Supply Chain Case Studies

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19/03/2018

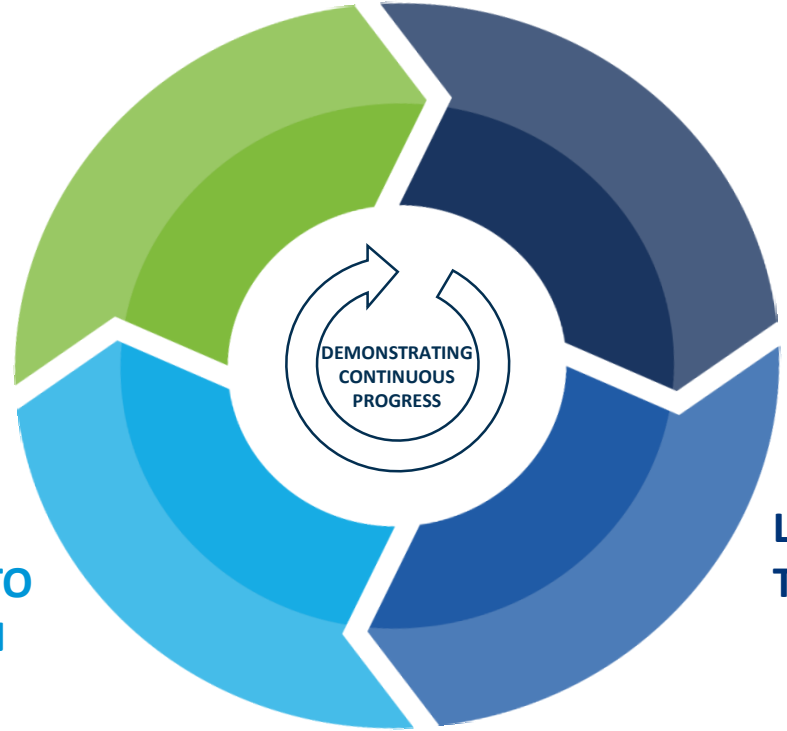
CARBON TRUST

Our mission is to accelerate the move to a sustainable, low carbon economy

Business can take a lead on climate change by using long-range thinking to drive cycles of action

HARNESSING INNOVATION & TECHNOLOGY

RISK & OPPORTUNITY SCENARIO ANALYSIS



EXTENDING SUSTAINABILITY TO THE VALUE CHAIN

LONG-TERM TARGET SETTING

The investment community can drive climate risk planning from sustainability teams into boardrooms

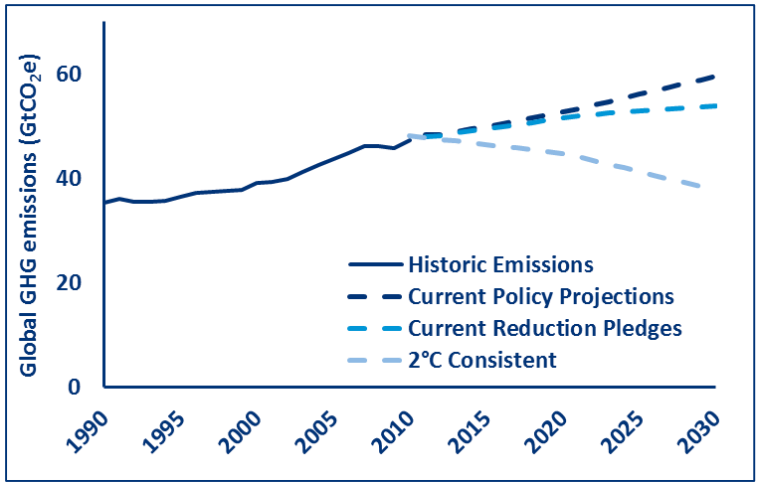
The TCFD provides an accessible framework for businesses to assess and communicate climate risks to investors and other stakeholders; other approaches exist which further develop the business scenarios

TCFD | TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

Source: TCFD, Final Recommendations Report 2017

Source: Carbon Trust

350 leading businesses have now committed to a science-based target, since COP 21 in Paris



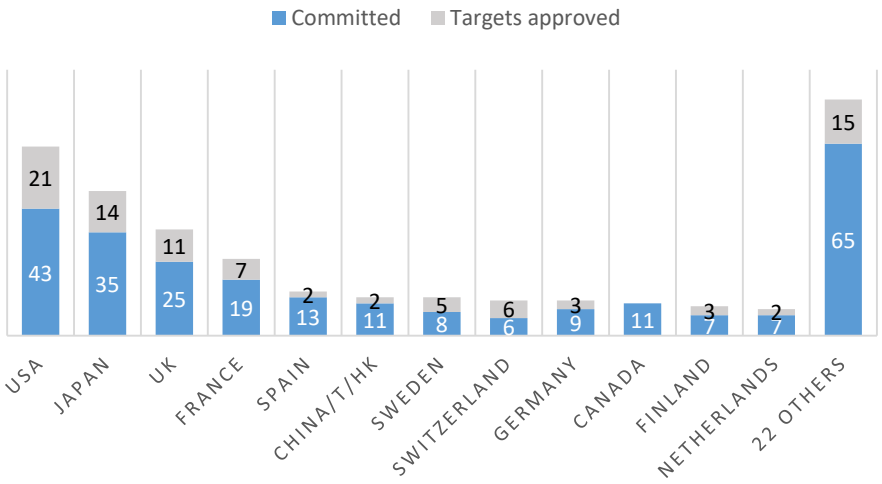
The range of organisations covers 350 organisations in 35 countries, across almost every sector

SCIENCE BASED TARGETS

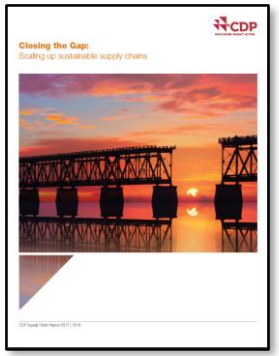
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Science-based targets are rapidly becoming established practice among corporates

SBTI COMMITMENTS AND TARGETS BY LEADING COUNTRIES



Source: SBTi data, March 2018



20%

indicated their emissions targets were science-based

Of responding CDP Supply Chain suppliers:

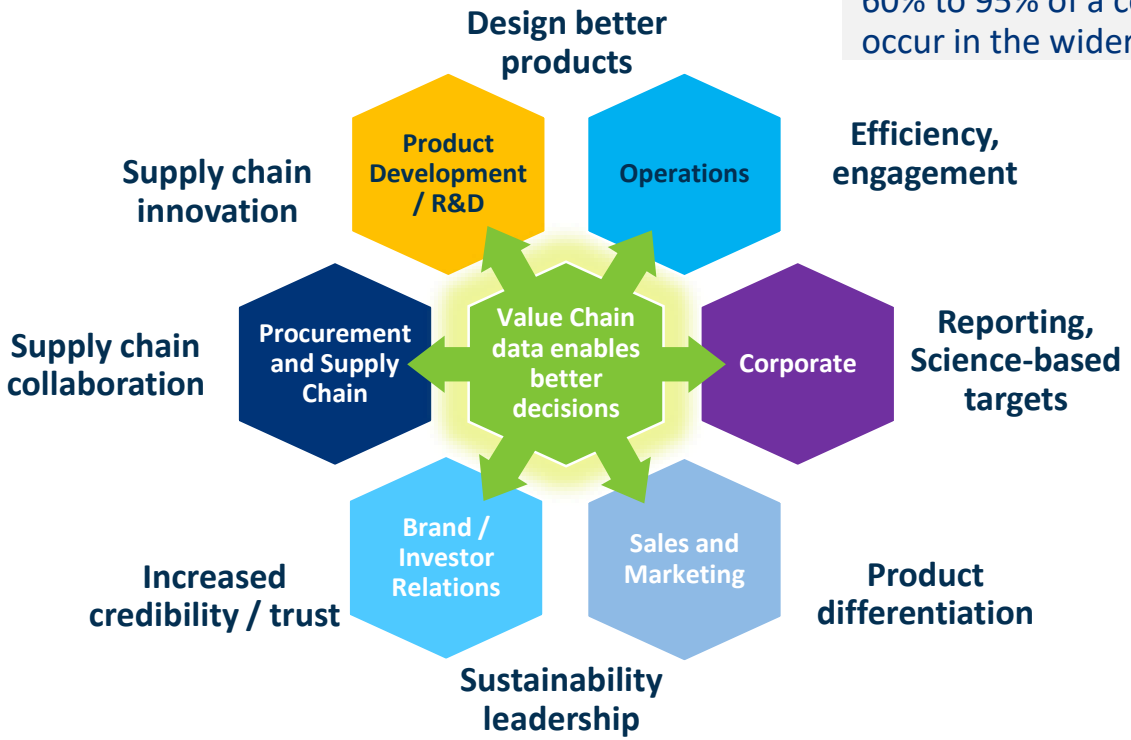
21%

anticipate setting a science-based target in the next two years

Source: CDP Supply Chain Report 2017/18

Value chain data enhances a company's decision-making ability and multiplies its positive impact

Context for the value chain footprint:
60% to 95% of a company's environmental impacts typically occur in the wider value chain



PEPSICO

thyssenkrupp

gsk

An effective value chain data strategy applies priorities

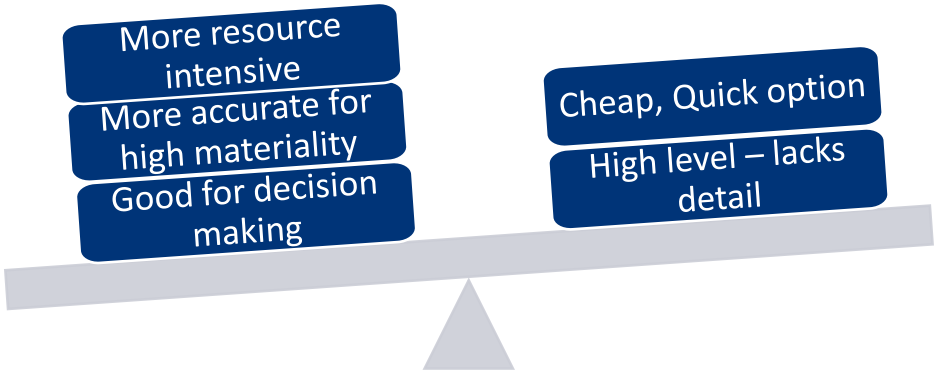
Methodologies differ based on materiality of categories

Life Cycle Assessment (LCA)

- Uses quantity data, and multiplies by emissions factors in kgCO2e/kg.
- Factors are much more specific, with a lower level of uncertainty; often taken from prior product footprinting work.

Environmentally Extended Input/Output data (EEIO)

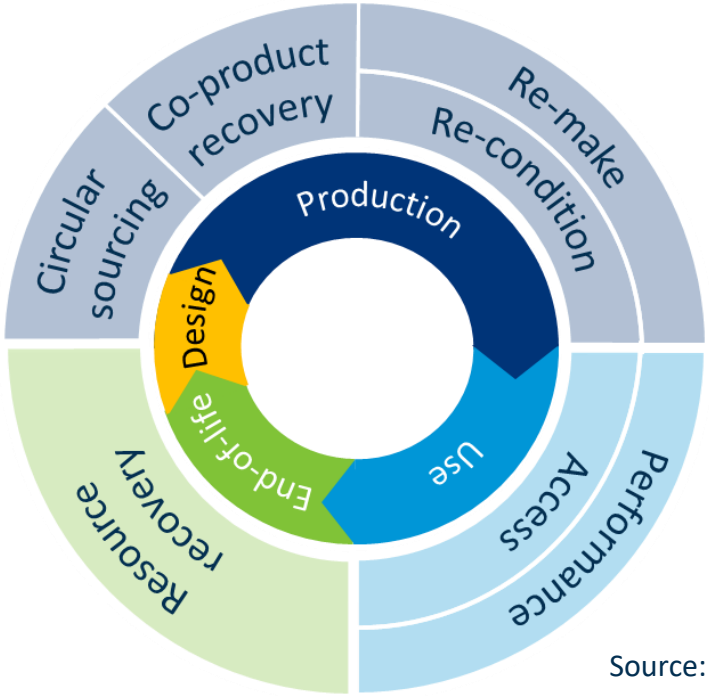
- Uses spend data, and multiplies by emissions factors in kgCO2e/$.
- Factors are an average for a sector of the economy – so result has high uncertainty and low specificity.



The materiality and business objective will determine the calculation methodology

Levels of innovation in circular economy business models are significant and increasing

A key challenge to scaling up the circular economy is understanding how to embed it within business models, to create and capture value while delivering sustainable outcomes



Source: Carbon Trust

The CDP Supply Chain programme continues to show evidence of significant progress by the leaders

2017

2018

Source: Carbon Trust, CDP Supply Chain Report 2017 (adapted)

CDP Supply Chain Case Study: **Kellogg's**

- **Science-based targets**
- **Supplier dev't and collab.**
- **Industry and sector-level collaboration**
- **Collaborative innovation**

- At COP21 in Paris Kellogg formally announced that it would align its own emissions reductions with a below 2°C pathway, becoming one of the first global companies to commit to a **science-based target**
- This included setting 2050 goals of reducing scope 1 and 2 emissions by 65% and a scope 3 target of achieving a 50% reduction, both on an absolute basis compared to 2015
- One of the first obstacles to delivering on Kellogg's supply chain target is simply getting an accurate baseline for its 2015 scope 3 emissions - this is still being refined through asking direct suppliers to report **high quality primary data** through the CDP Supply Chain program, with the company now in its third year of data collection
- **Actively engaging** through the Kellogg's Origins™ Programme across 294,000 farmers in 21 countries

CDP Supply Chain Case Study: **Hewlett Packard Enterprise**

- Science-based targets
- Supplier dev't and collab.
- Industry and sector-level collaboration
- Collaborative innovation

- Launched the world's first comprehensive **supply chain management program** that requires suppliers to set science-based emissions reduction targets
- The company estimates that if this goal is met it would help suppliers avoid 100 million tonnes of greenhouse gas emissions, the equivalent of taking 21 million cars off the road for a year
- By 2025 HPE aims to improve the **energy performance of its portfolio** by 30 times when compared to 2015; 60% of its full value chain footprint comes from the lifecycle emissions of products in use
- HPE is overcoming some of the complexities involved in developing **science-based targets** through providing active guidance and feedback to companies, alongside practical tools they are able to use

CDP Supply Chain Case Study: **Sky**

- **Industry and mkt. standards**
- **Product design**
- **Supplier dev't and collab.**
- **Business model innovation**

- Lifecycle assessment on products provided understanding of most **material impacts** and where to act.
- Actively engaging with suppliers making up 80% of annual spend
- Made it mandatory for suppliers to **comply with industry standard**
- **Supplier collaboration** to reduced energy consumption of set-top boxes (Scope 3 use-phase)
- Material efficiencies through **product design** (embedded carbon)
- **Supporting supplier development and performance** through consultancy and joint initiatives.
- Adopting **circular economy 'closed loop' strategy** for new set-top boxes: ease of refurbishment; reverse logistics; product repair & recycling.

CDP Supply Chain Case Study: **Royal Philips**

- **Performance standards**
- **Industry and mkt. standards**
- **Supplier dev't and collab.**
- **Business model innovation**

- Moved away from audit/compliance focus to **performance and continuous improvement** with a 'Supplier Sustainability Performance' programme. *Has improved supplier relationships, dialogue, performance and innovation*.
- Balanced scorecard approach to assessing and rating suppliers, with **differentiated engagement approach** based on **supplier maturity** and capabilities.
  - 'Best in class': Exemplars to others; self-assessment
  - 'DIY': Peer learning and best practice sharing
  - Strategic but low maturity: Supplier Sustainability Improvement Plan
- CEO Frans van Houten commitment to achieve **100% revenues from 'circular solutions' by 2025**. Business model innovation will be key.

CDP Supply Chain Case Study: **Braskem**

- **Product design**
- **Industry and sector-level collaboration**
- **Collaborative innovation**
- **Business model innovation**

- **De-coupling business growth from fossil fuels** by developing alternative feedstocks:
  - 100% renewable plant-based feedstock
  - Building up open loop supply chain of recycled plastic
- Response to both climate imperative as well as **customer demand** for sustainable products.
- On track to become world leader in bio-polymers.
- Improving performance and reliability of plastics supply chain:
  - **Collaborating with value chain partners** to improve quality of post-consumer plastic waste
  - **Co-investing and supporting improvement** of waste management and recycling infrastructure

CDP Supply Chain Case Study: **Ajinomoto**

- **Product design**
- **Supplier dev't and collab.**
- **Industry and sector-level collaboration**
- **Collaborative innovation**

- Reconfigured **product design** to include:
  - Environmental assessment at the product design stage
  - Scoring containers and packaging using Eco-Index assessment
- Only company worldwide to sell drinks in 100% recycled heat-resistant PET bottles, saving 2,000 tonnes p.a. of virgin plastics from fossil fuels:
  - Collaborated with packaging supplier (Toyo Seikan Group) to achieve this for Blendy bottled coffee products assessment
  - Other collaborations with Acteiive Corporation, Dai Nippon Printing, SATO Green Engineering and Toyo-Morton
- Recognising that 83% of its value chain impacts are outside its own operations, further **collaborative innovations** are set to include:
  - Plant-based bioplastics
  - Plastics which can sequester carbon during incineration
- Introduced Aji-na Eco and Hotto-suru Eco **labels to communicate** sustainability improvements to consumers

The Carbon Trust is a company limited by guarantee and registered in England and Wales under company number 4190230 with its registered office at 4th Floor Dorset House, Stamford Street, London SE1 9NT.
Published in the UK: 2017.