



Policy paper: implications of European steel demand for lead markets and public procurement

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Executive summary

This policy paper examines the potential role of **public procurement in stimulating demand for low-carbon steel in Europe**, a sector responsible for approximately 8% of the EU's CO₂ emissions and central to industrial decarbonisation. Recent and upcoming EU initiatives, notably the **Clean Industrial Deal** (CID), the **Industrial Accelerator Act** and **revised public procurement rules**, indicate an effort to create lead markets for low-carbon steel by integrating non-price criteria into public procurement.

While this paper does not define specific criteria for low-carbon steel, it notes that secondary scrap-based EAF production emits several times less CO₂ than traditional BF-BOF routes. **Increasing the share of secondary production** from recycled steel, **alongside scaling up innovative near-zero primary production**, therefore represents one of the most effective levers for sectoral decarbonisation.

However, analysis indicates that while public procurement represents around **14% of EU GDP**, its ability to drive low-carbon steel demand may be limited for key segments of the European steel market:

- **Construction** – the largest public procurement steel consumer (approximately 11% of total EU steel demand) – already relies heavily on long steel products generally produced via the significantly lower-emission scrap-EAF process, limiting additional impact.
- **Automotive** – a key user of high-quality flat steel – offers greater potential to drive near-zero steel uptake. However, the public procurement of automobiles represents a very small percentage of EU steel demand.

Consequently, public procurement measures alone seem unlikely to create sufficient lead markets to independently validate business cases for low-carbon premium steelmaking. **Better targeted complementary measures**, such as recycled or low-carbon content requirements for automobiles and incentives for advanced scrap sorting, are recommended to reinforce demand signals and encourage investments in low-carbon steel production.

Institutional investors support these policy directions and stress the need for **granular, sector-specific interventions** to accelerate the steel value chain's transition in line with the EU's climate and industrial goals.

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Background

The investor perspective

Addressing the systemic financial risks of climate change requires real-economy action to cut greenhouse gas emissions. Institutional investors who have committed to working towards a net zero and climate-resilient future – in line with their fiduciary responsibilities to their clients and beneficiaries to manage financial risk – recognise this. Many are working to align their individual investment portfolios and activities with net zero. The clean transition will also provide important growth and investment opportunities to drive returns over the long term.

An enabling policy environment for the decarbonisation of high emitting sectors is critical. Policy advocacy is one of the key recommended action areas to drive real-economy change under IIGCC's [Net Zero Investment Framework](#), the most widely used guide by investors to set individual targets and produce related net zero strategies and transition plans.

IIGCC's work on the steel sector in Europe

Responsible for around 8% of the EU's CO₂ emissions and a crucial input to various other strategic industries, the steel sector – and the policy environment around it – is key.¹ Investors therefore see steel as a critical industry for economy-wide decarbonisation and for the alignment of investment portfolios with the transition.

IIGCC has provided longstanding support for institutional investors seeking to engage with European steelmakers and companies in their value chain. IIGCC's forthcoming [Steel: Tool for Engagement](#), provides practical resources for investors to consider as they undertake engagement dialogues with steelmakers on decarbonisation as does the [Steel purchaser framework](#) (update forthcoming).

In parallel, over the past two years IIGCC has worked with investors seeking to identify areas where better policy could most effectively unlock the transition of the steel sector in Europe, recognising this region's leadership potential. The [Policy paper: Investor priorities for transitioning the European steel sector](#) identified stimulating demand for green steel as a priority action area. One of the associated recommendations was for policymakers to consider whether a strategic use of public procurement could drive volumes of decarbonised steel to market.

Given recent policy developments and upcoming legislative proposals, this paper explores this potential role for public procurement from the perspective of institutional investors invested in the steel value chain.

The European context

EU policy developments

In February 2025, the European Commission published the [Clean Industrial Deal](#) (CID), which sets out a vision for a 'clean, competitive and just transition' for European industries, supporting clean manufacturing and decarbonisation. It positions the growth of sustainable and resilient industrial production in Europe as the best route to achieve the EU's legally binding climate goals. The CID does this by focusing on key business drivers across the economy, whilst also highlighting the importance of implementation at the sector level.

One of the main business drivers highlighted is boosting clean supply and demand through lead markets. The CID identifies introducing non-price criteria for sustainability and resilience into public procurement as an important lever for market development in energy intensive sectors. To take this forward, the Commission committed to two short-term actions:

1. Introduce an Industrial Accelerator Act (IAA) to, among other things, apply sustainability, resilience and minimum EU content requirements in public procurement within strategic sectors to ensure lead markets for low-carbon products. Originally planned for Q4 2025, this proposal is now expected in Q1 2026.
2. Revise EU public procurement rules to mainstream the use of non-price criteria, enabling their use by all levels of administration down to the local level. This is likely to be done via a new Public Procurement Act, to be proposed in Q2 2026.

The [European Steel and Metals Action Plan](#), published in March 2025 under the CID, further emphasises the role public procurement may be able to play in overcoming the green premium barrier for low-carbon steel.

The Commission notes this strategic use of public procurement is most relevant for product segments where public purchasing plays a role in shaping the market. If done effectively, the introduction of targeted requirements for these market segments could pave the way for the adoption of low-carbon industrial products as the market standard. Doing this would send signals to the value-chain and help de-risk investments in decarbonisation projects.

For an in-depth analysis of the entire European Steel and Metals Action Plan, see IIGCC's [Assessment of the European Commission's recent steel sector initiatives from the perspective of institutional investors](#).

The EU steel market

European steel production

In 2023, Europe produced about 126 million tonnes (Mt) of crude steel, equating to around 13.8% of global production and making it the second-largest steel-producing region. China is by far the largest single producer, responsible for over 55% of world-wide product alone.² Globally there is a rising imbalance between steelmaking (over)capacity versus demand.³ Historically a net exporter, European steel faced a significant and seemingly permanent fall in demand after the 2008 global financial crisis.⁴ This has continued in recent years, with EU steel production falling around 20% between 2018 and 2024.⁵

Trade

Since 2016, the EU has been a net importer of finished steel products.⁶ In 2023, the EU had a steel trade deficit of about 9.3 million tonnes.⁷ Disruptions to global trade stemming from recent US tariffs on steel have further raised concerns about the potential dumping of steel produced in other countries – primarily China – in the comparably open European market. This has led the Commission to propose a reinvigorated plan to protect the EU steel industry from unfair impacts of global overcapacity.⁸ While the plan's final form and impacts are still to be determined, the trade outlook for steel is likely to remain contested. In this context, further support for the European industry in the coming years is expected.

Production routes

About 58% of Europe's steel production capacity is the blast furnace–basic oxygen furnace (BF-BOF) process.⁹ Given its high emissions intensity, with an average of 1.9 tonne of CO₂ equivalent (tCO₂e) emitted per tonne of BF-BOF steel produced in Europe, this route produces the vast majority of European steel emissions.¹⁰

Around 41% of EU steel production capacity is electric arc furnaces (EAF), using recycled scrap steel.¹¹ This process is significantly less emissions intensive, with the average emission intensity of European scrap-EAF steel today at just 0.2 – 0.3 tCO₂e per tonne of steel produced.¹² This means that on average steel made through the scrap-EAF route produces one-sixth of the CO₂ emitted as compared to the BF-BOF route. As such, one of the most effective pathways to decarbonising European steel production would be to shift to more secondary production from recycled post-consumer scrap steel.¹³

There are also innovative examples of pioneering steel production via green hydrogen and electrification in Europe. These seek to produce near-zero carbon high-quality 'green' steel through the H2-DRI-EAF (hydrogen – direct reduced iron – electric arc furnace) process. If done with fully decarbonised electricity, this can result in up to 98% lower emissions than business-as-usual BF-BOF production.¹⁴ The volumes of steel produced currently through this process are low and cost more – Bloomberg New Energy Finance has previously estimated the cost of green steel at 40% more than unabated production.¹⁵ Nevertheless, H2-DRI-EAF will need to be scaled up significantly if the EU is to achieve its climate and industrial goals as articulated by the CID. This will require both supply and demand side measures.

For further views on the significant steps needed to scale up H2-DRI-EAF production in Europe, see IIGCC's [Policy paper: Investor priorities for transitioning the European steel sector.](#)

European steel products

European steel is mainly a premium market. There are generally two categories of steel products: flat products (e.g. sheets of steel used by the automotive sector) and long products (e.g. rods or beams used in structural applications). In the EU, demand for the former is larger than for the latter. In 2023, flat products made up about 60% of European production and long products 39%.¹⁶

Flat products generally require higher quality steel to make.¹⁷ Producing premium flat steel products via scrap-EAF is more challenging due to the presence of tramp elements in post-consumer steel scrap meaning it is often currently downcycled.¹⁸ As such, flat product market segments in Europe are most commonly met by BF-BOF production, whereas scrap-EAF steel is more frequently used for long products.

However, this is not always the case, nor does it have to be. Indeed, with sufficient sorting and higher quality scrap inputs, high-quality flat steel grades can be produced via scrap-EAF.¹⁹ For instance, Mercedes Benz already sources scrap-EAF produced flat steel products in Europe from Salzgitter and Arvendi, noting the reduced CO₂ content as an important benefit.²⁰ In North America, the EAF steelmaker Nucor is a major supplier to the automotive industry and claims to be able to compete with BF-BOF steel on most grades, geometry and surface characteristics.²¹

Off-taking sectors in Europe

In 2023, the real consumption of steel in Europe was around 138 Mt.²²

Construction is the largest single steel consuming sector, representing over 35% of steel consumption in 2023. It requires mainly long products, often produced via scrap-EAF.²³ Indeed, buildings and infrastructure together account for 56% of the EU's total scrap consumption.²⁴

The automotive sector is the second largest steel off-taking sector with over 19% of total finished steel demand. It is by far the largest end-user of higher-quality flat steel products.²⁵

Other top steel consuming sectors are mechanical engineering (around 15% of demand), metalware (14%) and tubes (9%). These are more heterogenous in terms of make-up and steel products used.²⁶ This, combined with their smaller sizes, likely limits their potential efficacy as avenues to stimulate low-carbon steel demand.

Box 1: A note on the availability and quality of scrap steel in Europe

There has been much recent debate about a potential shortage of steel scrap in Europe due to high export volumes. Given its importance as an input for a significant percentage of EU steel production, this recently led the Commission to start surveillance of scrap metal trade.²⁷

A study by the Commission's Joint Research Centre (JRC) initiated in response to such concerns concludes that there is no evidence of an imminent ferrous scrap shortage in Europe. While the EU is the largest global exporter of scrap, responsible for 30% of worldwide exports, this is primarily because of weak domestic demand linked in part to the overall decline in European steel production. The EU's own use of scrap has dropped significantly in the past ten years and remains well below previous levels despite no equivalent decline in domestic availability.²⁸

The JRC also notes that steel scrap, much like steel products themselves, is a heterogeneous resource. The quality of steel scrap can vary significantly with important implications for its usage. In Europe, the lower the quality of scrap the less it is used, and then only for low-demanding applications. Over 87% of EU-exported scrap is medium- to low-quality grades and nearly all of the high-quality scrap available remains in Europe. This is perhaps unsurprising given the premium nature of the European steel market explained above.

This suggests that the main issue for scrap steel in the EU is not the quantity available but the quality. The JRC notes that improving scrap quality in coming years is essential to meet EU industrial needs in high-specification applications and the CID's strategic autonomy objectives. This will require investments in advanced scrap sorting and recycling technologies. There is potentially a strong role for policy in creating the business cases needed to incentivise these with a clear timeline and sense of urgency.

However, to be effective, any policy interventions must consider the diversity and complexity of European steel production and consumption across the sector's heterogeneous market segments.

Public procurement and steel in Europe

Public procurement represents about 14% of the EU's GDP, with a value of roughly EUR 1.9 trillion annually.²⁹

Limited data availability

Public procurement occurs at multiple levels, ranging from national governments down to cities and small municipalities. Consequently, granular comparable data across the EU is poor. This makes reliable breakdowns, like-for-like comparisons between sectors and EU-level aggregations challenging.³⁰ Significant improvements in European public procurement data are desirable for more informed decision making by businesses, investors and policymakers – especially when it comes to developing potential lead markets for low-carbon products.

Nevertheless, it is important for institutional investors to understand approximately how much demand public procurement accounts for across the largest segments of the European steel market. This will have a significant bearing on the strength of the demand signal that can be sent by different policy interventions. These in turn will impact the corresponding business cases for investments in cleaner steel production and value chains.

Construction

Estimates from the Research Centre on the Environment, Economy and Energy (C3E) at the Brussels School of Governance suggest that construction is by far the most significant market when it comes to public procurement of steel.

Covering both buildings and infrastructure, it accounts for around 23% (about EUR 453 bn) of total public procurement expenditure. This equates to about 31% of the overall EU construction sector investments. Public procurement for construction is thought to use about 15.6 Mt of steel each year, representing around 11% of total European steel consumption.³¹

However, using public procurement to create new lead markets for low-carbon steel in the European construction sector is likely to be less effective than implied by these headline figures. This is because construction primarily uses long steel products often already produced via the scrap-EAF process with significantly lower emissions. C3E estimates this already accounts for about two-thirds of the steel publicly procured for construction in the EU.³²

The integration into construction procurement of non-price criteria for sustainability and resilience as envisaged in the CID would have the potential to boost this demand for recycled secondary steel further, if done well. However, it would likely not significantly incentivise better scrap sorting given the preponderance of long steel in this market segment.

The remaining approximate 5 Mt of flat steel demand mainly met by higher carbon intensity BF-BOF production only translates to around 3.5% of total EU steel consumption. This seems unlikely to be a sufficiently large enough market segment to enable the creation of lead markets for high-quality low-carbon steel on its own.

Automotive

The automotive sector, with its significant consumption of flat steel, undeniably has potential to drive demand both for near-zero H2-DRI-EAF steel and for higher quality scrap-EAF products. However, public procurement only plays a limited role in the European automotive market.

There are few recent studies examining the public procurement of automotive vehicles in the EU, potentially due to the data availability issues mentioned. The most relevant figures easily accessible are that only 2.5% of new car registrations in France and Germany were accounted for by public authorities. These are the only two countries with public data on the annual renewal of public vehicle fleets and together account for around 45% of EU registrations in 2023.³³ Extrapolating this to the EU-level suggests that publicly procured automobiles represent a very low level of European steel demand – at most a couple of percentage points and potentially less than 1%. This is almost certainly too small to form an independent basis for a lead market.

Other policy measures that seek to tap into the private automobile market, such as low-carbon or recycled content requirements, would likely stand a much greater chance of success. IIGCC intends to conduct future work exploring this area in 2026.

Conclusion

The steel industry and its value chain are important from a strategic, economic and emissions perspective. Institutional investors welcome the focus of European policymakers on the sector's transition as part of the Clean Industrial Deal.

When assessing the impact of potential policy interventions on the sector's transition in a challenging global context, investors will look closely at how the tools deployed will likely impact the business case for decarbonisation for specific segments of Europe's diverse steel market.

The more granular analysis covered in this paper suggests that public procurement could play a role in further boosting demand for scrap-EAF steel in the construction sector. However, demand here is already relatively high, meaning potentially limited additionality. Furthermore, the long steel products generally consumed by the construction industry seem unlikely to drive demand for cleaner higher-quality steel. In contrast, while the automotive sector is promising for lead markets in terms of the type of flat steel products required, it has insufficient demand from public procurement for that lever to play a major role.

As such, it would be necessary to complement any public procurement-related interventions intended to drive demand for low-carbon steel with actions more targeted to the most impactful segments of the European steel market. This could include requirements for automobiles to contain a certain percentage of low-carbon or recycled steel. Consideration of such potential content requirements will be an area of further work for IIGCC in 2026.

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