

Insights from

ERM Sustainable Steel Webinar Series

Webinar 1: Sustainable Steel

More than net zero and Implications across the value chain

#SustainableSteel #SteelValueChain #Sustainability #ESG #ResponsibleSteelInitiative #Lowcarbon #AsiaPacific #investors #technology #ArcelorMittal #TataSteel #ERM



Panel Members



Dr Alan Knight
Head of Sustainable Development & Corporate Responsibility, ArcelorMittal



Sanjiv Paul
Vice President, Safety Health & Sustainability, Tata Steel Ltd.



Anne-Claire Howard
CEO, Responsible Steel



Dirk Nuyens
Senior Partner, ERM



Matt Klien
APAC Low Carbon Economy Transition Director, ERM

Importance of the Steel Industry in Asia Pacific (APAC)



Generating a turnover of **US\$ 1 Trillion**

Steel is the world's largest materials industry, generating US\$ 1 trillion turnover.



World's Top **Steel Producers**

The world's top steel producing countries are China, Japan, India, and the US. China holds the largest share of crude steel production globally.



APAC hosts **17 of Top 20**

17 of the top 20 global steel producers are based in APAC.



Demand has grown **50% more**

Demand for steel in countries such as China and India is approximately 50% more than European countries, such as Germany and the UK.



Projected CAGR **8% by 2023**

The construction sector accounts for more than 40% of the world's steel demand. APAC is expected to dominate the construction market with a compound annual growth rate (CAGR) of over 8% by 2023. Much of this construction is strongly linked to the infrastructure requirements necessary to support population growth.



Growth expected in the Asian **Automotive Industry**

Growth is also expected in the automotive industry in Asian countries, including Japan, Korea, China, India, Malaysia, Thailand, Indonesia, and Vietnam.

POLL 1 How important is it for the Steel Industry to address ESG issues? **84%** voted very important

Why are Environmental, Social and Governance (ESG) matters important for this industry?

- The steel sector accounts for 7% of global CO₂ emissions with 1.85 TCO₂ per ton of steel. The Low Carbon Economy Transition pressure poses a significant risk to business models for this sector.
- Customers are pushing for more supply chain transparency, both upstream and downstream of manufacturers and particularly within APAC.
- The investments needed to decarbonise steel are massive, costing up to several billion dollars for large industry participants and impacting the traditional business cycles.
- As a result steel makers are actively searching for new technology to lower their carbon footprint, such as carbon avoidance, capture and storage, use of hydrogen and green electricity.

What are the key ESG drivers within the steel value chain?

- ◉ ESG issues for the steel industry are more than net zero carbon targets. Safety is still a massive challenge, even after companies invest large amounts in behavioral safety & leadership programs, with fatalities at mining sites.
- ◉ Socially: human rights, diversity, and inclusion are yet to be achieved.
- ◉ Environmentally: dust emissions, and water resources and efficiency are other issues to address.
- ◉ These are the factors that the financial community use to assess the performance and commitment of the metals (incl. steel) & mining companies.
- ◉ We see that many companies are treating the social issues as important as carbon issues.



POLL 2

Are you aware of the ResponsibleSteel Initiative?

Over 90%  are aware

The ResponsibleSteel Initiative:

- ◉ ResponsibleSteel Initiative is a global multi-stakeholder initiative to certify steel to a reputable, recognised and robust standard with 100 members and associates globally. ResponsibleSteel Initiative was developed closely with other relevant standards, partnering with the Initiative for Responsible Mining Assurance and other mining associations to support alignment of industry standard and provide a common platform for engaging with stakeholders.
- ◉ ResponsibleSteel Initiative's key mission is to facilitate the industry to achieve net zero carbon emissions; enhance responsible sourcing, producing, and use; and increase recycling and circular economy. It covers the full ESG spectrum and the entire value chain (from mine to customers).
- ◉ The ResponsibleSteel Initiative Standard was published in November 2019 after public consultation with diverse stakeholders including NGO.
- ◉ In addition to Carbon and Climate Change, the ResponsibleSteel Initiative focuses on broader ESG issues, such as occupational health and safety, labor rights, human rights, local communities, stakeholder engagement noise, waste effluents, water stewardship and closure/decommissioning.
- ◉ The ResponsibleSteel Initiative has been adopted across the steel value chain from manufacturers (ArcelorMittal, BlueScope, Tata Steel, Hyundai Steel), miners (BHP, AngloAmerican) to consumers (BMW, Daimler, Lendlease).

What are ResponsibleSteel Initiative's plan to engage more in the APAC region?

- ◉ APAC is a key region, with Hyundai Steel from South Korea, Tata Steel from India, and Bluescope Steel from Australia on board. While Japan and China are not involved yet, ResponsibleSteel Initiative wants to engage more with those countries. ResponsibleSteel Initiative welcomes suggestions and support from customers, producers and the mining industry to join the initiative.

Why did ArcelorMittal and Tata Steel join the ResponsibleSteel Initiative? Why is this so important?

ArcelorMittal:

- ◉ In 2015, our customers in the automotive sector started asking deep questions about the ESG performance (such as human rights, and environmental and social issues). ArcelorMittal sees the potential issues that different customers were requesting different standards & questions. ArcelorMittal was one of the founding members of ResponsibleSteel Initiative together with Bluescope Steel, because there was no universal sustainability steel standard to follow and thought it would be good to help create a standard for the industry.
- ◉ Now financial institutions are looking for reassurance that ESG issues are addressed.
- ◉ For ArcelorMittal's own governance (G of ESG), it is important to have a standard for hundreds of sites.
- ◉ ResponsibleSteel Initiative is the only standard in the sector covering all ESG issues (not only climate issues).
- ◉ The ResponsibleSteel standard has provided tangible and demonstrable benefits at the facility level which have made it a valuable tool for Facility Leaders.

Tata Steel:

- 👁 Tata Steel is the 1st Asian company to join the ResponsibleSteel Initiative.
- 👁 Sustainability sits at the heart of Tata Steel. They recognize ResponsibleSteel Initiative is the industry's first and only global multi-stakeholder standard that helps members achieve sustainability goals.
- 👁 Growing demand from customers, governments, NGOs, and more importantly, the investment community on ESG and sustainability performance.
- 👁 Tata Steel sees the ResponsibleSteel Initiative helps members to improve sustainability in the steel supply chain from sourcing to producing, which may help Tata Steel distinguish themselves from other companies.

What are the panelists' views on green and sustainable steel, especially for GHG emissions?

- 👁 There is no clear definition on what green steel/low carbon steel means in the sector. The industry should look at social issues in addition to carbon factors.
- 👁 Economically-feasible technology is not yet available to fully decarbonize the industry.
- 👁 Not all companies and countries have committed carbon targets. Hopefully the Conference of the Parties (COP) meetings will improve sustainability and align the industry on 1.5°C targets.
- 👁 There is a huge market in sustainable steel, while carbon footprints now have to address Scope 3 emissions (GHG emissions from suppliers and customers).
- 👁 We should ask the industry: How do you incentivize primary steel makers that invest in the energy transition?
- 👁 We need a platform like the RSI to create consensus among the entire stakeholder base.



POLL 3

Will markets pay a premium for sustainably produced steel?

60%



said yes

Do you think that the market would be willing to pay a premium for a sustainably produced steel?

- 👁 Making steel with low carbon will cost more. Who will bear the cost? Customers or with policy mechanisms?
- 👁 We need policy makers to support the industry: How do we make low carbon steel more competitive than the traditional way?

Governments and industries responded rapidly to COVID-19, where billions have been spent. Can you see a time when governments and industries will collaborate with financial institutions to accelerate the transition to Zero Carbon steel investment? What timeframe might this be?

- 👁 It is already happening. For example, in Europe, lots of money is used to drive the low carbon transition. There is a lot of focus on Hydrogen, as a new energy. Also, partnerships are being formed, like Tata Steel has joined a partnership for hydrogen production and carbon capture technology.
- 👁 In APAC, lots of companies are joining together, e.g. the mining and steel industry association in China is focused on new technology for decarbonizing steel and carbon segregation. This is being pushed by the government, finance, and the industry.
- 👁 This will be a 10-20 year journey and huge investments are needed.

How long do you feel it will take for technology to have a meaningful impact on the CO₂ emissions of the industry?

- 👁 Hydrogen is one of big solutions in the industry, but it takes time to turn the industry and the manufacturing processes into green hydrogen.
- 👁 We expect a pivot towards hydrogen near the end of decade, and later the transitional shift to green hydrogen will happen in the 2030s.
- 👁 In anticipation of this hydrogen transition, ArcelorMittal is already looking into using the smart carbon route through biomass, carbon capture and storage in the existing blast furnaces. This is a low cost investment that would result relatively quickly into carbon negative steel (using the Beck's model) as part of the transition to the hydrogen solutions.

About the ERM APAC Sustainable Steel Insight: To explore the significant role of the steel industry in the sustainability of many sectors and the increasing expectations of responsibly sourced and produced materials, ERM is holding a series of webinars to explain and explore the opportunities and challenges Responsible Steel presents for companies that produce or use steel in their operations.

This insight captures the highlights of the 1st session of the Sustainable Steel Value Chain Webinar Series: More than net zero and implications across the value chain on 23 March 2021.

Acknowledgements:

ERM:

Alan To, Freddie Hospedales, Magda Fimmano and Parishrut Tripathi

For further details, please contact:

Matthew Klein

Senior Partner, Low Carbon Economy Transition Director, Asia Pacific, ERM

Matthew.Klein@erm.com

The Business of Sustainability

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