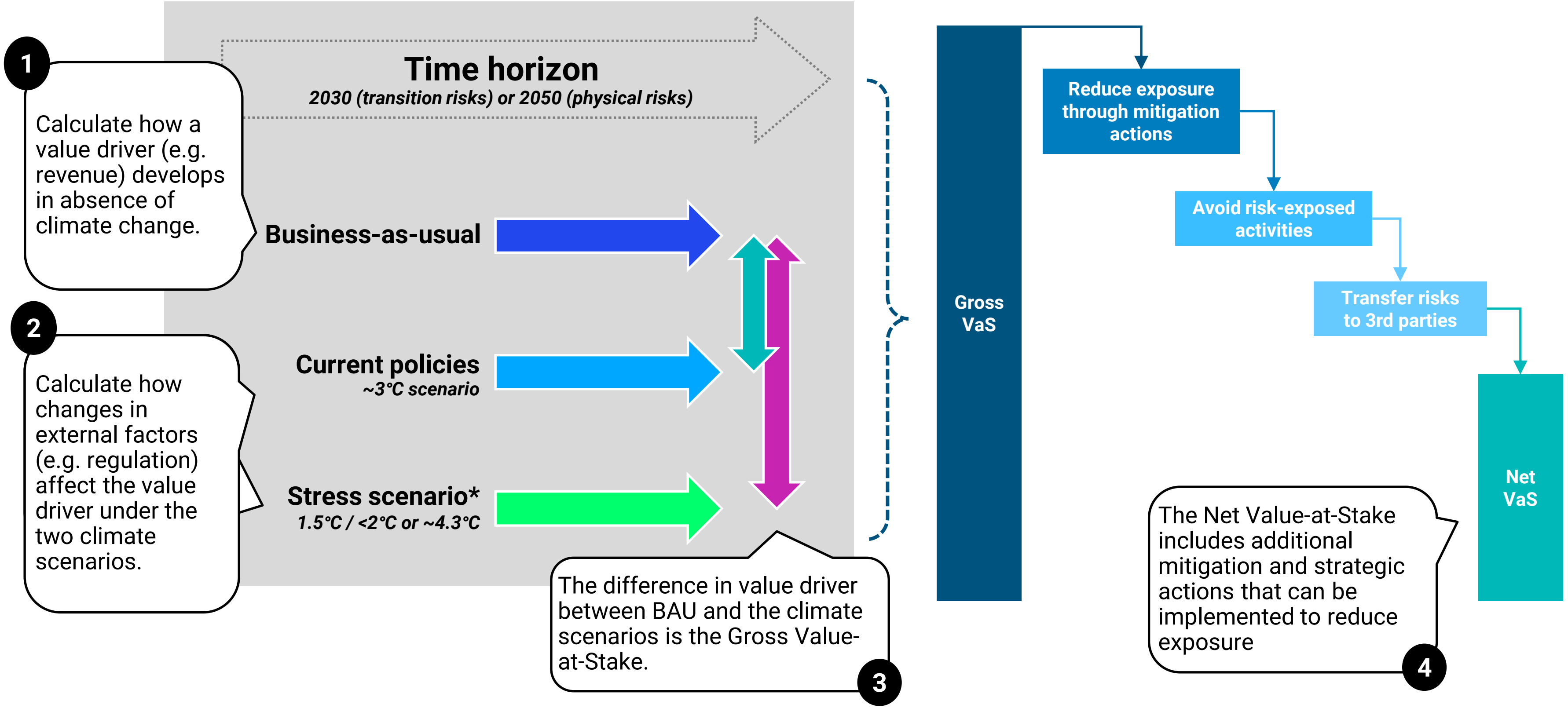

* For physical risks, the analysis considers a high-emission scenario aligned with a ~4.3°C increase in temperatures. For transition risk, the analysis considers a low carbon transition scenario with a minimum ambition in line with a below 2°C increase in temperatures (1.5 °C where available).

Leverage TCFD to develop an actionable Net Zero transition plan

Transition planning is an iterative journey. TCFD lays the foundation for achieving your Net Zero ambitions.

Best practice in transition planning

End-to-end footprint

Scope 1, 2 and 3

Annual footprint verified by independent 3rd party

Climate risks and opportunities assessed

Scenario analysis and in-depth financial modelling of key risks and opportunities

Integration into wider risk management and input into financial, business and strategy planning

Mitigation/adaption responses are identified

Approved Net Zero targets

SBTi-approved targets underpinned by feasibility analysis and plans for beyond value chain mitigation

Actionable roadmap defined

Mapping & integration of sustainability initiatives

Net Zero roadmap clearly linked with financial and strategic decision-making

Clear governance with control mechanisms

Board oversight & incentives

Financial and environmental KPIs and metrics developed

Quantifiable KPIs and metrics to track performance against Net Zero targets, risk exposure, as well and business and financial plans

Environmental metrics beyond carbon

Communicate and engage

Transition plan and progress reported in Annual Report

Engagement with suppliers, industry peers, public bodies is leveraged to accelerate transition

Transition plan is verified by independent 3rd party

ROUTE TO Net Zero STANDARD

Key takeaways

1. TCFD is an invaluable tool to **develop a Net Zero transition plan** and **drive the transformational change**
2. There is a leading role for every team in your business - **the foundations are** formed when **your leaders in finance, risk and sustainability** get aligned
3. The first questions to ask yourself are:
   - Am I more exposed to **business disruption or market dynamics**
   - For market dynamics – will the disruption be caused by **technology, society or governments**
4. Your work is never done – **integrate this with your normal strategic planning cycles**
5. Don't forget ultimately **TCFD is just about** holding the mirror up and **asking yourself** key questions like:
   - **Will my current business model still be relevant** in a Net Zero world
   - **How flexible and resilient am I** to today's climate-related financial impacts
   - **How much time have I got to respond** to any emerging, or as yet uncovered, vulnerabilities in my value chain
   - **How do** the day to day business decisions that **your managers** make **either increase or decrease** the speed, likelihood or severity of these **emerging impacts**

The Carbon Trust is a company limited by guarantee and registered in England and Wales under company number 4190230 with its registered office at Level 5, Arbor, 255 Blackfriars Road, London SE1 9AX, UK.