

23 MARCH 2021

Revision of the Energy and Environmental State aid guidelines (EEAG)

How to start the transition to low CO₂ steel production before
2030, while avoiding carbon leakage?

Facts about EUROFER and the European steel industry

- The European Steel Association (EUROFER) was founded in 1976 and is based in Brussels
- 330,000 people work directly for the Steel Industry at over 500 sites in Europe
- Europe produces 160 million tonnes of steel annually
- Steel is 100% recyclable, infinitely

Overview of steel production in Europe



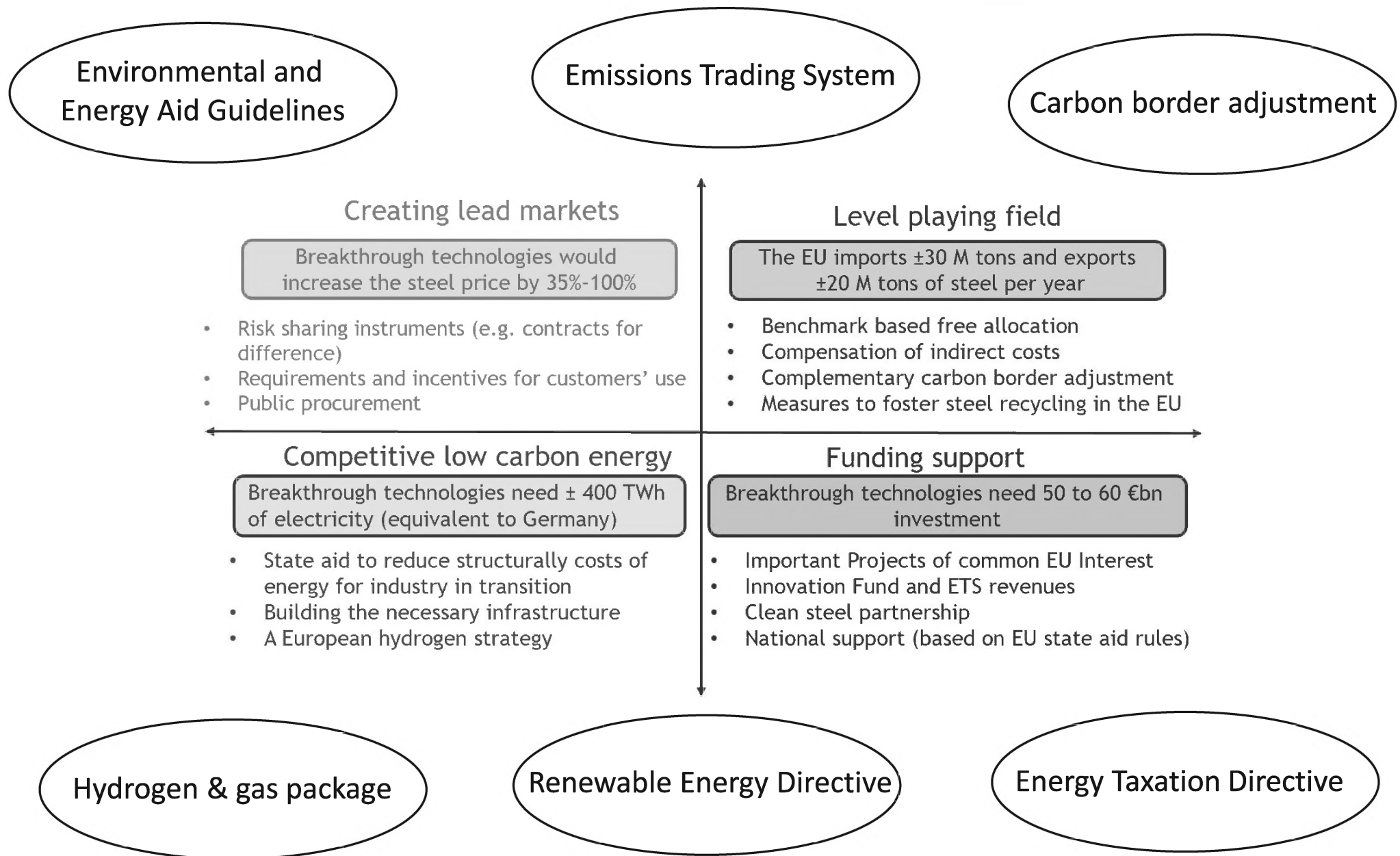
A Green Deal on Steel: *“we are ready, are you?”*

The sector would be able to develop, upscale and roll-out new technologies that could reduce EU steel production's CO₂ emissions **by 30% by 2030** compared to 2018 emissions (or about 55% compared to 1990) and **by 80 to 95% by 2050**, while contributing to greenhouse gas mitigation across all sectors and **ultimately achieving climate neutrality**, however....

we need **effective enabling policies** for a Green Deal on Steel that sets out a clear action plan for the recovery of the steel industry and boosts our CO₂ reduction efforts

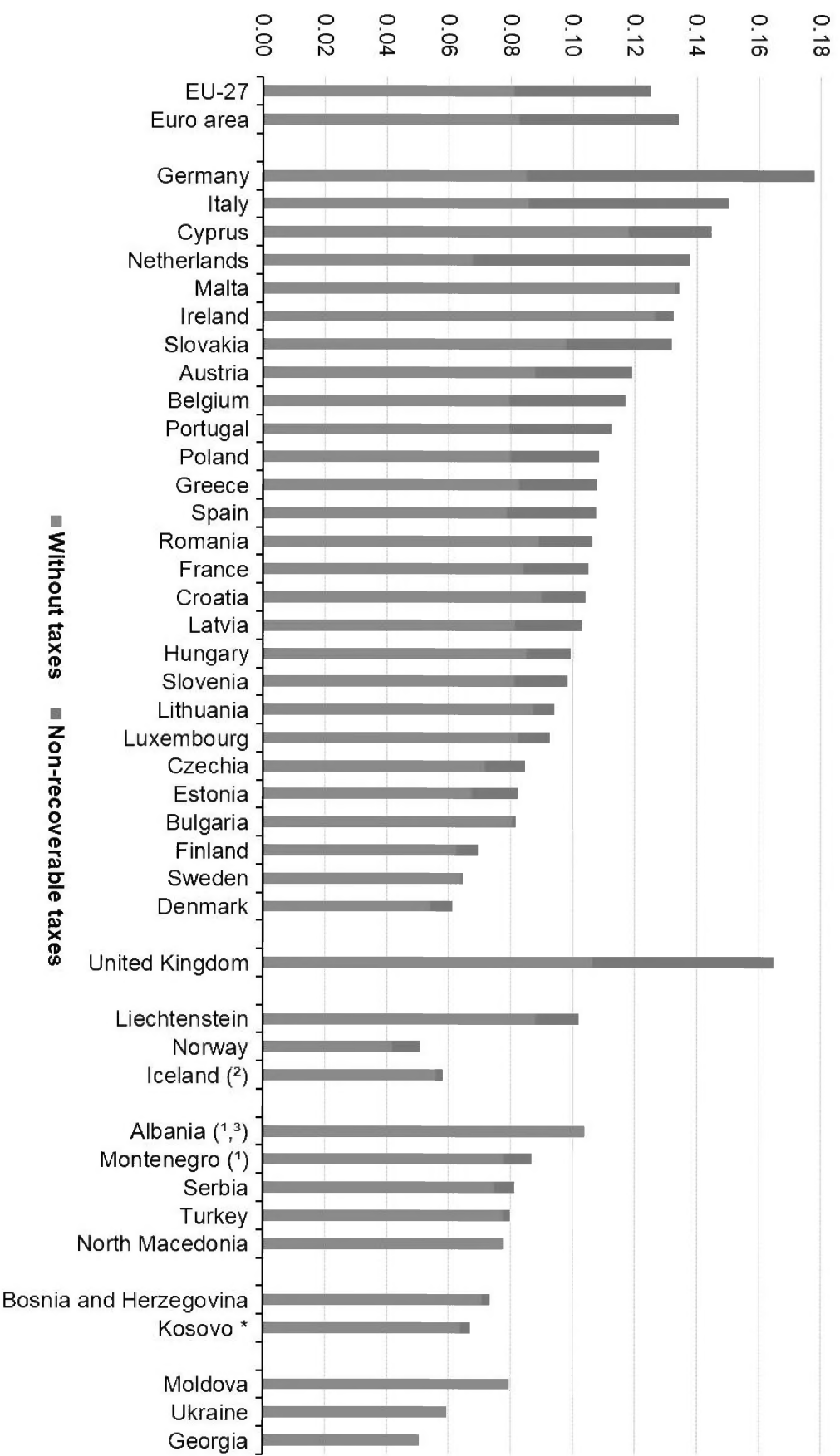
For further information see the EUROFER position paper “Green Deal on Steel” (or click directly on this [link](#))

Breakthrough technologies need a comprehensive regulatory framework



- Delivering the higher climate target in the most cost-efficient way without undue additional costs
- Ensuring effective carbon leakage protection to safeguard the competitiveness of sectors exposed to global competition while they invest in low carbon technologies
- Supporting low carbon investment in industry to accelerate the implementation of breakthrough technologies at industrial scale

- ❑ Ensure renewable surcharge exemptions are maintained under **section 3.7 paragraphs 188 and 189 and Annexes 3 and 5**
 - ❑ Eligibility of the entire steel value chain, notably NACE codes 24.10 (iron & steel), 0710(iron ores), 1920 (coke ovens), 2420 (steel tubes), 2011 (industrial gases), 2431-34 (drawing and rolling), 2451-52 (casting)
- ❑ **Extend such exemptions to other climate related regulatory costs** impacting electricity consumption prices, not faced by international competitors (i.e. infrastructure and storage for renewables, capacity schemes, etc.)
- ❑ Create a regulatory and commercial framework that facilitates **long term PPAs****
- ❑ Phase out renewable schemes for mature technologies

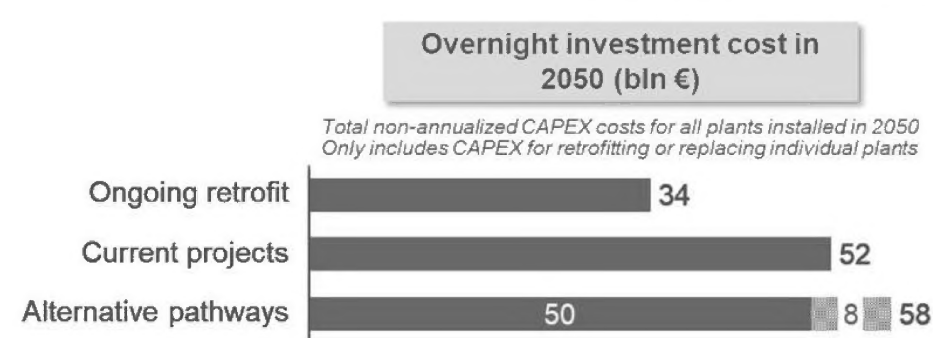
Electricity prices for non-household consumers, first half 2020
(EUR per kWh)

Pathways/ Groups	Circular Economy		
	Enhancing the recycling of steel (e.g. scrap in BOF/EAF*) and its by-products, Resource efficiency <small>*BOF= Basic Oxygen Furnace EAF= Electric Arc Furnace</small>		
Description	Smart Carbon Usage (SCU)		Carbon Direct Avoidance (CDA)
	Process Integration with reduced use of carbon (+CCS)	Carbon Valorisation/ Carbon Capture and Usage (CCU) (+CCS)	Hydrogen Electricity
Projects/ Initiatives	Integration of process steps and internal use of process gases	Using CO/CO ₂ from steel mill as raw material (Chemical and biological conversion of CO/CO ₂)	Use of renewable electricity in basic steelmaking, e.g. production of H ₂ to replace carbon
	HISARNA , TGR-BF-Plasma (IGAR), PEM, STEPWISE, Torero	Steelmanol, Carbon2Chem, FReSMe, Everest, Carbon2Value	HYBRIT, H2Steel (H2Future, SuSteel, Hybrid Steel Making), tkH ₂ Steel, GrInHy, SALCOS, Hydrogen Hamburg, SIDERWIN

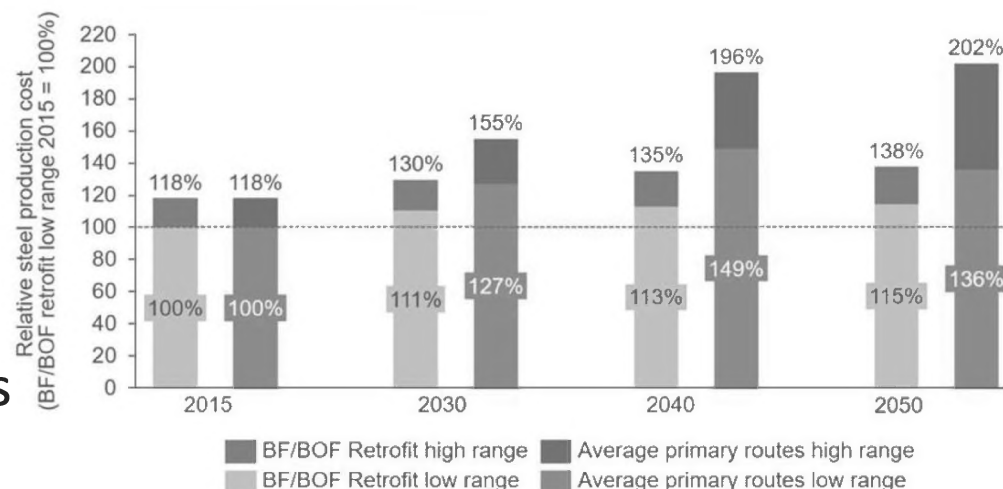
- 16 project applications in the first call of the Innovation Fund
- 33 projects in the Important Projects of Common European Interest
- 32 projects under the Clean Steel Partnership



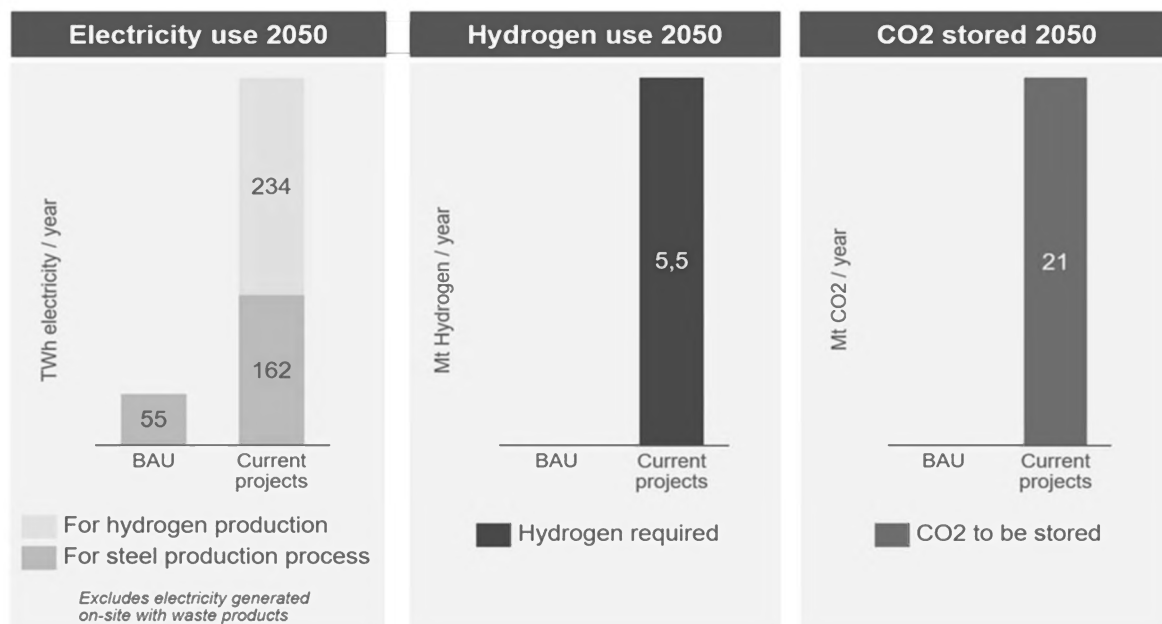
* Non exhaustive list of projects



Up to 70% increase of investment needs (CAPEX)



35%-100% increase of production costs in primary steel making (OPEX)



- **Up to 400TWh** of climate neutral electricity (including for the production of yearly 5.5 Mt hydrogen), which is **7 times more** than what the sector purchases from the grid today

Source: Low carbon Roadmap, November 2019

- ❑ Introduce a **general compatibility criterion “conversion to low CO₂ or CO₂-neutral production”**, according to which support for additional investment and operating costs with an aid intensity of 100% is expressly permitted under the state aid rules

- ❑ Include a special rule on the **compatibility of carbon contracts for difference (CCfD)** as a key instrument for the promotion of projects to introduce low carbon production processes



Thank you for your attention

Visit www.eurofer.eu for more information

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THE EUROPEAN STEEL ASSOCIATION