



STEELWATCH

Bringing climate urgency to steel

ArcelorMittal Corporate Climate Assessment 2024



May 2024



Acknowledgements

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The report is produced in collaboration with the Fair Steel Coalition, an alliance of organisations (including SteelWatch) concerned about the terrible human and climate costs of mining and producing iron and steel. This is a 'sister' report to recently-published '[The Real Co\\$t of Steel](#)' produced by other members of the Fair Steel Coalition.

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Cover photo: ArcelorMittal Ghent steel plant. Credit: SteelWatch.

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List of acronyms

AM/NS India - ArcelorMittal/Nippon Steel India
AM/SA - ArcelorMittal South Africa
BF-BOF - Blast Furnace-Basic Oxygen Furnace
CCUS - carbon capture, utilisation and storage
CO₂ - carbon dioxide
CO₂e - carbon dioxide equivalent
DRI - Direct reduced iron
EAf - Electric arc furnace
ETC - Energy Transitions Commission
GHG - greenhouse gas

H₂-DRI - Hydrogen-based direct reduced iron
H₂ - hydrogen
HBI - hot briquetted iron
Met coal - metallurgical coal
Mt - million tonnes
Mtpa - million tonnes per annum
SBTi - Science-Based Targets initiative
tCO₂ - tonnes of carbon dioxide
tcs - tonne of crude steel
t - tonne

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Executive Summary

ArcelorMittal, the world's second largest steel company, claims to be a leader in steel decarbonisation. Because of its claim, its size, and its geographic spread, it sets the tone for climate action across the steel sector. As this Corporate Climate Assessment shows, it is a discordant tone.

ArcelorMittal has iron and steel-making operations in close to 20 countries, spanning Europe, the Americas, Africa, and Asia. Its 2023 carbon footprint of 114.3 MtCO₂e is comparable to that of Belgium's.

The assessment of SteelWatch is that ArcelorMittal does not live up to its own shiny claims of climate leadership because it is not on track to deliver the transformation needed to limit climate change to 1.5C, it is backtracking on its own stated commitments, and prioritising shareholders over decarbonisation in its financial decisions.

ArcelorMittal is not doing its fair share of decarbonisation work to limit global temperature rise to 1.5C:

- It does not have scientifically-validated CO₂ emissions reductions targets in alignment with a 1.5C climate scenario;
- There are gaps between its reported emissions and its actual climate footprint;
- It is continuing to rely on coal-based production;
- This year has seen significant backtracking on promises to deliver near-zero emissions steel;
- While garnering billions of public subsidy for decarbonisation, its own capex spending on decarbonisation is behind schedule and a mere fraction of payments to shareholders.

As of today, ArcelorMittal has a stated commitment to reach net zero by 2050, with an intermediate target of a reduction of 25% of its carbon intensity (tonnes of CO₂ equivalent emitted per tonne of crude steel produced) by 2030 against a 2018 baseline at the global group level. That is not enough. An emissions pathway compatible with a 1.5C climate scenario requires not only an end point close to zero in 2050, but also that *from today, emissions decrease over time at a sufficient pace* so that cumulative emissions to 2050 remain within a 1.5C compatible carbon budget.

ArcelorMittal has just admitted publicly that it is not at this point setting a science-based emissions target that aligns with a 1.5C scenario, such as would be required for the Science-Based Targets initiative (SBTi).



ArcelorMittal's climate targets already suffer from convenient loopholes, in particular the unclear consideration for methane emissions caused by coal mining, and the lack of a 2050 net zero target for the fast-growing joint venture in India. ArcelorMittal's reported GHG emissions simply do not fully reflect its actual climate footprint.

ArcelorMittal's decarbonisation strategy relies on two groups of technologies: *"Smart Carbon"* and *"Innovative DRI"*.

So-called *"Smart Carbon"* is a steel company's version of "clean coal": technologies that will remove a fraction of emissions to enable continued coal-based steelmaking, and business as usual. Continued investment in coal-based steel making in blast furnaces is not leadership. Decarbonising at the speed and scale required by a 1.5C climate scenario necessitates transformation, not incrementalism.

So-called *"Innovative DRI"* ideally consists of the use of green hydrogen to reduce iron ore without the help of coal and of blast furnaces. Competitors have already proven this process is able to produce near-zero steel, and in past years, ArcelorMittal announced plans to introduce this technology at its plants, with support of over EUR3.5 billion in public subsidies.

But in recent announcements, the company is backtracking, either by delaying investments, or by planning to use fossil gas instead of green hydrogen. Gas-based DRI is not at all innovative. If these investments are simply using gas, the rationale and conditionality of public subsidy needs scrutiny and challenge. A strict timeline for shifting to hydrogen-DRI is essential.

ArcelorMittal's inadequate progress on tangible investments and emissions reductions can't be justified by a lack of financial resources either. **In 2021-23, the company distributed more than USD11 billion to its shareholders in the form of buybacks and dividends. This is 22 times the amount invested on decarbonisation during this same period - just USD500 million.**

This USD500 million spend on decarbonisation represents just one third of the planned company spend on decarbonisation for that period.

Comparison between these figures shows that ArcelorMittal prioritises returning cash to its shareholders over the climate, and is falling behind even against its own previously stated plans.

We conclude that ArcelorMittal is failing in its claim to be a leader of decarbonisation in the steel sector. For ArcelorMittal to put substance into its leadership claim and become a real climate champion, it needs to adopt more ambitious climate targets globally, set clear deadlines for ending use of coal and gas, and put more of its own profits into decarbonisation.



1. Introduction and context

The purpose of this ArcelorMittal climate assessment

SteelWatch exists to speak for what a stable planet and future generations need from the steel industry. That requires honest and informed challenges to steelmakers, whenever and wherever they are falling short. ArcelorMittal is not the worst steelmaker in terms of its climate efforts, but it is far from living up to its claim to sector leadership. This report explores the gap between its shiny claims and reality. Between what is truly needed to transform the steel industry and where ArcelorMittal currently sits.

Genuine effort should not be undermined, but greenwashing must be deterred, and progress galvanised. **If ArcelorMittal fails to move beyond gas-based DRI, a mixture of retired, relined, and newly built blast furnaces, and a determination to pursue carbon capture for meagre results, then it cannot claim climate leadership.** It is positively damaging to convince others, whether policy makers or investors, that this is the best that the steel industry can do. SteelWatch recognises where progress has been made, but we set out our judgement on the company's current performance to challenge ArcelorMittal to truly step up. Our goal is that the company takes on the 'asks' that we lay out here, turns them into tasks, and puts its climate strategy on a whole new level that would deserve the title of climate leadership.

Coal-based steel production driving climate change

Coal-based steel production is a major, but under-recognised, driver of climate change. Steel production contributes at least 7% of annual greenhouse gas (GHG) emissions per year, and that is even before the substantial climate impacts of coal mining are accounted for. As our first report, *Sunsetting Coal in Steel Production* laid out¹, in the five core stages of steel production, the majority of emissions come from CO₂ released when iron ore is 'reduced' (oxygen is removed) in blast furnaces using metallurgical coal (met coal). In addition, substantial methane emissions arise when met coal is mined. Coal is the core of the problem, and the only way to resolve it is ending all investment in blast furnaces, whether for 'relining' them (renewing their lifespan) or building new ones. Continued blast furnace operation is not compatible with staying within the 1.5C limit. This is central to our assessment and asks of all corporate players.

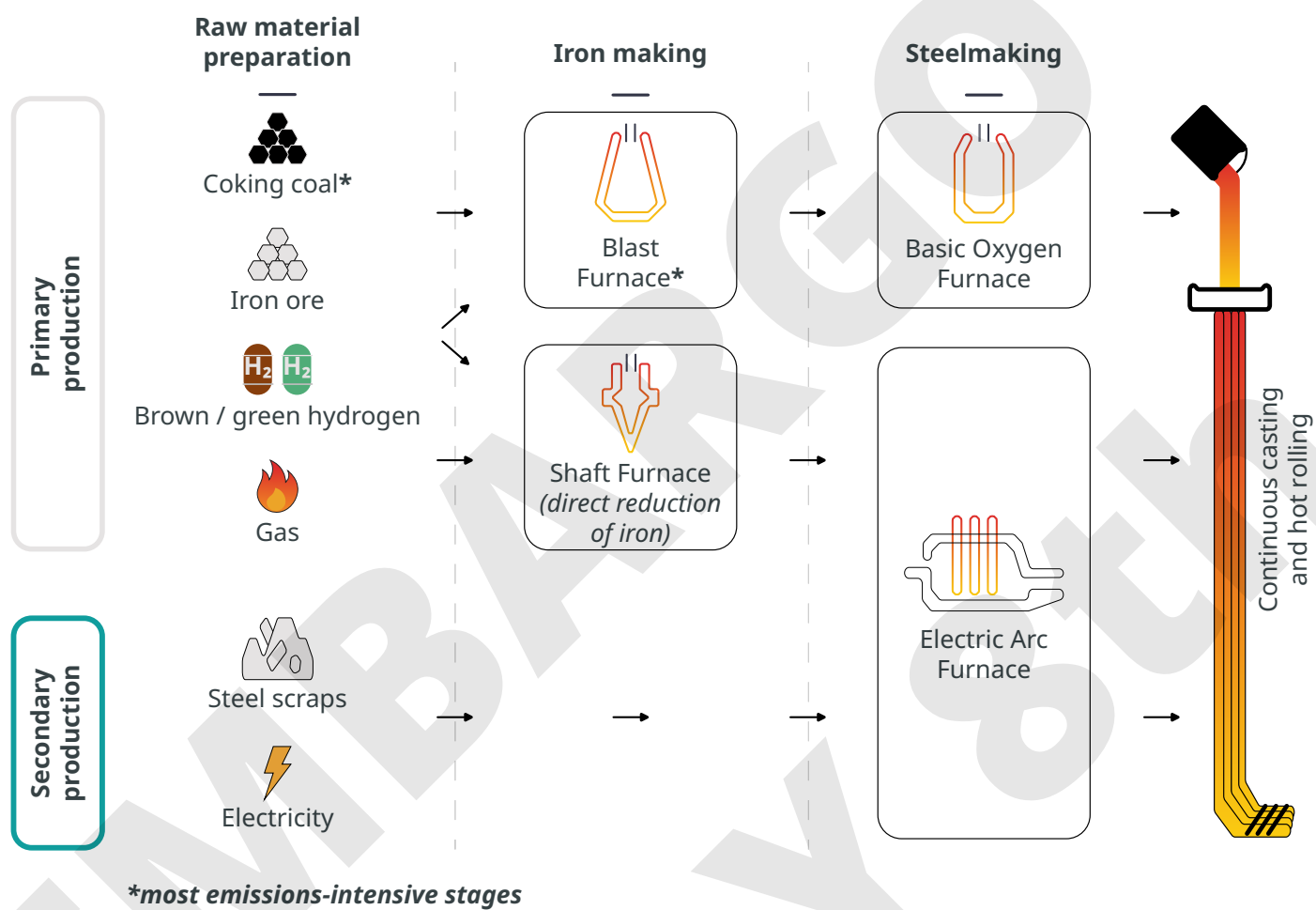
Figure 1 explains these basic stages of steel production.

If ArcelorMittal fails to move beyond gas-based DRI, a mixture of retired, relined, and newly built blast furnaces, and a determination to pursue carbon capture for meagre results, then it cannot claim climate leadership.

¹ *Sunsetting Coal in Steel Production* (SteelWatch, 2023).



Figure 1: The basics of steel production



Source: Adapted from Reclaim Finance 2024.



2. ArcelorMittal company profile

Corporate operations

ArcelorMittal is the world's second largest steel producer² with output of an estimated 58 million tonnes of steel and global reported revenue of USD68.3 billion in 2023.³ It has the broadest footprint of all steel companies, with its iron ore mining, iron-making, and steel-making operations spanning 19 countries⁴ in Europe, the Americas, Africa and Asia. Headquartered in Luxembourg in the European Union, it is listed on US and European stock exchanges. The company reported approximately 126,756 employees as of 31 December 2023.⁵

The ArcelorMittal company is the result of a series of mergers, assets sales and acquisitions led over the decades by the Mittal family. In 2006-2007, the hostile takeover of Arcelor by Mittal Steel Company was one of the largest corporate mergers in European history.⁶ Aside from that takeover, the company has acquired or sold off assets in different countries at different times as opportunities arise or situations dictate. In recent years, ArcelorMittal sold off most of its US assets⁷ (including six steelmaking facilities and two iron ore mines), while acquiring coal-based steel mills in Brazil and India. Last year it was 'asked to leave' Kazakhstan,⁸ after multiple mining fatalities 'prompted the nationalisation of the company's local affiliate.'⁹ In February 2024, its joint venture in Italy, Acciaierie d'Italia, was placed into extraordinary administration by the government. ArcelorMittal is expanding through joint ventures, with the most notable in India, where it operates through the joint venture, ArcelorMittal/Nippon Steel India (AM/NS India).¹⁰ As the company sets different targets for different geographies, this geographic spread is important context for understanding its decarbonisation plans.

ArcelorMittal today is unusual amongst publicly-listed companies. It is largely a family business, with a few family members holding key positions. Mr. Lakshmi N. Mittal serves as Executive Chairman of the Board of Directors; his son Mr. Aditya Mittal as Director and CEO. Including the shares held by Lakshmi Mittal's daughter and wife (see Section 6), four family members exert significant influence over the company as they hold directly or indirectly 41.5% of ArcelorMittal's outstanding shares and voting rights.¹¹

This is relevant to the climate expectations on the company, because, in this context, the traditional corporate excuse that 'shareholder expectations' constrain climate action has less salience, given the family themselves have such weight.

² [World Steel Association](#), *Top steel-producing companies 2022/2021*, Retrieved on 12 April 2024.

³ [ArcelorMittal](#), *Annual Report 2023 of ArcelorMittal parent company*, March 2024, p. 3. Unlike World Steel, ArcelorMittal reports crude steel production without accounting for the contribution of its joint venture in India. Revenue figures also do not include the contribution of joint ventures.

⁴ Directly or through joint ventures, see Table 6 in Annex 2. This number excludes Kazakhstan from which ArcelorMittal withdrew in December 2023, Italy where control over Acciaierie d'Italia was passed from ArcelorMittal to government appointed commissioners in February 2024, and countries with only downstream operations such as fabrication of products or retail.

⁵ [ArcelorMittal](#), *Annual Report 2023 of ArcelorMittal parent company*, March 2024, p. 3.

⁶ [Tim Bouquet and Byron Ousey](#), *Cold Steel: The Multi-Billion-Dollar Battle for a Global Empire*, Key Porter Books, 2009.

⁷ [ArcelorMittal](#), *ArcelorMittal unlocks value through separation of integrated US assets and repositions its footprint in North America*, 28 September 2020. Retrieved on 23 April 2024.

⁸ [Jean-Michel Bezat](#) [ArcelorMittal asked to leave Kazakhstan following tragedy in Kostenko coal mine](#), Le Monde, 31 October 2023.

⁹ [The Guardian](#), *Kazakhstan mourns after ArcelorMittal mine disaster kills 45*, 29 October 2023.

¹⁰ [www.amns.in](#)

¹¹ [ArcelorMittal](#), *Annual Report 2023 of ArcelorMittal parent company*, March 2024, p. 221.



The Mittal family and the ArcelorMittal company are also well connected into the structures of economic and political power, and thus have influence way beyond the confines of their own company. Lakshmi Mittal has frequently appeared on various lists of the world's rich and powerful (Forbes,¹² Bloomberg¹³). He sits on the board of Goldman Sachs,¹⁴ and the Executive Committee of World Steel Association.¹⁵ ArcelorMittal can be seen as influential in public policy circles, thanks to its high-level political connections. Two company directors previously served as ministers in their respective home countries of Belgium and Luxembourg. The takeover process of 2006-7 involved intense engagement with European policy makers,¹⁶ including Jean-Claude Juncker who later went on to become Commission President, Thierry Breton who is currently Commissioner for Internal Market, and Luc Frieden, the current prime minister of Luxembourg.

In the steel industry, ArcelorMittal has strong visibility, not only due to its unusually wide geography in a sector where many steel producers are predominantly national companies, but also due to its engagement in a variety of industry initiatives. The inter-connections into structures of power and visibility across the industry make the leadership role of the company - whether for slower or faster climate action - all the more significant.

ArcelorMittal is financed by the conventional finance sector. It received over USD71bn from banks between 2016 and June 2023. Most of this banking support has taken the form of loans (77%), the rest being through underwriting. This includes USD21.5bn from its top 5 banks Commerzbank, JBIC, Unicredit, Crédit Agricole and SMBC Group. These banks are only just beginning to address steel and metallurgical coal in their climate policy, so to date ArcelorMittal has had relatively little climate challenge from this source.¹⁷

From a business point of view, ArcelorMittal can be described as a “do-it-all” company, with a high level of vertical integration across the value chain. The first three steel mills that the Mittal company operated were all direct reduced iron (DRI) plants, in Indonesia, Trinidad and Tobago, and Mexico. Today activities range from iron ore mining to iron and steel production to scrap collection. Within iron and steel production, the company has multiple production processes (blast furnaces and basic oxygen furnaces (BF-FOF), electric arc furnaces (EAF) with scrap and/or DRI), a diversity of steel products serving a wide range of sectors (construction, automotive, packaging)¹⁸ across the globe. ArcelorMittal's “do-it-all” attitude is also visible in its climate strategy, as the next part will show.

The majority of ArcelorMittal steel production today relies on the coal-based blast furnace. Available data indicates that the company has 33 operational¹⁹ blast furnaces (including 1 under the joint venture AM/NS India), plus 2 new blast furnaces under construction and 1 planned, spread across 12 countries (see Table 6 in Annex). Notably there are 7 operational blast furnaces in Brazil (plus one planned), 5 in France, and 3 in Germany. In India, one is in operation with an expansion project, while 2 more are under construction.

ArcelorMittal is the world's second largest steel producer with the most globally spread footprint. Its iron ore mining, iron-making, and steel-making operations span across 19 countries in Europe, the Americas, Africa, and Asia. Listed on American and European stock exchanges, its global revenue is over USD68 billion p.a.

¹² [Forbes](#), *World's Billionaires List. The Richest in 2024*. Retrieved on 23 April 2024.

¹³ [Bloomberg](#), *Bloomberg Billionaires Index*. Retrieved 22 April 2024.

¹⁴ [Goldman Sachs](#), *Board of directors*, retrieved 22 April 2024.

¹⁵ [World Steel Association](#), retrieved 22 April 2024.

¹⁶ Tim Bouquet and Byron Ousey, *Cold Steel: The Multi-Billion-Dollar Battle for a Global Empire*, Key Porter Books, 2009.

¹⁷ Only one of these top 5 banks, Crédit Agricole, includes metallurgical coal in its coal policy, although most of them (all but JBIC) have adopted steel decarbonisation targets. Cynthia Rocamora, *Steeling our future. The banks propping up coal-based steel*, [Reclaim Finance](#), March 2024.

¹⁸ [ArcelorMittal](#), *Annual Report 2023 of ArcelorMittal parent company*, March 2024, p. 4.

¹⁹ ‘Operational’ may include blast furnaces that are temporarily turned off due to economic or technical circumstances like accidents (or, in Ukraine, war). Such real time information is not generally available. Detailed information on blast furnace operations is not disclosed and even planned shutdowns for relining tend to be buried in documents.



Figure 2: ArcelorMittal iron and steel production assets, by geography and by climate targets, with number of blast furnaces

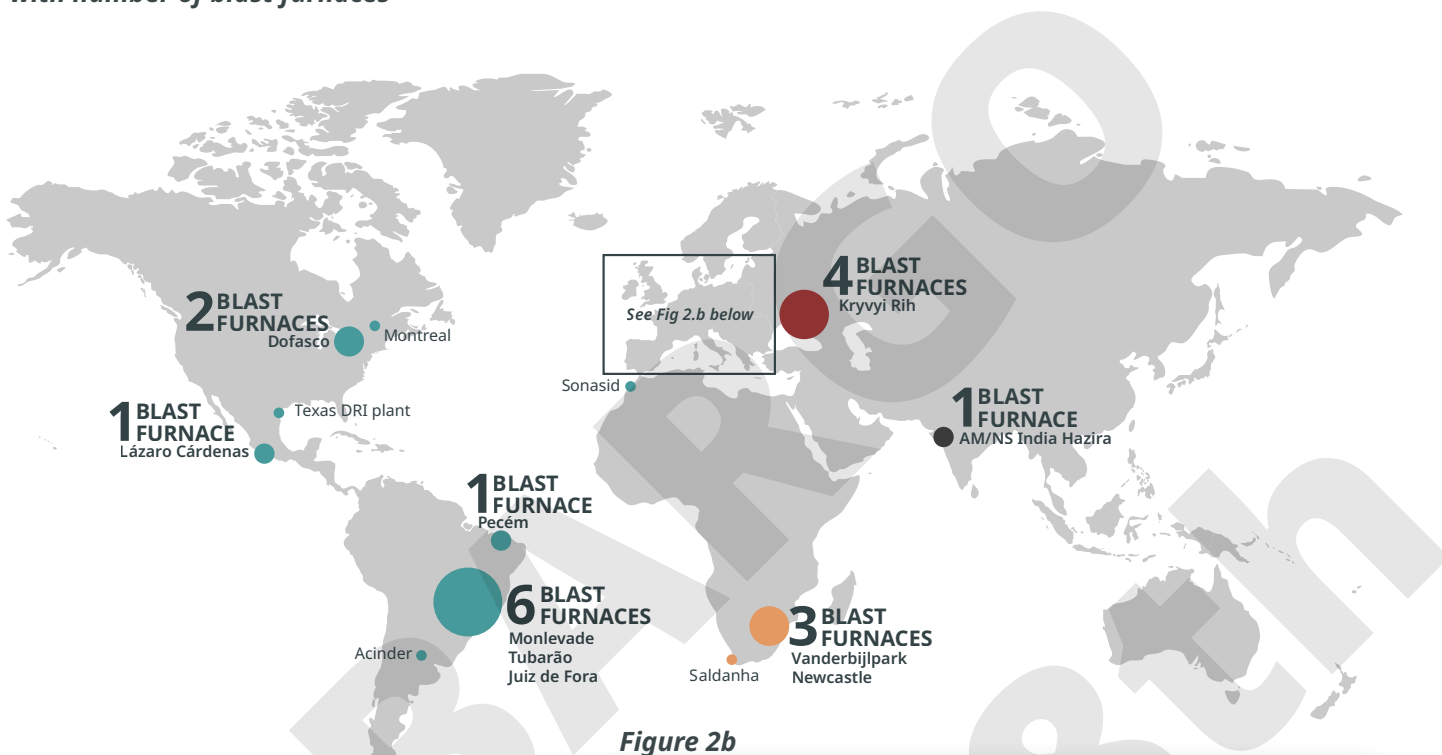
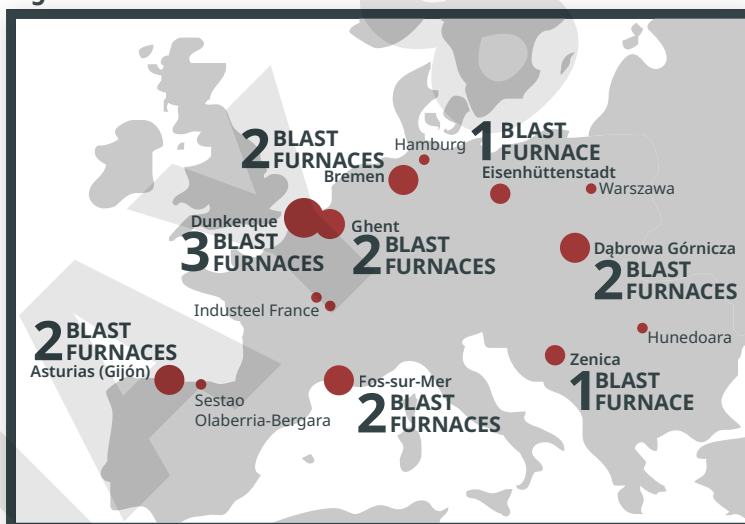


Figure 2b

Falling under which ArcelorMittal climate target(s):

- Global
- Global + Europe
- Global + country or asset specific
- Country or asset specific



Note: Only iron and steel production plants are listed, including joint ventures with ArcelorMittal $\geq 50\%$ interest. Mining operations and downstream steel processing using purchased steel are excluded. Details in Table 6, Annex 2.

Sources: ArcelorMittal reports and Global Energy Monitor.²⁰

²⁰ [ArcelorMittal](#), Annual Report 2023 of ArcelorMittal parent company, March 2024, pp. 93, 95, 97, 98, 102, 104, [ArcelorMittal](#), Climate Action Report 2, July 2021, ArcelorMittal, Climate Action in Europe, May 2020, [ArcelorMittal](#) South Africa decarbonisation roadmap, January 2023, [AM/NS India](#) Climate Action Report 2024, February 2024, [Global Energy Monitor](#), Global Steel Plant Tracker. Retrieved on 14 April 2024.

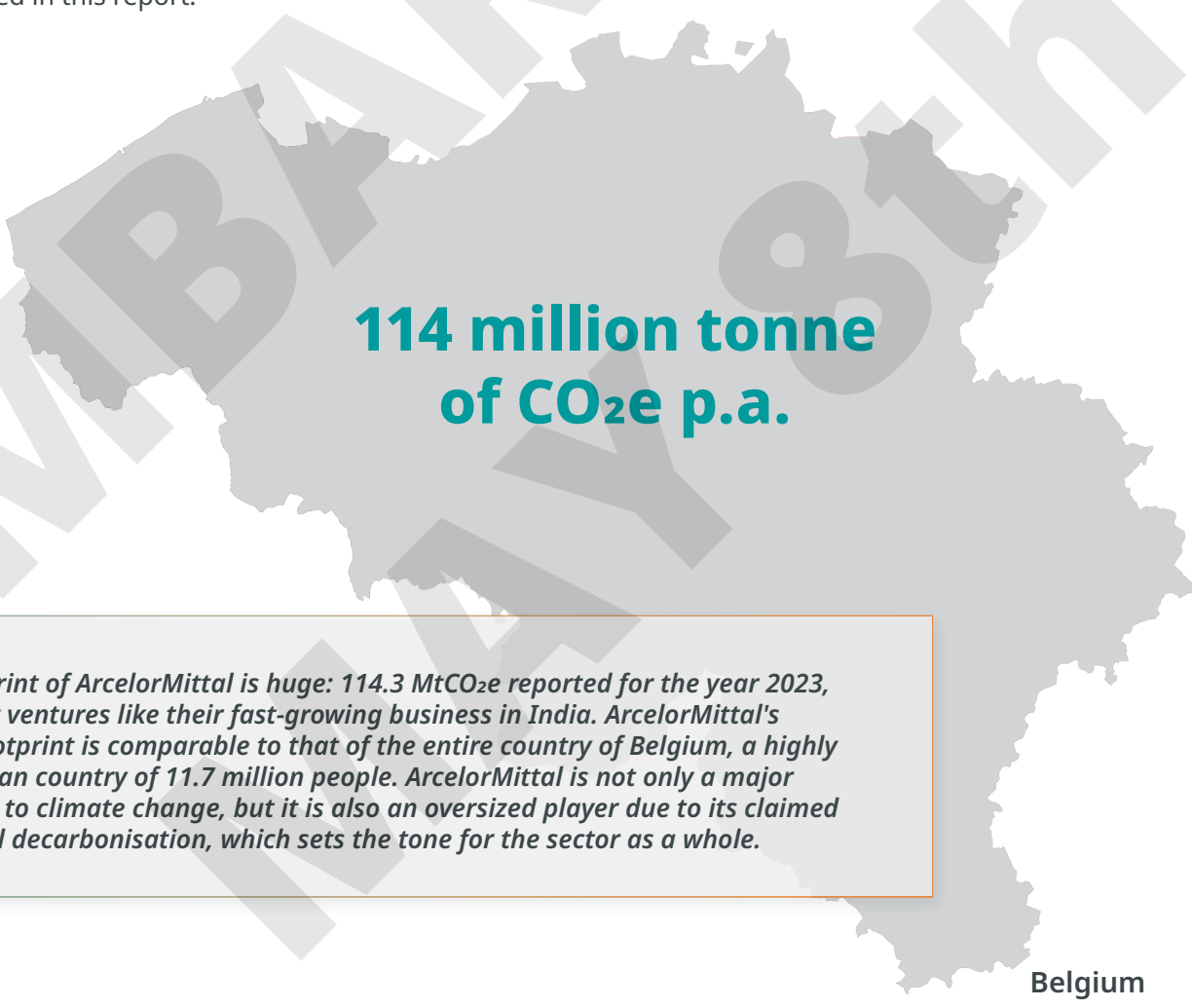


Corporate climate footprint and leadership claims

The climate footprint of ArcelorMittal is huge: 114.3 MtCO₂e reported for the year 2023²¹ (scope 1 and 2, without joint ventures).²² That estimate excludes emissions in India and emissions from coal mining. ArcelorMittal's annual self-reported carbon footprint is comparable to that of the entire country of Belgium, a 11.7m capita, highly developed European country.²³

The scale of carbon emissions is one reason why the company's climate targets are so significant to the global task of creating a decarbonised economy. But there is a second reason too. ArcelorMittal claims climate leadership in the steel sector. There are multiple examples as Box 1 shows.

The company says it translates this climate ambition claim into practice through its climate targets, the development of lower-emissions steelmaking technologies, and engagement with a multitude of government-, civil society-, or industry-led sustainability initiatives such as the Energy Transitions Commission (ETC), ResponsibleSteel²⁴ or the Science Based Targets initiative (SBTi). The climate targets and technology pathways are thus scrutinised in this report.



**114 million tonne
of CO₂e p.a.**

The climate footprint of ArcelorMittal is huge: 114.3 MtCO₂e reported for the year 2023, not counting joint ventures like their fast-growing business in India. ArcelorMittal's annual carbon footprint is comparable to that of the entire country of Belgium, a highly developed European country of 11.7 million people. ArcelorMittal is not only a major direct contributor to climate change, but it is also an oversized player due to its claimed leadership in steel decarbonisation, which sets the tone for the sector as a whole.

Belgium

²¹ ArcelorMittal, Integrated Annual Review 2023, April 2024, p. 33.

²² ArcelorMittal, Basis of reporting 2023, April 2024, p. 6.

²³ In 2022, Belgium's emissions amounted to 114 MtCO₂e for a population of 11.7 million, Kenya's amounted to 117.9 MtCO₂e for a population of 54 million. EDGAR (Emissions Database for Global Atmospheric Research) Community GHG Database (a collaboration between the European Commission, Joint Research Centre (JRC), the International Energy Agency (IEA), and comprising IEA-EDGAR CO₂, EDGAR CH₄, EDGAR N₂O, EDGAR F-GASES version 8.0, (2023) European Commission. edgar.jrc.ec.europa.eu/report_2023#data_download and edgar.jrc.ec.europa.eu/dataset_ghg80

²⁴ ArcelorMittal, Annual Report 2023 of ArcelorMittal parent company, March 2024, p. 57.



Box 1: Claiming a leadership role in steel sector decarbonisation

There is a running theme in ArcelorMittal's climate statements, which positions the company as a leader in the decarbonisation transition.

In the second Climate Action Report:²⁵

- "We look forward to leading the steel industry's path to decarbonise" Aditya Mittal (page 5);
- "We have now adopted an ambitious set of carbon targets with which to lead our sector" (page 11);
- "ArcelorMittal is committed to playing a leading role in decarbonising the steel industry" (page 38);

On the website:²⁶

- "ArcelorMittal has been working hard to be at the forefront of our sector in the net-zero transition" - Aditya Mittal.

Indeed there is a website section called 'Leading our industry's efforts to decarbonise':²⁷

- "As the world's leading steel company, we are committed to leading our industry's efforts to decarbonise, and to be part of the solution to the world reaching net zero by 2050."
- "If the world is to achieve net-zero by 2050, it will require all parts of the world to contribute. As the world's leading steel company, we believe we have a responsibility to lead the efforts to decarbonise the steelmaking process." Aditya Mittal, CEO, ArcelorMittal.

In the annual report:²⁸

- "Sustainability leadership. ArcelorMittal is committed to leading the industry's efforts to decarbonize, and to being part of the solution to the world reaching net-zero by 2050." (p. 7). "Decarbonization is at the heart of the Company's climate action strategy, aiming to have a leadership position within the steel industry in terms of target-setting, performance and disclosure." (p. 56).

ArcelorMittal YouTube page:²⁹

- "Leadership on decarbonisation. ArcelorMittal has adopted an ambitious set of carbon targets that will lead our sector in reaching net zero by 2050."

²⁵ ArcelorMittal. Climate Action Report 2, July 2021, pp. 12-14.

²⁶ ArcelorMittal. Retrieved on 14 April 2024.

²⁷ ArcelorMittal. Retrieved on 22 April 2024.

²⁸ ArcelorMittal. Annual Report 2023 of ArcelorMittal parent company, March 2024.

²⁹ ArcelorMittal. Decarbonising ArcelorMittal - Our net zero roadmap explained to peers, slide 8 (10:28).



3. Assessment of ArcelorMittal climate targets

Key message: ArcelorMittal's climate targets are not as ambitious as the company claims. Their targets are not good enough because:

- Company climate targets are not 1.5C aligned. They have publicly stated that they are not currently adopting a science-based 1.5C aligned group target.
- There is no absolute emissions target, only intensity targets.
- The India Joint Venture is excluded from group climate targets and does not have a 2050 target at all. Total emissions may actually rise.
- There is currently no target to drive reduction in scope 3 emissions and even the reporting of them seems to exclude emissions from mining coal and iron which are significant.



Polution from ArcelorMittal plant at Vanderbijlpark, South Africa. Credit: James Oatway for CER



Box 2: ArcelorMittal climate strategy and information sources used

The primary material for SteelWatch assessment of ArcelorMittal's climate strategy are the company's four "Climate Action Reports" listed on its Reporting Hub³⁰ at the time of writing. Climate Action Report 1 from May 2019 and Climate Action Report 2 from July 2021 have a company-wide scope, and are supplemented by two regional or country-level reports - Climate Action in Europe Report from 2020³¹ and ArcelorMittal/Nippon Steel India Climate Action Report 1 from 2024.³²

Other relevant documents used for Steelwatch assessment include ArcelorMittal South Africa decarbonisation roadmap from January 2023³³, and other publications from ArcelorMittal (financial reports, integrated annual reviews, press releases, website). A company-wide Climate Action Report (CAR3) has been announced for 2024 release, but was not publicly available at the time of writing.³⁴ SteelWatch has done its best to collect and use the most comprehensive and up-to-date information, including by writing letters to ArcelorMittal to ask for more information or clarification, but that does not preclude the possibility of information being incomplete or no longer up-to-date, or there being other national websites in other languages that are not covered here.

In addition, a draft version of this report was sent to ArcelorMittal in late April 2024. The company's reply reiterated their positions on not setting a 1.5C target, work on Scope 3 emissions; targets for AM/NS as a joint venture; decarbonisation pathways with blast furnaces; gas as part of innovative DRI; just transition within transformation plants; market conditions that are pursued in policy lobbying; engagement with governments on subsidised projects; and the expectation that spend on decarbonisation will increase. One [additional link](#) relevant to lobbying was shared. This reply has been taken into account in report finalisation.

ArcelorMittal sets climate targets in terms of carbon intensity of steel production, and sets these separately for different geographies and dates. At the time of writing, different climate targets have been set³⁵ for:

- ArcelorMittal Group (excludes joint ventures);
- ArcelorMittal Europe (part of ArcelorMittal Group, so a subset of the Group target);
- ArcelorMittal/Nippon Steel India (AM/NS India, not considered part of ArcelorMittal Group, not included in the Group target);
- ArcelorMittal South Africa (part of ArcelorMittal Group but targets are presented within a separate decarbonisation roadmap).

Figure 3 shows the trends and divergence across these four climate targets.

The company's current climate targets would not deliver what the planet needs, even if it delivered them in full.

³⁰ [ArcelorMittal, Reporting Hub - Climate action reports](#). Retrieved on 12 April 2024.

³¹ [ArcelorMittal, Climate Action in Europe](#), May 2020.

³² [ArcelorMittal, AM/NS India Climate Action Report 2024](#), February 2024.

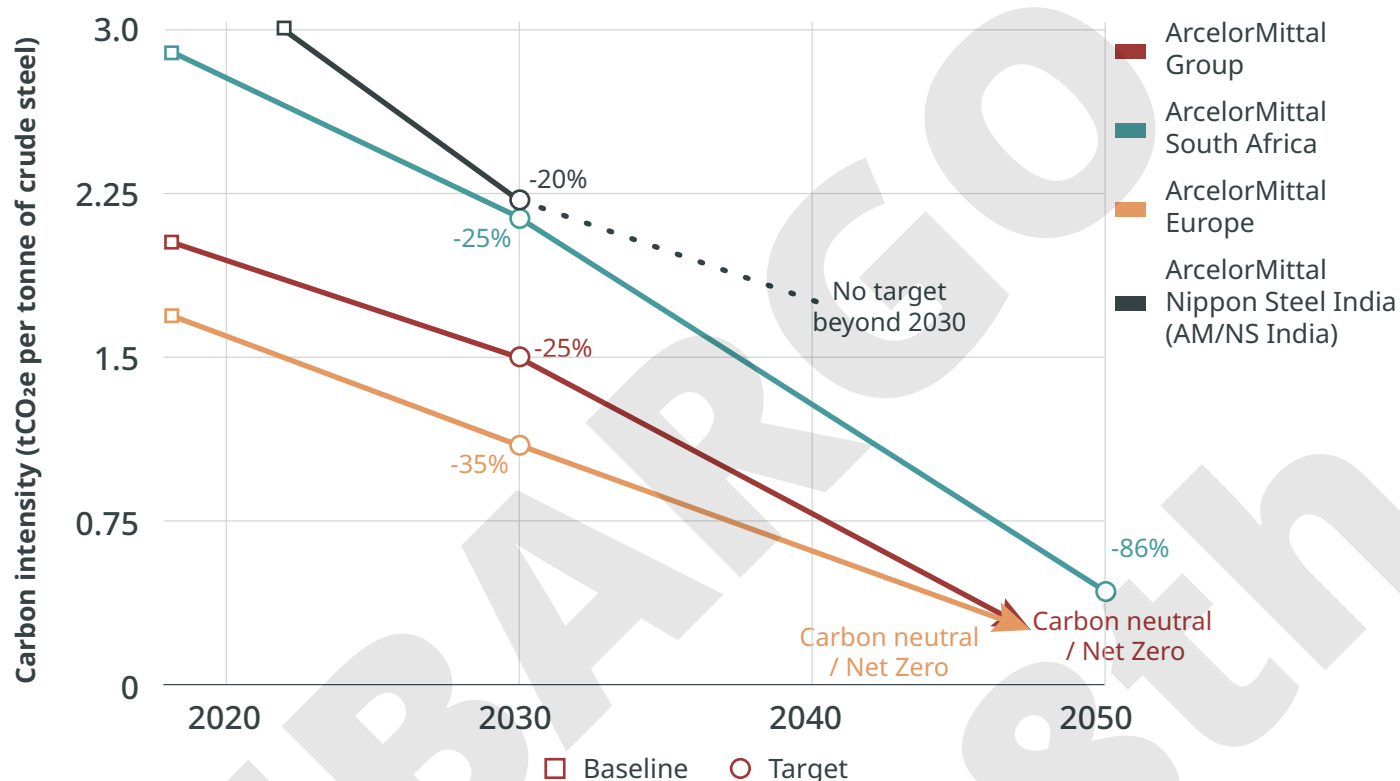
³³ [ArcelorMittal, ArcelorMittal South Africa decarbonisation roadmap](#), January 2023.

³⁴ [ArcelorMittal, Integrated Annual Review 2023](#), p. 7.

³⁵ Targets for the Group, Europe, and ArcelorMittal/Nippon Steel India are on the [reporting hub](#). Targets for ArcelorMittal South Africa are on a separate [website](#). Retrieved on 12 April 2024.



Figure 3: Varying climate targets by geography (group and joint ventures)



Note: This chart shows trajectories between ArcelorMittal's climate targets in different geographies and their respective baselines. Only the baselines reflect actual carbon intensity, whereas lines assume a linear degrowth between baselines and targets.

ArcelorMittal commitments are expressed in percentage reduction from a baseline, but ArcelorMittal explains that baseline and target carbon intensities can be revised to take into account asset sales or acquisitions, with reduction percentages remaining the same. The scope of emissions covered by targets are steel-related scope 1 and 2 emissions for ArcelorMittal Europe and ArcelorMittal South Africa, and steel and mining-related scope 1 and 2 emissions for ArcelorMittal Group. The scope of emissions covered by AM/NS India target is not explicit but is assumed here to be steel-related scope 1 and 2 emissions.

Sources: ArcelorMittal, ArcelorMittal Integrated Annual Review 2023 (p. 33), Annual Report 2023 of ArcelorMittal parent company (p. 61), ArcelorMittal South Africa decarbonisation roadmap (p. 7), ArcelorMittal/Nippon Steel India Climate Action Report (p. 18).

On the positive side, ArcelorMittal has a 2050 target - not all steel companies do.³⁶ And a 2030 target has been set with some reasonable reductions sought, at least in Europe. But these targets are not what is required of a 'sector leader' or climate leader. **The company's current climate targets would not deliver what the planet needs,³⁷ even if delivered in full.**

³⁶ Maria Jose de Villafranca Casas, Sybrig Smit, Anna Nilsson and Takeshi Kuramochi, *Climate targets by major steel companies: An assessment of collective ambition and planned emission reduction measures*, [Energy and Climate Change, vol. 5](#), 2024.

³⁷ In its 2018 [Special Report](#) on the impacts of global warming of 1.5°C, the Intergovernmental Panel on Climate Change (IPCC) explains that limiting global warming to 1.5°C would lower the impacts on terrestrial, freshwater and coastal ecosystems compared with a 2°C scenario. See IPCC, *Global Warming of 1.5°C*. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, 2018.



Why these climate targets are inadequate: four issues

No verifiable commitment to 1.5C target

Despite various words about Paris or 1.5C degrees, ArcelorMittal does not have a verified commitment to the Paris 1.5C limit and has indicated that it is not currently setting a science-based 1.5C aligned target.

ArcelorMittal still claims to be “committed to the objectives of the Paris Agreement”.³⁸ But it does not have a verified climate target that is aligned with a 1.5C climate scenario.

During the 2023 Annual General Meeting of Shareholders, ArcelorMittal was asked by concerned investors³⁹ to clarify that it “will commit to a 1.5C SBTi target, as well as disclosure of short- and medium term targets supporting its achievement”. Civil society organisations have been flagging for a while that this commitment and alignment is missing.^{40,41}

The answer finally came in the company's newest release of its Integrated Annual Review, published a few days before the 2024 Annual General Meeting of Shareholders: ***“We appreciate the work that SBTi has done to model a 1.5C trajectory for steel. After much discussion and consideration, we have concluded that in the absence of an appropriate global policy, we are not in a position to credibly set a science-based aligned group target at this point in time.”***^{42,43}

An aim for carbon neutrality or net zero by 2050 is not enough for 1.5C alignment. By 2050, the steel sector will have burnt a huge hole in the remaining carbon budget for 1.5C if it only decarbonises in the 2040s.⁴⁴ So what matters for 1.5C alignment is rapid progress before then.

Even before the most recent statement in April 2024, Climate Action 100+ credits ArcelorMittal for having a 2050 target and 2030 target, but also finds that ArcelorMittal “does not meet any criteria” in terms of alignment of medium-term (2027 to 2035) GHG reduction target(s) with the goal of limiting global warming to 1.5C.⁴⁵ The SBTi target dashboard also shows that ArcelorMittal's climate commitment has been removed.

³⁸ [ArcelorMittal](#), *Climate change*. Retrieved on 12 April 2024.

³⁹ [Reclaim Finance](#), *ArcelorMittal's AGM: Shareholders must vote against coal-based steel*, 11 April 2024. Retrieved on 15 April 2024.

⁴⁰ [Simon Nicholas and Soroush Basirat](#), “ArcelorMittal's path to net zero emissions under scrutiny as new coal-based blast furnaces in India contrasts with low-carbon steelmaking in Europe and Canada”, *Institute for Energy Economics & Financial Analysis*, 16 February 2023.

⁴¹ [Cynthia Rocamora](#), *Assessing the credibility of ArcelorMittal's decarbonization strategy. A briefing for climate conscious financial institutions*, [Reclaim Finance](#), 17 April 2023.

⁴² [ArcelorMittal](#), *ArcelorMittal Integrated Annual Review 2023*, p. 7.

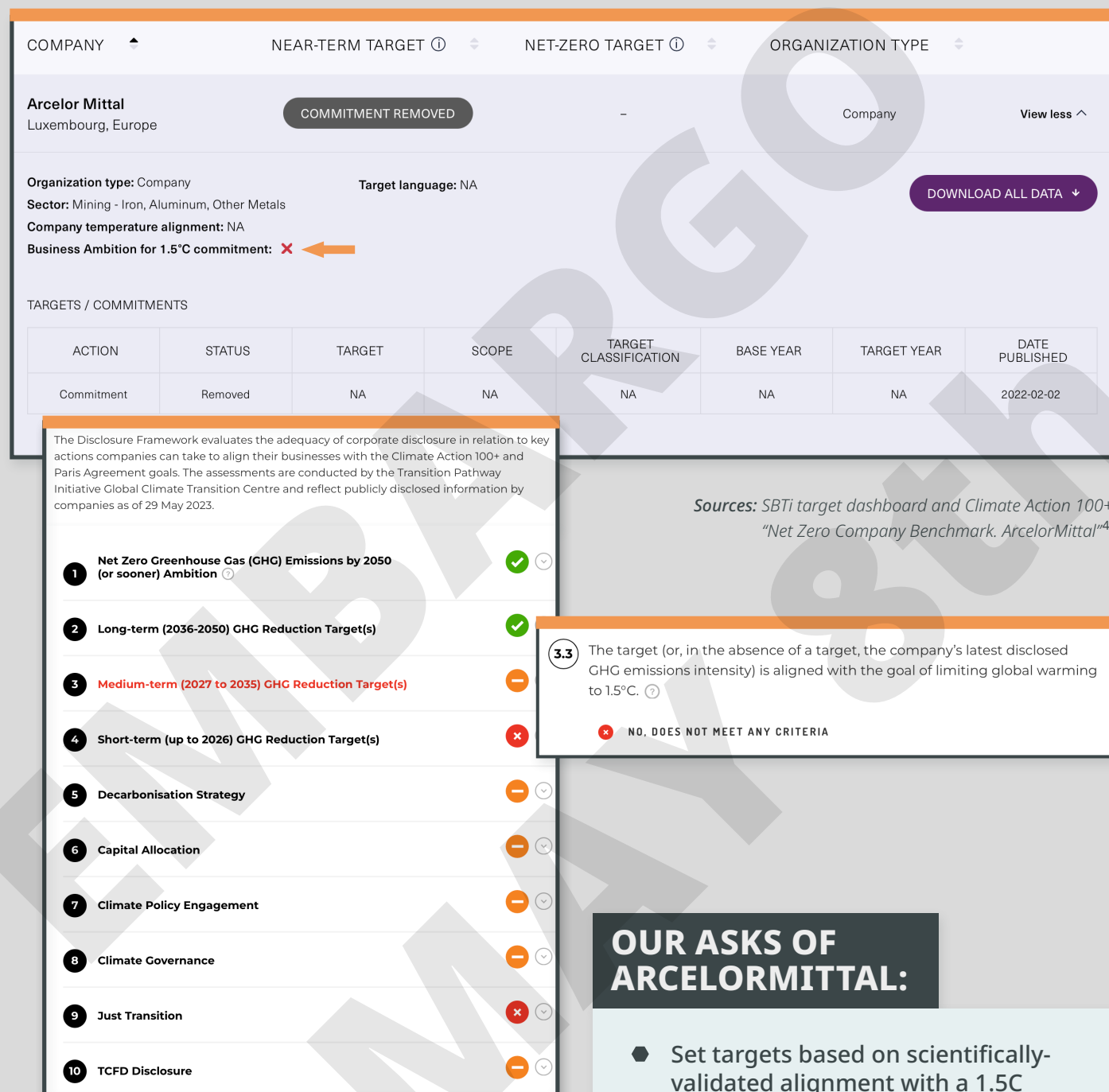
⁴³ In their written reply, ArcelorMittal reiterated their position that “it is not possible to credibly set a science-based 2030 target for the group at this point in time”, but added that it “continues to evaluate the potential of setting a target for individual segments.”

⁴⁴ [SteelWatch](#), *Sunsetting Coal in Steel Production*, 2023.

⁴⁵ [Climate Action 100+](#), *Net Zero Company Benchmark*, Retrieved on 4 April 2024.



Figure 4: Screenshots from SBTi target dashboard and ClimateAction100 assessment



Sources: SBTi target dashboard and Climate Action 100+, "Net Zero Company Benchmark. ArcelorMittal"⁴⁶

⁴⁶ Science Based Targets, Climate Action 100+. Retrieved on 22 April 2024.



No absolute emissions target

ArcelorMittal does not have a target for its absolute emissions and only has targets to reduce carbon intensity per tonne of steel. Planned expansion in India could drive a substantial increase in emissions.

ArcelorMittal current climate targets lack an essential component as they don't put a limit to absolute CO₂ emissions. In other words, even if ArcelorMittal carbon intensity decreases over time, *the company's actual emissions can increase* if steel production rises at a faster rate than the reduction of carbon intensity. This is not just a hypothetical risk, but, at least for AM/NS India, a very likely outcome (see next point).

OUR ASK:

- Commit to a limit on absolute emissions aligned with a science-based, 1.5C compatible emissions pathway, in addition to updated, 1.5C-compatible carbon intensity targets.

No 2050 net zero target for AM/NS India

Both ArcelorMittal and Nippon Steel, the parent companies of ArcelorMittal/Nippon Steel India (AM/NS India), adopted a 2050 carbon neutrality commitment, in 2020 and 2021 respectively, together with intermediate 2030 climate targets. However, until February 2024 and the publication of AM/NS India's first Climate Action Report, their joint venture company was given no climate strategy despite being a fast-growing joint venture.

The new document does now set a 2030 target backed by plans to reduce carbon intensity, but still falls short of putting a date for AM/NS India to reach net zero. In other words, ArcelorMittal and Nippon Steel give the benefit of their strong brands to the offspring company, but they do not take responsibility for the climate damages it causes.

ArcelorMittal holds a 60% stake in AM/NS India and since January this year, the scope of its reported EBITDA has been expanded to include income from associates, joint ventures and other investments, notably to account for the fact that *"India is a high growth vector of the Company"*.⁴⁷ But as noted above, emissions from steel production in India are not included in the group climate targets. This means it is claiming the profits from the joint venture when reporting to shareholders but not owning the carbon emissions.

⁴⁷ [ArcelorMittal](#), ArcelorMittal reports fourth quarter and full year 2023 results, 8 February 2024, p. 9. Retrieved on 12 April 2024.



The two companies are intertwined in other ways. ArcelorMittal CEO, Mr Aditya Mittal, is also chairman of the board of ArcelorMittal/Nippon Steel India (AM/NS India), while AM/NS India CEO, Mr Dilip Oommen, is also Executive Vice President of ArcelorMittal.⁴⁸ ArcelorMittal guaranteed USD3.5 billion of loans issued on behalf of AM/NS India.⁴⁹

Binding AM/NS India into 1.5C-aligned climate targets is all the more important because its production capacity is expected to multiply in order to serve India's strong economic growth and massive infrastructure build-up. The current capacity, reaching 8.8 Mtpa,⁵⁰ is set to almost double to 15.6 Mtpa by 2026 with two new blast furnaces under construction and the existing one being expanded.^{51,52} AM/NS India even has the ambition to get to 30 Mtpa by 2030,⁵³ and 40 Mtpa⁵⁴ in 2035 - an over four-fold increase compared with today in just 11 years.

The speed of this production rise means that benefits of the planned cut in carbon intensity in India (i.e. from 2.23 to 1.8 tCO₂/tcs) could be dwarfed by booming emissions from planned production. By 2030 total emissions will be higher against the 2021 baseline, as Figure 5 shows. And that is before taking account of the more aggressive growth path planned for 2035 and 2040. The implications need to be made clear:

- The stake in this one subsidiary will represent a sizable share of ArcelorMittal's real climate footprint without being properly scrutinised and accounted for in either the company's own documents or external assessments, so long as its share is excluded from group climate targets. In their written reply to SteelWatch, ArcelorMittal explained that *"AM/NS India is a joint venture and as such, sits within ArcelorMittal's scope 3."* They also said that their 2050 target includes Scope 3. However, in 2023, ArcelorMittal's assurance provider noted that equity-based investments were not covered by ArcelorMittal's reporting of its scope 3 emissions (see Box 3 p.23).⁵⁵ And the 2024 India Climate report makes no mention of net zero in 2050.
- ArcelorMittal will have to massively ramp up decarbonisation efforts elsewhere to compensate for emissions in India, if the joint venture is included in its reporting.
- By excluding India from its environmental reporting, the company can present mixed and moderate decarbonisation ambitions in other countries in more glowing terms.

The rapid expansion of coal-based production by the ArcelorMittal/Nippon Steel India Joint Venture is excluded from group climate targets. The Indian joint venture does not have a 2050 target at all.

⁴⁸ ArcelorMittal, *Annual Report 2023 of ArcelorMittal parent company*, March 2024, p. 184.

⁴⁹ *Ibid*, pp. 169-170.

⁵⁰ *Ibid*, p. 104.

⁵¹ Government of India, Ministry of Environment, Forest and Climate Change (Impact Assessment Division), Grant of Environmental Clearance (EC) to the proposed Project of Expansion of Integrated Steel Plant of ArcelorMittal Nippon Steel India Limited from 9.6 to 15.6 MTPA (Liquid Steel), located at Hazira Village in Surat District, Gujarat, 3 October 2022. Retrieved 12 April 2024.

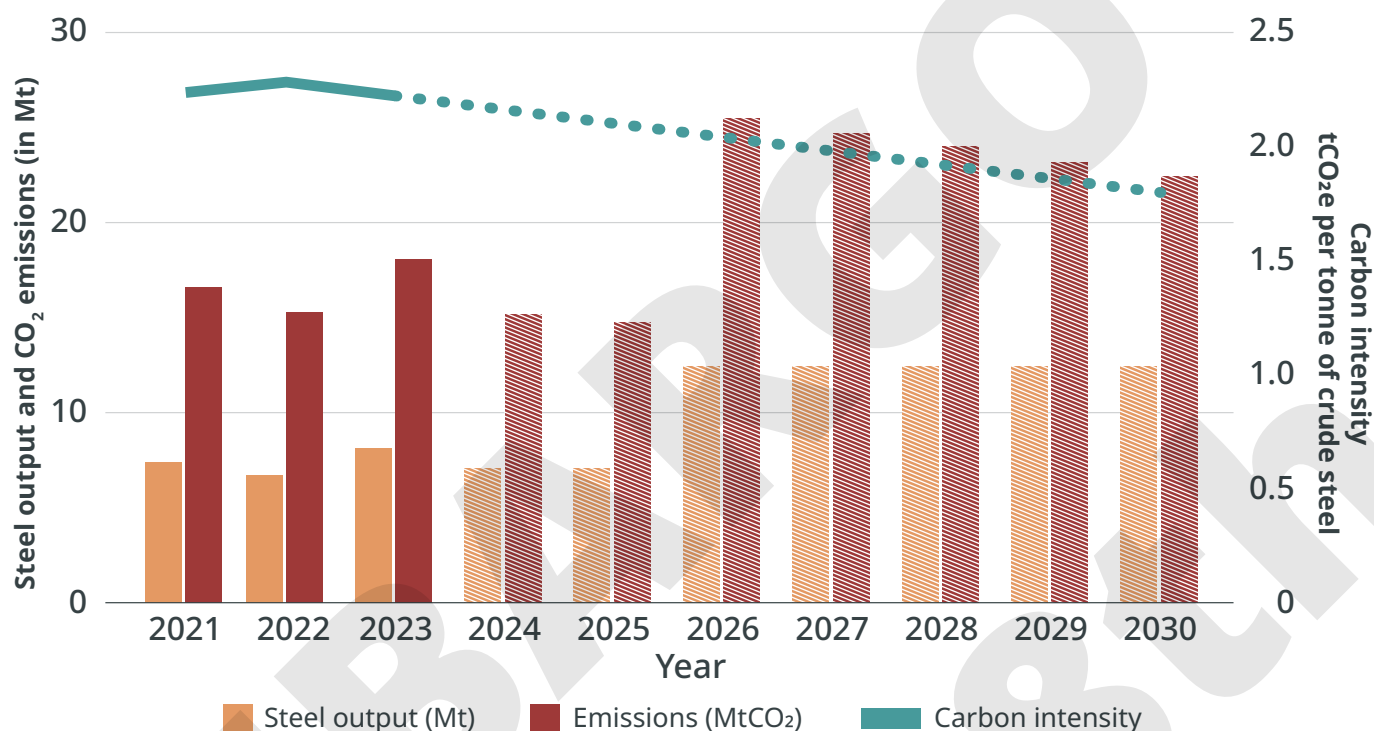
⁵² Simon Nicholas and Sorough Basirat, *ArcelorMittal: Green Steel for Europe, Blast Furnaces for India*, Institute for Energy Economics and Financial Analysis, February 2023.

⁵³ Shuhei Ochiai, *Nippon Steel to add 2 blast furnaces at Indian JV with ArcelorMittal*, Nikkei, 29 September 2022. Retrieved on 12 April 2024.

⁵⁴ Ishita Ayan Dutt, *ArcelorMittal/Nippon Steel India will have 'robust financial discipline' while expanding*: CFO, *Business Standard*, 11 April 2024. Retrieved on 12 April 2024.



Figure 5: AM/NS India projected steel output, total emissions and carbon intensity to 2030 based on confirmed expansion projects



Note: Data for years 2021, 2022 and 2023 are taken from AM/NS India Climate Action Report 2024 (p. 11) and AM/NS India Sustainability Report 2021 (p. 9). The carbon intensity in 2030 is AM/NS India target. Carbon intensity between 2023 and 2030 is assumed to decrease in a linear way. Production in 2024-2030 is projected as 80% of installed capacity for a given year, with the increase in 2026 reflecting the planned completion of the Hazira plant expansion project. Projected CO₂ emissions are estimated by multiplying projected production by carbon intensity for each year.

OUR ASK:

- Ensure 1.5C compatible climate targets are applied to the ArcelorMittal/ Nippon Steel joint venture in India and throughout all subsidiaries and joint ventures.



No target for scope 3 emissions

In some industries, the main source of scope 3 emissions lies in the *use* of their products, for example for auto-makers it is the use of internal combustion engine vehicles that pollutes most. But in the case of iron and steelmakers, the most significant scope 3 emissions are more likely to be found upstream, around the production and purchase of the *input* materials - particularly coal and iron ore - needed to produce steel.⁵⁵

ArcelorMittal currently does report publicly on its scope 3 emissions⁵⁶ *without*, however, including them in the scope of its 2030 climate targets. SteelWatch welcomes the fact that some reporting has started, but considers ArcelorMittal's current treatment of scope 3 emissions flawed for three reasons.



Peña Colorada mine, Mexico. Credit: Tskikini

What are scope 3 emissions?

An organisation's scope 3 greenhouse gas emissions are emissions that do not directly originate from the organisation's owned or controlled sources (these would be scope 1 emissions), nor from the generation of purchased electricity (these would be scope 2 emissions), but occur in the organisation's value chain, both upstream and downstream, and can therefore be attributed to the organisation's activities.⁵⁷

⁵⁵ The importance of proper consideration of scope 3 emissions for the steel industry "to move forward consistently in achieving the deep decarbonization targets" is also underlined by Ali Hasanbeigi and Adam Sibal, *What is Green Steel? Definitions and Scopes from Standards, Initiatives, and Policies around the World*, [Global Efficiency Intelligence](#), January 2023, p. 4.

⁵⁶ [ArcelorMittal](#), *Fact Book 2023*, April 2024, p. 4.

⁵⁷ [World Resources Institute and World Business Council for Sustainable Development](#), *The Greenhouse Gas Protocol. A Corporate Accounting and Reporting Standard*. Revised Edition, 2004.



Firstly, it appears to us that emissions from mining coal and iron ore are excluded from reported Scope 3 emissions, and ArcelorMittal's recent reporting around this is more fuzzy than a year ago (see Box 3). For a company that burns tens of millions of tonnes of coal and processes similar amounts of iron ore per year, the exclusion of upstream emissions related to raw material extraction would be a major gap. Excluding coal mining gives a highly distorted impression, as coal mining causes emissions of methane, a highly potent greenhouse gas (more about coal mining-related emissions in later section about "Smart Carbon"). According to a report published in January 2023 by the energy think tank Ember, *"coking coal methane adds 27% to the CO₂ emissions from the steel industry and warms the planet more than the CO₂ emissions of Germany or Canada."*⁵⁸

Box 3: Fuzzy scope 3 emissions reporting

Last year, inadequate scope 3 reporting was flagged by ArcelorMittal's assurance provider. In the attestation of ArcelorMittal's Fact Book 2022 (p. 95) published in 2023, the assurance provider DNV said that *"the boundary of GHG Scope 3 emissions excludes upstream emissions of raw material extraction and transportation, as well as the processing impacts of some purchased materials. We understand ArcelorMittal is currently working to expand the company's full Scope 3 emissions based on SBTi guidance. We restate our recommendation to extend ArcelorMittal's reporting of GHG Scope 3 emissions to include equity-based investments, upstream impacts of raw materials, transportation and processing of scrap metal to supply ArcelorMittal's electric arc furnaces (EAF)."*

Put in laymans' terms, DNV was pointing out that emissions from mining coal and iron ore, plus other excluded items, should be counted within Scope 3.

At least the omissions were clear last year. This year, the ArcelorMittal Fact Book 2023, published in April 2024, does not say whether DNV's recommendation has been implemented. However, the volume of reported scope 3 emissions has not significantly changed between the two editions of the Fact Book, suggesting it is unlikely ArcelorMittal has fully implemented DNV's recommendation from last year. We can only assume that mining emissions are still omitted.

There is currently no target to drive reduction in Scope 3 emissions and even the reporting of them seems to exclude emissions from mining coal and iron.

⁵⁸ Ember, *Why the steel industry needs to tackle coal mine methane*, 2023



Secondly, even those processing emissions that are included (such as from production of coke, hydrogen or iron ore that are purchased) are currently based on an assumed number - the average performance of that sector - ⁵⁹ and not on any real data or measurement. This method can hide wide differences in emissions levels between suppliers, and does not encourage the reporting company to leverage its market power in order to encourage suppliers to improve their climate performance. However, it must be noted that in 2023 ArcelorMittal conducted a screening of all scope 3 emissions categories in order to develop a supplier engagement strategy. A pilot tool to report suppliers' emissions for selected products is reported to be in testing phase⁶⁰ and we urge further development of this by the company and industry.

Thirdly, there is no target to reduce the Scope 3 emissions, to incentivise change in behaviour across the supply chain. In its newest Integrated Annual Review, ArcelorMittal mentions that its work on scope 3 emissions will enable it *"in due course [to] set realistic Scope 3 targets"*.⁶¹ This would be a welcome step and is urgent.

Scope 3 emissions targets matter and will matter more. While goods like coke and sinter are currently produced by the company and thus fall under scope 1 emissions reporting, emissions from externally sourced items, such as gas, might fall through the cracks without a meaningful scope 3 target. As integrated steel plants are transitioned to new production models, scope 3 emissions may take on more significance. Neglect of scope 3 emissions can also create perverse incentives for a company to outsource rather than cut emissions.

This is not just a theoretical risk of interest to modellers. Its practical implications are demonstrated in the recent announcement that ArcelorMittal Zenica, in Bosnia and Herzegovina, is to close its coking plant while still running the blast furnace. Instead of being produced on-site, coke will be purchased from external sources.⁶² So the related GHG emissions are thus externalised as Scope 3. Similarly, if steel-makers increase their consumption of hydrogen that is purchased, not produced by themselves, the significance of scope 3 emissions will increase.⁶³

OUR ASKS:

- Commit publicly to a timeline for adopting a scope 3 emissions cap or a reduction target.
- Adopt transparent Scope 3 reporting that provides the composition of these emissions and the methodology used to assess them, including by publishing the full report of the assurance provider containing their observations and areas for improvement.

⁵⁹ [ArcelorMittal](#), *Basis of reporting 2023*, p. 13.

⁶⁰ [ArcelorMittal](#), *ArcelorMittal Integrated Annual Review 2023*, p. 38.

⁶¹ *Ibid*, p. 27.

⁶² [SteelOrbis](#), *ArcelorMittal Zenica plans to close coke battery*, 1 April 2024.

⁶³ The GHG Protocol currently puts emissions caused by the production of purchased hydrogen in scope 3, opening the way for the purchase of "dirty" hydrogen (produced from fossil fuels instead of clean electricity) with related emissions to be left out of Scope 1&2 climate targets. In its most up-to-date version, Scope 2 Guidance explains that the Standard *"requires organizations to quantify emissions from the generation of acquired and consumed electricity, steam, heat, or cooling"* (p. 5). The list of energy forms is not closed (p. 35), but the Protocol does not require companies to consider other energy forms than these four for the purpose of scope 2 emissions reporting. See [World Resources Institute and World Business Council for Sustainable Development](#), *GHG Protocol Scope 2 Guidance*. An amendment to the GHG Protocol Corporate Standard.



4. Assessment of technological choices and decarbonisation pathways

ArcelorMittal is pursuing two 'technology pathways' for decarbonisation, but neither is a front runner for driving decarbonisation.

- The so-called 'Smart Carbon' pathway is a continuation of coal-based steel-making, with technologies that will remove just a fraction of emissions.
- The so-called 'Innovative DRI' would be cutting edge if based on green hydrogen. But ArcelorMittal appears to be back-tracking from H₂-DRI to fossil-gas based DRI, which is neither innovative nor low carbon.

ArcelorMittal intends to pursue its climate targets through five "levers", of which 'steelmaking transformation' and 'energy transformation' are the most significant. These rely mainly on two "technology pathways", termed "Innovative DRI" and "Smart Carbon". A third pathway relies on a "promising but not yet mature" technology - direct electrolysis of iron.⁶⁴

The "Smart Carbon" would not involve the closure of coal-based blast furnaces and basic oxygen furnaces (BF-BOF) - iron ore would continue to be reduced (oxygen removed) using coal in the blast furnace. Instead, the very high emissions associated with this BF-BOF production route would be trimmed by the introduction of a series of less intrusive measures like the partial substitution of coal-based materials with waste-derived products such as plastic and wood⁶⁵ or carbon capture, utilisation and storage (CCUS).

The so-called "Innovative DRI" technology should consist of using hydrogen to reduce iron ore through a 'direct reduction' process. The direct reduction process, which takes place in a different type of furnace, can use other materials like fossil gas or hydrogen. When running on fossil gas or other fossil materials, this process is nothing innovative, as gas-DRI has been on the market for decades.

The innovation lies in the direct use of 100% green hydrogen in the direct reduction process, and if all this hydrogen is produced in electrolyzers powered by renewable electricity, emissions linked to iron ore reduction would be close to zero.⁶⁶ If the iron is converted to steel in an electric arc furnace also powered by renewable energy, then the bulk of the steel process is near-zero-carbon.

ArcelorMittal explains the choice between the two technology pathways depends mainly on geography, with key factors being energy availability and prices as well as the policy environment. Back in 2021 they said "In Europe, our strategy is largely focused on the Innovative DRI pathway. This reflects the commitment in Europe to prioritise the availability of green hydrogen at competitive prices."

⁶⁴ ArcelorMittal, Climate Action Report 2, July 2021, pp. 12-14.

⁶⁵ ArcelorMittal, Annual Report 2023 of ArcelorMittal parent company, p. 52.

⁶⁶ Valentin Vogl, Max Åhman, Lars J. Nilsson, Assessment of hydrogen direct reduction for fossil-free steelmaking, Journal of Cleaner Production, Volume 203, 2018, pp. 736-745, and Vincent F. Chevrier, Ultra-Low CO₂ Ironmaking: Transitioning to the Hydrogen Economy, Midrex, 2020.



Given the significant variation across countries and regions in existing CO₂ policy frameworks and in the availability and cost of clean energy, we will continue to develop our Smart Carbon route. [...] Crucially, Smart Carbon gives us flexibility to adjust our carbon emission reduction plans to local steelmaking conditions.”⁶⁷

Presenting the “Innovative DRI” and “Smart Carbon” technology pathways as equally valuable, as ArcelorMittal seems to suggest in its public documents, conceals the fact that they have very different GHG abatement potential. The Green-H₂-DRI-EAF production route, corresponding to what ArcelorMittal calls “Innovative DRI”, has already been proven by a competitor to deliver steel made from iron reduced with 100% fossil-free hydrogen, with commercial volumes to reach the market in 2026.⁶⁸ But to date there is no known example of any BF-BOF plant in the world able to produce steel with close to zero GHG emissions.

From an investor’s perspective, a recent report by the Australasian Centre for Corporate Responsibility underlines that ArcelorMittal’s “multifaceted” approach to decarbonisation “raises concerns about the efficient use of shareholder funds, as investing in limited potential decarbonisation solutions might not yield the long-term returns or emissions reduction impact necessary for sustainable progress.”⁶⁹

“Smart Carbon” = continued reliance on coal

Smart Carbon means running a coal-burning blast furnace while trying to find ways to reduce or capture emissions. There are three major problems with this:

- Emissions savings are meagre from this costly technology, even if they work in line with expectations or assumptions.
- Other issues such as storage, supply of substitute fuel, or demand for by-products suggest major limitations on scale achievable.

This pathway still burns coal. That still drives methane emissions and air pollution, and prolongs the fossil-based economy.

For these reasons, the ‘Smart Carbon’ pathway doesn’t really deserve to be called decarbonisation.

The ‘Smart Carbon’ pathway is a continuation of coal-based steel-making, with technologies that will remove just a fraction of emissions.

Meagre emissions savings

The most advanced “Smart Carbon” projects disclosed by ArcelorMittal are shown below. These projects are heavily promoted, such as in presentations or on LinkedIn.⁷⁰ Interestingly, information published by ArcelorMittal about these projects contains expected CO₂ emissions reductions, but never the total emissions of the plants where these projects are implemented. In Table 1 we compare potential emissions saved with *total plant emissions*, and show that even if they work fully, the cuts amount to just 1.3% to 8.3% of total annual plant emissions.

⁶⁷ ArcelorMittal, Climate Action Report 2, July 2021, p. 14.

⁶⁸ Hybrit, The world’s first fossil-free steel ready for delivery, 18 August 2021.

⁶⁹ Australasian Centre for Corporate Responsibility, Forging pathways: insights for the green steel transformation, March 2024, p. 46.

⁷⁰ ArcelorMittal LinkedIn profile



Table 1: Smart Carbon projects, implementation stage and plant-level emissions reduction

Project Name	3D (DMX process)	Torero	Steelanol (Carbalyst technology)
Description with company estimates or projections indications from company sources	CO ₂ capture from blast furnace gas. If successful at scale, by 2025 <i>"The first industrial unit should capture over 125 tonnes per hour, i.e. over 1 million tonnes CO₂ per year."</i> ⁷¹ However, it remains unclear where the CO ₂ will be stored, given that the planned storage site is to be operational only in 2035. ⁷²	Conversion of waste wood into biocoal in two reactors. The biocoal partially replaces coal-based products in a blast furnace. Construction of the EUR55 million project started in 2018. Two reactors are planned, originally for operation in 2022 and 2024. The first came online in late 2023. Once both are operating, <i>"when in full production the project is anticipated to reduce Ghent's CO₂ emissions by 225,000 tonnes per year."</i> ⁷³	CO ₂ capture from blast furnace gas and conversion into ethanol, notably for further transformation into fuel. According to ArcelorMittal's public documents, <i>"the plant has the capacity to produce 80 million litres of advanced ethanol, almost half of the total current advanced ethanol demand for fuel mixing in Belgium. It has the potential to reduce annual carbon emissions from the Ghent plant by 125,000 tonnes."</i> ⁷⁴
Implementation stage and place	Demonstration plant under construction at ArcelorMittal Dunkirk (France), with a smaller pilot operational since April 2023. ⁷⁵	Operational with one reactor as a demonstration plant at ArcelorMittal Ghent steelworks (Belgium) since December 2023.	Demonstration plant officially inaugurated in December 2022 ⁷⁶ at ArcelorMittal Ghent steelworks (Belgium), but according to a November 2023 update, ⁷⁷ the first ethanol was produced on November 7th 2023. It seems apparent that it is not yet reaching full operation.
Announced CO₂ emissions reduction p.a. if/when fully operational <i>(tonnes of CO₂ and % cut in total plant emissions)</i>	Future emissions reduction: 1,000,000 tCO₂, pa Current Dunkirk plant emissions: ⁷⁸ 12,000,000 tCO₂ pa Reduction in plant emissions: 8.3%	Future emissions reduction: 225,000 tCO₂, pa Current Ghent plant emissions: ⁷⁹ 9,600,000 tCO₂ pa Reduction in plant emissions: 2.3%	Future emissions reduction: 125,000 tCO₂, pa Current Ghent plant emissions: 9,600,000 tCO₂ pa Reduction in plant emissions: 1.3%

⁷¹ ArcelorMittal, Lancement du projet européen innovant "3D" pour capter et stocker le CO₂ à l'échelle industrielle, 28 May 2019.

⁷² DMX Demonstration in Dunkirk, 3D Overview. Retrieved on 22 April 2024.

⁷³ ArcelorMittal, Torero. Retrieved on 22 April 2024.

⁷⁴ ArcelorMittal, ArcelorMittal announces the first industrial production of ethanol, 16 November 2023. Retrieved on 22 April 2024.

⁷⁵ IFP Énergies nouvelles, Successful demonstration in Dunkirk of the CO₂ capture DMX™ process, 14 March 2024. Retrieved on 22 April 2024.

⁷⁶ ArcelorMittal, ArcelorMittal inaugurates flagship carbon capture and utilisation project at its steel plant in Ghent, Belgium, 8 December 2022. Retrieved on 22 April 2024.

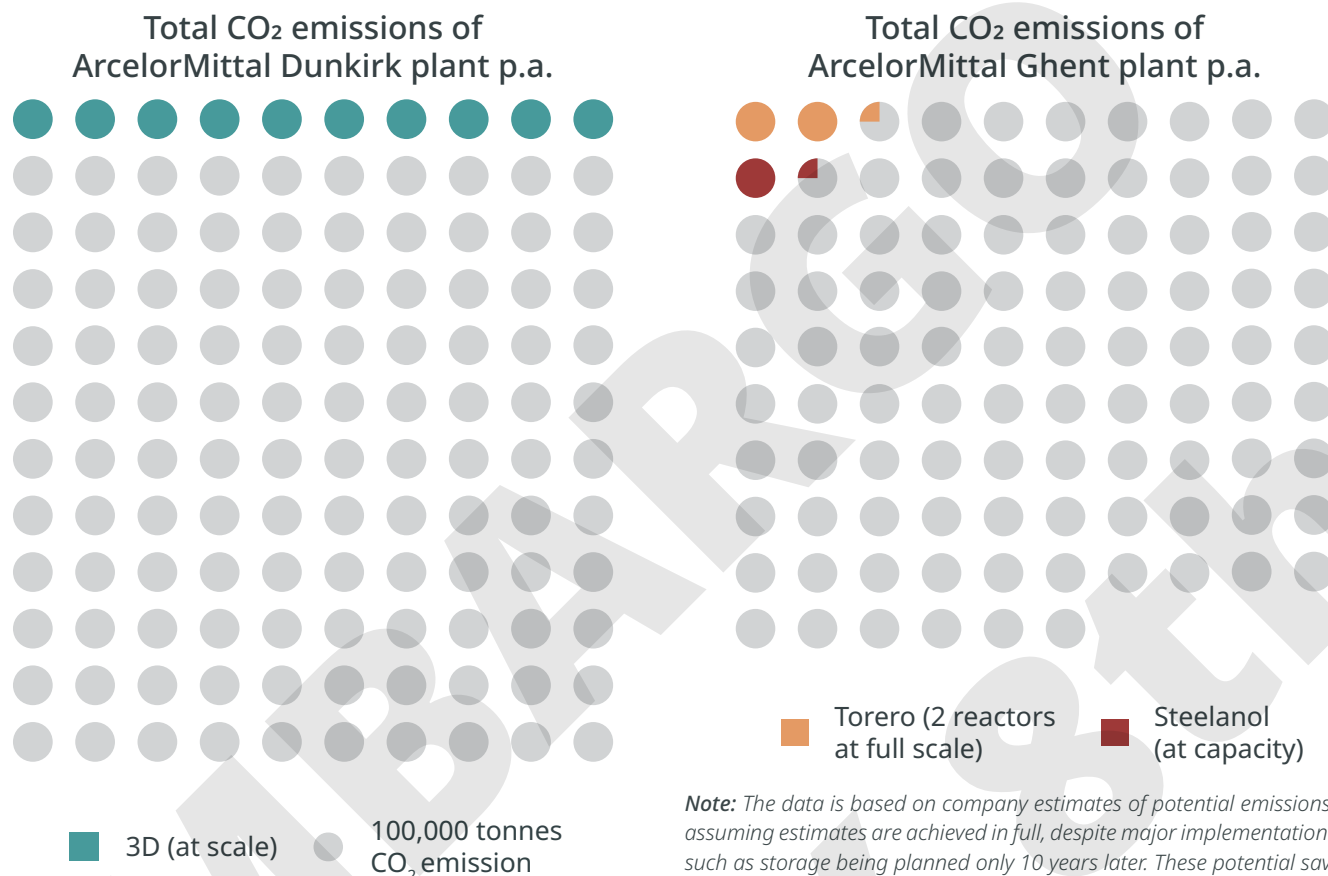
⁷⁷ ArcelorMittal, ArcelorMittal announces the first industrial production of ethanol. Retrieved on 22 April 2024.

⁷⁸ Préfet du Nord, France 2030: Signature du contrat d'aide soutenant la décarbonation d'ArcelorMittal à Dunkerque, 22 January 2024. Retrieved on 22 April 2024.

⁷⁹ Fluxys, Hydrogen and carbon backbone in North Sea Port, 2 June 2021. Retrieved on 22 April 2024.



Figure 6: Percentage of Ghent and Dunkirk annual emissions potentially reduced by Smart Carbon projects



The emissions savings of these ‘flagship’ initiatives are meagre even if fully realised, but the costs are not. Capex alone is EUR55 million for Torero⁸⁰ and EUR200 million for Steelanol.⁸¹

The very small CO₂ abatement potential actually delivered or even promised by ArcelorMittal leads us to the same conclusion reached by the Institute for Energy Economics and Financial Analysis (IEEFA), well summarised in the sub-title of their new report: *“CCUS will not play a major role in steel decarbonisation”*. IEEFA points out a host of additional practical and financial obstacles to carbon capture in steel, and warns that the *“Smart Carbon” pathway will increasingly be perceived as “greenwashing”, used to justify the continued installation of new blast furnaces in developing nations.*⁸²

Beyond the projects run or announced by ArcelorMittal, both the IEEFA report and a recent explainer published by Transition Asia⁸³ underline the poor prospects for CCUS applied to coal-based blast furnaces in terms of technical complexity, limited abatement potential, cost, and technology readiness compared with alternatives like H₂-DRI-EAF.

ArcelorMittal, in their response to our draft, clearly stated their different view: *“The Company does not believe that the blast furnace has no future.”* They *“believe that the Smart Carbon route can achieve the same carbon emissions reduction as the transformation from blast furnace to DRI EAF.”* We are yet to see evidence for this belief.

⁸⁰ [ArcelorMittal](#), Torero. Retrieved on 22 April 2024.

⁸¹ [ArcelorMittal](#), ArcelorMittal inaugurates flagship carbon capture and utilisation project at its steel plant in Ghent, Belgium, 8 December 2022. Retrieved on 22 April 2024.

⁸² [Simon Nicholas and Soroush Basirat](#), Carbon Capture for Steel? CCUS will not play a major role in steel decarbonisation, Institute for Energy Economics and Financial Analysis, April 2024, p. 37.

⁸³ [Transition Asia](#), Explainer — Carbon capture in the steel sector; BF-BOF abatement, April 2024.



Feasibility challenges

Aside from the meagre emissions reduction potential already showing in the numbers, each project faces further limitations.

In the case of the 3D project, it is unclear at this stage where the captured CO₂ will go until the CO₂ storage site is ready, if it ever is, since the actual construction of such installations depends on the cooperation of enough large CO₂ emitters in order to make the new transport and storage infrastructure profitable.

In the case of the Torero project, a scaled-up version would quickly run out of waste wood, and even if this resource was available without limitation, it could not entirely substitute coal-based products because of their specific role in the blast furnace-based reduction process.

In the case of Steelanol, ArcelorMittal's *"flagship carbon capture and utilisation project"*⁸⁴, it is not clear where demand would exist for scaling up. Given that 1.3% of ArcelorMittal Ghent total CO₂ emissions are sufficient to produce 80 million litres of advanced ethanol - almost half of the total current advanced ethanol demand for fuel mixing in Belgium - a significantly higher share of utilised CO₂ emissions would flood the market with ethanol.

Still burning coal

'Smart carbon' is simply an add-on to a coal-based production route. The blast furnace-based iron reduction process cannot function without coke, produced from coking coal which must be mined. Yet as mentioned earlier in relation to scope 3 emissions (Section 3), the extraction of metallurgical coal releases methane with potent greenhouse effect. Furthermore, methane is dangerous in coal mining operations. This danger is evidenced all too tragically in Kazakhstan, where 46 miners died in October 2023 in a methane explosion in ArcelorMittal's Kostenko coal mine.⁸⁵

Coal mining and coal-based steel-making operations also generate local environmental hazards such as air, soil and water pollution, with risks for human health.⁸⁶ It's not just the blast furnaces but the associated coking ovens and processes that pollute air, land and water. For example, in South Africa, the FairSteel Coalition reports how 'ArcelorMittal's Vanderbijlpark steel plant belches out a daily dose of hydrogen sulphide well over what national air quality standards should permit'.⁸⁷ According to a Bloomberg Green analysis, Vereeniging (one of the three municipalities of the Vaal Triangle, home to ArcelorMittal South Africa's Vanderbijlpark plant), has the highest density of PM_{2.5} particulate matter on earth, about twenty times more than Paris.⁸⁸ ArcelorMittal has been sued for air pollution at multiple steel making sites, as reported by BankTrack (See Box 4).

⁸⁴ [ArcelorMittal](#), ArcelorMittal inaugurates flagship carbon capture and utilisation project at its steel plant in Ghent, Belgium, 8 December 2022. Retrieved on 22 April 2024.

⁸⁵ [SteelWatch](#)

⁸⁶ [Gopinathan, P., Subramani, T., Barbosa, S. et al.](#) Environmental impact and health risk assessment due to coal mining and utilization. *Environ Geochem Health* 45, 6915–6922 (2023).

⁸⁷ Mutsila, L. (2023, August 17). *Eco-Activist Take Environment Minister and ArcelorMittal to Court As Vaal Residents Choke on Polluted Air*.

Retrieved from: [briefly.co.za/](#) Quoted in The Real Cost of Steel: Environmental racism, sacrifice zones and impunity along the supply chain. Fair Steel Coalition, 2024 (forthcoming).

⁸⁸ [Sguazzin, A.](#) (2024, March 2). Quoted in Fair Steel Coalition 2024 (forthcoming).



Box 4: Health impact of air pollution

“ ArcelorMittal has been sued for breaching air pollution laws in [Bosnia and Herzegovina \(2016\)](#), [France \(2022\)](#), [India \(2021\)](#), [Kazakhstan \(2018\)](#), [South Africa \(2019\)](#), and the [United States \(2015\)](#). In each of these cases, local populations suffered adverse health effects such as asthma, pulmonary cancer and premature fatalities; brought on by particulate matter and sulphur dioxide emissions from an ArcelorMittal steel plant. In many of the cases, the air and water pollution has led to crop failure, sick livestock, and local produce being unfit for human consumption. In March 2023, French reporting outfit Disclose found that ArcelorMittal's French plant is [exceeding air pollution limits](#) and misrepresenting its emissions numbers. In the town of Taranto in Southern Italy, a 2021 World Health Organisation report found that ArcelorMittal's Ilva plant has caused premature mortality and irreversible damage to local inhabitants' health. ”

Source: Extract from BankTrack Dodgy Deal ⁸⁹

OUR ASKS:

- ◆ No more investments in blast furnaces from today - neither relining furnaces nor building new ones. End coal use in all geographies by 2040.
- ◆ Stop promoting, wasting resources, and collecting public subsidies for “Smart Carbon” technologies that try to prolong the life of coal-based steelmaking.



Protest at AMSA operations in Vanderbijlpark, Credit: Daylin Paul

⁸⁹ BankTrack. Version last updated April 2024; accessed 20/4/24.



'Innovative' DRI: Backtracking on green hydrogen

ArcelorMittal's 'Innovative DRI' pathway has been translated in recent years into several announcements about blast furnace plants shifting to DRI ironmaking processes with green hydrogen and/or EAF-based steelmaking. Transitioning blast furnaces to DRI is an essential and positive step, while developing green hydrogen DRI is currently the strongest option for moving to near-zero emissions steel. These were welcome announcements and steps towards a decarbonised portfolio.

However, recent months have seen back-tracking,⁹⁰ which suggests that the company will be using fossil gas instead of hydrogen and/or delaying various projects. This is despite billions of euros of public subsidies secured for these decarbonisation projects - EUR3.588 billion according to publicly available information (see Table 2).⁹¹

Table 2: DRI projects announced by ArcelorMittal

Plant / location	Planned capacity (Mtpa)	Announced costs (EUR)	Public subsidies (EUR)	Announced operational date
Gijón and Sestao (Spain)	2.3	EUR1,000 mn	EUR460 mn ⁹²	2025
Dunkerque (France)	2.5	EUR1,800 mn	EUR850 mn ⁹³	2027
Ghent (Belgium)	2.5	EUR1,100 mn	EUR280 mn ⁹⁴	2030
Bremen and Eisenhüttenstadt (Germany)		EUR2,500 mn	EUR1.300 mn ⁹⁵	2030
Hamburg (Germany)	0.1		EUR55 mn ⁹⁶	2026
Dofasco (Canada)*	2.5	EUR1,286 mn (CAD 1.8 billion)	EUR643 mn ⁹⁷ (CAD 0.9 billion)	2028
			Total: EUR3,588 mn	

*Based on an exchange rate of 1 EUR = 1.4 CAD

⁹⁰ Steelwatch, "ArcelorMittal's backtracking dirties its shiny claims", 16 April 2024.

⁹¹ Most subsidy decisions are not publicly available and therefore do not allow for scrutiny of the exact conditions to be met by the company and the project to obtain the subsidy.

⁹² European Commission, State aid: Commission approves €460 million Spanish measure to support ArcelorMittal decarbonise its steel production, 17 February 2023.

⁹³ European Commission, State aid: Commission approves €850 million French measure to support ArcelorMittal decarbonise its steel production, 20 July 2023.

⁹⁴ European Commission, State aid: Commission approves €280 million Belgian measure to support ArcelorMittal decarbonise its steel production, 22 June 2023.

⁹⁵ European Commission, Commission approves €1.3 billion German State aid measure funded under Recovery and Resilience Facility to support ArcelorMittal decarbonise its steel production, 23 February 2024.

⁹⁶ European Commission, State aid: Commission approves €55 million German measure to support ArcelorMittal's green steel demonstration plant, 17 February 2023.

⁹⁷ ArcelorMittal, ArcelorMittal Dofasco hosts groundbreaking ceremony for its transformational low-carbon emissions steelmaking project, 13 October 2022,



The so-called 'Innovative DRI' would be cutting edge if based on green hydrogen. But ArcelorMittal appears to be back-tracking from green hydrogen DRI to fossil gas-based DRI which is neither innovative nor low carbon.

In an interview recently published by the [Belgian business magazine Trends](#) and reported by [Hydrogen Insight](#), Geert Van Poelvoorde, CEO of ArcelorMittal Europe, suggested that due to the high price of green hydrogen in Europe, the proposed new DRI plants would either run on fossil gas instead, or be delayed. His German counterpart made similar comments to [Suddeutsche Zeitung](#).

This can now be read as groundwork for the very specific backtracking announcement that soon followed. In Spain, [ArcelorMittal is reported](#) to have given up on its initial and much headlined project to have a green hydrogen-powered DRI plant ready at Gijon in 2025 - the "world's first full-scale zero-carbon emissions steel plant", in the company's own words. Apparently it still plans to set up a DRI plant, but with fossil gas, while keeping the EUR450 million subsidy granted by the Spanish government. The headline still shows up on some pages on the company website, claiming an investment 'to create' such a zero-carbon emissions plant.⁹⁸ A baffling or perhaps carefully-worded claim given there now appears to be no timeline for shifting from gas to green hydrogen.

Figure 7: Website claim; latest news

Spain: A €1 billion investment to halve our carbon emissions and create the world's first full-scale zero-carbon emissions steel plant

Hydrogeninsight
Powered by RECHARGE

"Green hydrogen is too expensive to use in our EU steel mills, even though we've secured billions in subsidies"

'Geert van Poelvoorde's comments give credence to fears that ArcelorMittal's planned new green steel installations, for which it has been granted billions in funding from EU governments on the understanding that they will eventually use renewable H₂, would not actually use green hydrogen for years, if ever.'

⁹⁸ [ArcelorMittal](#), Spain: a €1 billion investment to halve our carbon emissions and create the world's first full-scale zero-carbon emissions steel plant. Retrieved on 22 April 2024.



If the shift to fossil gas is confirmed, it would not just be a major self-inflicted blow in ArcelorMittal's self-proclaimed climate leadership. It would also raise important questions about the conditionality of public subsidies (see later section on Policy and lobbying) and the role of fossil gas in the decarbonisation of the iron and steel industry. ArcelorMittal's response to the draft report seems to provide such confirmation when they say that *"there is no indication that [green hydrogen] will be available at the price or capacity that we need to provide competitive low carbon emissions steel by 2030."*

Substituting coal-based blast furnace capacity with fossil gas-based DRI capacity partially reduces CO₂ emissions, but it is not sufficient and cannot be seen as an end point. Fossil gas-based DRI remains very far from near zero emissions.⁹⁹ As with coal, fugitive methane emissions occur during fossil gas extraction and transport. If dramatic expansion of fossil gas DRI leads to an uptick in investment in the exploitation of new gas reserves and a new lock-in cycle in gas infrastructure, the shift to DRI will create new challenges for the transition to a fossil-free economy.

In the wider steel sector transition away from the coal-based blast furnace, several green H₂-DRI projects have been designed with an initial phase of fossil gas use, both because of uncertainty over the availability of green hydrogen in sufficient quantities and the novel character of fossil gas-free, 100% hydrogen-based direct reduction iron.¹⁰⁰ Technically this is quite feasible: the newer DRI plant technologies like Midrex¹⁰¹ and Energiron¹⁰² are marketed as 100% hydrogen-ready and able to run on various proportions of fossil gas and hydrogen. But labelling a plant as 'green hydrogen-ready' is totally different to actually converting it. For emissions to be on track, any claim to be heading to carbon-free must be backed up by an explicit timetable and commitment.

It is imperative that any gas use is strictly time-limited and does not provide a business case for more fossil gas. Therefore, Green H₂-DRI projects that do include an initial phase of fossil gas use must clearly state an end date for this period, consistent with an 1.5C compatible overall calendar of fossil fuel phase-out.¹⁰³

Finally it is worth revisiting the name of this 'Innovative DRI' pathway. If the new DRI plants are simply running on fossil gas, this pathway cannot be called 'innovative' as gas-DRI has been on the market for decades. Indeed, Lakshmi Mittal was buying and operating DRI mini mills almost 5 decades ago, starting in Indonesia in 1976.¹⁰⁴ Since the acquisition in 2022 of a majority stake in a fossil gas-based HBI production plant initially developed by the Austrian steelmaker voestalpine in Texas (United States), ArcelorMittal has even claimed to be the world's largest DRI producer.¹⁰⁵

OUR ASKS:

- Commit to and invest in producing or purchasing green hydrogen-based DRI.
- Ensure any use of gas for DRI is strictly time-bound with a clear transition pathway and timeline for green hydrogen use.
- Commit to phase out fossil fuel use, including fossil gas, by 2040 in Europe and by 2050 globally.

⁹⁹ World Steel assesses the carbon intensity of DRI-EAF at 1.37 tonne of CO₂ per tonne of crude steel for the year 2022. See [World Steel, Sustainability Indicators 2023 report](#).

¹⁰⁰ [Ali Hasanbeigi, Cecilia Springer and Hannah Irish](#), *Green H₂-DRI Steelmaking: 15 Challenges and Solutions*, Global Efficiency Intelligence, March 2024. Retrieved on 22 April 2024.

¹⁰¹ [Todd Astoria, Greg Hughes and Noriaki Mizutani](#), *MIDREX NG™ with H₂ Addition: Moving from natural gas to hydrogen in decarbonizing ironmaking*, [Midrex](#), 2022. Retrieved on 22 April 2024.

¹⁰² [Ashton Hertrich Giraldo](#), *Green steel production through hydrogen-based Energiron DRI process*, 2021.

¹⁰³ [SEI, Climate Analytics, E3G, IISD, and UNEP](#), *The Production Gap: Phasing down or phasing up? Top fossil fuel producers plan even more extraction despite climate promises*, 2023.

¹⁰⁴ [rediff](#). Retrieved on 22 April 2024.

¹⁰⁵ [ArcelorMittal](#), *4Q 2023 and FY 2023. Financial results and strategic update*, 8 February 2024, p. 13.



Transformation plans

Every fossil fuel-based plant needs a transformation plan. Decarbonisation plans need disclosure of adequate detail and clear processes for engagement with workers, communities and affected stakeholders.

A decarbonised and clean steel industry will need blast furnaces to be retired and replaced with alternative forms of production. In ArcelorMittal's announcements, the new DRI investments have been much trumpeted, but it has been less clear how quickly the blast furnaces would be retired. At some sites, announcements implied that new DRI-EAF would substitute for one blast furnace but run alongside continuation of one blast furnace for an undefined period.¹⁰⁶ More clarity is needed on the timetable and retirement plan for every blast furnace and other coal-based assets like coking plants in the company portfolio. Generating these plans should be done swiftly - in the next year. At the same time, immediate action cannot be delayed on the most egregious harms that continue to arise due to lack of health and safety or pollution controls (see Box 4).

Getting the iron and steel industry to align with a 1.5C compatible climate scenario requires a systemic transformation. This is not just about incremental efficiency gains, fuel substitution or a change of equipment. This transformation therefore has wide implications beyond the limits of steel mills, because such installations tend to be large employers and energy consumers or providers in the local communities they are rooted in.

For these reasons, the transformation that steel plants need to go through must be carefully planned, in partnership with relevant stakeholders such as trade unions, local authorities and residents, and be carried out in a way that does not put livelihoods at risk.

ArcelorMittal operates 33 blast furnaces (including the one operated by the Indian joint venture). A transformation plan is needed for every single one, detailing when it will be retired, what will replace it, and how the interests of workers and communities are taken into account and protected. Transformation plans are likewise needed for all parts of the fossil fuel based production system, whether mines, coking plants or gas DRI. Alongside asset-level plans, a principled and group-wide approach to transformation is needed.

ArcelorMittal acknowledges *"the transition to a low-carbon, climate-resilient economy, meeting the goals of the Paris Agreement, has the potential to trigger a new dimension of inequalities and vulnerabilities in society, which in turn build social injustice and unrest."*¹⁰⁷ We agree. We welcome the fact that ArcelorMittal has started developing its approach on a just transition (see Box 5), particularly as the steel industry is behind the energy sector in working out what a just transition means. However, beyond these first steps, there is a lot further to go.

¹⁰⁶ The integrated steel plants at Dunkirk, Ghent, and Gijón have all announced plans for DRI, but also have 3, 2, and 2 blast furnaces respectively, and the plans do not indicate that all of them will be closed. At Ghent, the relining of the blast furnace B completed in 2021, combined with the Steelanol investment, suggests this blast furnace will operate for some time.

¹⁰⁷ ArcelorMittal, ArcelorMittal Parent Company Annual Report 2023, p. 70.



BOX 5: Recognition of just transition principles

According to the 2023 Annual Report (P. 69)

'ArcelorMittal defines "Just Transition" as a principles-based systematic, ongoing process which aims to ensure an effective and inclusive transition to a low-carbon economy, while adapting and building resilience of the Company's business to climate change.'

The company says it *"has developed a framework and guidance for its operations to manage their transitions in a just way."*¹⁰⁸ The framework includes "Just Transition" principles and an asset level methodology for implementation.

We note that the definition focuses on building the resilience of *the company* not of society, and this is also reflected in the more detailed principles. A just transition policy needs to be centred around building *resilience of people and communities*. The approach will need elements for shared prosperity and delivering on a duty of care to communities and employees.¹⁰⁹

While ArcelorMittal has made public its definition of "Just Transition" and the underlying principles,¹¹⁰ there remains today a lack of publicly available information regarding the methodology of the framework implementation at asset level, and the actual level of progress on the just transition journey. This is pointed out by the Climate Action 100+ company assessment under the "Just Transition" item where ArcelorMittal does not meet any criteria.¹¹¹ Some of the missing elements have in the meantime been developed by ArcelorMittal¹¹² but will be reflected in the benchmark only upon the next update.

In its scorecard of ArcelorMittal, the World Benchmarking Alliance recognises that *"the company commits to engaging in social dialogue with workers and unions. It also discloses the categories of stakeholders it engages with on a just transition, including trade unions, governments, suppliers, customers and employees. Furthermore, the company demonstrates ongoing social dialogue and meaningful engagement with affected stakeholders. However, no evidence was found that it engages in ongoing social dialogue and meaningful engagement on the aspects of a just transition."*¹¹³

Lack of information prevents local stakeholders engaging in shaping a transition themselves. Currently some plants lack published plans, while announcements on others tend to lack information that are crucial for interested stakeholders to assess their credibility and their impact, for example in terms of GHG emissions reductions, steel production and jobs, retraining and social protection. The World Benchmarking Alliance notes that *"no relevant disclosure was found of the company's assessment of employment dislocation risks. Further, no public commitment by the company was found stating its intention to reskill and upskill workers displaced by the transition to a low-carbon economy. Additionally, no evidence was found that the company reskills and upskills workers in a way that ensures gender balance and inclusion of vulnerable groups. [...] No relevant disclosure was found to show if the company identifies the impacts of the low-carbon transition on social protection for workers and affected stakeholders, nor how it contributes to their social protection."*¹¹⁴

Greater disclosure is needed for stakeholders to assess the validity and impact of decarbonisation plans, and particularly for those most affected to give their views and shape the way forward.

¹⁰⁸ [ArcelorMittal](#), ArcelorMittal Parent Company Annual Report 2023, p. 70.

¹⁰⁹ See [for example](#) Just Energy Transition principles of the Business and Human Rights Research Centre. Retrieved on 22 April 2024.

¹¹⁰ [ArcelorMittal](#), ArcelorMittal Parent Company Annual Report 2023, p. 70.

¹¹¹ [Climate Action 100+](#), Net Zero Company Benchmark. ArcelorMittal. Retrieved on 4 April 2024.

¹¹² [ArcelorMittal](#), ArcelorMittal Parent Company Annual Report 2023, p. 70.

¹¹³ [World Benchmarking Alliance](#), Heavy Industries Benchmark - ArcelorMittal - Social Assessment - Just transition assessment.

¹¹⁴ *ibid.*



OUR ASKS:

- ◆ Deliver by 2025 concrete, verifiable asset by asset transformation plans to end coal-based production processes globally.
- ◆ Develop decarbonisation and just transition plans in consultation with social partners, democratic representatives and rights holders.
- ◆ Immediately implement an investment plan for pollution control and for occupational health and safety in sites with documented shortfalls.
- ◆ Stop greenwashing and misleading claims on decarbonisation programs through clear, credible, transparent and accessible reporting, including disclosure of scrap use.
- ◆ Demonstrate compliance with environmental, health, and labour laws through regular, in-depth public reporting.



Samson Mokoena demands Just Transition for all (South Africa), Credit: James Oatway



5. Policy influence and subsidies

ArcelorMittal has huge political influence. It has actively lobbied for slower or weaker climate policy, such as on carbon pricing and emissions allowances, in the EU and South Africa.

ArcelorMittal estimated decarbonisation progress by 2030 would cost USD10bn. It has successfully secured massive subsidy announcements for at least a third of that amount, and yet it is rowing back on the decarbonisation to be achieved at subsidised projects, while spending less than budgeted of its own investment funds.

Because of its size and high-level political connections (see Section on Corporate Operations above), ArcelorMittal is a highly influential company. For example, in the European Union it is one of the top 10 companies having held on their own account - not through trade associations - the largest number of meetings with the European Commission.¹¹⁵ It is also an active member of iron- and steel-related trade associations at global, regional and national levels which also engage policy-makers and one of the only steelmakers that is a member of the Global CCS Institute.¹¹⁶

One could expect a self-proclaimed corporate climate leader to leverage its political clout in order to advance pro-climate policies. But in practice, the evidence suggests political clout has been used either to weaken climate action or has been focused on securing subsidies.

Negative lobbying on carbon tax and trading

ArcelorMittal has huge political influence. While supporting headline climate action it has actively lobbied for slower or weaker policies, such as on carbon pricing and emissions allowances, in the EU and South Africa.

Climate-related lobbying can be assessed at two levels. First, how transparent or opaque these lobbying activities are, and second, whether or not the advocated policy positions can be considered pro-climate.

According to InfluenceMap, a non profit organisation that runs a corporate climate lobbying platform whose results feed into the Climate Action 100+ Net Zero Company Benchmark, ArcelorMittal “meets some criteria” regarding its reporting of direct and indirect (through industry associations) climate policy engagement activities.¹¹⁷

¹¹⁵ [Lucinda Pearson](#), “Who has been lobbying the European Commission? A look at meetings since von der Leyen took over”, Transparency International EU, 14 July 2022. Retrieved on 10 April 2024.

¹¹⁶ <https://www.globalccsinstitute.com/membership/our-members/>

¹¹⁷ [InfluenceMap](#), “ArcelorMittal Disclosure Scorecard. Detailed assessment of ArcelorMittal's climate policy engagement disclosure”, August 2023. Retrieved on 10 April 2024.



However, when it comes to the advocated policy positions, regardless of whether they have been disclosed by the company or dug out by analysts, in the European Union, the picture is more mixed. Undoubtedly the company's repeated comments on insufficient green hydrogen in Europe are a vocal way to build political pressure for faster and deeper renewable energy expansion.¹¹⁸ But InfluenceMap finds that *"ArcelorMittal appears to engage negatively with key climate regulations spanning emissions trading, carbon taxation and renewable energy"*.¹¹⁹ InfluenceMap also point out that in South Africa, the company also advocated for a weaker carbon tax, calling instead for increased free allocation of emissions allowances. These specific positions on emissions trading and taxes contrast with what InfluenceMap describes as a *"generally supportive"* top-line messaging on climate policy,¹²⁰ revealing again a gap between, on the one hand, the company's public commitments and communications, and on the other, its more concrete actions.

A counter-example of how ArcelorMittal could use its lobbying power relates to renewable energy. As ACCR explains, *"steelmakers, as significant underwriters to energy, have the power to solidify demand for renewable energy, providing a clear demand outlook for power generators and governments. By advocating for renewables, steelmakers can help drive investments in renewable energy infrastructure, ensuring a reliable supply of green energy for their operations. This could include advocating for a comprehensive build-out of renewable energy capacity, the development of necessary infrastructure, and mechanisms to reduce the costs associated with green hydrogen production."*¹²¹

OUR ASKS:

- Stop lobbying against climate action policies and fully disclose all advocacy activities, including positions on and engagement with specific climate-related policies.
- Disclose a detailed and accurate account of the climate policy positions and influencing activities of each industry association that the company actively engages with.
- Use lobbying power to drive scaling of renewable energy and deep decarbonisation of industry - rather than policy support for carbon capture in steel.
- Align direct and indirect climate policy engagements with the goal of restricting global temperature rise to 1.5C above pre-industrial levels.

¹¹⁸ Although they seem to have backtracked from engaging more proactively in hydrogen supply, at least in the case of the HyDeal consortium in Spain which ArcelorMittal exited. Polly Martin, *"Interview: 'Producing green hydrogen in Europe will only be viable if derived from Iberian solar and Chinese electrolyzers'"*, [Hydrogen Insight](#), 25 January 2024.

¹¹⁹ [InfluenceMap](#), *"ArcelorMittal"*. Retrieved on 10 April 2024.

¹²⁰ *ibid.*

¹²¹ [Australasian Centre for Corporate Responsibility](#), *Forging pathways: insights for the green steel transformation*, p. 59.



Public subsidies: Never-ending demand, debatable delivery

In its second Climate Action Report published in July 2021, ArcelorMittal estimated that it would need to invest USD10 billion to reach its 2030 global target of 25% CO₂ emissions reduction, and considered “appropriate”¹²² a level of public funding of 50%. While maintaining the estimate of the investment cost at USD10 billion, the latest annual report published a few weeks ago for the year 2023 slightly raised the bar in terms of expected public funding, as the 50% now applies to *“the total cost of decarbonization, addressing both capital expenditures and the higher operating expenditures, so that the Company and the industry are not rendered uncompetitive during this transition period.”*¹²³

A compilation of publicly available information regarding public funding in support of ArcelorMittal decarbonisation projects shows that from 2021 to Q1 2024, over USD3.5 bn¹²⁴ just for DRI projects (see Table 2) have already been announced, and this does not account for all subsidies benefiting ArcelorMittal.¹²⁵

Meanwhile, ArcelorMittal is not on track for paying its own share. The company reported that its own financial commitments to decarbonisation initiatives in 2021-2023 total USD1.48 billion,¹²⁶ which is less than 30% of the amount it said it expects to spend to meet its 2030 goal. But in reality, out of this commitment, only USD500 million have actually been spent, though the company has said that in 2024, it expects to increase such spending to between USD300 and 600 million.¹²⁷ In their written response, ArcelorMittal added that *“the Company has consistently spent between USD250-300mn”* on R&D, including on reduction and mitigation of environmental impacts. However, it did not indicate the period covered.

Table 3: Amount spent vs amount committed by ArcelorMittal on decarbonisation

AM decarbonisation spending & commitments

Year	Amount spent	Amount committed
2023	\$200,000,000	\$729,000,000
2022	\$200,000,000	\$579,000,000
2021	\$100,000,000	\$174,000,000
Total	\$500,000,000	\$1,482,000,000

Sources: ArcelorMittal [Annual Report 2021](#), p. 73; [Annual Report 2022](#), p. 93; [Annual Report 2023](#), p. 76.

ArcelorMittal estimated that its decarbonisation progress by 2030 would cost USD10bn. It has successfully secured massive subsidy announcements for at least a third of that amount, and yet it is rowing back on the decarbonisation to be achieved at subsidised projects, while spending less than budgeted of its own investment funds.

¹²² ArcelorMittal, *Climate Action Report 2*, July 2021, p.12.

¹²³ ArcelorMittal, *ArcelorMittal Parent Company Annual Report 2023*, p. 57.

¹²⁴ Assuming an exchange rate of 1 EUR = 1 USD.

¹²⁵ In the European Union, ArcelorMittal also receives a lot of public subsidies for research and development projects and for emissions-reducing projects based on other technologies than DRI, for example the Steelanol plant.

¹²⁶ ArcelorMittal, *ArcelorMittal Annual Report: 2023*, p. 76.

¹²⁷ ArcelorMittal, *ArcelorMittal Annual Reports: 2021*, p. 73; 2022 p. 93; 2023, p. 76.



There are three problems in how ArcelorMittal handles subsidies:

- If subsidies are for decarbonisation, actual emissions cuts must be guaranteed.
- The company seems to be driving a subsidy race which can benefit a company but not the climate.
- It's questionable that this is a fair share for taxpayers, given what the company is giving to shareholders (see next section).

First, recent developments around ArcelorMittal Sestao/Gijon plants in Spain raise concerns that the company may receive subsidies without delivering the promised reductions of GHG emissions. As noted above, ArcelorMittal initially planned ambitious zero carbon emissions production at its Sestao plant with the support of a EUR450 million grant from the Spanish government, but now plans to delay the construction of the DRI plant, and to use fossil gas instead of green hydrogen for an undefined period.^{128,129} Yet despite the much less groundbreaking character of the new plan and smaller GHG emissions reductions, ArcelorMittal seems to intend to keep the subsidy. Such a behaviour undermines taxpayers' willingness to bear parts of the decarbonisation costs and may endanger future decarbonisation projects. Disclosure by governments and companies around such subsidies is shockingly poor, so it becomes very difficult for tax-payers to hold players accountable for delivery of promises.

Second, instead of seeking public funding to decarbonise all its assets, there have been signs that ArcelorMittal may have started to draw governments into a "subsidy race", in the words of Belgium Prime Minister, Alexander De Croo,¹³⁰ with the most generous countries being offered decarbonisation projects at the expense of others. This attitude is detrimental to the climate transformation because it will make decarbonisation projects hostages to financial bargaining and auctioning, whereas they should be pursued to answer the climate emergency, with a level of public funding adequate to the real additional costs connected with the transition.

OUR ASKS:

- For all investments supported with public subsidy, disclose actions achieved, conditionalities met or not met, and quantity of emissions saved.
- Disclose subsidies received and regularly report the balance of investment costs distributed between tax-payers and the company.

¹²⁸ [Germán Aranda](#), *ArcelorMittal arrancará su planta con gas, pero no renuncia al mayor PERTE verde, de 450 millones*, *On Economía*, 25 March 2024. Retrieved on 22 April 2024.

¹²⁹ In its current version, the decree stating the terms of the subsidy provides for a phase-in of hydrogen starting from 2025 and the end of use of fossil gas in 2029. See [Agencia Estatal Boletín Oficial del Estado](#), *Real Decreto 251/2023*, de 4 de abril, por el que se regula la concesión directa de subvenciones a la empresa ArcelorMittal España S.A. para la ejecución del proyecto Hidrógeno circular DRI, en el marco del Plan de Recuperación, Transformación y Resiliencia, 5 April 2023.

¹³⁰ [Dominique Liesse](#), *De Croo ne veut pas d'une course aux subventions pour l'usine ArcelorMittal de Gand*, *L'Écho*, 20 February 2024. Retrieved on 22 April 2024.



6. Shareholder profits over stakeholder interests

The previous section has shown that ArcelorMittal makes its decarbonisation projects heavily conditional on large public funding and that it has not yet paid its share. However, this is not for a lack of money, but results from a conscious choice: instead of making decarbonisation a top spending priority, the company has opted to return more than half its free cash flow to shareholders.

In 2021-23, the company distributed more than USD11 billion to its shareholders in the form of buybacks and dividends.¹³¹ During this same period, it spent USD500 million on decarbonisation, as shown in Table 3 above.

Decarbonisation also ranks low in comparison with growth expenditure: for 2024, ArcelorMittal has budgeted USD300-USD600 million for decarbonisation, against USD1.4-USD1.5 billion for “strategic growth capital expenditures”.¹³²

ArcelorMittal has a formal policy to devote a minimum 50% of free cash flow to share buybacks.¹³³ This policy benefits shareholders by driving up the value of the company's stock. Under this policy, the company spent USD500 million on share buybacks in 2020¹³⁴ and USD9.3 billion in 2021-23.¹³⁵ “It really is a massive achievement that we have repurchased one-third of our equity over the last three years,” CEO Aditya Mittal said on the company's 2023 Q4 investor call. He said that the value of “every ArcelorMittal share has been significantly increased” by the buyback program.¹³⁶ While buybacks are probably not the only driver of ArcelorMittal share price, as a matter of fact the value of one ArcelorMittal share rose from USD17.54 at the end of 2019 to USD28.39 at the end of 2023¹³⁷ - an increase of 62%.

In addition to buybacks, ArcelorMittal has also increased returns to shareholders through dividends: for the past six years, the company has annually increased dividends, skipping only 2020 when dividends were suspended due to the negative financial impact of the COVID19 pandemic. Dividends per share rose over this period from US 10 cents in 2018 to 44 cents in 2023.¹³⁸ In 2021-2023, the company paid shareholders USD1.77 billion in dividends. This year sees a further increase to USD0.50/share.¹³⁹

ArcelorMittal has prioritised returns to shareholders over investment in decarbonisation.

¹³¹ ArcelorMittal, ArcelorMittal Annual Report 2023, p. 171 and the Statement of Cash Flows in the company's Audited Financial Statements p. 250.

¹³² ArcelorMittal, ArcelorMittal Annual Report 2023, pp. 105-107.

¹³³ The 2023 annual report states ‘a minimum of 50% of the amount of free cash flow ... remaining after paying the base annual dividend is allocated to a share buyback program.’ Free cash flow is defined as ‘net cash provided by operating activities less purchases of property, plant and equipment and intangibles (“capital expenditures”) less dividends paid to non-controlling shareholders’. ArcelorMittal, ArcelorMittal Annual Report 2023, p. 8.

¹³⁴ ArcelorMittal, Share buyback program 2020. Retrieved 18 April 2024.

¹³⁵ ArcelorMittal, ArcelorMittal Annual Report 2023, p. 171 and the Statement of Cash Flows in the company's Audited Financial Statements p. 250.

¹³⁶ ArcelorMittal Q4 2023 Earnings Call transcript, insidermonkey.com. Retrieved 18 April 2024.

¹³⁷ [yahoo!finance](https://finance.yahoo.com), ArcelorMittal S.A. (MT). Retrieved 18 April 2024.

¹³⁸ [Nasdaq](https://www.nasdaq.com), Arcelor Mittal NY Registry Shares NEW (MT) Dividend History. Retrieved 25 April 2024.

¹³⁹ ArcelorMittal Dividends. Retrieved 2 May 2024.



The company's "Significant Shareholder" is the biggest beneficiary, by a wide margin, of dividend increases and buyback-driven share price growth. The "Significant Shareholder" phrase refers to the four family members who together are the largest shareholders, directly for the Mittal spouses and through a trust of which the four family members are the beneficiaries - Executive Chairman Mr Lakshmi N. Mittal; his wife, Ms Usha Mittal; their son and ArcelorMittal CEO, Mr Aditya Mittal; and their daughter, Ms Vanisha Mittal Bhatia, who is Chief Strategy Officer of Aperam, a family-controlled stainless steel company. In the understated language of ArcelorMittal's latest Annual Report, these four have *"the ability to exercise significant influence over the outcome of shareholder votes"* based on their control of 41.5% of outstanding shares.¹⁴⁰ This represents an increase from 36.37% at 31 December 31 2020.¹⁴¹ Because buybacks reduced the total number of shares outstanding by about one-third, the family's control over the company became more concentrated.

Thanks to the company's dividend and share buyback policies, the value of the shares held by family members and their trust grew by more than USD2.9 billion dollars during 2020-23.¹⁴² The four family members also appear to have received more than USD370 million in dividends over that four-year period.¹⁴³ Partly as a result, the net worth of family patriarch, Lakshmi Mittal, rose to more than USD20 billion as of March of 2024, up from USD12.9 billion at the start of 2020, according to Bloomberg Billionaires index.¹⁴⁴

Put in this perspective, we conclude that expenditure of USD500 million on decarbonisation projects over 3 years is far from the 'forefront' of ambition for a company that distributed more than USD11 billion to its shareholders in the form of buybacks and dividends in the same period, while emitting well over 100 million tonnes of CO₂ per year. Twenty two times as much for shareholders as for planetary action is not climate leadership.

OUR ASKS:

- Align financial strategy with a 1.5C-aligned decarbonisation strategy.
- Abandon the policy of allocating free cash flow to repurchase equity; instead scale investments in decarbonisation. Triple decarbonisation capex for the period 2025-2030. Invest in decarbonisation across all operations, irrespective of state aid.
- Make climate targets the priority metrics of remuneration policy for senior management.

¹⁴⁰ [ArcelorMittal](#), ArcelorMittal Annual Report 2023, p. 37.

¹⁴¹ [ArcelorMittal](#), ArcelorMittal Annual Report 2020, p. 29.

¹⁴² For a share price of USD17.54 on 31 December 2019 and USD28.39 on 29 December 2023 - [yahoo!finance](#), ArcelorMittal S.A. (MT). Retrieved 18 April 2024.

The family's holdings amounted to 382 million shares as of December 31, 2019 (*ArcelorMittal Annual Report 2019*, p. 97), and to 340 million shares end of 2023 (*ArcelorMittal Annual Report 2023*, p. 27), but it is not clear whether they sold shares on the open market or took advantage of the buybacks.

¹⁴³ based on the number of shares held from the end of 2019 to the end of 2023 and the dividend rate for those years. For dividend rates, see Nasdaq, Arcelor Mittal NY Registry Shares NEW (MT) Dividend History. For number of shares held by the four family members, see *ArcelorMittal Annual Reports*.

¹⁴⁴ [Bloomberg](#), Bloomberg Billionaires Index. Retrieved 18 April 2024.



7. Conclusion and Summary of Asks

We conclude that ArcelorMittal is failing in its claim to be a leader of decarbonisation in the steel sector. For ArcelorMittal to put substance into its leadership claim and become a real climate champion, it needs to adopt more ambitious climate targets globally, set clear deadlines for ending use of coal and gas, and put more of its own profits into decarbonisation.

Our main ask: No more shiny claims and empty promises: step up to be a real climate champion.

Verifiable commitment to 1.5C target

- Set targets based on scientifically-validated alignment with a 1.5C climate scenario.
- Update climate targets for 2030 and set additional targets for 2040 in line with the 1.5C limit.

Absolute emissions target

- Commit to a limit on absolute emissions aligned with a science-based, 1.5C compatible emissions pathway, in addition to updated, 1.5C compatible carbon intensity targets.

2050 net zero target for AM/NS India

- Ensure 1.5C compatible climate targets are applied throughout all subsidiaries and joint ventures, including in India.

Target for scope 3 emissions

- Commit publicly to a timeline for adopting a scope 3 emissions cap or a reduction target.
- Adopt transparent scope 3 reporting that provides the composition of these emissions and the methodology used to assess them, including by publishing the full report of the assurance provider containing their observations and areas for improvement.

Decarbonisation pathways

- No more investments in blast furnaces from today - neither relining furnaces nor building new ones. End coal use in all geographies by 2040.
- Stop promoting, wasting resources, and collecting public subsidies for "Smart Carbon" technologies that try to prolong the life of coal-based steelmaking.

'Innovative' DRI

- Commit to and invest in producing or purchasing green hydrogen-based DRI.
- Ensure any use of gas for DRI is strictly time-bound with a clear transition pathway and timeline for green hydrogen.
- Commit to phase out fossil fuel use, including fossil gas, by 2040 in Europe and by 2050 globally.



Transformation plans

- Deliver by 2025 concrete, verifiable asset by asset transformation plans to end coal-based production processes globally.
- Develop decarbonisation and just transition plans in consultation with social partners, democratic representatives and rights holders.
- Immediately implement an investment plan for pollution control and for occupational health and safety in sites with documented shortfalls.
- Stop greenwashing and misleading claims on decarbonisation programs through clear, credible, transparent and accessible reporting, including disclosure of scrap use.

Demonstrate compliance with environmental, health, and labour laws through regular, in-depth public reporting.

Policy lobbying

- Stop lobbying against climate action policies, fully disclose all advocacy activities, including positions on and engagement with specific climate-related policies.
- Disclose a detailed and accurate account of the climate policy positions and influencing activities of each industry association that the company actively engages with.
- Use lobbying power to drive scaling of renewable energy and deep decarbonisation of industry - rather than policy support for carbon capture in steel.
- Align direct and indirect climate policy engagements with the goal of restricting global temperature rise to 1.5C above pre-industrial levels.

Public subsidies:

- For all investments supported with public subsidy, disclose actions achieved, conditionalities met or not met, and quantity of emissions saved.
- Disclose subsidies received and regularly report the balance of investment costs distributed between tax-payers and the company.

Financial allocations

- Align financial strategy with a 1.5C-aligned decarbonisation strategy.
- Abandon the policy of allocating free cash flow to repurchase equity; instead scale investments in decarbonisation. Triple decarbonisation capex for the period 2025-2030. Invest in decarbonisation across all operations, irrespective of state aid.
- Make climate targets the priority metrics of remuneration policy for senior management.



Annex 1: Summary assessment table

Table 4: Summary of key facts reported

Company name (group) Country of registration	ArcelorMittal S.A. Luxembourg
Size by revenue Size by steel production volume World ranking by volume of steel production	USD68.3 bn ¹⁴⁵ 58 Mtpa ¹⁴⁶ 2 nd 147
Self-reported GHG - CO ₂ Key elements excluded	114.3Mt CO ₂ e ¹⁴⁸ (Scope 1+2) for 2023 Joint ventures, uncertainty on the inclusion of mining emissions
Business includes <ul style="list-style-type: none"> Iron mining Coal mining 	<ul style="list-style-type: none"> Yes No
Number of countries with iron or steel production plant, or iron or coal mining	19 149
Engagement and status/ranking/scores in initiatives <ul style="list-style-type: none"> SBTI Responsible Steel CA100 CDP MSCI rating World Benchmarking Alliance 	<ul style="list-style-type: none"> Climate commitment 'removed'¹⁵⁰ Member, 15 site certifications as for 25 April 2024 (one certificate can cover several sites) Meets some or none of the criteria for actions 3-10 of the 'disclosure framework and "does not meet any criteria" for alignment of medium-term (2027 to 2035) GHG reduction target(s) with the goal of limiting global warming to 1.5C¹⁵¹ A- rating¹⁵² ESG rating of 'average' and 'BB' (3rd lowest rating out of 7). 'Implied Temperature Rise of above 3.2°C indicates that ArcelorMittal SA is strongly misaligned with global climate goals'¹⁵³ Total score of 35.2/100

¹⁴⁵ ArcelorMittal, Annual Report 2023 of ArcelorMittal parent company, March 2024, p. 3.

¹⁴⁶ ArcelorMittal, Annual Report 2023 of ArcelorMittal parent company, March 2024, p. 3. Unlike worldsteel, ArcelorMittal reports crude steel production without accounting for the contribution of its joint venture in India.

¹⁴⁷ WSA, "World steel in figures 2023" p.8 Retrieved on 19 April 2024.

¹⁴⁸ ArcelorMittal, Integrated Annual Review 2023, April 2024, p. 33.

¹⁴⁹ ArcelorMittal, ArcelorMittal Annual Report 2023.

¹⁵⁰ Science Based Targets, retrieved on 22 April 2024.

¹⁵¹ Climate Action 100+, Net Zero Company Benchmark. ArcelorMittal. Retrieved on 4 April 2024.

¹⁵² CDP. Retrieved on 22 April 2024.

¹⁵³ <https://www.msci.com/our-solutions/esg-investing/esg-ratings-climate-search-tool/issuer/arcelormittal-sa/IID000000002157753>, p. 91-102. Retrieved on 22 April 2024.



Continued

Climate targets 2050 target? 2030 target? Verified 1.5C aligned?	<p>2050 target for carbon neutral. 2030 targets for Group and sub-geographies. Carbon intensity targets set. Not accompanied by absolute emissions targets.</p> <p>The India Joint Venture is excluded from group climate targets and does not have a 2050 target at all. Total emissions may actually rise.¹⁵⁴</p> <p>Currently not in the process of setting a science-based 1.5C aligned target.¹⁵⁵</p>
Number of blast furnaces (inc India)¹⁵⁶ <ul style="list-style-type: none"> ● Operational ● Planned or in construction ● With retirement plans 	<ul style="list-style-type: none"> ● 33 ● 3 ● 10¹⁵⁷
Current operating BF capacity	56.249 Mtpa ¹⁵⁸
Just transition / transition plans	<p>The company says it <i>"has developed a framework and guidance for its operations to manage their transitions in a just way."</i> The framework includes "Just Transition" principles and an asset level methodology for implementation.</p> <p>At the plant level, publication of plans and level of detail is highly varied.</p>
Policy positions	<i>"Generally supportive" top-line messaging on climate policy but "ArcelorMittal appears to engage negatively with key climate regulations spanning emissions trading, carbon taxation and renewable energy."</i> ¹⁵⁹
Announced subsidies	EUR3.588 billion for announced DRI projects. ¹⁶⁰

¹⁵⁴ AM/NS India, *Climate Action Report*, 2024, p. 18.

¹⁵⁵ ArcelorMittal, *ArcelorMittal Integrated Annual Review 2023*, p. 7.

¹⁵⁶ Table 6: ArcelorMittal reported assets with iron and crude steel production and sources therein.

¹⁵⁷ Global Energy Monitor, *Global Blast Furnace Tracker*, April 2024 (V1) release. 10 of the 33 BFs have specified retirement dates in the "retired date" field.

¹⁵⁸ Global Energy Monitor, Blast Furnace Capacity (TTPA) by Development Status by Parent Company, April 2024. Retrieved on 22 April 2024.

¹⁵⁹ InfluenceMap, "ArcelorMittal". Retrieved on 10 April 2024.

¹⁶⁰ Table 2: DRI projects announced by ArcelorMittal and sources therein.



Annex 2: Additional tables

Table 5: Members of ArcelorMittal Board of Directors as of March 2024

	Position within ArcelorMittal	Additional information
Mr. Lakshmi N. Mittal	Executive Chairman of the Board of Directors	Father of Mr. Aditya Mittal and Ms. Vanisha Mittal Bhatia
Mr. Aditya Mittal	Director and Chief Executive Officer	Son of Lakshmi N. Mittal and brother of Vanisha Mittal Bhatia, chairman of the board of AM/NS India
Ms. Vanisha Mittal Bhatia	Director	Daughter of Lakshmi N. Mittal and sister of Aditya Mittal
Mr. Tye Burt	Director	
Mr. Michel Wurth	Director	Also chairman of ArcelorMittal Luxembourg S.A. (wholly owned subsidiary of ArcelorMittal), vice chairman of the supervisory board of Dillinger Hütte AG and Dillinger Hütte Saarstahl AG (steelmakers, associates of ArcelorMittal), member of the supervisory board of SMS Group (steel production equipment and engineering supplier), member of the Council of the Central Bank of Luxembourg
Ms. Karyn Ovelmen	Lead Independent Director	
Mr. Karel de Gucht	Director	Former Belgian minister and European Commissioner
Mr. Étienne Schneider	Director	Former Luxembourgish minister
Ms. Clarissa Lins	Director	
Ms. Patricia Barbizet	Director	

Source: ArcelorMittal, Annual Report 2023 of ArcelorMittal parent company, March 2024, p. 178.



Table 6: ArcelorMittal reported assets with iron and crude steel production
(including joint ventures with ArcelorMittal \geq 50% interest)

Business unit*	Country	Number of operational blast furnaces**	Applicable ArcelorMittal climate target		
			Global climate targets	Europe climate targets	Country or asset-specific climate targets
ArcelorMittal S.A. ("Company" or "Group")					
Zenica	Bosnia and Herzegovina	1	yes	yes	no
Ghent	Belgium	2	yes	yes	no
Industreel Belgium	Belgium	0	yes	yes	no
Eisenhüttenstadt	Germany	1	yes	yes	no
Bremen	Germany	2	yes	yes	no
Hamburg	Germany	0	yes	yes	no
Duisburg	Germany	0	yes	yes	no
Asturias (Gijón)	Spain	2	yes	yes	no
Sestao	Spain	0	yes	yes	no
Olaberria-Bergara (Olaberria)	Spain	0	yes	yes	no
Dunkerque	France	3	yes	yes	no
Méditerranée Fos sur Mer	France	2	yes	yes	no
Industeel France Le Creusot	France	0	yes	yes	no
Industeel France Loire	France	0	yes	yes	no
Differdange	Luxembourg	0	yes	yes	no
Esch-Belval	Luxembourg	0	yes	yes	no
Sonasid	Morocco	0	yes	?	no
Dąbrowa Górnicza	Poland	2	yes	yes	no
Kraków	Poland	0	yes	yes	no
Warszawa	Poland	0	yes	yes	no
Hunedoara	Romania	0	yes	yes	no
Kryvyi Rih	Ukraine	4	yes	no	no



Continued

Business unit*	Country	Number of operational blast furnaces**	Applicable ArcelorMittal climate target		
			Global climate targets	Europe climate targets	Country or asset-specific climate targets
South Africa	South Africa	3	yes	no	yes
Acindar	Argentina	0	yes	no	no
ArcelorMittal Tubarão	Brasil	3	yes	no	no
ArcelorMittal Brasil	Brasil	3 + 1 planned	yes	no	no
ArcelorMittal Pecém	Brasil	1	yes	no	no
ArcelorMittal Long Products Canada	Canada	0	yes	no	no
Dofasco	Canada	2	yes	no	no
ArcelorMittal Mexico	Mexico	1	yes	no	no
ArcelorMittal Texas HBI	USA	0	yes	no	no
Joint Ventures					
AM/NS India (owned by ArcelorMittal Nippon Steel Luxembourg Holding S.A., itself 60% owned by ArcelorMittal S.A.)	India	1 (with expansion project) +2 under construction	no	no	yes
Total	17 countries (inc India)	33 BF (inc India) Plus 2 in construction and 1 planned			

*Only iron and steel production plants are listed. Mining operations and downstream steel processing using purchased steel are excluded. If mines are added, the total number of countries is 19. ArcelorMittal/Nippon Steel Calvert, a joint venture 50% owned by ArcelorMittal S.A. and located in Alabama (United States) currently processes steel, so is not included. It will start producing crude steel upon commissioning of its first EAF scheduled this year.

**From ArcelorMittal Annual Parent Company Report 2023, with the addition of the AM/NS India joint venture. Assets located in Kazakhstan and Acciaierie d'Italia, mentioned in ArcelorMittal Annual Parent Company Report 2023, are not present in this table as the first were sold by ArcelorMittal in December 2023 and the second has been under the Italian government's extraordinary administration since February 2024.



ArcelorMittal Corporate Climate Assessment 2024

SteelWatch is a civil society organisation with a vision for a steel industry that underpins a zero-emissions economy. Our mission is to turbo-charge the transformation to a decarbonised steel sector that enables the environment, communities and workers to thrive. We challenge the prevailing complacency, support civil society advocacy, and campaign for greater ambition and speedier climate action by steel companies internationally.

Description: This report explores the gap between the shiny claims of the world's second largest steel producer, ArcelorMittal, and the reality of their climate footprint, climate targets and decarbonisation pathways.

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