



Opening credits: the transition stocktake

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Why this conversation matters now



Steel is everywhere in our lives and fundamental to a sustainable future.

Whether it is future energy and transport systems, protection from the impacts of natural disasters, climate-resilient infrastructure and buildings, or low-carbon manufacturing and agriculture, **steel is at the heart of delivering low-carbon solutions** and mitigating the effects of climate change.



Keeping track of our emissions

In 2024, on average, **every tonne of steel produced led to the emission of 2.18 tonnes of CO₂e (scope 1, 2, and 3).**

In the same year, 1,886 million tonnes (Mt) of steel were produced, and total emissions from our sector were of the order of 4.1 billion tonnes CO₂e (75% of which are direct emissions).

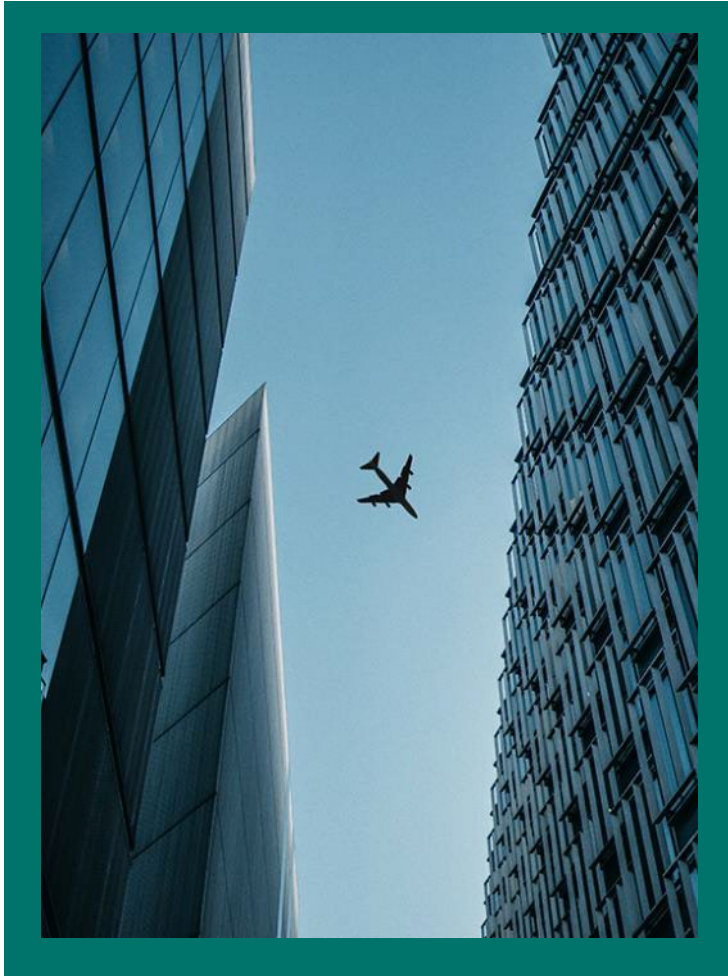
These emissions represent 7% - 8% of global anthropogenic GHG emissions.



■ The context has changed

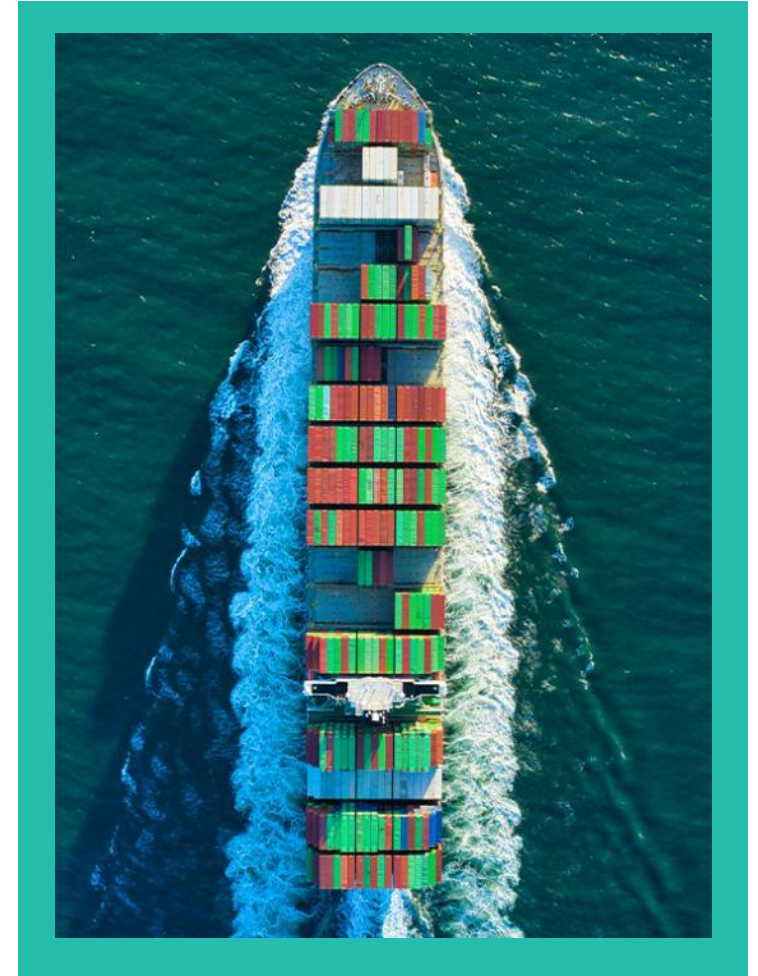


Climate action now sits alongside energy security, resilience and competitiveness



Climate goals remain essential and it is a global challenge, but

- Industrial policy priorities are evolving
- Different regions are responding differently
- Decarbonisation pathways are becoming more region-specific



Some assumptions have become more difficult

- Slower than expected hydrogen build-out
- Infrastructure constraints
- Cost and financing pressures
- Uneven policy support
- Delays or rephasing of some projects

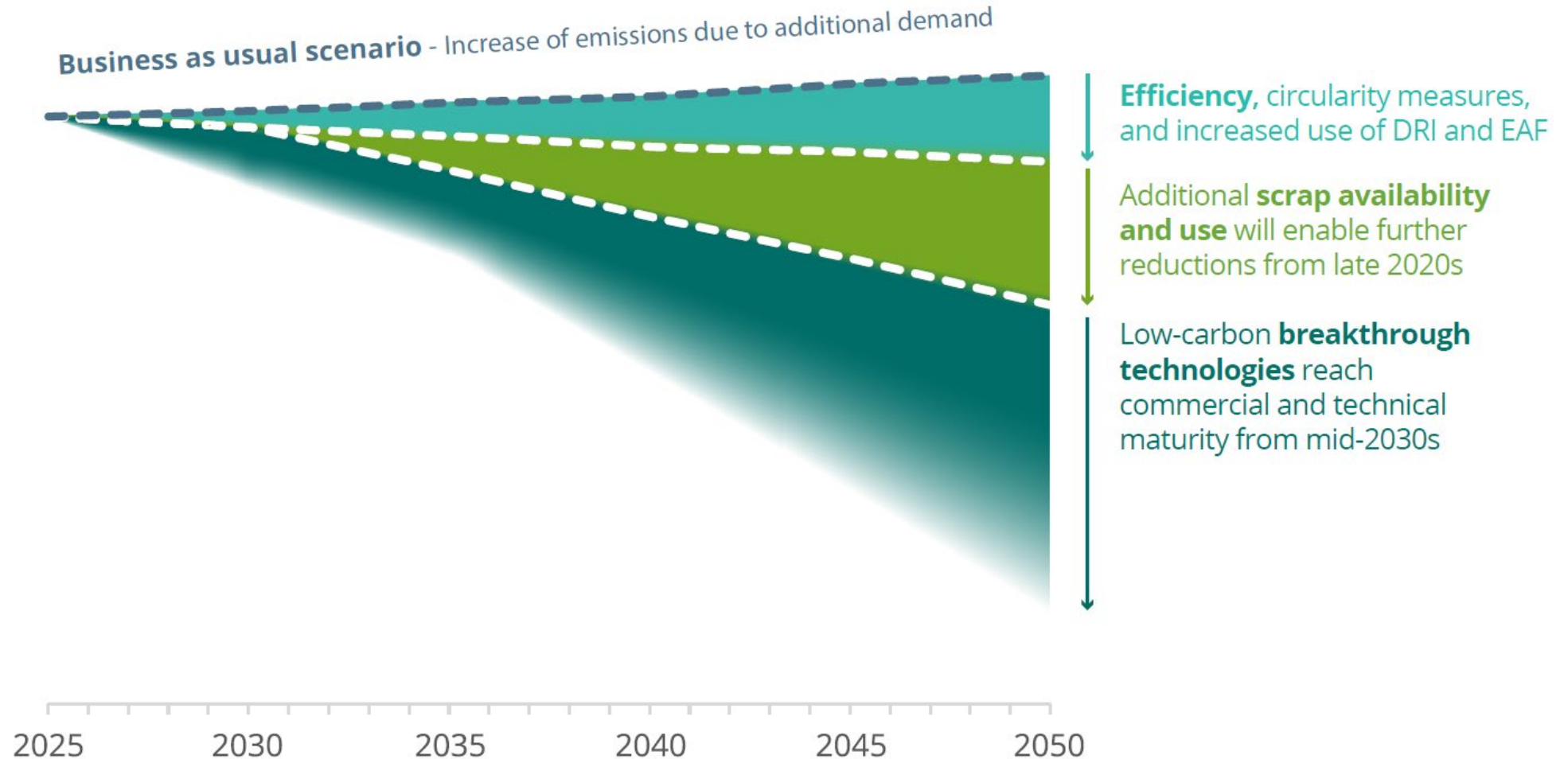


■ The transition is becoming physically real



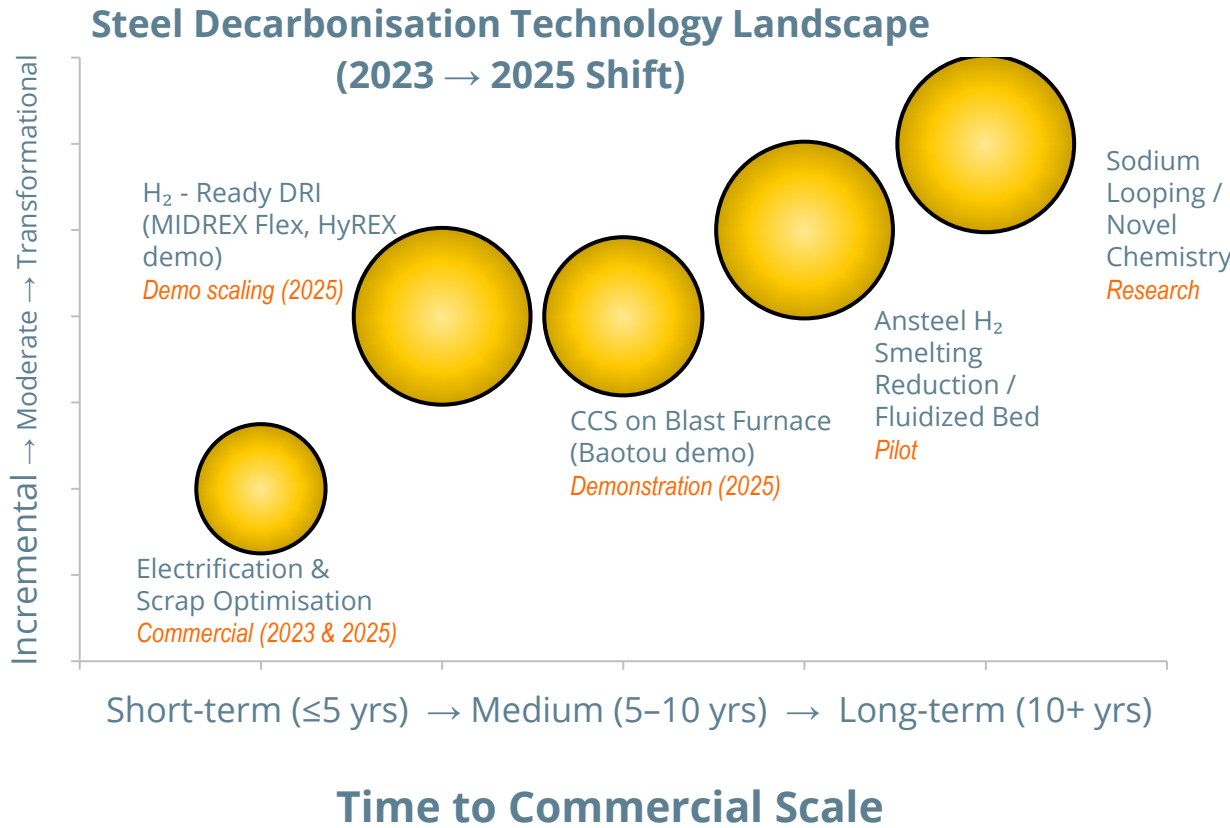
Taking action to reduce our emissions

Estimated GHG emission reductions from 2025 to 2050 per lever



Portfolio Maturity Map

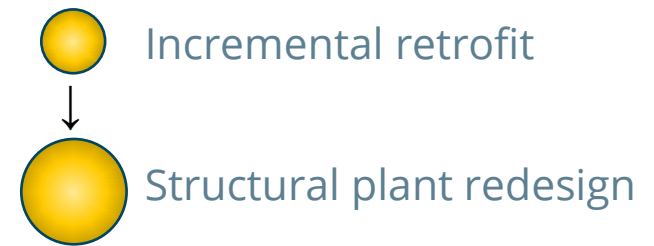
Emissions Reduction Potential



Observations

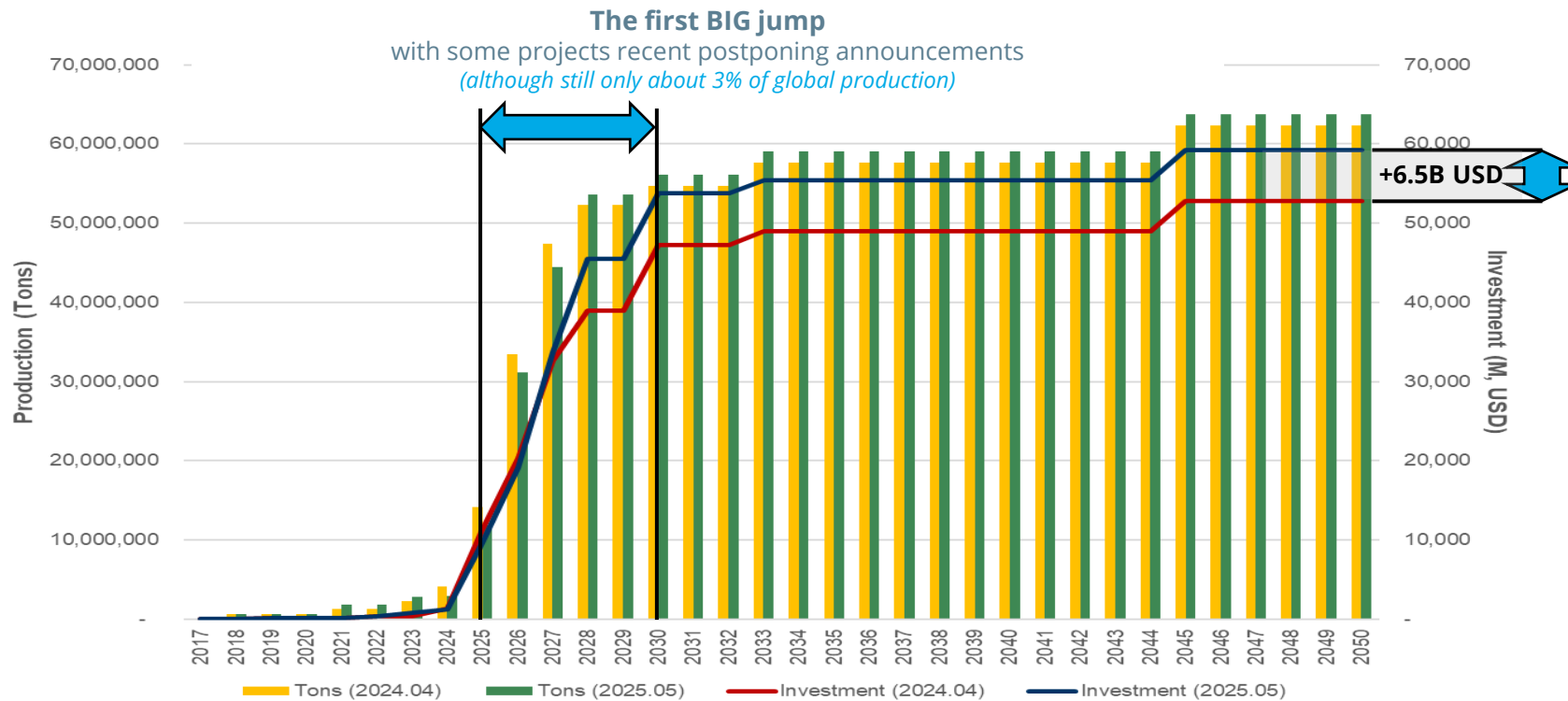
- 2023 = Technology validation
- 2025 = Scaling pathways emerging
- 2030 constraint = Energy + infrastructure, **NOT TECHNOLOGY**

Legend:



Industry's decarbonisation impact

Green steel tracker forecast, in annual tonnes crude steel (cap)

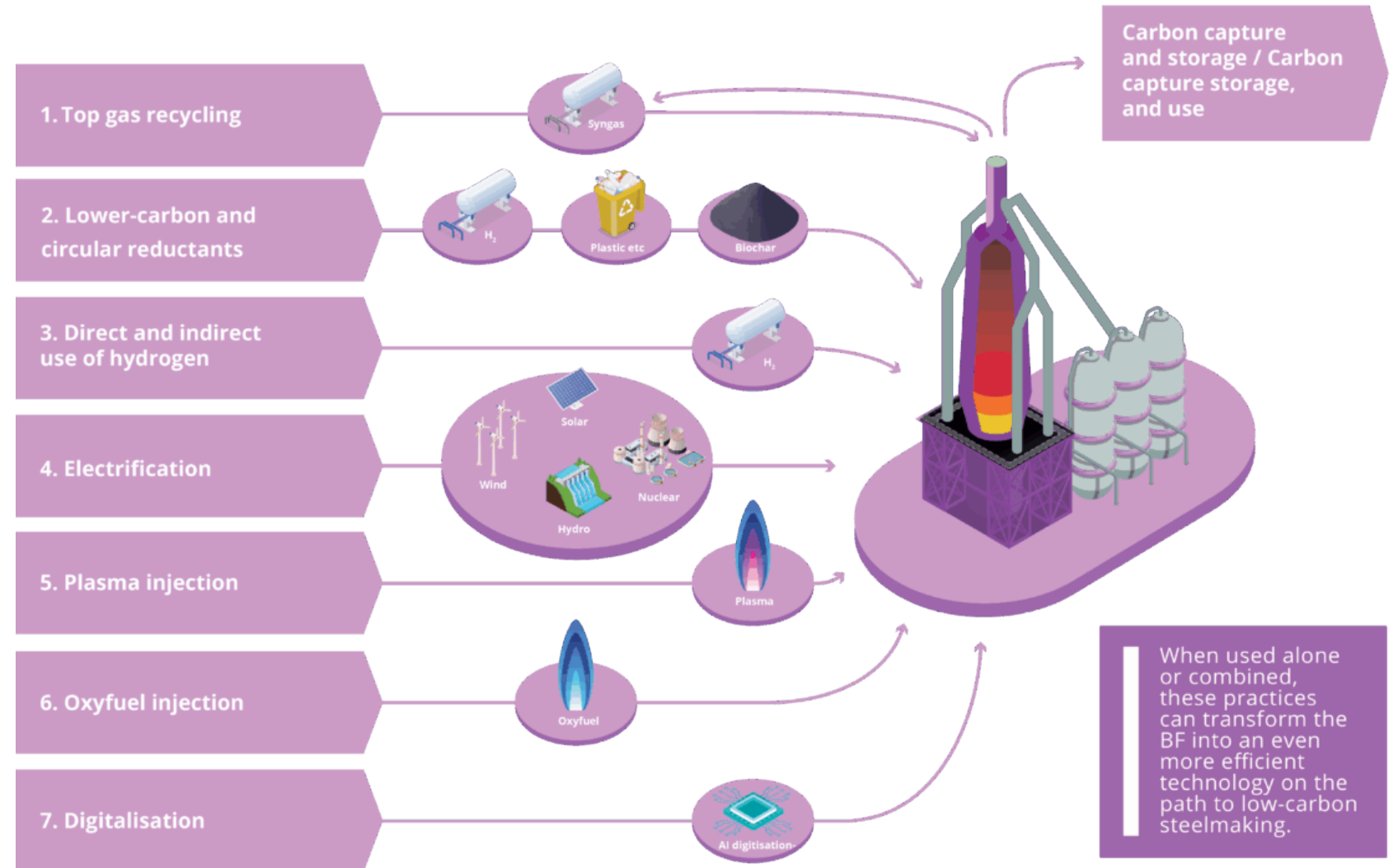


Source : LeadIT's Green Steel Tracker (2025), active projects only

The next-level blast furnace

The BF remains the predominant technology for reducing iron ore today and is expected to be a key component of the global steel industry for years to come.

Many innovative practices are being developed to significantly reduce their carbon footprints.

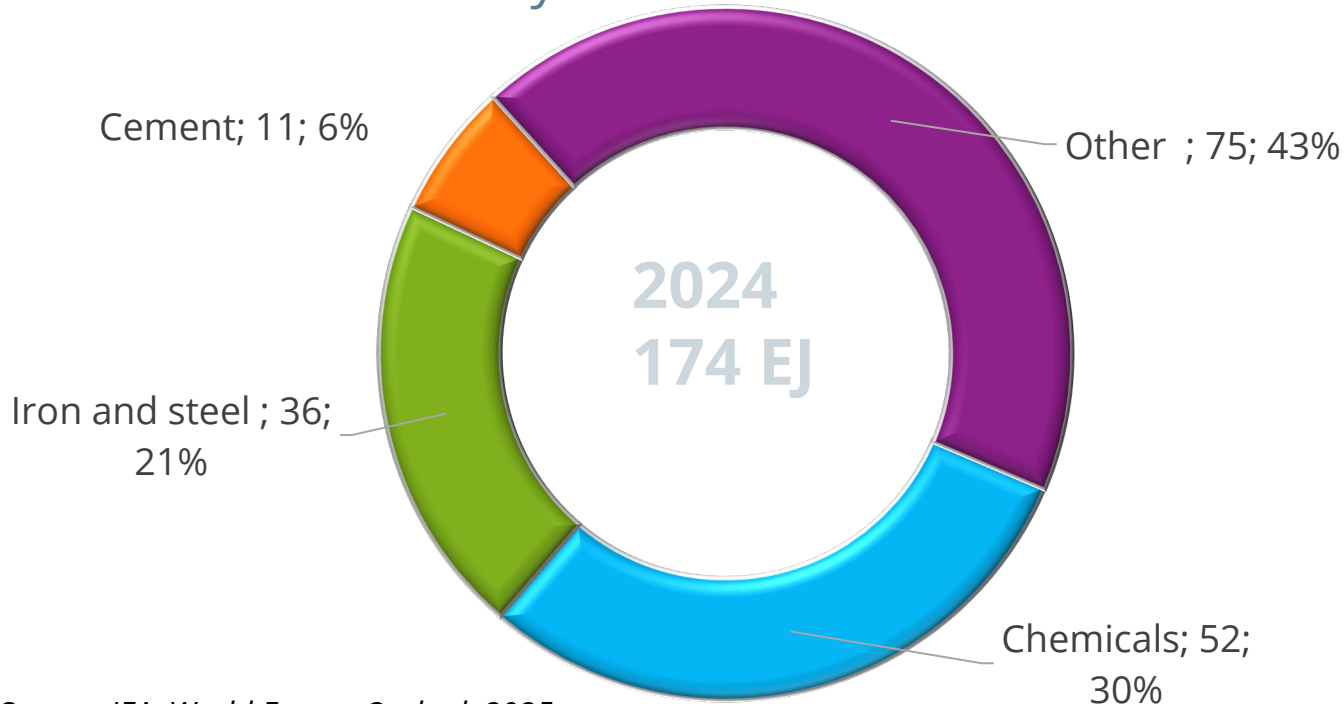


■ Critical enablers

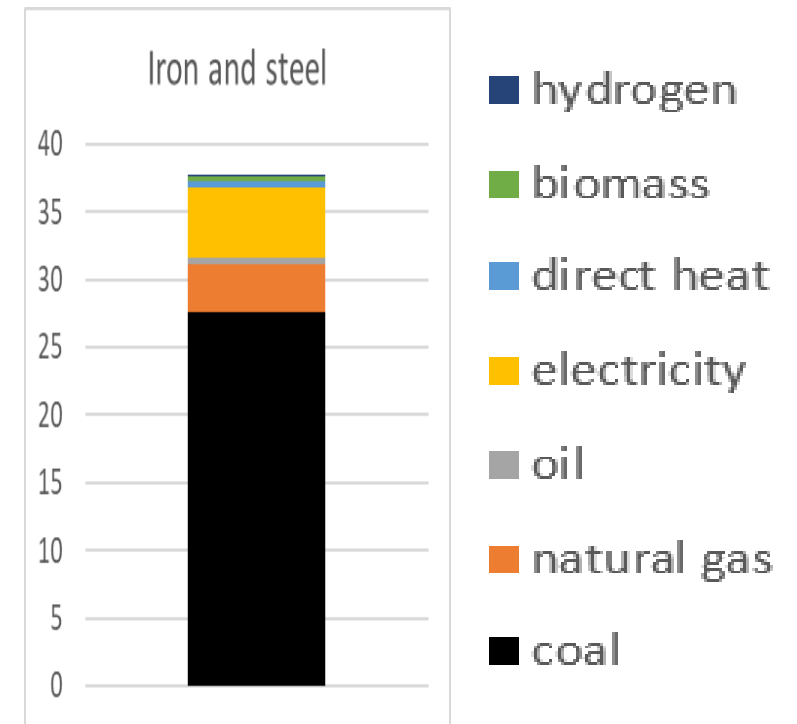


Major industrial sectors require high heat processes and use fossil fuels as feedstock

Breakdown of industry final energy consumption by sub-sectors – 2024



Source: IEA, World Energy Outlook 2025



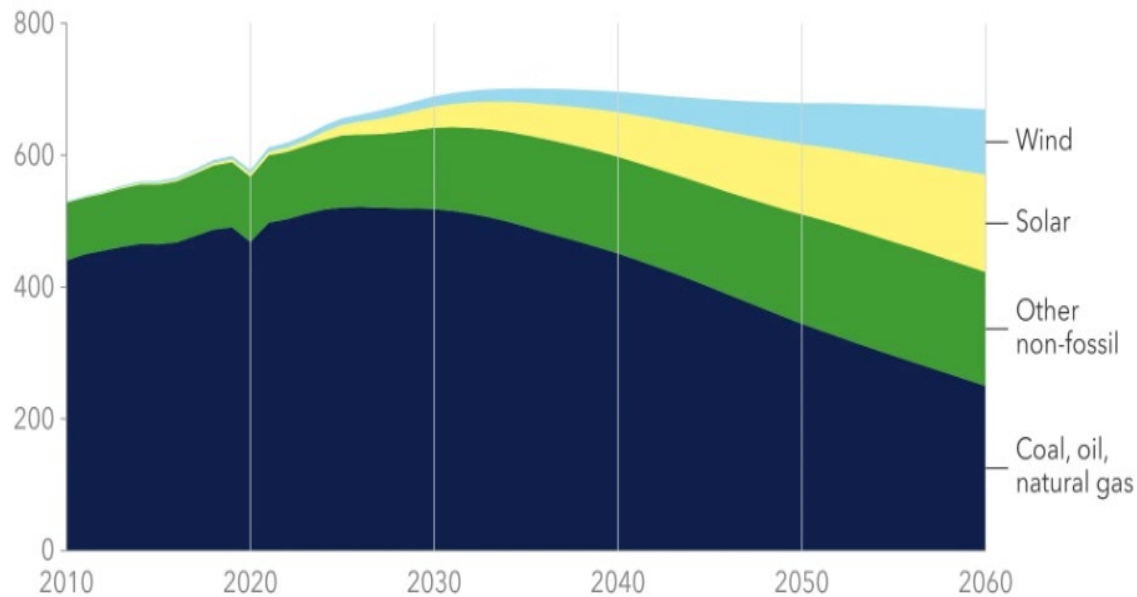
Source: DNV Energy Transition Outlook 2025. Estimates for the year 2024. Units EJ.

3 hard to abate sectors, iron and steel, chemicals and cement, account for almost 60% of industrial energy demand

Primary energy supply to level off from the 2030s, while non-fossil steadily displaces fossil energy in primary energy mix...

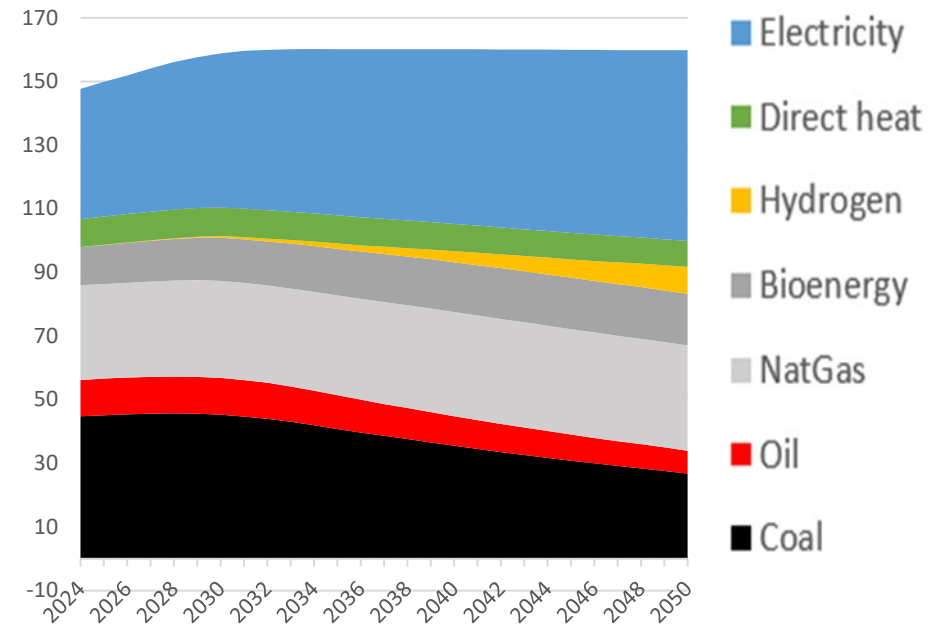
World primary energy supply (EJ/yr)

DNV Energy Transition Outlook 2025



Source: DNV Energy Transition Outlook 2025

Industry sector's energy demand by carrier



Source: DNV Energy Transition Outlook 2025

Low-carbon energy will remain scarce – securing supply is a key decarbonization risk.

Accounting standards are evolving

Common goal of harmonization and interoperability

Regulatory requirements

ETS and BCA

Products and demand

Expanded interest

New actors

Trade

Need for alignment

Transparency

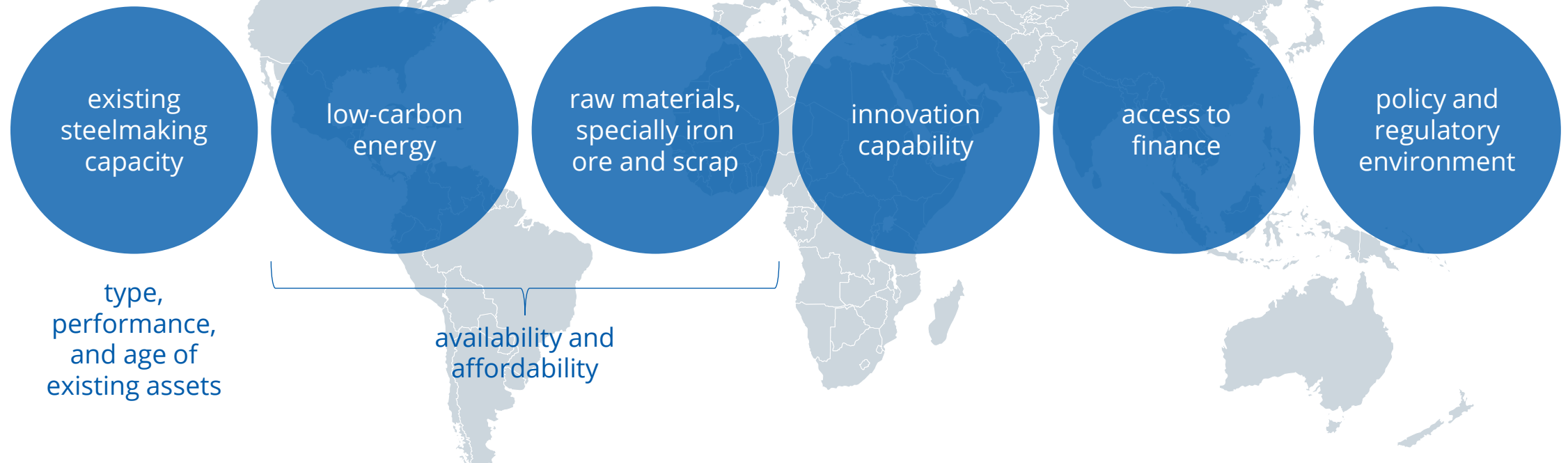
Common frameworks

Decarbonisation will not follow the same path everywhere



A wide variety of conditions shape pathways

From global to regional cost profiles



As the steel industry shifts from globally traded coal to locally priced electricity, regional cost differences will grow, and **affordable electricity will be crucial for global competitiveness.**

■ The ecosystem is changing

- New partnerships and joint ventures
- Expanding role of supply chain actors
- Green iron and changing supply chains
- Scrap and circularity investments
- New business models and new actors
- Demand-side policies emerging

A climate conversation with the steel industry





The questions shaping this Open Forum

- Physical risk and resilience
- Regional pathways
- Carbon costs
- Methodologies and definitions
- Chain of custody and credibility
- Bottlenecks to scale and implementation

An aerial photograph of a scenic landscape. A paved road curves through a dense, green forest on a peninsula. The road starts from the left, curves around a small bay, and then continues down the length of the peninsula. In the background, a large body of water stretches across the horizon under a clear sky. A small white car is visible on the road in the lower center. The text 'The central question - How do we maintain momentum?' is overlaid in white on the left side of the image.

The central question - How do we maintain momentum?

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