

# Sustainable Development Overview

February 2024



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ArcelorMittal and Vestas are partnering to produce low carbon-emissions steel which will be used in the production of wind turbine towers.

# What is driving ArcelorMittal's future growth?

## Population growth

Driven by emerging markets



## Energy transition

Steel is a vital enabler



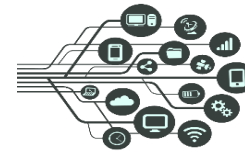
## Improving living standards

Driven by emerging markets



## Supply chain security

Driven by all markets



## New mobility systems

Driven by all markets



## Circular economy

Steel is recycled many times over



300Mt (+35%)

Ex-China steel demand growth over next decade

+100Mt (100%) India

30% growth in Brazil demand

15% growth in Europe and US

# Sustainable development – Q4 2023



## Health & Safety:

**Protecting employee health and wellbeing remains an overarching priority of the Company**

The LTIFR<sup>1</sup> of 0.92x for FY 2023 and 0.70x in FY2022.

**Performance in 2023 was severely impacted by the tragic Kostenko mine accident on October 28, 2023.**

**The Company-wide audit of safety practices by dss+ has now commenced** and will support our pathway to zero serious injuries and fatalities. Key recommendations are due to be published in September 2024

## Decarbonization:

**DRI/EAF projects are progressing through FEED:**

- **Spain (execution):** Signed contracts for new 1.1MT EAF at Gijón; will decarbonize the Longs business allowing production of rails and quality wire rods
- **France (FEED):** Letter of Intent signed with ESF to supply low carbon emissions power for our key French operations; subject to final approvals of DRI/EAF projects

**AMNS India Climate Action report<sup>2</sup>:** Targeting a 20% reduction in emissions intensity by 2030 (from 2021 levels)

**Renewables progressing:** Brazil (554MW), Argentina (130 MW) and India (1GW)

## Low Carbon Steel:

**XCarb® of products gaining established market presence**

Our range of low-carbon emissions solutions is being adopted by customers across many end use segments. Most recent examples include

- Vestas: XCarb® recycled and renewably produced heavy plate steel to an offshore wind farm, Poland
- Schneider Electric: XCarb® recycled and renewably produced steel for its electrical cabinets and enclosures

**Broadening range of products for XCarb® recycled and renewably produced**

**Focussed on creating sustainable value**

# Health & Safety



# Determined to reach zero harm: 3<sup>rd</sup> party group-wide safety audit commenced

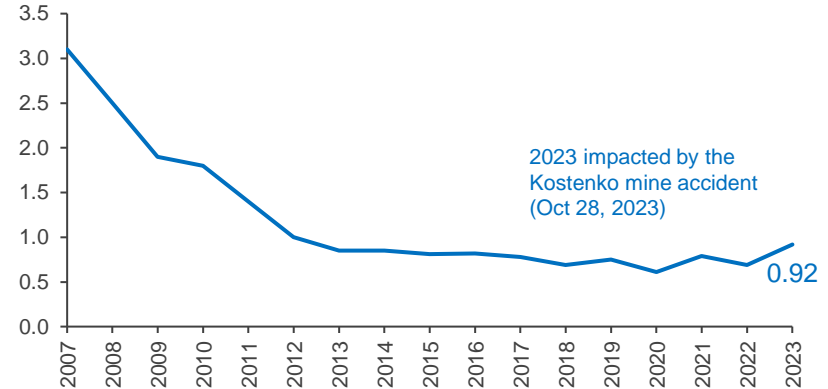
- **Company-wide audit of safety practices by dss+ launched.** Key recommendations to be published in September 2024. The audit will cover:

- Comprehensive Fatality Prevention Standards (FPS) audit for the 3 main occupational risks (crushed by vehicle, crushed by moving machinery & fall from height) leading to serious injuries and fatalities
- Expert input into the CTO-led process risk management safety system that will include audits of its highest priority countries and assets (including strategic JVs)
- Assessment of all health and safety systems, processes, structures, capabilities; governance and assurance processes

- **2023 Health & Safety results:**

- LTIFR<sup>1</sup> of 0.92 for FY 2023 → Performance in 2023 was severely impacted by the tragic Kostenko mine accident on October 28, 2023

## Group Lost Time Injuries Frequency rate<sup>1</sup>



**ArcelorMittal employees are united in their determination to become a zero severe injury and fatality workplace.**

# 3<sup>rd</sup> party group-wide safety audit: Supporting progress to zero harm

Work has started on the company- wide audit of safety practices by DSS+ which will support our pathway to zero harm. Key recommendations are due to be published in September 2024 and the audit will cover:

## Fatality Prevention Standards Audit – All industrial sites globally<sup>1</sup>

- Audit prep: Site Gap assessment
- On-site assessment
- Audit reporting: Site owned improvement plan & identification of system enhancement

## Process Safety Group Audits – Selected priority sites

- Audit prep: Support technical team on process audit
- On-site assessment: Applying audit risk based diagnostic approach
- Audit reporting: Risk containment/ action & system enhancements

## Safety & Risk Management Strategy – Organisational Health & Safety Review

Conduct corporate level diagnostic (H1 2024):

- Safety strategy & objectives
- Management system
- Strategy, leadership & Governance
- Safety performance reviews & audit
- Capability development (critical roles & competencies)

## Recommendations Report (September 2024)

# Decarbonization



# Leveraging strengths to lead the market in low-emissions steel solutions



## Strengths & advantages:

- Existing EAF footprint → 36 EAFs in the group (including JVs)
- Existing DRI capabilities → we are the world's largest DRI producer
- Innovation → R&D capabilities supporting "smart carbon" steel making technologies; announced plans to build industrial-scale direct electrolysis plant (Volteron™)
- Diverse operations → unique scale provides access to options and opportunities

## Securing resources:

- 1700MW renewable energy projects; Argentina (130MW), India (1GW; completion 1H'24) and Brazil (554MW; completion 2025)
- Three scrap recycling businesses acquired in UK/Europe with combined collection capacity of ~1.0Mt
- Accessing high quality DRI through acquisition of Texas HBI and organic investments (Canada DRI pellet conversion project, Serra Azul pellet feed)

## A strong market presence:

- XCarb® products gaining an established market presence
- Our range of low-carbon emissions solutions is being adopted by customers across many end use segments. Most recent examples include
  - Vestas: XCarb® recycled and renewably produced heavy plate steel to an offshore wind farm, Poland
  - Schneider Electric: XCarb® recycled and renewably produced steel for its electrical cabinets and enclosures

## Decarbonization projects progressing:

- **DRI/ EAF projects** across Europe and Canada progressing through FEED:
  - Contract signed with industrial engineering company for the new EAF in Gijon (Spain);
  - Letter of Intent signed with EDF for long-term supply of low-carbon electricity to support our project at Dunkirk (France); subject to final approvals of DRI/EAF projects
- **Carbon Capture and Usage, Ghent:** 1st industrial production of ethanol and bio-coal (from waste-wood) successfully used in the blast furnace

A capital efficient strategy focussed on cost position, ensuring long-term competitiveness and an acceptable return on the capital to be invested



# Decarbonization DRI EAF Projects

- Plans submitted for integrated sites in France, Germany, Belgium, Spain and Canada. DRI EAF projects progressing through FEED Stage which will confirm implementation schedule, final budget and the viability of the projects
- Engaging with country Governments to provide greater visibility on energy costs and capital costs to enable these projects to move to the next phase of development

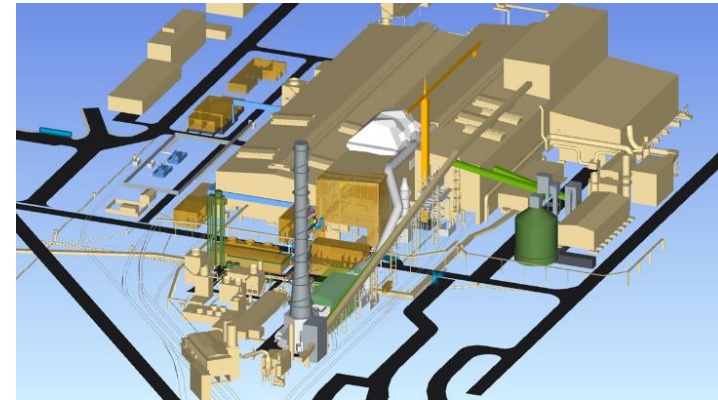
## Key 4Q'23 updates

### Dunkirk

- 2.5Mt DRI & 2 EAFs, replacing 1 blast furnace
- Letter of intent signed by EDF for long- term supply of low- carbon electricity
- Successful completion of pre-FEED (front- end engineering design) stage last year
- Completion of FEED expected later this year

### Gijon

- 1.1Mt EAF (expected in H1 2026)
- Contract signed with industrial engineering company, Sarralle
- EAF will produce low carbon- emissions steel for the long products sector (rails and wire rod), previously made via the blast furnace route



New Electric Arc Furnace in Gijón

# Strategic Carbon Capture in Practice

- Developing strategies and capabilities to harness carbon capture across ArcelorMittal Group
- Working with partners around the world to enable Carbon Capture projects to support ArcelorMittal facilities

## Steelanol (Carbalyst) demonstration plant, Ghent

Capture and convert carbon monoxide from blast furnace gas into ethanol using LanzaTech's carbon biorecycling process

- Construction and commissioning complete
- Industrial ethanol produced – Q4 2023
- Ramp up of production in 2024 (capacity 80mn litres)
- Adopt PSA<sup>1</sup>- capture of BF gas CO<sub>2</sub>



## 3D DMX™ pilot demonstrator, Dunkirk

Capture and storage of blast furnace gas for transport and storage

- Process reduces the energy intensity of CO<sub>2</sub> capture by using heat-recovery methods, as well as a patented demixing solvent
- Steady operation with high capture rates have been demonstrated
- Detailed testing continues in 2024



## Mitsubishi Heavy Industries Engineering Carbon Capture pilot, Ghent

Multi- year trial to test Carbon Capture on steel making process (blast furnace, hot steel mill & Direct Reduced Iron plant)

- Project is on schedule
- Phase 1 (Ghent): Separating and capturing CO<sub>2</sub> top gas from the blast furnace



# Securing Decarbonization resources

## Renewable energy a key 'resource' for decarbonized steel making

### Argentina

(4Q 2023)

- \$0.2bn JV with PCR; first hybrid solar and wind energy project in Argentina
- >30% of Acindar's electricity requirements by 2024
- 112.5MW complete in 2023; 130MW total

### India

(1H 2024)

- \$0.7bn investment combining solar and wind power (975MW)
- AM Green Energy is expected to provide over 20% of AMNS India's Hazira plant electricity requirements
- On track for completion 1H'24

### Brazil<sup>1</sup>

(2025)

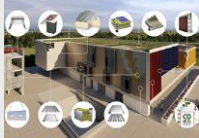
- 554MW wind power project JV with Casa dos Ventos
- The JV is expected to provide 38% of ArcelorMittal Brasil's future electricity needs in 2030
- Construction started 4Q'23; completion expected in 2025



# Sustainable Solutions – growing niche businesses in support of a decarbonized world

## Construction solutions:

- Inspiring the construction sector to build in smarter ways to deliver outstanding performance and reduce the carbon footprint of buildings.
- Product offerings include sandwich panels (e.g. insulation), profiles, turnkey pre-fabrication solutions, etc.



## Projects:

- Providing high-quality & sustainable steel solutions for energy projects
- Supporting offshore wind, energy transition and onshore construction
- Product range includes plates, pipes & tubes, wire ropes, reinforced steels



## Industeel:

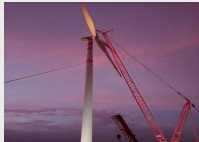
- EAF based capacity: High quality steel grades designed to meet demanding customer specifications (e.g. XCarb® for wind turbines)
- Supplying wide range of industries; energy, chemicals, mechanical engineering, machinery, infrastructure, defence & security



Niche businesses providing vital added-value support to growing sustainable related applications from a low-carbon, capital light asset base

## Renewables:

- ArcelorMittal is investing in renewable energy projects, a vital decarbonization resource
- 1GW wind + solar project in India, due to be commissioned in 2024



## Metallics:

- ArcelorMittal is investing and developing its scrap recycling and collection capabilities
- Company established ~1.0Mt of steel scrap processing capacity through acquisitions in UK, Germany and Netherlands



## Distribution & service centers:

- European leading steel services processor including slitting, cut-to-length, multi blanking, and press blanking
- Operates through an extensive network
- Provide tailor made solutions
- Increasingly low carbon emissions distribution through use of EV Trucks



# India & JVs: Update on Decarbonization plans

ArcelorMittal generated \$1.2bn of JV and Associates income in 2023 (vs. \$1.3bn in 2022)<sup>2</sup>. 3 key investments account for >75% of the overall income is generated:



## **AMNS India (60% equity share): Decarbonising India's steel intensive economic development**

- AMNS India is currently doubling its capacity to 15.6Mt by 2026 with HAV sales mix
- Targeting 20% emissions intensity reduction by 2030 (vs 2021)<sup>1</sup>
- Three key levers for decarbonization to 2030: renewables, increased scrap use; and operational improvements
- By 2021, AMNS India had reduced CO<sub>2</sub> emissions by nearly 33% (vs. 2015) = Lowest emissions intensities of integrated steel producers in India

## **VAMA (50% equity share): China's growing share of global automotive manufacturing**

- VAMA's expansion (to 2Mt capacity) enables VAMA to meet growing demand of high value add solutions for the Chinese automotive / EV market
- Targets to reduce emission intensity (scope 1 and 2) to 0.1 CO<sub>2</sub>/t by 2030, a 50% reduction from 2018 baseline. Long-term target aims to achieve carbon neutrality by 2050
- Main levers aimed at meeting the 2030 target: reduce natural gas consumption and increase share of supply of renewable energy through the development of a Photovoltaic power plant to be completed in August 2024

## **AMNS Calvert (50% equity share): positive outlook for US low carbon emissions steel demand**

- AMNS Calvert is building a 1.5Mt EAF, due for completion 2H'24. This will replace higher intensity steel, and will supply high quality steel for automotive, pipe and tube, energy industries and construction segments.
- Option to add a second 1.5Mt EAF at lower capex intensity

Note: We have no operational control over the JVs; 1. Published report: The carbon target is based on scope 1, 2 and limited scope 3 which is in line with the World Steel Association approach; 2. Excludes impairments

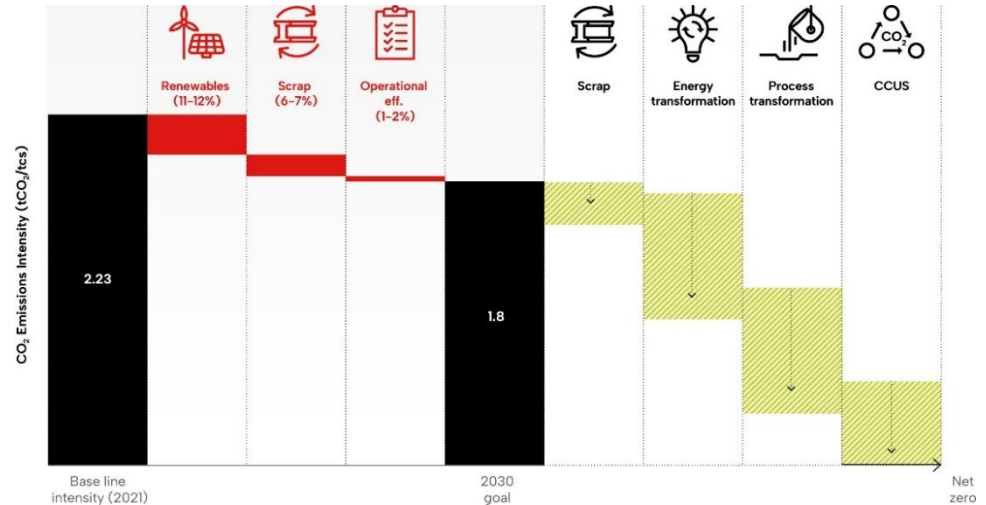


# AMNS India Targeting 20% Emissions Intensity reduction by 2030

## A pivotal moment for Indian Steel:

- **A decade of growth:** 2x growth in steel production capacity this decade, to drive India's development.
- **3 levers to lower AMNS emissions intensity by 20% by 2030 (vs 2021):**
  - **Renewables:** Mid- 2024 >20% of Hazira's plant electricity needs to come from wind and solar → aim 100% grid renewable electricity by 2030;
  - **Increased scrap use:** 3- 5% of total steelmaking capacity in the EAF → aim 10% by 2030 through new and enhanced sourcing and processing facilities; and
  - **Operational improvements** e.g. using best available BF- BOF processes and technologies
- **Partnering across the system** to accelerate longer term decarbonization in key areas e.g. CCUS and Green H2 supply

For full details see: [AMNS India Climate Action Report 2024](#)



# ArcelorMittal's XCarb<sup>®</sup> offer of low carbon emissions steel solutions

## XCarb<sup>®</sup>

Green steel certificate

**2020:** Launch of XCarb<sup>®</sup> green steel certificates

- For steel made in blast furnace route
- Based on mass balancing
- CO<sub>2</sub> savings from reducing fossil coal
- Available in all products and grades

## XCarb<sup>®</sup>

Recycled and renewably produced

**2021:** Launch of XCarb<sup>®</sup> recycled and renewably produced

- Physical decarbonised steel made in electric arc furnace
- Using 100% renewable energy
- High recycled content

## XCarb<sup>®</sup>

Brand to be developed

**By 2030:** New XCarb<sup>®</sup> products to be launched

- Physical decarbonised steel
- Based on direct reduced iron technology

More low-carbon emissions XCarb<sup>®</sup> solutions will be launched as new decarbonization technologies are deployed



# How XCarb® helps our customers achieve their sustainability goals

Customers across a range of industries are already benefitting from XCarb® solutions



*"We call this Electricity 4.0, meaning the integration of digital technologies with electrification for sustainability. In this effort, we recognise the power of partnerships to make an even greater impact on our journey to net zero."*

Rohan Kelkar  
Executive Vice President,  
Power Products Division,  
Schneider Electric

## Schneider Electric

**Schneider Electric partners with ArcelorMittal on low-carbon steel to reduce the environmental impact of its products**

ArcelorMittal's XCarb® recycled and renewably produced steel will be used by Schneider Electric to manufacture its electrical cabinets and enclosures

Produced at ArcelorMittal's site in Sestao, Spain, XCarb® recycled and renewably produced steel is made using a very high proportion of recycled steel in an electric arc furnace, powered with 100% renewable electricity. This results in CO<sub>2</sub> emissions which are close to 70% lower than the same product made without XCarb® recycled and renewably produced steel.



*"Vestas sees the partnership with ArcelorMittal and the adoption of low-emission steel as a significant lever in reducing CO<sub>2</sub> emissions within the wind industry."*

Dieter Dehoorne  
Head of Global  
Procurement, Vestas

## Vestas

**First delivery of XCarb® recycled and renewably produced to an offshore wind farm**

Vestas, the energy industry's global partner on sustainable energy solutions, has established a partnership with ArcelorMittal to launch a low-carbon emissions steel offering that significantly reduces the lifetime CO<sub>2</sub> emissions from the production of wind turbine towers.

By utilising low carbon-emissions steel in the top two sections of an offshore tower, this emissions reduction translates to a 25% reduction in emissions compared with a tower made from steel produced via the conventional steelmaking route. For an entire onshore tower, the CO<sub>2</sub> reduction is at least 52%

# Human Rights



# Human Rights: Updating our Approach

ArcelorMittal is determined to respect all internationally recognized human rights, including, but not limited to, those covered under the International Bill of Human Rights, the ILO Declaration on Fundamental Rights at Work, and implementing the UN Guiding Principles on Business and Human Rights ('UNGPs').

Our human rights progress in 2023:

- Published our updated human rights policy
- Completed a corporate saliency assessment aligned to best practice to proactively identify and prioritize actual and potential human rights risks and impacts
- Developed new human rights training for employees (focused first on high risk roles) and suppliers
- Developed and piloting a new supplier due diligence tool and strengthening our Responsible Sourcing Policy and Responsible Sourcing Code
- Committed to providing access to remedy through updating our grievance mechanism (e.g. each of our sites will be required to operate a local grievance mechanism in accordance with group level guidance).

## Human Rights Policy



ArcelorMittal (the 'Company') is committed to respecting all internationally recognized human rights, including, but not limited to, those covered under the United Nations ('UN') Universal Declaration of Human Rights, International Covenant on Civil and Political Rights, Political Rights and the International Covenant on Economic, Social and Cultural Rights, the International Labour Organization's Declaration ('ILO') on Fundamental rights at work and other relevant Conventions, the Voluntary Principles on Security and Human Rights ('VPSHR') and International humanitarian law, where applicable. ArcelorMittal is committed to proactively acting to avoid causing or contributing to adverse human rights impacts, ensuring we are not complicit in their violations by implementing ongoing processes that aim to prevent, avoid, mitigate, and remedy human rights impacts we could impose on our employees, contractors, workers within our value chain, members of communities where we operate, and any other people whose human rights may be adversely impacted by our activities.

The Company is committed to implementing good practice approaches by respecting the UN Guiding Principles on Business and Human Rights ('UNGPs'), the Organisation for Economic Co-operation and Development ('OECD') Guidelines for Multinational Enterprises, the International Financial Corporation ('IFC') Performance Standards, and other relevant voluntary conventions and Standards applicable to our operations.

To meet this commitment ArcelorMittal will:

- Comply with the rule of law, respecting regulations and agreements in the jurisdiction in which we operate.
- Implement an ongoing human rights due diligence process, actively seeking to identify and assess actual and potential human rights risks and adverse impacts in our own operations and communities, and those of our value chains and investments.
- Ensure human rights risks and impacts are integrated into our Company across all relevant functions and processes including risk management, keeping them updated periodically.
- Provide a basis to appropriate remedy when non-compliance has been identified. We will engage in, seek to provide for, or operate with business partners in, or promote processes enabling an appropriate remedy collaborating to judicial or other non-judicial legitimate processes as needed.
- Promote a safe and healthy working environment and positive safety culture. Our commitment is to work towards a goal of zero accidents, injuries, and the general well-being in the workplace.
- Ensure fair, supportive, inclusive, and equal treatment of all employees, promoting an environment where people with diverse experiences and perspectives can develop and fulfil their potential, free from abuse, harassment, violence, and discrimination in respect of employment and occupation.
- Respect and uphold workers' and contractors' right to freedom of association and the right to collective bargaining.
- Comply with all laws regarding conditions of employment including basic and over-time working hours and will abide by agreements negotiated with our employee representatives. The Company will pay competitive wages based on local market assessments, or, or above the minimum living wage.
- Collaborate and establish adequate measures to eradicate all forms of modern slavery. We do not tolerate child labour, any form of forced, compulsory, or bonded labour, human trafficking, or any other form of modern slavery within our own operations, value chains, or investments.



# Appendix

# Sustainable Development Governance

- **Board level review** of Sustainable Development progress each quarter by the Board Sustainability Committee → three independent directors, chaired by Clarissa Lins<sup>1</sup>
- Accountability for Sustainable Development is led by the Executive Vice President, Business Optimisation, reporting directly to the **Executive Office**
- The **Climate Change Panel**'s mandate is to position ArcelorMittal as a global leader on climate change and provides recommendations to the Board Sustainability Committee
- The **Sustainable Development Panel**'s role is to strengthen the company's environmental, social and governance (ESG) oversight
- Diversity & Inclusion Governance is led by the **Global Diversity and Inclusion Panel** which acts as an informed representative of the Group
- The **Investment Allocations Committee** authorises large capex projects and reviews the carbon emissions impact of all proposals
- **ResponsibleSteel and IRMA certification** program to drive strong, consistent ESG management systems across business

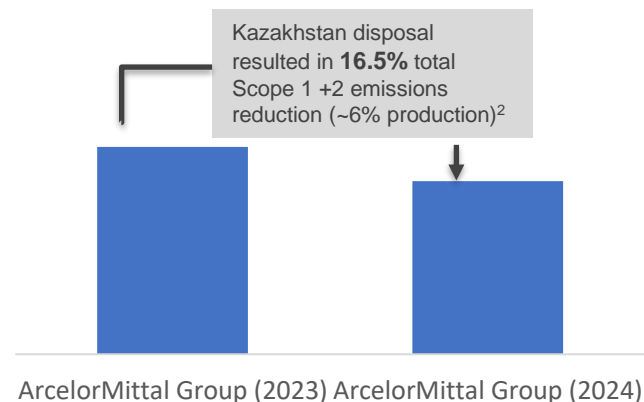


# 2024 ArcelorMittal Changed risk profile

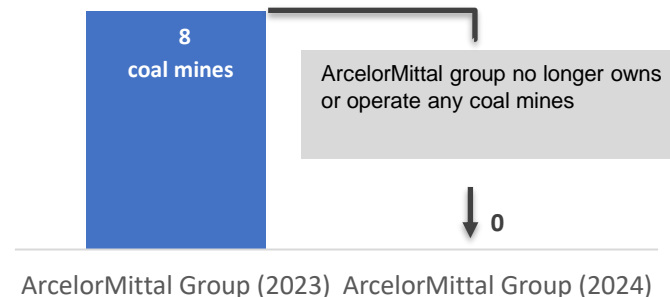
ArcelorMittal updated risk profile in 2024 vs 2023:

- **Mines:** The group no longer owns or operates any coal mines
- **Carbon emissions<sup>1</sup>:** Reduced carbon footprint with a 16.5% emissions reduction scope 1 & 2 (6% reduction in steel production)
- **Emissions of pollutants to air<sup>1</sup>:** Reduced emissions profile:
  - 46% reduction in particulate matter (ducted dust)
  - 44% reduction in Sulphur Dioxide emissions
  - 20% reduction in Nitrogen Dioxide emissions

## Reduced Carbon emissions



## No exposure to coal mines



# Key reporting updates Q1 2024



Annual Report 2022



**2023 20F**  
Expected end Feb/ March 2024



**2023 Integrated Annual Review**  
Expected end Feb/ March 2024



**Climate Action Report 3  
2024**



**New AMNS India Climate  
Action Report** published  
5 Feb 2024

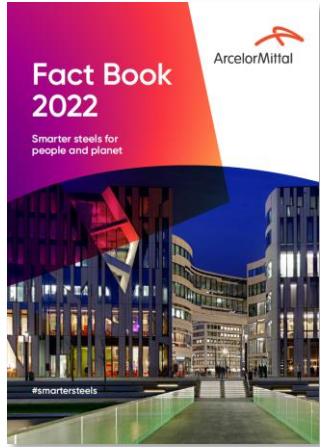


Pre-AGM 30 April





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