WORLD RESOURCES INSTITUTE

SCIENCE-BASED TARGETS FOR INDUSTRY
ROLE OF EFFICIENCY IN A 2° PATHWAY

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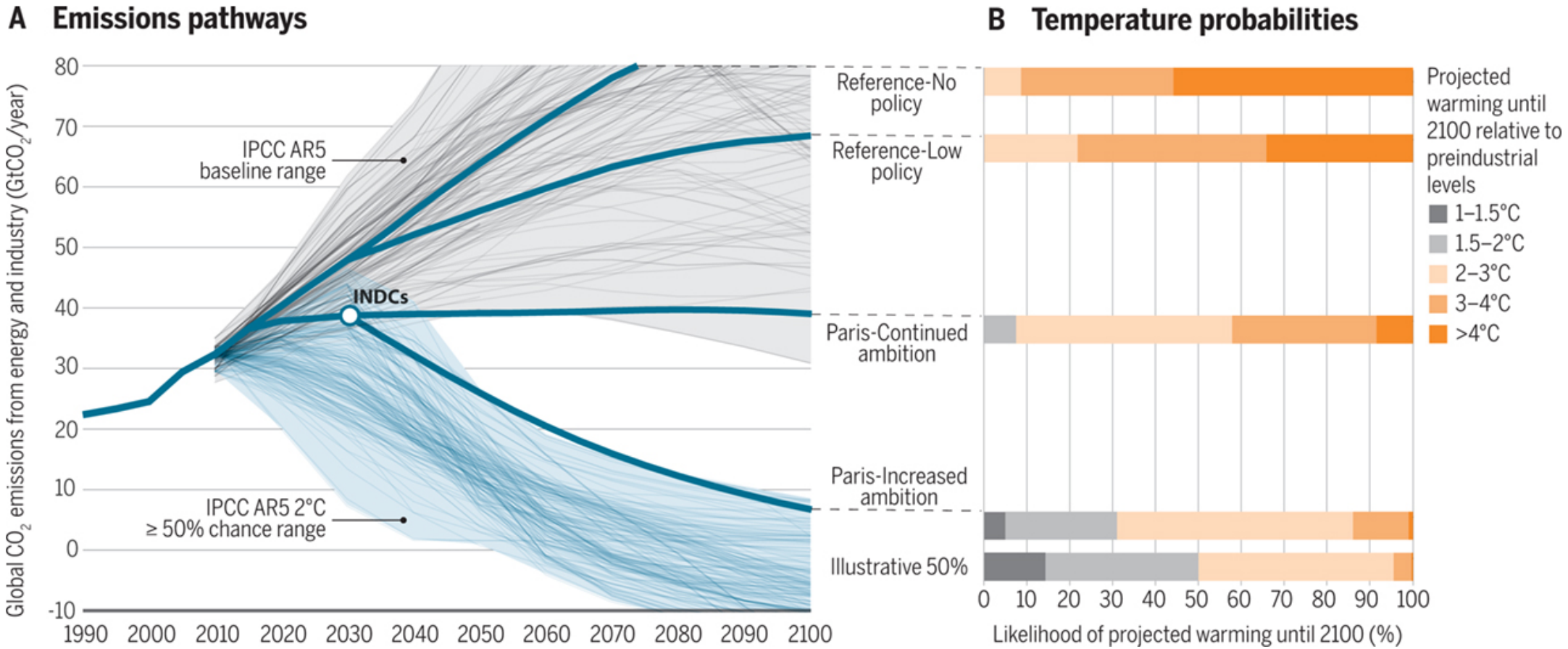
HOTO; FLICKR / MIROSLAV PETRASKO

Contents

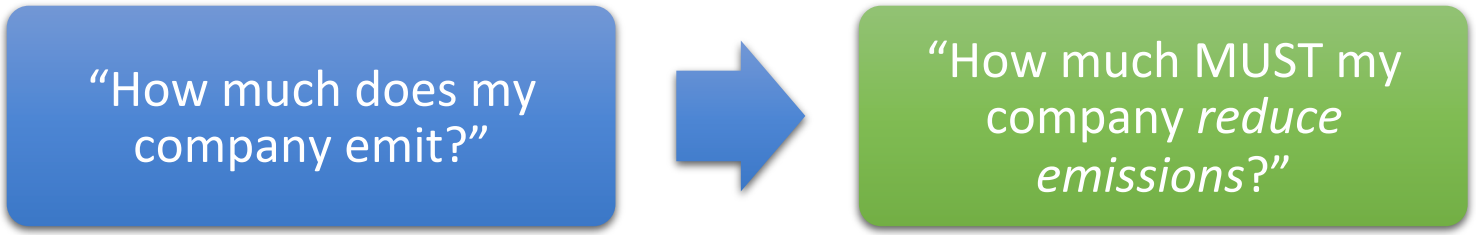
- Introduction to 2-degree pathways to 2050 for global economy and industrial sector
- Role of energy efficiency versus decarbonization for industrial sector GHG mitigation
- Questions for future research

Countries and companies are moving toward a 2-degree path, but they're not there yet



Source: Allen A. Fawcett et al. Science 2015;350:1168-1169

The SBT initiative helps companies align with a global 2-degree pathway

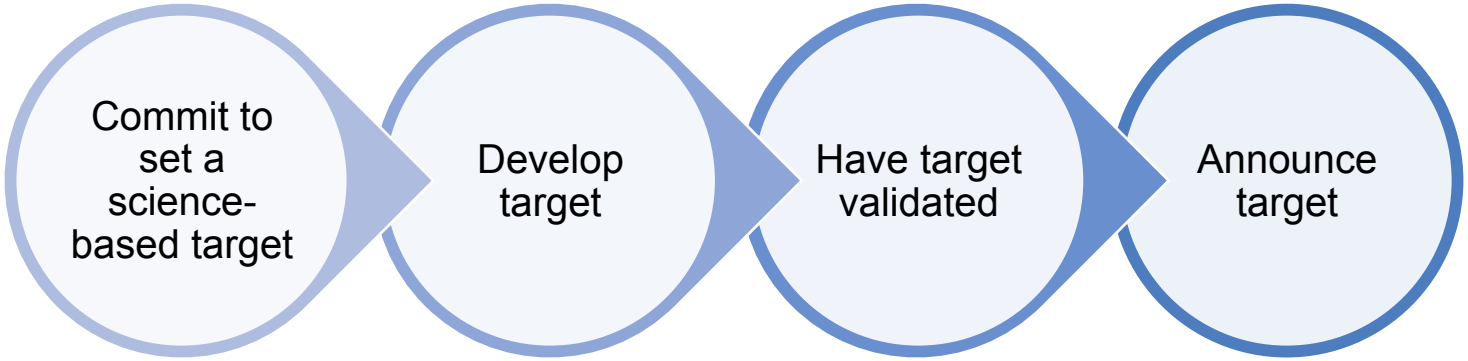


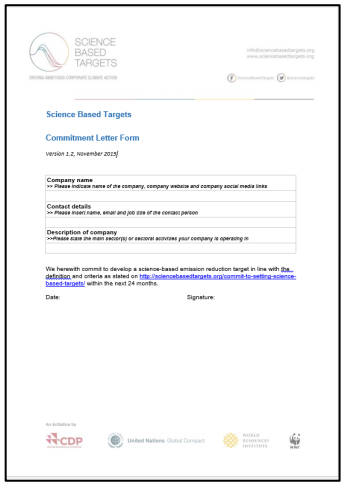
Science-based targets enable companies to understand what they need to do to align their targets with science.

Companies can demonstrate to stakeholders that they are doing their part to help the world avoid the worst effects of climate change.

Companies can demonstrate to customers that they're helping them to reduce their scope 3 emissions.

Company target-setting process





Science Based Targets

Commitment Letter Form

Version 1.2, November 2015

Company name
>> Please indicate name of the company, company website and company social media links

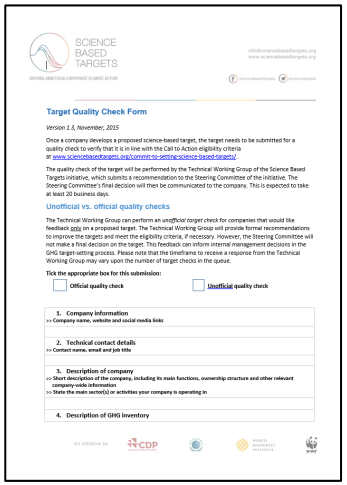
Contact details
>> Please insert name, email and job title of the contact person

Description of company
>>Please state the main sector(s) or sectoral activities your company is operating in

We herewith commit to develop a science-based emission reduction target in line with the definition and criteria as stated on http://sciencebasedtargets.org/commit-to-setting-science-based-targets/ within the next 24 months.

Date: Signature:

- Companies have up to 2 years from the date of commitment
- The SBT initiative can provide guidance



Target Quality Check Form

Version 1.3, November, 2015

Once a company develops a proposed science-based target, the target needs to be submitted for a quality check to verify that it is in line with the Call to Action eligibility criteria @ www.sciencebasedtargets.org/commit-to-setting-science-based-targets/

The quality check of the target will be performed by the Technical Working Group of the Science Based Targets initiative, which submits a recommendation to the Steering Committee of the initiative. The Steering Committee's final decision will then be communicated to the company. This is expected to take at least 20 business days.

Unofficial vs. official quality checks

The Technical Working Group can perform an *unofficial target check* for companies that would like feedback only on a proposed target. The Technical Working Group will provide formal recommendations to improve the targets and meet the eligibility criteria, if necessary. However, the Steering Committee will not make a final decision on the target. This feedback can inform internal management decisions in the GHG target-setting process. Please note that the timeframe to receive a response from the Technical Working Group may vary upon the number of target checks in the queue.

Tick the appropriate box for this submission:

☐ Official quality check ☐ Unofficial quality check

1. Company information
>> Company name, website and social media links

2. Technical contact details
>> Contact name, email and job title

3. Description of company
>> Short description of the company, including its main functions, ownership structure and other relevant company-wide information
>> State the main sector(s) or activities your company is operating in

4. Description of GHG inventory

- Target will be displayed on SBT, CDP, and WMB websites

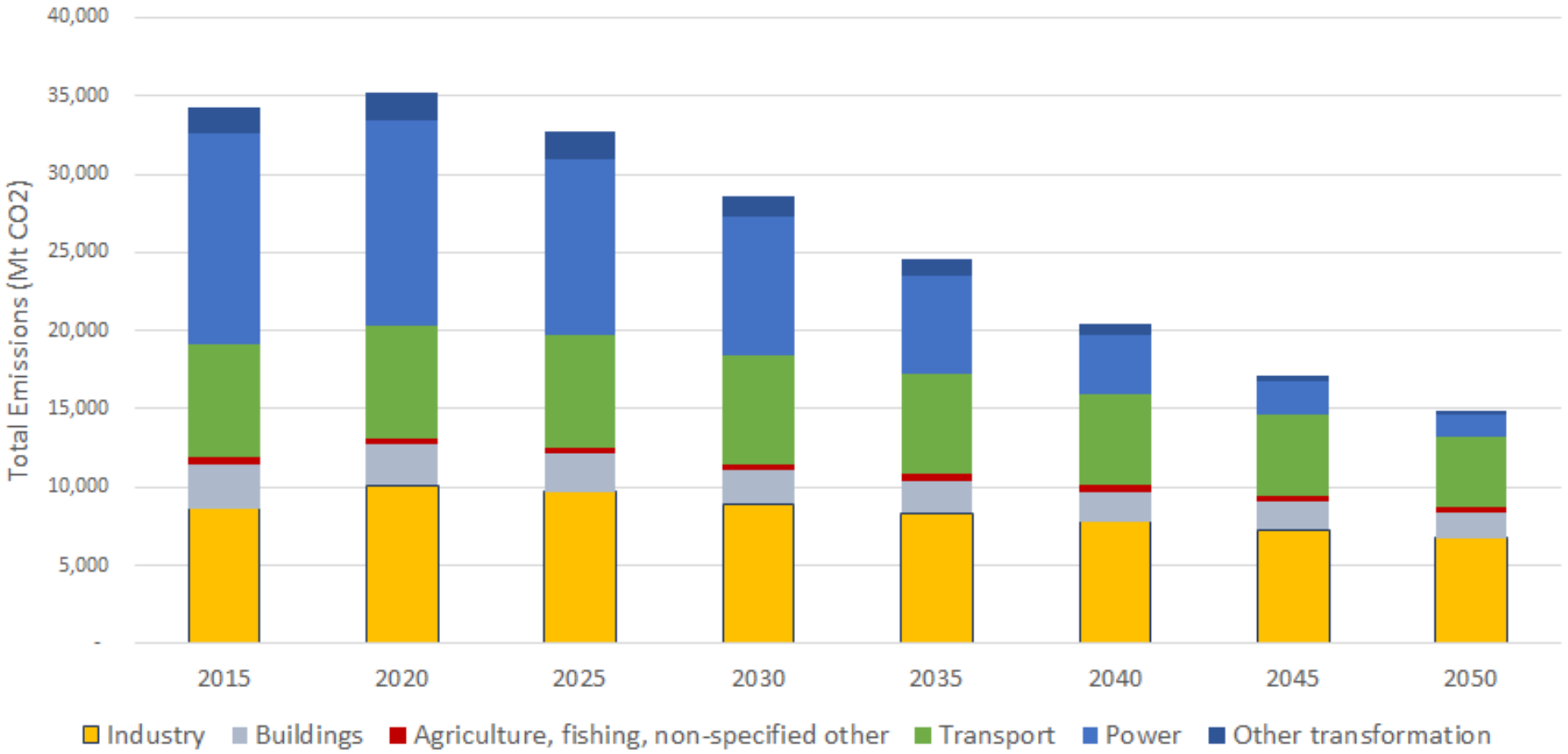
More than 170 companies have committed to set SBTs, and 20 have publicly announced their SBTs

For company target details, see: http://sciencebasedtargets.org/companies-taking-action/

A range of methods are currently used to align company targets with a 2-degree pathway

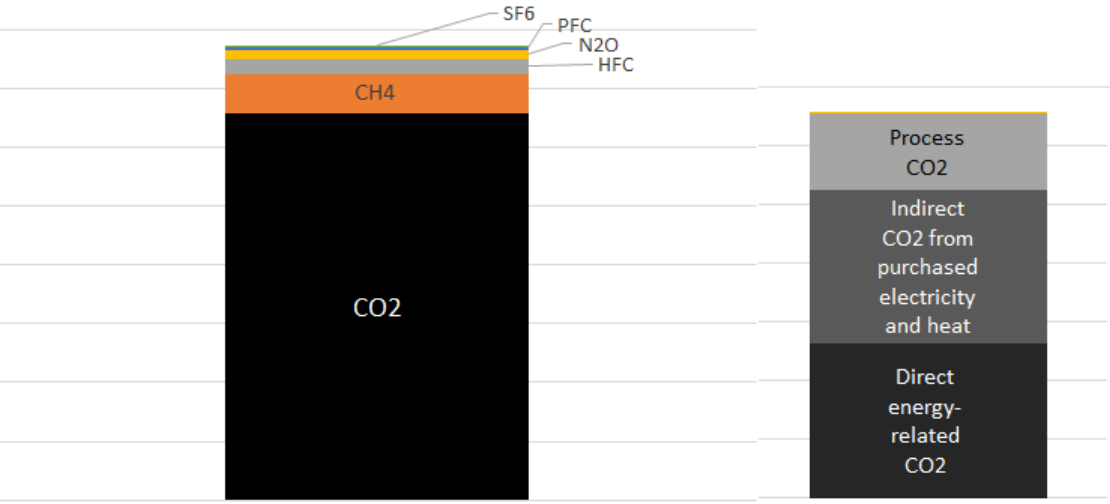
Method	Geographic Scope	Sector Scope	Metric
Absolute Contraction	Global	Total economy; parallel sectors	Absolute annual reductions or cumulative budgets
Corporate Finance Approach to Climate-Stabilizing Targets (C-FACT)	Developed versus developing countries	Company-specific forecast of contribution to GDP	Absolute annual target based on carbon-GDP intensity reduction rate
Climate Stabilization Index (CSI)	Developed versus developing countries	Company-specific based on contribution to GDP	Economic intensity (g CO_2e/$ value added)
Centre for Sustainable Organizations (CSO)	Developed versus developing countries	Company-specific based on contribution to GDP.	Context-based assessment score based on emissions per dollar of contribution to GDP.
Greenhouse gas emissions per unit of value added (GEVA)	Global	Total economy; sector; company	Economic intensity (g CO_2e/$ value added)
Sectoral Decarbonization Approach (SDA)	**Global**	**Subsector-specific**	**Physical intensity (g CO_2e/tonne product)**
3% Solution	U.S.	Subsector-specific	Absolute annual target (2020)

Least-cost 2-degree climate scenarios call for varying reductions across economic sectors

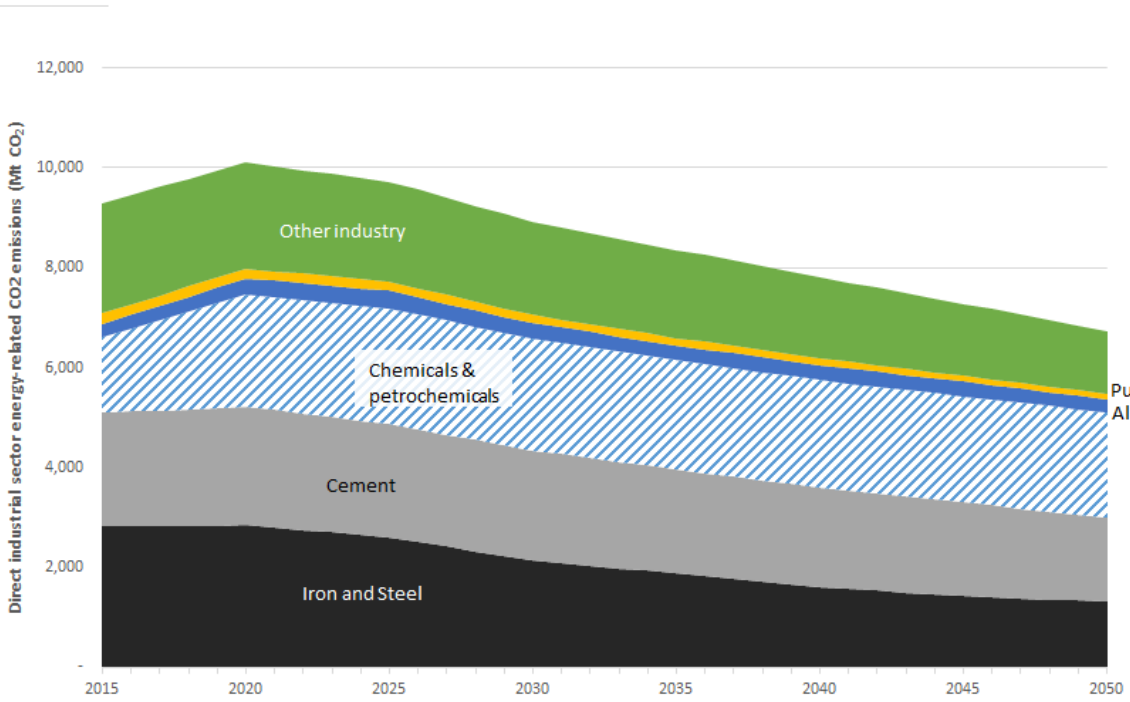


Source: IEA (2016)

Global emissions pathways indicate industrial subsector mitigation opportunities

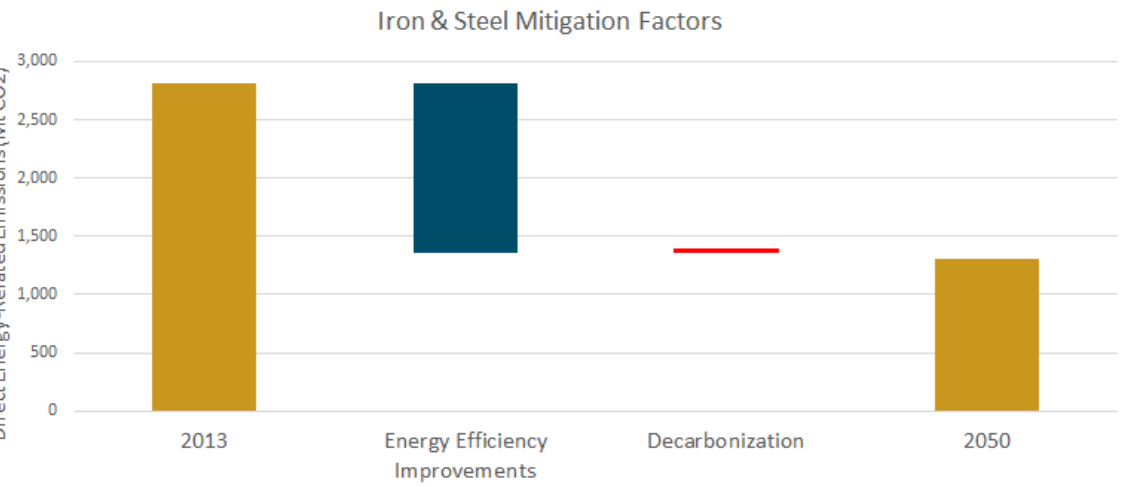


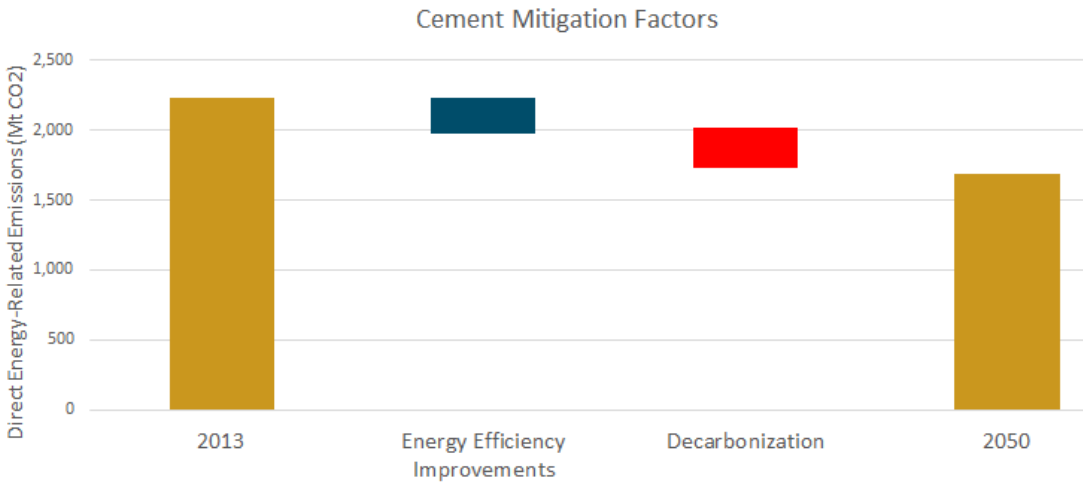
(2010 base year data)
Sources: IEA, 2012; JRC/PBL, 2013.



(2015-2050 2-degree scenario data)
Source: IEA, 2016. Note that 2015 data are interpolated from published 2013 and 2020 data.

Efficiency improvements play a varying mitigation role across industrial subsectors





Source: IEA, 2016.

Questions for further research

- Metrics: what's the relationship between energy efficiency and carbon intensity indicators for companies?
- How can energy efficiency drive decarbonization of energy and negative-emissions technology deployment at the company level?
- Can sectoral approaches accelerate industrial GHG emissions mitigation beyond the current disjointed national program?

SCIENCE BASED TARGETS

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An initiative by

CDP DRIVING SUSTAINABLE ECONOMIES

THE GLOBAL COMPACT

WORLD RESOURCES INSTITUTE

WWF

Call to Action I Eligibility Criteria

- **Boundary:** The target must cover company-wide Scope 1 and Scope 2 emissions and all relevant GHGs as required in the GHG Protocol Corporate Standard.

- **Timeframe:** The target must cover a minimum of 5 years and a maximum of 15 years from the date of announcement of the target.

- **Level of ambition:** At a minimum, the target will be consistent with the level of decarbonization required to keep global temperature increase to 2°C compared to pre-industrial temperatures, though we encourage companies to pursue greater efforts towards a 1.5° trajectory.

- **Scope 3**: An ambitious and measurable Scope 3 target with a clear time-frame is required when Scope 3 emissions cover a significant portion (greater than 40% of total scope 1, 2 and 3 emissions) of a company's overall emissions. The target boundary must include the majority of value chain emissions as defined by the GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard (e.g. top 3 categories, or 2/3 of total scope 3 emissions).

- **Reporting:** disclose GHG emissions inventory on an annual basis.