

# **STEEL ACTION PLAN**

# Blueprint to make renewablesbased steel the new normal



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# EEB steel and metals action plan

# Introduction

This plan outlines the needed actions to drive the steel sector towards more sustainable production routes, while keeping it at the forefront of innovation. Avenues to de-pollute and decarbonise steelmaking are available: the phase-out of fossil-based production processes, the prioritisation of circularity and efficiency strategies and the use of policy levers along the value chain, such as public and private procurement, should together lead to make renewables-based steel the new normal.

Most stakeholders and analysts broadly agree on the way forward for the steel sector, which includes preventing the downcycling of steel scrap, promoting its reuse and ensuring its application in high-quality products, accelerating electrification, removing barriers to deploying renewable electricity and renewable hydrogen, securing a socially-just transition where the workforce is properly re-skilled and upskilled, promoting renewables-based steel on markets and mobilising both private and public resources.

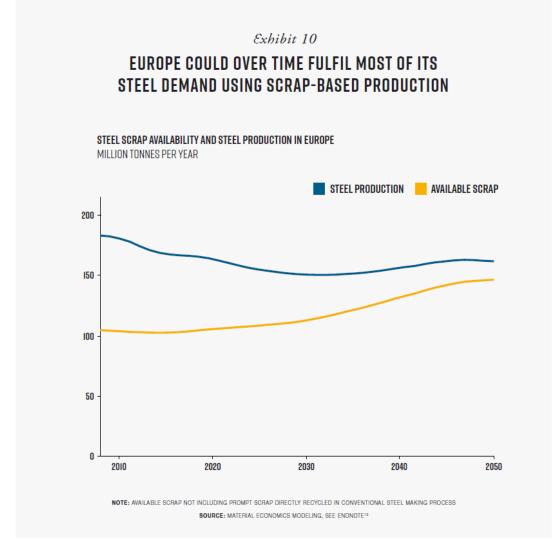
In line with the EU's ambition to transform the steel sector, we take this opportunity to recommend that the **Steel and Metals Action Plan** prioritises the following actions:

- Focusing on the most energy and material-efficient production routes. Scrap-based steel must be the focus, with greater attention given to improve scrap quality and prevent downcycling.
- **Prioritising the modernisation of electricity grids** and the development of a hydrogen infrastructure in line with credible needs.
- **Ensuring renewable electricity is the cheapest option.** Levies, taxes and subsidies should be urgently reformed to make this a reality and further incentivise the use of tools such as renewable Power Purchase Agreements.
- Advancing a "Steel Union" approach when it comes to funding to maximise efficiency of public and private funding through supporting EU-based trade flows instead of outdated state-based steel production. This approach would support renewables-based reduced iron trade within the EU and with third countries as an alternative to each integrated steel site having its own H2-DRI plant, where site conditions are not favourable (e.g. lack of renewables or hydrogen infrastructure, unfavourable iron ore transportation conditions).
- **Ensuring adequate investment flows** based on clear conditionalities on emission reduction targets (e.g. phase out of fossil fuels) and on a prominent role for private capitals.
- **Exploring and setting new trade flows.** They should be socially just, provide long-term benefits to both trade partners and the EU, and include reciprocity mechanisms to safeguard and promote EU social and environmental standards.
- Strengthening standards to drive the uptake of renewables-based steel in lead markets to complement market-based instruments such as CBAM and the EU ETS.



• Focusing R&I efforts on increasing the availability of high-quality scrap and advancing iron-ore based production routes based on direct electrification to be market-ready within the next decade.

# 1. Circularity and Material Efficiency



*Figure 1 - Steel scrap availability vs steel production in Europe (source: Material Economics)* 

a. **Policies should prioritise the use of scrap-based steel, as well as a more efficient use of steel**. Steel can be used more efficiently through better product design, lightweighting and lifetime extension of products. In this respect, the notion that scrap



is scarce is misguiding; the EU can fulfil most of its steel demand using scrap-based production<sup>1</sup>.

- b. **Scrap-based steel should be used for high-quality applications**. Products containing steel should be designed to prevent steel downcycling and preserve its qualities after the first use. For instance, steel contamination with copper should be prevented through accurate design and improved sorting and collection aimed at keeping the value of both materials. Structural steel having lower GHG emissions compared to other steel products should be deconstructed and reused and not downcycled as scrap to the best extent possible.
- c. **Over-reliance on the iron ore-based route should be avoided to use energy more efficiently and lower the need for renewable electricity and hydrogen.** Scrapbased steel production (EAF) is 4 times more efficient that the iron-ore based using hydrogen (H2-DRI-EAF route) in terms of energy consumption. When it comes to costs, the marginal cost premium of the EAF route for flat steel products is 8-13% compared to 35-70% of the H2-DRI-EAF route<sup>2</sup>.

#### Recommendations

- Prioritise the scrap-based route in legislation. Its inherent efficiency in terms of energy use should be recognised, as well as the fact that it is cheaper and with a production route having an intra-EU value chain from raw materials to final products.
- Design products with material efficiency and end-of-life in mind to prevent material waste, make recovery of steel easier and prevent contamination leading to downcycling.
- Improve sorting and collection of scrap according to their grades, as well as closed loops for specific alloys and for specific uses of steel to prevent downcycling and increase reuse (e.g. structural steel in construction).
- Implement stricter export policies at the EU level for scrap, given that the EU exports 18 million tonnes of steel scrap yearly<sup>3</sup>.

<sup>&</sup>lt;sup>1</sup> Material Economics (2020). Preserving value in EU industrial materials - A value perspective on the use of steel, plastics, and aluminium.

<sup>&</sup>lt;sup>2</sup> World Economic Forum (2023): Steel industry net-zero tracker (via EuRIC)

<sup>&</sup>lt;sup>3</sup> <u>https://gmk.center/en/news/eu-could-become-scrap-importer-in-less-than-5-years-forecast/</u>



# 2. Electrification



Figure 2 - Electrification enablers (source: Regulatory Assistance Project)

- a. When iron-ore based steel is needed, electrified processes should be prioritised, being more efficient and cleaner than combustion processes. The H2-DRI-EAF route uses half the energy of the blast furnaces equipped with carbon capture and storage<sup>4</sup>. At the same time, electrified processes allow 99% emissions reduction while fossil-based routes with CCS between 73 and 89%<sup>5</sup>.
- b. Electricity and carbon prices should accelerate the transition towards electrification with renewable electricity. The impact of fossil-based sources should be a tangible liability for the industry to incentivise a transition towards renewables-based production routes.
- c. **Taxes and levies should penalise fossil fuels and promote renewable electricity**. No exception should be made to the principle that the most polluting fuels should be

<sup>&</sup>lt;sup>4</sup> Agora Industry, Wuppertal Institute and Lund University (2024): Low-carbon technologies for the global steel transformation. A guide to the most effective ways to cut emissions in steelmaking.

<sup>&</sup>lt;sup>5</sup> Assuming a 90% carbon capture rate.



taxed the highest so to better reflect their real environmental, health and social impacts, while subsidies should be redirected to accelerating deployment of nature-positive renewable electricity.

- d. The availability of renewable electricity and the upgrade of grids and storage should be accelerated. The foreseeable growth of electricity consumption should be anticipated with an ambitious investments plan able to spark its production without creating bottlenecks in the grid. A careful planning of the exact energy grid, all measures considered, should be laid out in the EU roadmap to avoid conflicting or redundant infrastructures.
- e. **Barriers to a wide uptake of electrification technologies should be promptly addressed.** This includes a general update of infrastructures, a larger availability of renewable electricity, a wrong price signal promoting fossil fuels, high CAPEX and network costs and lack of skills and awareness in value chains.

#### Recommendations

- Promote national action to lower taxation on renewable electricity and strengthen the use of Carbon Contracts for Difference and renewable Power Purchase Agreements to make the price of renewable electricity lower than fossil-based sources to reflect its lower impact of the environment and the society.
- Phase out the EU ETS free allocation according to the CBAM timeline.
- Accelerate the integration of the electricity market and the upgrade of the electricity infrastructure, as well as the availability of renewable electricity, including by pushing steel producers to contribute to this effort with a percentage of renewable electricity production proportional to their turnover.
- Establish renewable electricity and renewable hydrogen joint purchase platforms across the EU and industrial players to lower prices and ensure long-term sustainability for electricity and hydrogen producers.
- Incentivise flexibility in terms of storage and demand -side response, remove network charges and all exemptions and reduced rates for fossil fuels and undue levies on renewable electricity under the current Energy Taxation Directive<sup>6</sup>.

# 3. Trade and a Level Playing Field

- a. **The EU Single Market should incentivise the trade of renewables-based steel**. Steel producers transitioning towards renewables-based production routes (see points 1 and 2) should not be put at a disadvantage compared to producers of fossil-based alternatives.
- b. CBAM should be tightly enforced and its loopholes fixed to prevent emissionintensive steel to enter the EU at whichever point of the value chain. CBAM

<sup>&</sup>lt;sup>6</sup> https://eeb.org/wp-content/uploads/2022/03/EEB-brief-ETD-final-31-March-2022-rev.pdf



should prevent resource shuffling and be extended to include finished and intermediate products.

- c. **The Ecodesign for Sustainable Products Regulation (ESPR) should prioritise steel as planned** and horizontal criteria of repairability, recyclability and recycled content should apply to steel as a priority and set criteria that privilege renewables-based steel producers.
- d. **Trade agreements should foresee further reciprocity-shield mechanisms** covering other aspects in relation to pollution prevention impacts but also level playing field on social considerations.
- e. The reality of new steel production routes should be acknowledged. New trade flows should be explored to understand their potential to make steelmaking more efficient and more sustainable globally. Partnerships with extra-EU exporters of reduced iron should create local sustainable development, a diversified economy and long-term benefits.

#### Recommendations

- Enforce CBAM and fix its loopholes to prevent circumvention, namely by extending it towards downstream intermediate and finished products and preventing "resource shuffling<sup>7</sup>".
- Use Ecodesign requirements to make product-policy a lever to allow in the Single Market only circular, durable and renewables-based steel products.
- Explore new green iron trade flows (e.g. "Green Iron Corridors<sup>8</sup>") able to benefit both the exporting and the importing ends of the value chain.
- Anticipate the impact on the importing countries in terms of jobs and plan measures and investments to keep employment and upskill/reskill the workforce.

#### 4. Lead markets & the role of standards

- a. The leverage of big buyers in the public and private sectors should be used to reduce the emissions of purchases. Targets for purchasing renewable-based steel should be envisaged in the procurement of products, works or services contracts by Member States and private buyers.
- b. A sound definition of "green steel" is needed to guide markets towards the more sustainable choice. Such definition should be based on the successful Ecodesign framework, incentivise the use scrap-based steel and foresee a progressive tightening of criteria to phase fossil fuels production routes out by the next decade.

<sup>&</sup>lt;sup>7</sup> Sandbag, Mind the Scrap, 2024

<sup>&</sup>lt;sup>8</sup> Rachel Wilmoth, Quailan Homann, Chathu Gamage, Lachlan Wright, Kaitlyn Ramirez, Sascha Flesch, Thanh Ha, Joaquin Rosas, Natalie Janzow, Green Iron Corridors: Transforming Steel Supply Chains for a Sustainable Future, RMI, 2024



- c. **Standards should play the role in guiding the market.** Not only they complement the role of the carbon market to get the decarbonisation but also play a key role to achieve other environmental and public health protection goals (e.g. use of natural resources, impact on the air and water quality, durability and increased use of recycled contents).
- d. **Robust reporting requirements and public availability of performance data** allow for assessing comparability of progress made, the identification of industry frontrunners and support compliance promotion. This can be achieved through the Digital Product Passports (ESPR) and the implementation of the Industrial Emissions Portal Regulation (IEP-R).

#### Recommendations

- Ensure that the review of the Public Procurement Directives includes increasing quotas and mandatory targets for the purchasing of renewables-based steel, as well as uses life-cycle assessments to identify the most economically advantageous tender to ensure that public procurement creates a lead market for renewable steel.
- Develop science-based definition of "green steel" within the ESPR framework able to phase out fossil-free production processes by 2040, as well as incentivise circularity and reuse of steel. Ensure as wide as possible applicability to steel products under the ESPR.
- Ensure a rigorous and ambitious implementation of the Industrial Emissions Directive, notably regarding deep industrial transformation to promote the more sustainable production processes and circularity standards (e.g. revised Iron and Steel BREF and forward-looking transformation plans).
- Provide for digital reporting tools such as the Digital Product Passport (ESPR), as well as reporting of consumption inputs and contextualisation of data via the European Industrial Emissions Portal<sup>9</sup> so to allow for benchmarking of progress within the value chain as well as progress made on the industrial transformation. The data should be publicly available in user friendly format.

### 5. Funding

- a. **Public funds should be spent strategically to facilitate the more efficient production routes** allowing an efficient use of steel and energy and the highest decrease of emissions. Prioritising the improvement of the scrap-based route would allow to use electricity more efficiently, so lowering the needed investments to upgrade grids and boost renewables.
- b. **State aids must be limited to fix market failures and not policy failures.** The fact that, for instance, state aids are used to incentivise the transition of steelmaking because of the shortcomings of the EU ETS and the IED is an inefficient use of public

<sup>&</sup>lt;sup>9</sup> <u>https://industry.eea.europa.eu/</u>



resources<sup>10</sup>. Instead, a coherent legislative framework is needed to provide clear signals to incentivise investments to reduce emissions.

- c. **Furthermore, State aids must be strictly conditioned** to clear pollution prevention at source (installation level transformation plans) consistent with the climate neutrality and zero-pollution targets of the EU, as well as to provisions to prevent offshoring<sup>11</sup> and to promote reskilling and upskilling.
- d. **Public support should be agreed under a Union-wide and value chain approach to deliver the highest public benefit.** A more holistic "Steel-Union" approach should be used considering the availability and cost of renewable hydrogen and electricity, iron ore deposits and intra-EU trade corridors to ensure the best return of the public investment to the Union as a whole.

#### Recommendations

- Prioritise the use of public funding for infrastructures able to incentivise the electrification of steelmaking, such as grids.
- Start a new "Steel IPCEI" addressing the entire value chain, integrating the strengths of different Member States into a unique project able to maximise environmental, societal and economic gains.
- Minimise policy failures through a strict implementation of the IED (e.g. compliance with strict range of the Iron and Steel BREF BAT Conclusions<sup>12</sup>), EU ETS and CBAM, so policies can guide the transition of the sector with a minimal use of State aids.
- Condition the granting of State aids to clear environmental and social conditionalities such as a Toxic-Free and Zero Pollution ambition compatibility check<sup>13</sup>, and anti-offshore provisions to prevent companies leaving the EU after benefitting from public aid.
- Incentivise private investments through de-risking tools (e.g. long-term guarantees by Member States and Green Procurement) and long-term price stability tools such as renewable Power Purchase Agreements and Carbon Contracts for Difference.

<sup>&</sup>lt;sup>10</sup> Decision SA.104903 states that "current measures and policies such as the EU ETS mechanism do not provide sufficient financial incentives for investments to reduce GHG gas emissions linked to the steel production" since "the existing Dunkirk plant is currently eligible for free CO2 certificates under the EU ETS [free allocation, AN], which means that emissions associated with the existing BF-BOF route for steel production currently do not constitute in full a cost for the beneficiary" and that "there are no binding EU policies or Union standards in place that require undertakings in the steel manufacturing sector to significantly reduce GHG emissions linked to their steel production processes".

<sup>&</sup>lt;sup>11</sup> <u>Spanish law approved by the Government in December 2024 and presently under discussion at the Congress</u> (art. 18) foresees the reimbursement of State aids when: companies don't keep the activity in the country for at least 5 years, reduce their production by 65% or more, reduce workforce by 500 people or more.

<sup>&</sup>lt;sup>12</sup> See <u>https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L\_2012.070.01.0063.01.ENG</u>

<sup>&</sup>lt;sup>13</sup> The Industrial Blueprint coalition <u>https://euelections.eeb.org/industrial-blueprint/</u> calls for a "Toxic Free and Zero Pollution Ambition compatibility check" to be elaborated so to implement the Zero-Pollution Action Plan, that should be applied to any new or revised piece of legislation, state aids and subsidies



# 6. Research & Innovation

a. **R&I should be directed towards technologies able to use energy and materials more efficiently**. This means, for instance, direct electrification technologies, as well as techniques able to improve steel circularity and prevent downcycling.

#### Recommendations

- Use EU funds such as the Innovation Fund and facilitate private investments to support new techniques to improve automated disassembly of products and grade-to-grade and alloy-to-alloy sorting, including to prevent copper contamination, as well as to develop innovative techniques to separate copper from steel and new metallurgy processes able to increase copper tolerance.
- Facilitate private investments to support direct electrification of the iron-ore route, such as Molten Oxide Electrolysis, to reduce the need for hydrogen in the long term.



# ANNEX Action plan for 2025-2030

# Corporate Level

Action	Policy Hook	Impact
Investments on blast furnaces relining are immediately stopped.	Corporate investment decisions EU Taxonomy.	Avoidance of stranded assets.
<ul> <li>Invest in innovation:</li> <li>Direct electrification technologies.</li> <li>Better sorting and use of scrap.</li> </ul>	Corporate investment decisions EU Taxonomy.	
IED Transformation plans are adopted by 2027 and clearly foresee the phase out of fossil fuels-based processes by 2040. Credible installation level specific measures with action plan are made transparently available through the IEP-R. Cover rate of integrated steel sites is at 100%.	EU IED and IEP-R.	Credibility of EU producers is enhanced. Clear investment signals at corporate level. EU operators leading by example in implementing the deep industrial transformation.
Minimum share of annual turnover is reinvested in RES projects at country level. Starting with [10%] as from 2026.	Corporate Sustainability pledges.	Energy Intensive Users contribute financially to lower energy prices / secure energy security, as well as to attract further investments along the value chain.
For scrap-based EAF route: 100% renewable energy supply by latest 2030.	Power purchase agreement, green certificates, on-site RES production etc.	Energy Intensive Users contribute financially to lower energy prices / secure energy security.



	to enabling the transformation of the value chain (policy and finance).		disruption of sourcing outside of the EU.
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# **National level**

Action	Policy Hook	Impact
Provide for a decarbonisation pathway	CfD (conditionalities) – set at the	The expectations as to "difference" are
(carbon intensities) to be achieved by [2040]	national level.	substantiated and provide added value v.
as condition for providing contracts for		reference scenario (compliance with legal
difference.		and best practice standards).
The "difference" should be established in		
qualitative and quantitative terms i.e. project		
performance goes beyond expectations		
achieved through the implementation of state		
of the art 'current strict BAT performance) and		
ahead of national climate neutrality goals .		
Conditionalities in State aid schemes are	State aid decisions (follow up and	The implementation of state aid funded
promptly enforced in case of non-compliance.	verification scheme).	projects are promoted.
Permit writers are revising the permits for	IED transposition: notably strict	National implementation practice promotes
integrated steel sites mandating a blast	application of Article 15(3) relevant for	deep industrial transformation without use
furnace phase out schedule by a given target	case by case permitting and general	of public funds and leads by example.
date [2040].	binding rules update and Article 27(e)	
The requirement to implement the strict	<ul> <li>Deep industrial transformation</li> </ul>	
ranges of <u>BAT Conclusions for the Iron and</u>	extended 8-year timeframe.	



Steel BREF are used as a negotiation basis for accelerating the deep industrial transformation on the ground. The same approach applies for revising General Binding Rules.		
EU Member States request for a swift review of the I&S EU BREF in 2026 and call for fossil fuels-based Iron and Steel decommissioning BAT.	See EU IED (Iron and Steel BREF).	Up to date forward looking production standards.
Shift taxation and levies from renewables to fossil fuels. Align taxes and levies to encourage investments in renewable electricity. All exemptions and reduced rates that currently still incentivise the use of fossil fuels are removed as undue levies on renewable electricity.	Energy Taxation Directive National rules on energy levies and taxation.	The cost of energy reflects its impact on the environment and public health, pushing for more investments in renewables.
Public procurement prioritises renewable steel in products, works and services by ensuring that include environmental and social criteria are made mandatory in tenders. More information EEB Position paper <sup>14</sup> .	Public Procurement Directives Net-Zero Industry Act Delegated Act on non-price criteria for RES auctions.	Procurement incentivises renewable steel products and aids the national steel industry in its transition.

<sup>&</sup>lt;sup>14</sup> https://eeb.org/library/green-public-procurement-eeb-recomendations/



# **EU level**

Action	Policy Hook	Impact
Stimulate concrete action plans for the	IED Transformation Plans (Delegated	Level playing field for EU operators.
conversion of blast furnaces into fossil-free	Act as per art 27e, deadline for COM	EU to lead by example.
production processes.	by 25 June 2026) to elaborate format.	Define meaning of deep industrial
Minimal key performance indicators are	Deadline for submission is 2030.	transformation that is coherent with the
mandatory such as: fossil feedstock	Best practice transformation plans are	integrated approach on pollution
substitution plans, process electrification	shared for consultation prior to	prevention.
action plan, closure dates for BF-BoF, scale of	decision making with NGO prior to	Enhance predictability and advanced
investment by companies disclosed, interim	adoption.	planning for transformation considering also
progress indicators set.	Industrial Emissions Portal Regulation	public accountability.
The transformation plans are made publicly	(regarding public availability).	
available through the EEA Industrial Emissions		
Portal.		
Article 9(1) of the IED / Art 26 EU ETS Directive	IED review due by 2028.	EU policy coherence is restored. Combined
limitation is removed. Instead, EU Member		approach of market based with command
States are mandated to set GHG emission		and control (standards-based approach).
performance limits for energy intensive		
industries.		
Art 9(2) and 15 (4) Point b of the IED is		
amended to make energy efficiency binding.		
Mandatory fossil-free production and	IED <u>Iron and Steel BREF review</u> is kick	Walking the EU green deal talk: integrated
ambitious BAT performance levels are set in	started at the end of 2025.	pollution prevention, wider co-benefits to air
BAT-Conclusions reflecting 'state of the art'		



that is fit for the climate neutrality and zero pollution ambition.	Ambitious BAT-Conclusions are swiftly adopted that contain a BF-BoF decommissioning plan and 100% RES powered scrap-EAF route.	and water protection as well as human health.
BAT-Conclusions fit for the climate neutrality and zero pollution ambition for downstream ferrous metals processing activities.	IED: <u>Ferrous Metals Processing BREF</u> is made fit for purpose through a fast- track update, notably on the following: Electrification of hot rolling, phase out of coke oven gas/natural gas route.	Walking the EU green deal talk: integrated pollution prevention, wider co-benefits to air and water protection as well as human health.
Ambitious standards for "responsible steel" value chain: Ambitious BAT-C for MIN BREF ensuring climate neutral iron ore mining that reflect state of the art on environmental performance incl. biodiversity protection.	IED: <u>Mining of Ores BREF</u> BAT- Conclusions adopted in 2027.	Up to date forward looking production standards.
Target EU and national funding towards fossil- free and the more efficient production routes. National state aid projects are pooled for all EU integrated steel sites and selection criteria for best value for common EU interests v. public support checks are performed. Externalised costs (water, air quality, true carbon price) are subtracted.	EU Competitiveness Fund State aid control and new State aid framework, Innovation Fund, IPCEIs. Polluter Pays Principle put to practice.	Cost-effectiveness of decision making is enhanced.
Dedicated support for grid modernisation to allow for 100% RES based deployment for Ell is provided.	Implementation of the EU Action Plan for Grids. MFF funding criteria.	



Promoting scale up of renewable hydrogen production and priority use for steelmaking, as well as pooled purchases at the EU level. Redesign of H2 auctioning system to be performance based. Scale up of private capital support in financing the industrial transformation.	H2 auctioning system. Revised RED: exclusion of H2 award to domestic uses and non-Ell industries for which alternative technical options are available. De-risk tools (guarantees) e:g/ by ElB of European Fund for Strategic investments. Capital Markets Union (pension funds).	
Address EU policy failures to accelerate the transition (CBAM).	Advance CBAM implementation (phase out of free allocation prevent resource shuffling, extend towards finished and intermediate products, include upstream pollution from coking coal, methane from coal mining, etc). IED review (see above).	Laws guide the transformation of the sector by providing coherent economic and policy signals to investors and companies.
Review of the EU ETS benchmark for steel (hot metal and the EAF benchmarks) to reflect progress in GHG emission reduction on the basis of state of the art: The use of biocarbon combined with biogas could reduce residual GHG emissions from the Iron ore-DRI route to 0.38 tCO2eq/finished steel product or 70kg CO2eq/finished steel in case of use of renewable electricity + biocarbon + biogas. For the Scrap-EAF route 80kgCO2eq/t	EU ETS Benchmark review and related Commission implementing act (2019/331 of 19 December 2018).	Ensure rigorous implementation of the the "one product/service – one benchmark approach". Up to date forward looking benchmarking standards not favouring incumbent high pollution production routes.



can be achieved with those techniques. A unique benchmark set to 80kgCO2eq/t steel should be set as the target value for steel. "Green steel" labelling provides a level playing	Ecodesign for Sustainable Products	A sound definition of "green steel" and a
field among production routes based on actual emission performances per ton of steel (e.g. CO2 intensity). Such minimal requirements become more stringent overtime to phase fossil-based production out and to provide for a carbon intensity level reaching net-0 by 2050.	Regulation (ESPR).	clear phase out of fossil-based production processes provide incentives for producers and big buyers to produce and purchase low emissions steel.
Public procurement prioritises renewable steel in products, works and services by ensuring that environmental and social criteria are made mandatory in tenders. A life cycle assessment covering all scopes is used to decide selection/award criteria or technical specifications and all environmental impacts are monetised <sup>15</sup> . Monetisation of GHG emissions should follow the abatement cost for 1.5 °C estimated by the IPCC.	Public Procurement Directives.	Procurement incentivises renewable steel products and aids the European steel industry in its transition. Procurement of renewable steel reduces reliance on high-emissions imports and contributes to the growth of strategic EU industries.
Allow benchmarking of progress in delivering pollution prevention in the steel value chain	Industrial Emissions Portal Regulation (IEPR) implementation.	Increased public accountability.

<sup>&</sup>lt;sup>15</sup> https://eeb.org/library/green-public-procurement-eeb-recomendations/



<ul> <li>by making the following information publicly available in the EEA industrial Emissions</li> <li>Portal at installation level: <ul> <li>Electronic permit conditions in force.</li> </ul> </li> <li>Consumption data (water, energy, key materials e.g. scrap). For energy the type of energy is indicated.</li> <li>Emissions intensity data for GHG and key air pollutants including wastewater discharges per t. of steel produced (requires reporting on production volume) at annual basis.</li> <li>Progress report against achievements / indicators set in EMS.</li> <li>Transformation Plan implementation progress report.</li> </ul>	This implies that national systems are made fit for purpose for direct integration in the EU EEA industrial emissions portal.	Reducing admin burden for both companies and member states authorities for reporting and compliance promotion. Supporting level playing field, benchmarking of progress. Corporate due diligence put to practice.
The tool is designed for enabling maximum user-friendliness and is searchable and comparable at installation / country level.		
Policies and funding schemes are thought under an "EU-wide Steel Union" approach to maximise efficiency and the strengths of Member States on certain phases of the value chain.	Competitiveness Compass pilot case, IPCEls.	The EU has a more efficient steel value chain based on its regional strengths rather than 27 value chains competing against each other.
Prevent scrap downcycling and increase high- quality scrap availability. Increase circularity and durability of steel- based products through for instance:	End-of-Life Vehicles Directive, Circular Economy Act, Ship Recycling, ESPR.	Reality check as substitute options for various production routes in particular flat steel products.



<ul> <li>Easier dismantling of steel-based products at the end of life.</li> <li>Easier repairability.</li> <li>Closed loops for certain alloys (e.g. stainless steel).</li> <li>Longer legal guarantees for use phase.</li> </ul>		
Support structural steel re-use, initiate standardisation process through CPR framework. Support different efforts at standardisation level ongoing to streamline reuse.	EU waste hierarchy, Revised Construction Products Regulation (CPR) and standardisation (e.g., technical specifications for the Reuse of Steel Structures, WG on the Reuse of Construction Products).	Circular economy in action.
Maximising intra-EU scrap loops.	EU waste legislation (e.g. Ship recycling, shipment of waste), rigorous implementation of 3Rs (reduce, reuse, recycle).	More than 50% of ferrous scrap is exported outside the EU which doubled between 2016-2023. EU vulnerability and trade dependencies should be reduced whilst promoting "3Rs -Made in EU".



<ul> <li>Address economic and legislative barriers to renewable electrification such as: <ul> <li>Shift taxation from renewable electricity to fossil fuels.</li> <li>Internalise negative externalities due to pollution e.g. mandatory use od Value of Statistical Life air pollution cost method.</li> <li>Apply more realistic carbon cost. aligned to IPCC / 1.5C Paris compatible scenario indicating a range of 226-385USD/tCO2eq.</li> <li>Support energy efficiency measures.</li> <li>Invest in grids and interconnectors.</li> <li>Plan a progressive phase out of the "merit order" mechanism.</li> </ul> </li> </ul>	EU ETS & CBAM, Energy Taxation Directive, Competitiveness Compass pilot case on Electrification, Affordable Energy Action Plan, Steel and Metals Action Plan. Revised CEEAG. Implementation of the EU Action Plan for Grids.	Internalise negative externalise. The Polluter pays principle is finally implemented. Provide for the needed "business case" for industry to act recalibrating costs (for operators) against wider social/ public benefits.
Stimulate joint purchases of feedstocks at EU level (e.g. renewable hydrogen).	Competitiveness Coordination Tool.	Energy Intensive Users secure energy and feedstocks at lower and less volatile prices.