NEW INDUSTRIAL POLICIES: LESSONS FOR THE EU AND THE CLEAN INDUSTRIAL DEAL

Case study: New industrial policy in the EU

Paolo Monteiro de Macedo (Independent Expert), Nicolas Berghmans, Céline Kauffmann, Philippine Lévy (IDDRI)

NOTE

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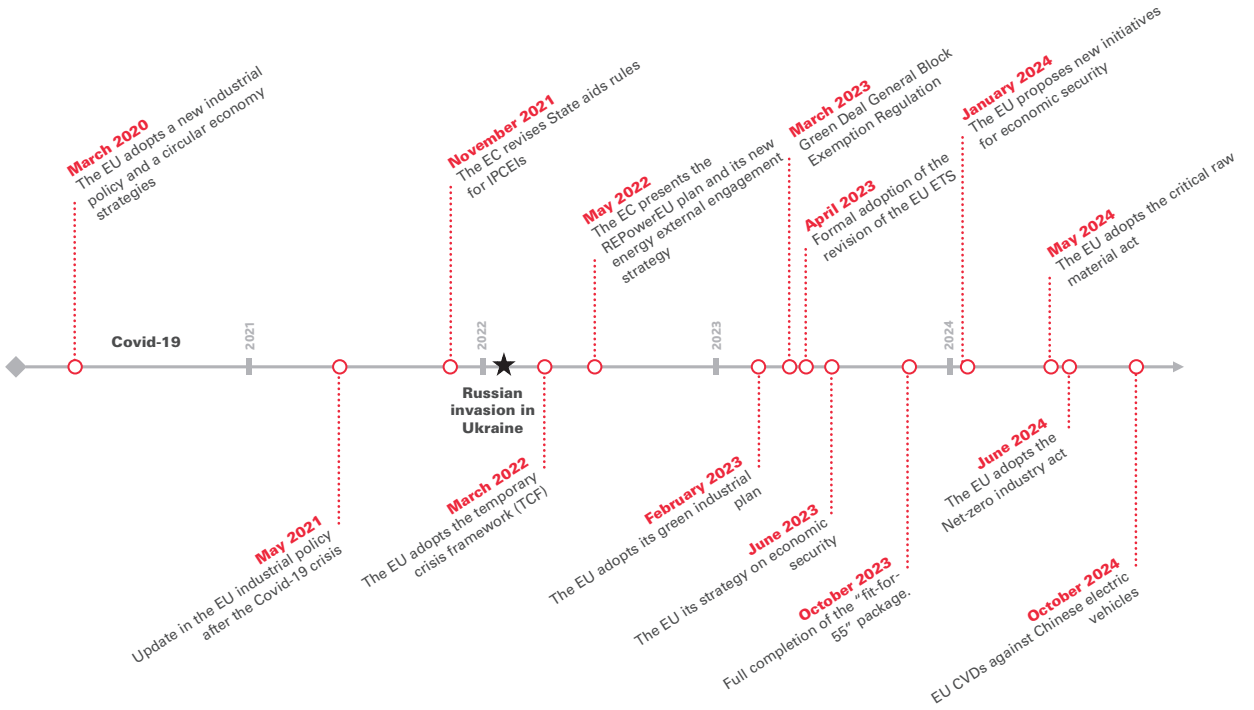
In the context of the Green Deal, the European Union has increased its focus on industrial policy from 2020 onwards. This originated in the twin green and digital transition and increased its focus on resilience of supply chains following the Covid-19 crisis and large-scale invasion of Ukraine by Russia. The EU holds competencies in several matters relevant for industrial policy: trade, competition, energy and environment policy, innovation. However, all these policies were treated in silos and historically have not been articulated together or with Member States' policies in a consistent industrial policy framework. In this effort to coordinate industrial policy in a consistent strategy, new legislations were adopted (NZIA, CRMA), and new common instruments were developed to financially support innovative or "first of a kind" industrial developments: the Innovation Fund, with a clear decarbonization agenda and IPCEIs. Still, the EU policy significantly relies on two "traditional" pillars: the Members states through its State Aid framework, and regulation, incentivizing the greening of products. In order to strengthen European economic security, the European Commission was equipped with new and stronger economic defense tools including trade and investment screening instruments, and means for coordinating joint action for securing critical minerals and energy supply.

This case study is related to the *Study* New industrial policies: Lessons for the EU and the Clean industrial Deal

Figure A.1 European Union timeline



1. INDUSTRIAL STRATEGY – DIRECTION, PLANNING & GOVERNANCE

1.1. Political directionality of the national industrial strategy

The first von der Leyen Commission has progressively refined its strategy for a European industrial policy in the context of the Green Deal. European industrial strategy was based on three successive building blocks: the "New Industrial Strategy for Europe" (March 2020), the update of the New Industrial Policy for Europe (May 2021) and finally the "Green Deal Industrial Plan for the Net-Zero Age" (February 2023). This movement translates three main evolutions:

1. A more precise definition of the means and tools available for industrial policy, linked to a combination of green transition priorities and short-term measures to address the adverse economic effects of the Covid-19 crisis and the large-scale invasion of Ukraine, mostly by facilitating state aids and easing regulation requirements;
2. A clearer commitment to "twin" and especially green transition, with the circular economy strategy as the flip side of a coin, notably with the clear definition of targets on greenhouse gas emissions, clean technologies manufacturing development and sourcing of critical materials;
3. The reinforcement of a discourse around "strategic autonomy" that aims to "de-risk" global supply chains (as exemplified by the targets set in the Critical Raw Materials Act).

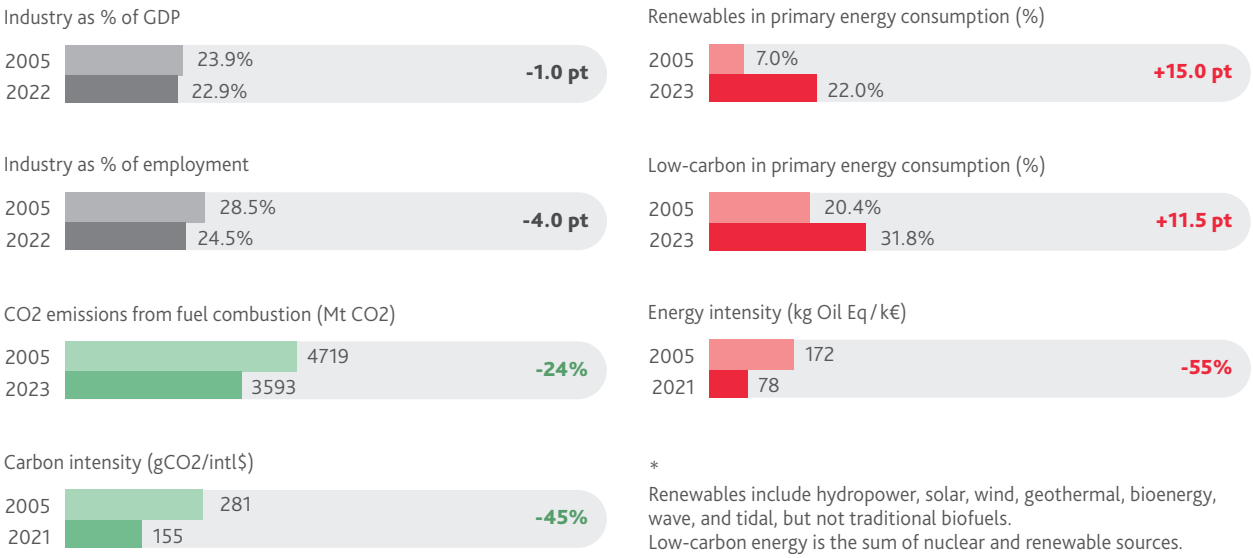
These policy developments ultimately led to the publication of the Clean Industrial Deal (CID) on 26 February 2025, a landmark strategy paper for the second von der Leyen Commission. The CID is structured around six main pillars: affordable energy, boosting demand for clean products, financing the clean transition, circularity and access to materials, skills and quality jobs, and finally global markets and international partnerships.

Direction is therefore clear but is supported with limited EU financial resources due to the limited EU budget which relies on Member states' action. The 2025 Clean Industrial Deal partially copes with this limitation by suggesting the creation of a competitiveness fund, but it nonetheless critically relies on the update of the InvestEU Regulation.

1.2. Technological and environmental objectives of industrial policy

The European industrial strategy is built upon the Green Deal objectives, that is to say the "Fit-for-55" package", which sets an overall target of reducing GHG emission by 62% by 2030 compared to 2005 for the industry and power sectors. This overall emission reduction target does not however translate into detailed industrial decarbonization roadmaps. Some Member States have however developed such decarbonization roadmaps, which are reflected in their National Environment

Figure A.2 European Union indicators



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Renewables include hydropower, solar, wind, geothermal, bioenergy, wave, and tidal, but not traditional biofuels.
Low-carbon energy is the sum of nuclear and renewable sources.

and Climate Plans (NECP). Some objectives for the deployment of green industries exist in the form of sectoral targets, for instance the share of renewable energy or of Renewable Fuels of Non-Biological Origin (RNFBO) in aviation/maritime fuel. They were complemented by the adoption of clean tech manufacturing targets in the NZIA. Different European policies however define more specific sectoral targets:

- The Critical Raw Material Act (CRMA) sets benchmarks to reach by 2030 for strategic raw materials: 10% of EU annual consumption from EU's extraction capacity, an EU processing capacity of at least 40% of annual consumption, and a recycling capacity of at least 25% of the EU's annual consumption.
- The Net Zero Industrial Act (NZIA) sets an overall benchmark target of manufacturing at least 40% of strategic net-zero technologies deployed in the EU by 2030 and reaching 15% of world production by 2040.

The Regulation on the Governance of the Energy Union and Climate Action (December 2018) has moreover introduced a coordination mechanism by imposing the definition of integrated National Energy and Climate Plans (NECPs), that are often closely related with national industrial policies within Member states.

1.3. Institutional setup supporting the implementation of the industrial policy

The EU has developed flexible governance mechanisms for specific sectors or industries but does not have a clearly identified governing body responsible for the definition and implementation of industrial policy (which is not directly part of EU's competence), and the coordination of Member states. The soft governance mechanism encompasses "net-zero alliances" (such as the Hydrogen alliance) that create a forum between industry representatives and the European Commission. The NZIA has created a new "Net-Zero Europe Platform" (launched in February 2025) monitoring the implementation of the Act, and enabling Member states to share experiences with recommendations. It also should be the matrix of Net-Zero Industry Group consisting of promoters of net-zero strategic projects.
The presentation of a "Competitiveness compass" by the European Commission in January 2025 further announced the creation of a "competitiveness coordination tool", of which the objective will be to better align common strategic interests at EU and national levels.

2. DEVELOPMENT OF A CARBON PRICING MECHANISM

The EU Emissions Trading System (EU ETS) was launched in 2005, and is the world's first major carbon market and a key tool of EU climate policy. It covers around 40% of EU emissions, including power, heavy industry, and intra-EU flights. For many years, prices remained low (often under 10€/tCO_2) due to over-allocation of allowances. However, recent reforms in the phase 4 of the ETS (2021-2030) and the creation of a market stability reserve in 2019 have tightened the system, leading to higher greenhouse gas prices. In 2024, the price of a European CO_2 emission allowance in the general allowances

auctions reached about 70€.[1] The completion of the "Fit-for-55" package in October 2023 has notably enabled an update of the emission trading system (ETS), the extension of the ETS to new markets (ETS-2 for transport and buildings), the phase out of free allowances for sectors subject to carbon leakages and the creation of a carbon border adjustment mechanism (CBAM) for imported emissions. The CBAM covers six sectors (iron and steel, aluminum, cement, fertilizers, electricity and hydrogen) and will eventually—when fully phased in—capture more than 50% of the emissions in ETS covered sectors.[2] Debates around the scope of CBAM still remain, notably about whether new sectors should be included in the mechanism, including upstream and downstream activities of the six sectors included today. How to approach export compensation, as exports are currently not included in the CBAM is also still in debate, as well as how to avoid circumvention of the mechanism without raising exponentially administrative costs for companies.

3. SUPPLY-SIDE SUPPORT TO INDUSTRIES

3.1. Support mechanisms for R&D&I focused on new green technologies

The EU has two main funds for the financing of R&D&I: Horizon Europe and the Innovation Fund. Horizon Europe is the main European funding program for research and innovation granted with €95.5 billion for the 2021-2027 period. It supports mostly basic research or R&D projects with a low technological readiness level (below the industrialization stage), with 2 out of 5 research and innovation missions related to green technologies (adaptation to climate change and climate neutral & smart cities). A €15.123 billion budget was dedicated to the "Climate, energy and mobility" cluster, including €1.35 billion from Next Generation EU.

The Innovation Fund (IF) is a new innovation fund created in 2018, funded through the revenues of ETS auctions with an estimated budget of about €40 billion for the 2021-2027 period. It supports "highly innovative technologies, processes, or products that have significant potential to reduce GHG emissions". The IF applies a technology neutral, bottom-up approach in its selection process: the main awarding mechanisms are thematic open calls for proposals either for small (CAPEX below €7.5 million) or large-scale projects (CAPEX above €7.5 million). The Innovation Fund supports both green technologies manufacturing, decarbonization, and innovation, and therefore overlaps with different categories of subsidies towards industries (see sections below).

Our interviews highlight that the Innovation Fund has largely evolved since its creation. Initially, it was largely based on a bottom-up approach without prior technological planning and has increasingly been used for different purposes. It was conceived as a European one-stop shop for any innovative decarbonization project whose main criteria were the degree of innovation, the cost efficiency (euro/tCO_2 avoided) and the level of GHG emissions avoidance. These features influenced subsequent experimentations like the European Hydrogen bank or reflections around a European carbon contract for difference (which ended up not being implemented). IF funding can also be complemented and coordinated with additional funding from Member states. The second round of the European Hydrogen Bank in 2025 aims at developing this type of coordination (see below).

3.2. Support mechanisms for the development of new green technologies production units

The EU has no mechanism for a direct contribution to the development of new green technologies production units, with the notable exception of the European Hydrogen Bank auctions, which was endorsed by the Innovation Fund. The first round of the Hydrogen bank led to the selection of 7 projects in April 2024 which will receive a total of €720 million. Selected projects receive a fixed premium on production for a maximum period of 10 years. The IF was used as a financing platform for the project selected with the first round of the Hydrogen Bank. A second round of auction was closed in February 2025 and will award up to €1.2 billion. The key novelty of this second round was the development of a domestic pillar with 3 countries (Spain, Lithuania and Austria) participating in the 'auction-as-a-service' scheme, enabling the addition of €700 million in national funds to support renewable hydrogen production. These additional national funds benefit from a streamline State aid approval process. This coordination could be extended to further sectors.

The other key mechanism developed by the EU is the simplification and easing of the European state aid framework allowing MS to support industries pursuing a societal objective. The first key instrument developed in that respect was the extension of the important project of common European interest (IPCEI) framework. IPCEIs are cross-border projects that overcome "market failures" and enable "breakthrough innovation in key sectors and technologies and infrastructure investments, with positive spillover effects for the EU economy at large." The rules for IPCEIs were updated in November 2021 to facilitate the development of these instruments. In practice, IPCEIs allow a special state aid framework for selected projects. To date, only 10 IPCEIs have been implemented, 6 of them relating to green technologies (4 for green Hydrogen, 2 for batteries), allowing more than €37 billion in state aid and attracting an expected €66 billion in private investment. There is ongoing debate around the reform of this mechanism, to consider if it should evolve to enable the creation of smaller size, with simpler application process IPCEIs, and facilitate European Commission's initiative, which for now has only a limited coordination role with the Joint European Forum (JEF).

[1] Directorate-General for Climate Action (Nov. 2024) 2024 Carbon Market Report: a stable and well-functioning market, driving emissions from power and industry installations to a historic reduction of 16.5%

[2] European Commission. (2025). Carbon Border Adjustment Mechanism

The second key element is the Green Deal General Block Exemption Regulation (GBER), adopted in March 2023. The revision of the GBER has extended and simplified the possibilities of state aid for facilitating the financing of the green and digital transitions.

3.3. Support mechanisms for the decarbonization of existing industrial production units

State aid has historically been governed by competition rules of the EU as part of the Treaty of the Function of the European Union (TFEU): they are usually forbidden unless they are considered as necessary to contribute to a well-functioning and equitable economy and approved by the European Commission's DG Competition. In recent years, environmental objectives have increasingly been used by States to obtain exemptions to these rules, notably in the energy sector with renewable energy projects, and more generally for decarbonation aids and green industry. As a result, state aid frameworks have been regularly revised since 2014, with notably a 2016 communication[3] from the Commission synthesizing frequent decisions and case law on state aid. The most recent announcement of a revision of state aid rules has been through the Clean Industrial Deal package: in this context, the European Commission has announced a Clean Industrial State Aid Framework (CISAF) to be adopted in the second quarter of 2025. This Framework will build on and ultimately replace the Temporary Crisis and Transition Framework (TCTF), and contains provisions for aid measures accelerating the rollout of renewable energy, facilitating industrial decarbonization, ensuring sufficient manufacturing capacity in clean technologies, and de-risking private investments.

The possibilities offered by the Green Deal General Block Exemption Regulation and the Innovation Fund are, to date, the main instruments available for decarbonization projects (the IF have announced in March 2025 to have supported 77 projects, worth €4.2 billion, through its 2023 call for decarbonization projects). The Clean Industrial Deal has suggested the creation of a new "decarbonization fund", which should regroup the Innovation Fund and the Hydrogen Bank, and which will potentially be equipped with additional resources.

The Innovation Fund can also finance industrial decarbonation projects, through for instance hydrogen production projects which are supported by the Hydrogen Bank. The idea of creating an Industrial Decarbonization Bank in the context of the Clean Industrial Deal could strengthen these mechanisms.

4. DEMAND-SIDE SUPPORT TO INDUSTRIES

4.1. Support mechanisms incentivizing private demand in green markets

The EU does not directly support private demand through subsidies for green products. Such subsidies are provided by EU Member States. The European Commission acts more like an observer and advises Member States on these policies (for example the European Alternative Fuels Observatory provides reviews and reports on national measures to support the development of electric vehicles in Member states).

4.2. Public procurement strategy favoring green products and local content requirements

The European Commission has had a voluntary Green Public Procurement (GPP) policy since the early 2000s, formalized in the "¨Public procurement for a better environment" communication,[4] which defined voluntary GPP criteria.

The 2020 Circular Economy Action Plan stated that the Commission was to propose minimum mandatory GPP criteria. The Ecodesign for Sustainable Products Regulation (ESPR) of July 2024 further enables the Commission to establish, through implementing acts, mandatory Green Public Procurement requirements (technical specifications, award criteria, contract performance conditions or targets).

The NZIA has recently introduced a new rule systematically disadvantaging foreign production of net-zero technologies in public procurement by increasing the price by 10% if the third-party country holds more than 50% of the EU market size, or has a growing EU market share, except if the price difference is superior to 20%. The NZIA also plans that public procurement should give the tender's sustainability and resilience contribution a weight between 15% and 30% of the award criteria (Art. 19).

The Clean Industrial Deal also announced a revision of the Public Procurement Framework in 2026 to allow for sustainability, resilience and European preference criteria in EU public procurement for strategic sectors. The Clean Industrial Deal communication mentions that public procurement criteria will be essential to create "lead markets".

4.3. Regulation and norms favoring green industries

The EU acts as a strong regulatory power on the whole range of products offered on the common market. Through regulatory processes, such as the adoption of the Ecodesign for Sustainable Products Regulation in July 2024, it incentivizes the change towards greener products.

[3] Commission Notice on the notion of State aid, European Commission, 2016

[4] Public procurement for a better environment, European Commission, 2008

In many regulations, measures have been introduced to favor the development of green industries. The regulation on batteries and waste batteries (July 2023), or the regulation setting CO_2 emission performance standards for new passenger cars and light commercial vehicles, both contain important technical requirements that have an impact on the development of green products (CO_2 emission level for passenger cars and LCVs, minimum levels of recycled contents in batteries).

The Net Zero Industrial Act (June 2024) is the key regulation piece which facilitates the development of "net-zero strategic projects". These strategic projects benefit from a priority status for regulatory approval and permitting process, a single point of contact at the relevant administrative level and fast-tracked environmental assessment with authorization process. It also enables the creation of net-zero acceleration valleys (specific areas benefiting from similar simplification measures) and "net-zero regulatory sandboxes" for innovative net-zero technologies.

5. LABOR AND SOCIAL POLICIES FOR A JUST INDUSTRIAL TRANSITION

The EU has created with the new 2021-2027 a Just Transition Fund for supporting regions which are expected to be negatively impacted by the transition towards climate neutrality (especially former coal regions). With a total budget of €19.3 billion, it supports multiple actions of economic diversification such as up- and reskilling of workers, investment in SMEs, environmental rehabilitation, and investments in clean energy.

The Clean Industrial Deal schedules the establishment of a "Union of Skills", as well as a "Quality Jobs Roadmap", and an Erasmus+ to reinforce education and training programmes to address skills shortages in key sectors. It also announced other horizontal policies (cutting red tape, better coordinating policies at the EU and national level…). The Commission will also create a European Fair Transition Observatory, and produce an evaluation of the Just Transition Fund, to inform the design of future instruments.

6. TRADE AND INTERNATIONAL POLICIES SUPPORTING INDUSTRIAL POLICIES

6.1. Policies aiming at improving resilience and de-risk global supply chains

The Critical Raw Material Act (CRMA) adopted in May 2024 was the main response provided to cope with the risk of strategic raw materials supply chain disruption. Similar to the NZIA, it develops a specific status for "strategic projects" by facilitating and accelerating the permitting process for mining, processing, refining or recycling of strategic raw minerals projects. It also forces the EC, in collaboration with the Member states, to implement stress tests at least once every 3 years on strategic raw materials. Member states must, on their side, monitor "key market operators" in the critical raw materials supply chain. The EC has to create a joint purchasing mechanism, enabling to aggregate demand of interested European off-takers. The Commission has published in May 2025 a communication with information on the shares of the EU's supply of clean tech products from third countries.[5] The EU has historically been cautious about using trade instruments. However, it recently expanded its arsenal of measures against "unfair" foreign economic competition and makes active use of these instruments. Multiple new regulations were recently adopted, reinforcing the power of the European commission against economic coercion or discriminatory third-party country economic policy:

- **The new EU Anti-coercion Instrument** (December 2023): aims to deter and respond to economic coercion. In the advent of such coercion, it provides to the EC a wide range of possible countermeasures.[6] **The Foreign Direct Investment Screening regulation** (October 2020): harmonizes and creates a cooperation mechanism to enable the exchange of information when foreign investments pose a threat to the security or public order of more than one MS or could undermine a project of interest to the whole EU.
- **The International Procurement Instrument** (August 2022): It aims to promote reciprocity in access to international public procurements markets. The EC may initiate investigations on measures that negatively affect the access of EU businesses, goods or services to non-EU procurement markets and may impose measures to restrict access to EU public procurement from that country. For instance, a first investigation launched in April 2024 concluded in January 2025 that EU medical device makers were submitted to unfair treatment in China.[7]
- **The regulation on Foreign Subsidies** (July 2023): similar to IPI measures, it sets rules to enable the EC to address distortions caused by foreign subsidies after an inquiry which verifies whether foreign subsidies have distorted the EU's internal market (including in cases of merger and acquisitions). This regulation was recently used to add "countervailing duties" on Chinese vehicle in October 2024.[8]

[5] European Commission, Communication providing updated information to determine the shares of the EU supply of final products and their main specific components originating in different third countries under the NZIA, May 2025

[6] Imposition of tariffs, restrictions on trade in services and trade-related aspects of intellectual property rights, and restrictions on access to FDI and public procurement

[7] European Commission (Jan 14, 2025) Commission to assess next steps for tackling discrimination in China's public procurement market for medical devices

[8] European Commission (Oct. 29, 2024) EU imposes duties on unfairly subsidised electric vehicles from China while discussions on price undertakings continue

6.2. Policies supporting internationalization of national industries

After the invasion of Ukraine by Russia in February 2022, the EU has developed an external energy engagement strategy (May 2022) which notably aims to secure access to LNG supply. New fora were created to discuss with partner countries (Canada, trilateral dialogue with Egypt and Israel, Norway). The EC has also engaged in a strong "raw material diplomacy" by forming new partnerships and policy dialogue with 13 mineral-rich countries for diversifying and securing supply of critical raw materials.

The European international cooperation policy is centered on the Global Gateway Initiative. The "Team Europe" alliance should deliver up to €300 billion of investment for sustainable and high-quality projects in foreign developing countries. This policy may evolve with the development of new "Clean Trade and Investment Partnerships" (CITP). The Clean Industrial Deal has refined what should be these CTIP: they should focus on "better managing strategic dependencies and securing the EU's position in crucial global value chains", "foster cooperation on energy technology and policies for the clean transition, and support decarbonization efforts in partner countries". CITPs will aim to address under the same framework trade partnerships, investment and financing policy, as well as climate cooperation (through Nationally Determined Contributions and carbon pricing measures). To this end, the EU will rely on investments through Global Gateway investment, develop business opportunities for EU companies and develop regulatory cooperation in particular for clean technologies, circularity, decarbonization standards and carbon pricing.

Monteiro de Macedo, P., Berghmans, N., Kauffmann, C., Lévy, P. (2025). New industrial policies: lessons for the EU and the Clean Industrial Deal - Case study: New industrial policy in the EU. IDDRI, *Note*.

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CONTACT
nicolas.berghmans@iddri.org
philippine.levy@iddri.org

Institut du développement durable
et des relations internationales
41, rue du Four – 75006 Paris – France

WWW.IDDRI.ORG
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