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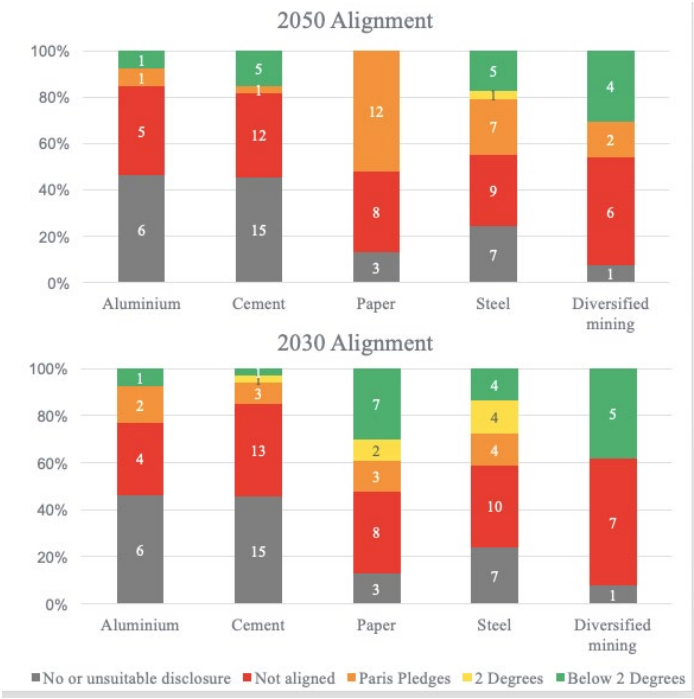
AS WE ENTER TRANSITION DECADE NEW RESEARCH FINDS ONLY 14% OF HEAVY INDUSTRY IS ALIGNED WITH PARIS AGREEMENT

Detailed report from $23 trillion-backed Transition Pathway Initiative (TPI) analyses the seven 'hard to decarbonise' industrial sectors of diversified mining, steel, cement, paper, aluminium, chemicals, and other industrials.

- From cement to steel **95 of 111 (86%)** large publicly listed industrials assessed by TPI, worth **$856 billion,** are failing to align with a pathway to 2°C or below by 2050.
- The heavy industry sectors covered by TPI are responsible for over nine gigatons of annual CO2 emissions, roughly 25% of total energy emissions (more than transport).
- Six firms achieve TPI's highest level (4*) of climate governance: **Air Liquide, BHP, Vale, Anglo American, Klabin, Koninklijke Philips**
- *"As we enter the transition decade these hard to abate sectors are critical to achieving net zero goals by 2050. Whilst it is concerning that so few industrial companies are ready, it is clear new industrial processes based on circular economy principles give us a tipping point of technically viable, economically attractive solutions."* warns Adam Matthews, TPI Co-Chair

(London, 17 Feb 2021), As we enter the 'transition decade', new research by the Transition Pathway Initiative finds that only **16 of 111** (**14%)** large publicly-listed industrial companies are aligned with an emissions reduction pathway that would keep global warming at 2°C or below. The combined market cap of the 95 industrial companies failing to align with 2°C or below by 2050 is over **$856 billion.**

The research analyses 169 companies in total including the likes of **Arcelor Mittal** and **Rio Tinto**. Of these **111 firms** are analysed on **Carbon Performance*** - to show if their emissions reductions plans align with the Paris Agreement (see graphic). The 111 companies come from the aluminium, cement, diversified mining, steel and paper sectors – collectively industries deemed 'hard to decarbonize' as there is no straightforward low-carbon replacement technology for their products or processes.



The TPI research highlights the poor performance of the aluminium and paper sectors in particular. Only one company in both sectors (Rio Tinto – specifically for aluminium) is aligned with a 2°C or below pathway by 2050. By contrast six steel companies are aligned by 2050 including the largest, Arcelor Mittal.

The research was carried out for TPI by the Grantham Research Institute on Climate Change and the Environment at the **London School of Economics.**

As the graphic shows, the sector's performance is marginally more encouraging for climate-conscious investors from a 2030 point of view, with 22% of companies aligned with 2°C or below for that shorter time frame (9 companies aligned in paper, 8 in steel, 5 in diversified mining and 4 in cement by 2030). The reason fewer companies are aligned with 2°C or below after 2030 is because the pace of decarbonisation required in the industrial sector really picks up next decade, requiring drastic falls in emissions between 2030 and 2050 to meet Paris Agreement goals. More industrial companies need to set longer term targets to 2050 that require greater levels of decarbonisation.

The report argues that the circular economy can help address the challenges of the 'hard to decarbonize' sectors by using new processes to design out waste and pollution and recycle more products and materials. For example, in cement production emissions-intensive clinker could be replaced by steel blast-furnace slag and coal ash. It is estimated 15-25% of clinker in Europe could be replaced in this way.

Adam Matthews, Co-Chair of TPI and Director of Ethics and Engagement Church of England Pensions Board said,

"Industrial sectors like mining and steel form the building blocks of the global economy and are some of the hardest sectors to decarbonize. But they account for more than 9 gigatons of greenhouse gases, and key decisions will be taken by companies and investors over this coming decade that will determine the role they will play in societies achievement of the Paris climate agreement.

"As we enter the transition decade these hard to abate sectors are critical to achieving net zero goals by 2050. Whilst it is concerning that so few industrial companies are ready, it is clear that new industrial processes based on circular economy principles give us a tipping point of technically viable, economically attractive solutions.

"A stark $856 billion market risk jumps out at investors from today's research, with only 14% of heavy industry companies on a path to keep global warming at 2°C. From recycling systems to technological innovations, the solutions are now there, and investors are ready to push for much bolder action from these sectors in the run up to COP26. To ensure that companies are part of the transition decade they must initiate cooperation across sectors and through their value chains to develop circular economy measures such as material efficiency and cross-sector recycling of by-products."

Vitaliy Komar, Researcher at the Grantham Research Institute on Climate Change and the Environment at the London School of Economics, and a co-author of the TPI report said,

"It will be a long road ahead for industrial sectors, but technological advancements are smoothing the path to a 2°C or below future, and heavy industry needs to gear up its climate progress. Low-carbon industrial technologies, such as Scrap-EAF in steel making, show the importance of establishing a circular economy and *offer viable ways to phase out high-carbon processes. Our report also identifies an emerging case to develop carbon capture and utilisations projects in the cement sector, represented by Dalmia Bharat and other companies. Dalmia is also the first company in TPI assessment universe with a net negative emissions target. Across the sectors, there are a number of other irons in the fire, and companies that are fast to adapt will have greater resiliency in a low carbon future."*

Management Quality results

The full TPI report also assesses the climate **Management Quality** of a wider selection of 169 companies. This includes companies in the chemicals and 'other industrials' sector. The latter being a diverse mix of high-emitting producers such as Boeing and General Electric.

On Management Quality, six companies have reached TPI's highest level, 4*: Air Liquide in chemicals; BHP, Vale and Anglo American in diversified mining; Klabin in paper; and Koninklijke Philips in other industrials.

Management Quality indicators also show that 24 companies (20%) move up at least one level. One of the key changes TPI is witnessing is a growing number of companies nominating a board member or board committee with responsibility for climate policy. Companies such as such as Kobe Steel and Steel Dynamics took such action last year. However, 17 companies (14%) moved down a level, with a key factor being failure to disclose on an ongoing basis involvement in trade associations active in climate lobbying.

Euan Stirling, Global Head of Stewardship and ESG Investment, Aberdeen Standard Investments, added:

"Sustainability of global development will be determined by how we produce and use commodities such as steel and cement. That is why the TPI report covering industrial and materials companies is both essential reading and a call to action for investors. Only 6 of the expanded coverage of 169 companies have achieved TPI's top grade with many failing to make any progress since the last publication. We hope that we will be joined by others in redoubling our stewardship efforts with these companies to help them improve their performance."

Iancu Daramus, Senior Sustainability Analyst, LGIM, said:

"Industrials and materials companies will literally provide the building blocks of a low-carbon future. This report emphasises the urgent need to tackle the huge climate challenge in this sector. TPI research forms a key part of LGIM's public climate ratings of corporates, and we will continue to hold such companies accountable through voting and investment decisions for their progress towards net zero."

Nerves of steel: Climate solutions found for steel, but more companies must invest in them

Steel production alone represents 10% of total global energy emissions, and a special focus on the steel sector in the TPI report shows that **eight** large steel makers, including the world's largest (Arcelor Mittal) are aligned with the 2°C or below benchmarks by 2030, an increase from five last year.

However, 21 of the steel firms assessed *do not* align with a 2°C or below pathway by 2030, rising to 23 unaligned by 2050. Also, no steel company discloses whether its position on climate aligns with the trade associations it is a member of.

TPI presents the mitigation potential of several decarbonisation measures including carbon capture and storage and the use of hydrogen, and concludes that one of the most effective measure is for steel makers to increase the proportion of steel produced from scrap-EAF (i.e. using recycled scrap steel), with even greater potential if that process is paired with a green grid.

Notes to editor

- For more information please contact: Mike Weber, ESG Communication:
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- The full list of TPI members is available here. The Industrial sector report is available on request. Please find direct data on companies available for free via the TPI Tool.

- TPI updates its assessments once a year. The previous TPI assessment of the industrials sector cluster was produced in February 2020. Any corporate announcements and disclosures on Carbon Performance made subsequent to 23/12/2020 are not included in this research. Management Quality MQ assessment cut off dates range from 11/07/2019 to 31/03/2020.

- * Carbon Performance assessment involves quantitative benchmarking of companies' emissions pathways against both the ambitions of and pledges to the 2015 UN Paris Agreement. The chemical sector, and 'other industrial' sector, were not studied for Carbon Performance as they require more detailed disclosure – including physical outputs - than these sectors currently provide.

- Management Quality covers companies' governance of greenhouse gas emissions and the risks and opportunities arising from the low-carbon transition. Both of these assessments are based on company disclosures, derived from publicly available third-party websites. TPI cannot take responsibility for the accuracy of these sources. The TPI research studied the Management Quality of 169 industrial sector companies and the Carbon Performance of 111 companies. For Carbon Performance there were 29 steel, 23 paper, 33 cement, 13 aluminium and 13 diversified mining companies.

- 'Carbon Performance' involves quantitative benchmarking of companies' emissions pathways against 3 benchmark scenarios. These are
  - 1. **Paris Pledges**, consistent with emissions reductions pledged by countries as part of the Paris Agreement (i.e. NDCs). However it is widely acknowledged that fulfilment of these pledges would still lead to over 3°C of global warming.
  - **2 Degrees**, consistent with the overall aim of the Paris Agreement, albeit at the low end of the range of ambition
  - **Below 2 Degrees**, consistent with a more ambitious interpretation of the Paris Agreement's overall aim

About TPI:
The Transition Pathway Initiative (TPI) is a global initiative led by asset owners and supported by asset managers. Aimed at investors and free to use, it assesses companies' preparedness for the transition to a low-carbon economy, supporting efforts to address climate change. It is backed by over 90 investors with over $23 trillion of combined assets under management or assets under advice. More information: www.transitionpathwayinitiative.org