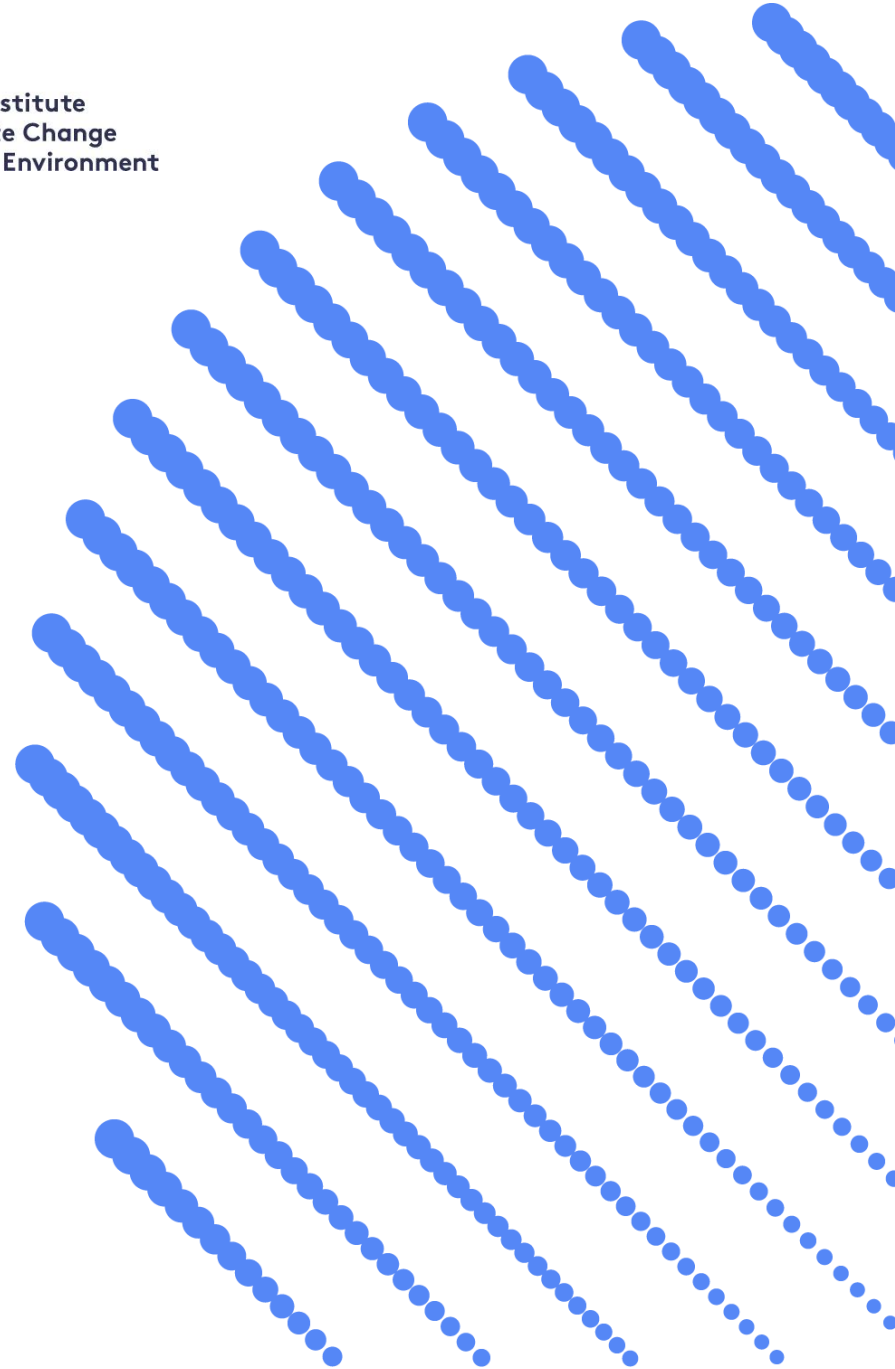




Carbon Performance: Industrials and Materials

TPI Centre Scorecard 2023

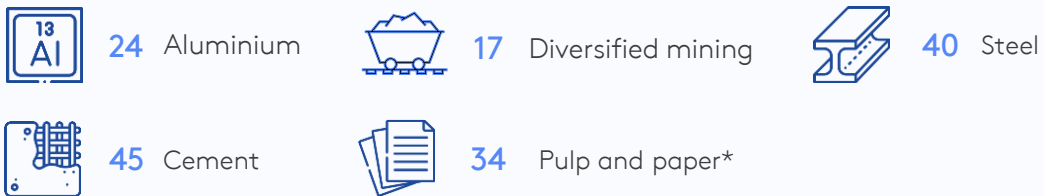
October 2023



Alignment with 1.5°C benchmark

12% of the 150 industrials and materials companies*, TPI Centre assessed with its Carbon Performance methodologies, consistently aligned with the 1.5°C benchmark in all three timeframes (2025, 2035 and 2050).

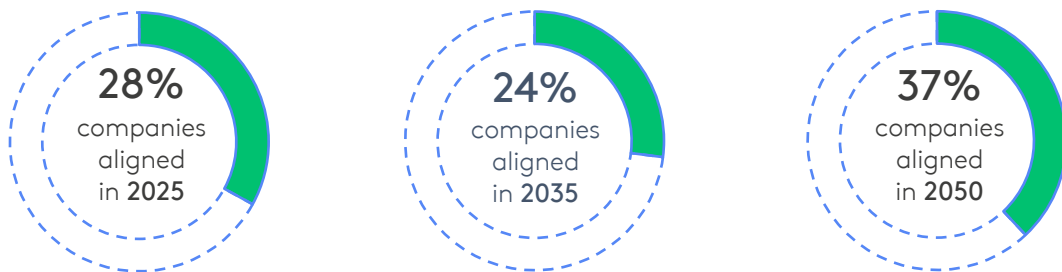
160 companies assessed



TPI's coverage by market capitalisation now extends to over 90% in most of these sectors.

* For the paper sector, we use the Below 2°C, 2°C and Paris Pledges benchmarks instead of 1.5°C, Below 2°C and National Pledges, which we use for other sectors. This is due to the lack of availability of scenario data.

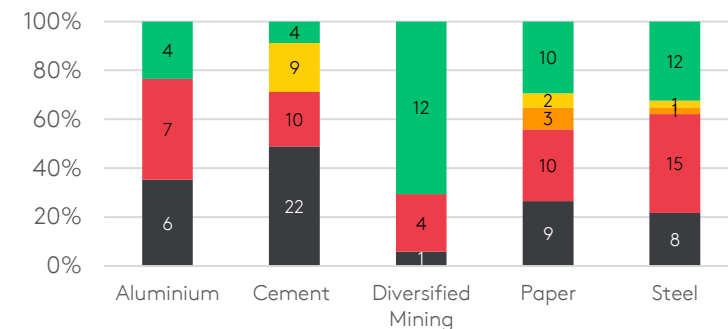
Alignment by timeframe



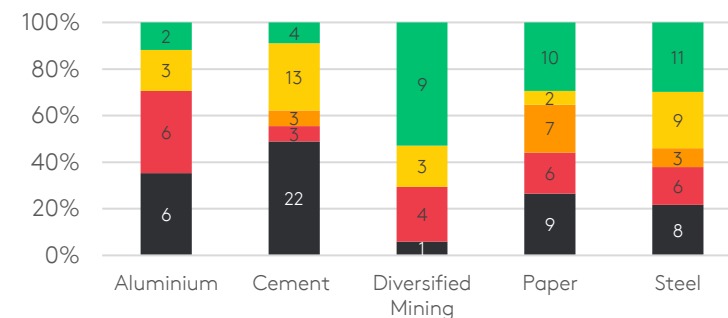
- In most sectors, companies are more likely to align with 1.5°C in the long term (2050) than the short term (2025) or the medium term (2035). The differences are largest in aluminium and cement, while diversified mining is an exception to the rule.
- See 'alignment breakdown' for a more detailed presentation by sector, timeframe and benchmark scenario.

Alignment breakdown – no. and % of companies*

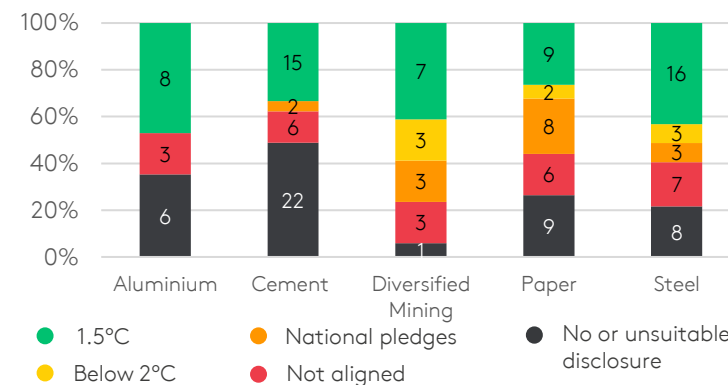
Short-term alignment (2025)



Medium-term alignment (2035)



Long-term alignment (2050)

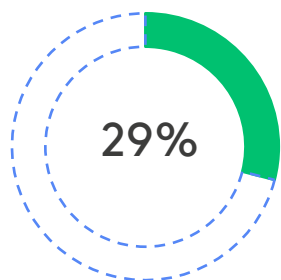


● 1.5°C
● National pledges
● Below 2°C
● Not aligned
● No or unsuitable disclosure

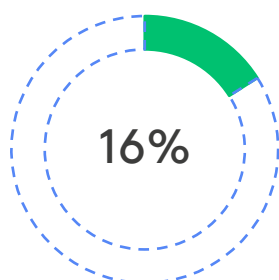
*We assessed 160 companies but 10 companies did not match our methodology criteria.

Alignment with 1.5°C benchmark by sector

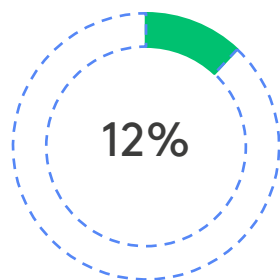
Diversified Mining



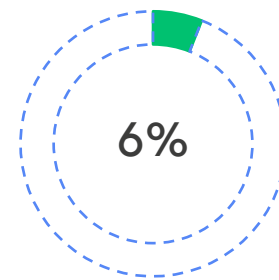
Steel



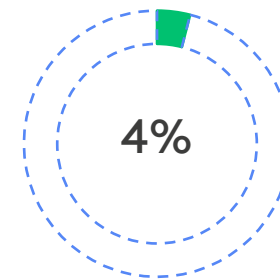
Paper



Aluminium



Cement



Diversified mining companies consistently align the most with the 1.5°C benchmark across all three timeframes (2025, 2035, and 2050), while cement companies align the least.

Alignment with 1.5°C in 2023 vs. 2022

Comparing Carbon Performance in 2023 with 2022 reveals that certain companies consistently excel while others continue to lag. We categorise these companies as follows:¹

Leaders

7% are aligned with the 1.5°C benchmark in the short, medium and long term in both 2022 and 2023.

➔ **50%** (5 out of the 10) 'leaders' are from the steel sector.

- **Aluminium:** Norsk Hydro
- **Cement:** Dalmia Bharat
- **Paper:** Oji Holdings
- **Steel:** Steel Dynamics

Improvers

10% were not aligned with 1.5°C in any timeframe in 2022 but are aligned in the long term (2050) in 2023.

➔ **38%** (5 out of the 13) 'improvers' are from the cement sector.

- **Aluminium:** Vedanta
- **Cement:** UltraTech
- **Diversified mining:** Grupo Mexico
- **Paper:** UPM-Kymmene
- **Steel:** Gerdau

No disclosure²

23% have **no or unsuitable** disclosure so the TPI Centre cannot perform a Carbon Performance assessment.

➔ **55%** (17 out of the 31) 'no disclosure' companies are from the cement sector.

- **Aluminium:** Saudi Arabian Mining
- **Cement:** Martin Marietta Materials
- **Paper:** Cheng Loong
- **Steel:** Hitachi Metals

Notes

1. The example companies listed in each category are not exhaustive and represent those with the highest market capitalisation in 2022 within their respective sectors.
2. The remaining proportion of the companies not categorised under leaders, improvers, or no disclosure were either not aligned with or aligned against less ambitious benchmarks such as 'National pledges' and 'Below 2°C'.

About the LSE Transition Pathway Initiative Centre

The Transition Pathway Initiative Centre (TPI Centre) is an independent, authoritative source of research and data on the progress of corporate and sovereign entities in transitioning to a low-carbon economy.

The TPI Centre is part of the Grantham Research Institute on Climate Change and the Environment which is based at the London School of Economics and Political Science (LSE). The TPI Centre is the academic partner of the Transition Pathway Initiative (TPI), a global initiative led by asset owners and supported by asset managers.

As of October 2023, 143 investors globally, representing around US\$60 trillion combined Assets Under Management and Advice, have pledged support for TPI.

For further information on [TPI Sectoral Decarbonisation Pathways](#) and TPI Carbon Performance methodologies please click on the respective links for the [steel](#), [cement](#), [aluminium](#), [diversified mining](#) and [paper](#) sectors.

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 Explore our tools at: www.transitionpathwayinitiative.org

 Disclaimer: [Use of the TPI Centre's data](#)

Supporters



143
Supporters



\$60tn
Assets under management

Carbon Performance



400+
Companies assessed on Carbon Performance



11
Sectoral benchmarks

Management Quality



580+
Companies assessed on Management Quality



16
Sectors assessed on Management Quality

Banks



26
Banks assessed under TPI's Net Zero Banking Assessment framework