
What should the next EU Commission do to achieve a sustainable, resilient and competitive industrial sector by 2035?

Panel 3: European support for transformational challenges

Matthias Buck

11 June 2024



We recommend four main priorities for the next EU policy cycle

- 1** Developing missing incentives for strategic manufacturing in Europe, while diversifying global value chains for crucial green materials.
- 2** Scaling up markets for climate-friendly materials and technologies.
- 3** Prioritising direct electrification of industrial process heat.
- 4** Mainstreaming circular economy incentives and technology funding into EU industrial policy.

Focus 1: Strengthening strategic manufacturing in Europe while diversifying strategic value chains

Main cleantech value chain risks from an EU perspective

Solar PV	Wind (On-/Offshore)	Electrolysers	Heat pumps	Batteries
Market dominance of China along the entire supply chain, low starting point in EU	Profitability of the sector	Market uncertainty	Installation bottlenecks	Sourcing of raw and processed input materials
Limited production of pre-components	Single supplier dependence on critical raw materials and components (permanent magnets)	Production competitiveness in the established alkaline sector	Market and demand uncertainty given volatile regulatory environment	Market dominance of Asian industry leaders
Profitability and competitiveness of production	Increasing competition from China	Reliance on critical raw materials with limited sources	Low economies of scale compared to competitors	

Rationale

→ Reconciling resilience & domestic green jobs with openness

EU record

→ NZIA, CRMA

Gaps

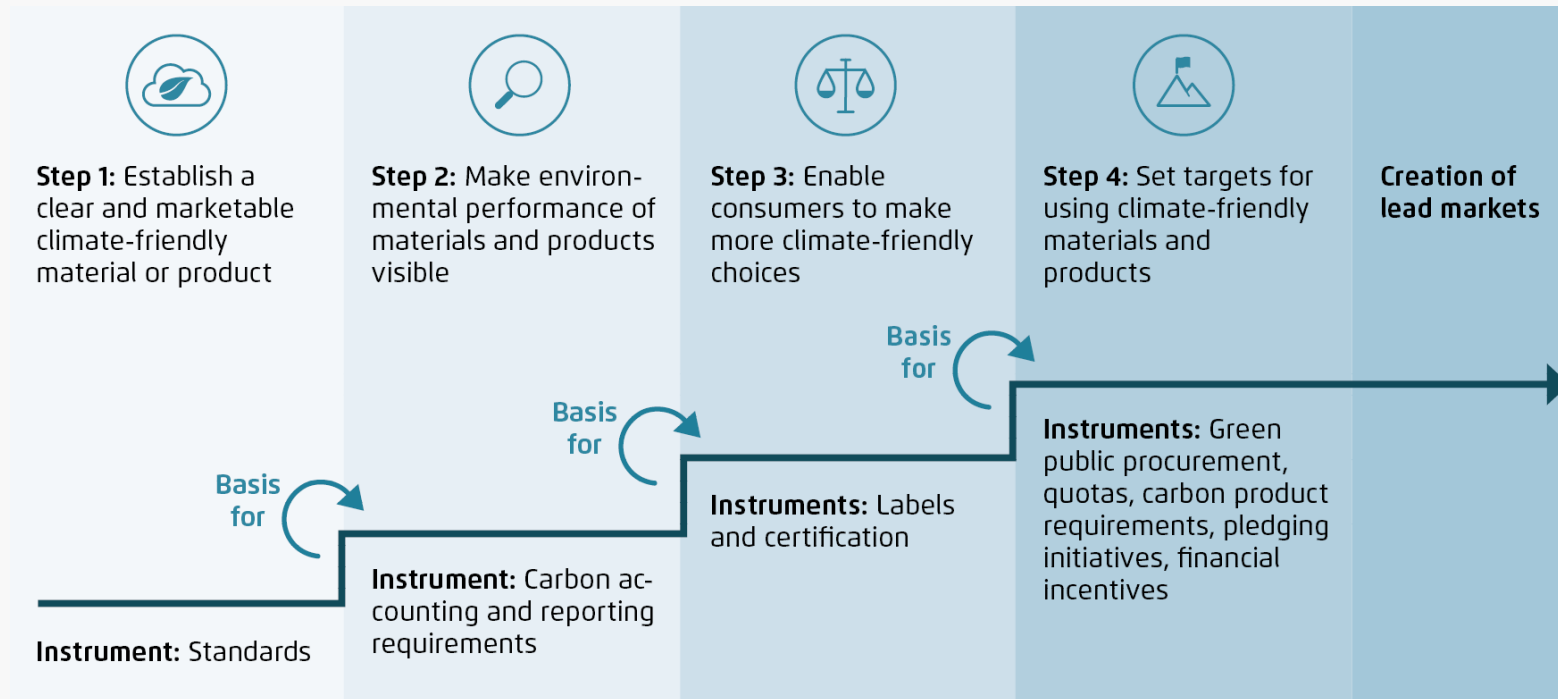
→ Scope
→ Missing incentives

Focus 1: Strengthening strategic manufacturing in Europe while diversifying strategic value chains

- 1 Develop missing **economic incentives to achieve the NZIA/CRMA targets** through: expanding the use of credit guarantees and avoiding the InvestEU cliff in 2025; offering below market interest loans to investors in strategic value chains; setting clean tech deployment goals; providing access to discounted industrial electricity prices when linked to clean PPAs.
- 2 Attempt to **renegotiate key trade and investment relationships**, seeking to achieve voluntary export restrictions in return for trade peace, while being committed to deploy trade instruments if needed.
- 3 Provide **clarity on demand for clean materials for investors inside and outside the EU** through: setting technology deployment targets in key categories; creating non-discriminatory lead markets for green basic materials; and leveraging EU companies to support bilateral deals on green materials and components.
- 4 Develop **strategic energy and industrial partnerships**, focusing on specific value chains rather than big trade deals and offering concessional finance for outbound FDI in cleantech and critical raw materials product in strategic partner countries (on condition of priority trade access).

Focus 2: Scaling up lead markets

Steps to an efficient policy mix for the creation and scale up of green lead markets for climate friendly materials and products



Rationale

- Upfront costs
- Buyers' conservatism
- Cope with fiscal instruments and carbon pricing limits

EU record

- CPR
- Ecodesign Regulation
- EBPD
- NZIA

Gaps

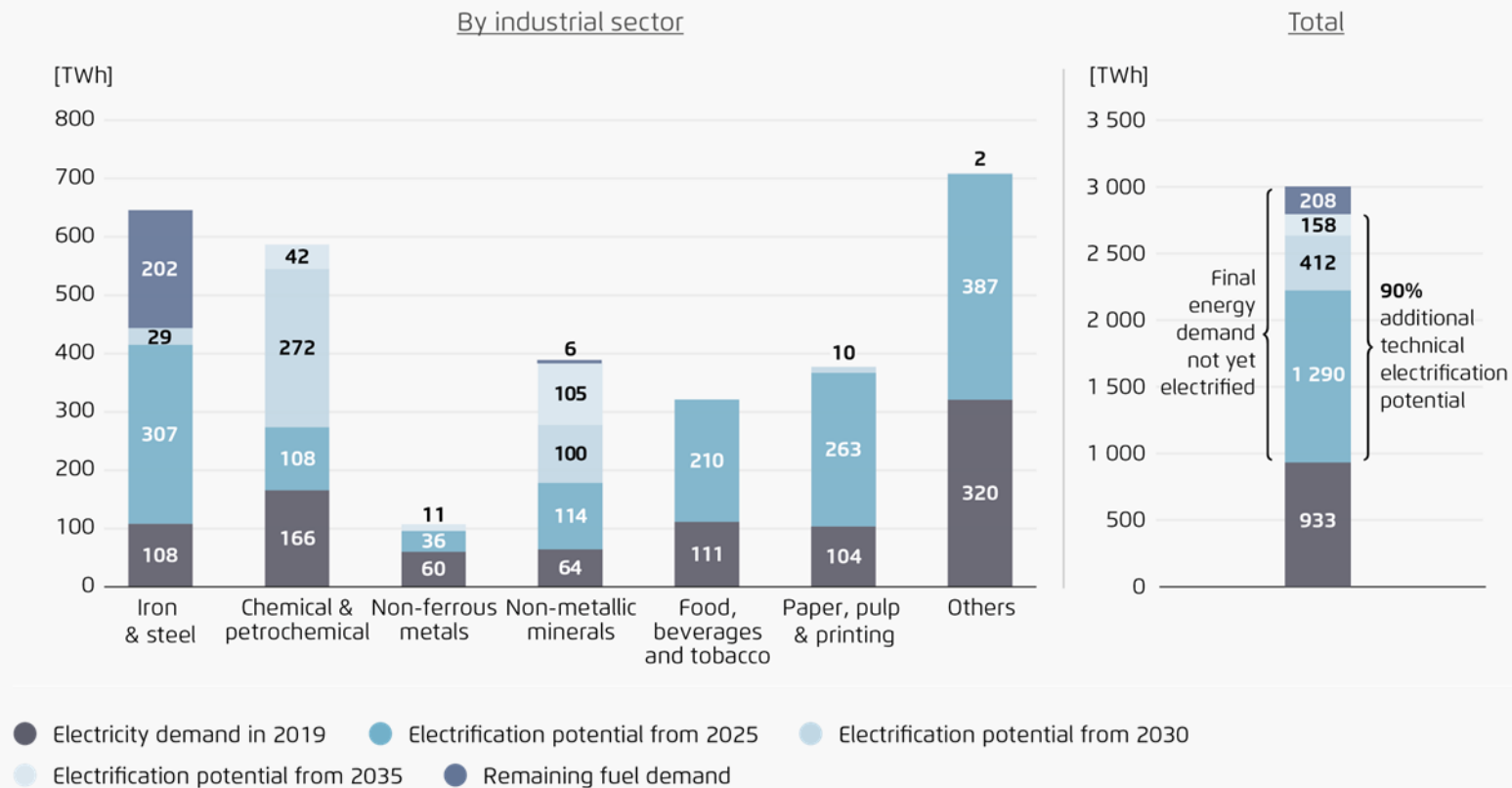
- Preliminary and scattered action

Focus 2: Scaling up lead markets

- 1 Develop **harmonized definitions on low carbon and recycled materials**, especially for steel, cement and basic chemicals.
- 2 Ensure robust implementation of the **embodied carbon requirements for new buildings** under the EPBD, and **product performance requirements**, especially for iron and steel, aluminium and chemicals, under the Ecodesign Regulation.
- 3 Develop **embodied carbon reporting requirements for non-building products that are material-intensive**, such as new vehicles, infrastructure, packaging, heavy equipment and machinery.
- 4 Facilitate rapid implementation of **national green public procurement requirements** for basic materials like steel and concrete in construction (building on CPR and Ecodesign), linked to public works and infrastructure projects.
- 5 Develop **private buyers' alliances** of European companies to rapidly pool & scale demand for green basic materials and intermediate products.

Focus 3: Prioritise direct electrification of industrial heat

Technical potentials for direct electrification by industrial sector (left) and total (right) in the EU-27 based on 2019 energy demand



Rationale

→ Alternative options (hydrogen, CCS, biomass) all come with intrinsic factors that make them more costly than direct electrification in the long run. They are less energy efficient, more capex intensive, and subject to high scarcity in a decarbonized economy.

Barriers

→ Economic

→ Technical

→ Organisational

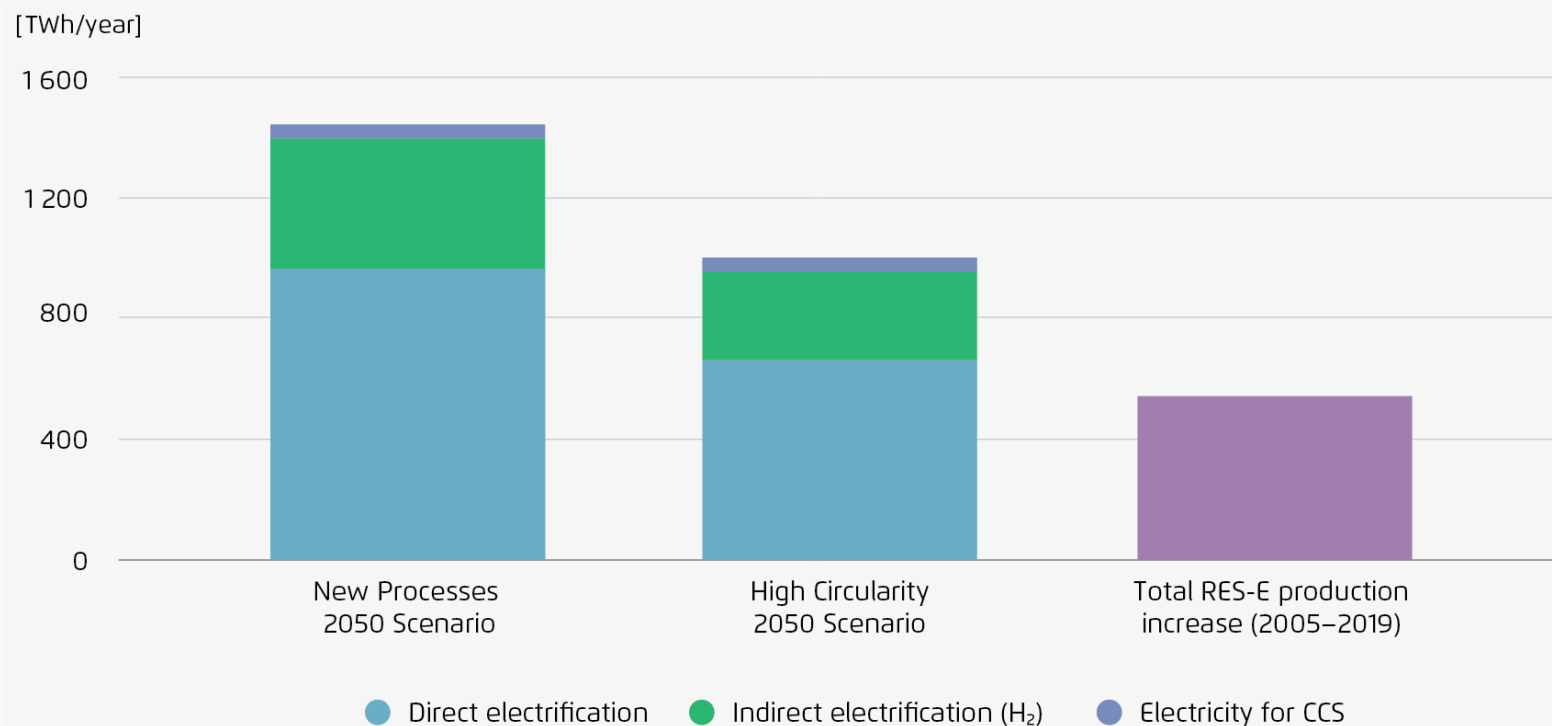
Focus 3: Prioritise direct electrification of industrial heat

Elements of an Industrial Electrification Action Plan

- 1 Industrial initiatives:** Establish an Industrial Direct Electrification Technologies Alliance and make industrial heat pumps a core focus of the EU's Heat Pump Accelerator
- 2 Targets:** Set clear heat pump and e-boiler deployment targets and clear phase out dates for use of fossil gas in low and medium temperature industrial heat applications
- 3 National heat strategies:** Require member states to develop dedicated net-zero industrial heat strategies that can feed into their NECPs for the period 2030–2040
- 4 EU funding:** Incorporate industrial direct electrification technologies into EU cleantech funding windows (pilots and large-scale demonstrators)
- 5 Improved grid planning:** Ensure prioritization and planning certainty for the expansion of distribution grids for industrials opting for direct electrification solutions, e.g. accelerated and cost-light grid connection

Focus 4: Mainstream circular economy incentives into EU industrial policy

Additional power needs for the decarbonization of steel, cement and chemicals (high vs. low circularity scenarios)



Rationale

- Technological opportunities
- Resilience
- Competitiveness

EU record

- ELV directive
- CRMA
- Battery regulation
- Ecodesign Regulation

Gaps

- Limited scope – primarily revolves around waste management

Focus 4: Mainstream circular economy incentives into EU industrial policy

- 1 Set new regulatory requirements and safeguards to improve recycling through:**
 - Introducing minimum recycling performance standards in key value chains and design for circularity requirements for key technologies (e.g. upgradeability, remanufacturing and re-use)
 - Introducing safeguards for waste incineration, stricter regulation for illegal dumping, and export restrictions for secondary materials (e.g. used batteries and solar panels)
- 2 Expand markets for recycled basic materials:**
 - Establish minimum recycled content requirements for products containing large amount of CRM and CO₂-intensive basic material (Batteries Regulation and ELV proposal model)
- 3 Mobilise additional funding for circular economy:**
 - Earmark EU funding in existing instruments (e.g., Innovation Fund) and in a future Green Deal Implementation Fund

Thank you for your attention!

Do you have any questions or comments?

Matthias.Buck@agora-energiewende.de