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A Green Industry for Europe: Policy Priorities

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The European Green Deal was presented by the European Commission as the central EU project of the 2020s, committed to reducing European greenhouse gas (GHG) emissions by 55% by 2030. Industry will play a critical role in achieving these targets. It is responsible for 20% of emissions in the EU (20% and 24% of national emissions in France and Germany), and significantly more if one considers indirect emissions via power use, fossil fuel extraction and transport, and waste incineration. This sector is also central to the economy, representing an estimated 13% and 23% of the French and German GDP respectively, one in ten jobs in France, and almost one in seven jobs in Germany. Moreover, the pandemic put industry back at the heart of Europe's economic recovery debate, as a means to secure and, more importantly, create industrial jobs by relocating or developing new industries. Though emissions have been declining since 1990, largely thanks to efforts in increasing energy efficiency, the industrial sector is now increasingly pressured to contribute its share to decarbonizing the economy. The latest hike in energy prices has also confirmed that transitioning to a more local and decarbonized energy system will only benefit these industries, calling for quicker action.

Within this context, what strategies could be followed at national and European levels, and which should be prioritized by German-French cooperation on industry?

¹The updated German Climate Protection Law from June 2021 has sectoral targets for 2030 corresponding to an emissions reduction of -37% compared to 2015 for the industry sector. The French national strategy SNBC2 from 2020 has a 35% emissions reduction target between 2015 and 2030 for the industry sector, a target that will need to be increased along with the overall target to be in line with the EU Green Deal.

Preparing new investments in production processes for a climate neutral world

Achieving the EU's 55% emissions reduction target means that industry emissions need to be reduced by 22 to 25% on average between 2015 and 2030, translating into at least -35% for both France and Germany¹. Within this context, the challenges faced by French and German industries bear many similarities. Though Germany has a larger manufacturing industry than France, both have a car industry they aim to preserve. The lion's share of industrial emissions stems from a handful of energy-intensive basic materials sectors, such as steel, aluminium, cement and basic chemicals production. These sectors face strong international competition. They also require large long-term investments of up to 70 years in production facilities, of which 30 to 50% reach their operational end-of-life and will require major reinvestment in Europe by 2030. These investments need to be compatible with the climate neutrality target, or their operation costs will skyrocket over time – and they will ultimately become stranded assets, with jobs and regional economies at stake.

We have solutions for most industrial processes in the basic materials sectors, though they tend to be more costly than existing conventional processes. Low carbon technologies are available and mostly need to be scaled up in order to reduce their costs. It is thus realistic to expect steel to be produced cleanly soon with the use of decarbonized hydrogen.

Cost parity with matching carbon-intensive processes may be achieved in the 2030s – but only if we trigger investments now and steer CO₂ prices up with the right instruments. Some processes will, however, need to rely on technologies that require further development, e.g. cement production, for which carbon capture, use and storage (CCUS) is likely to be needed.

Today, industrial products are being traded internationally in very competitive markets. Investments necessary for climate action need to be incentivized during the transitional period, while maintaining protection against the risk of carbon-leakage. Moreover, in the short term, immediate supply chain issues and covid-related uncertainties represent additional challenges to implementing a green industrial policy.

Industry at the heart of the EU Green Deal and recovery packages

The European Commission outlined several industry-focused proposals in its Fit for 55 package. These recommend higher contributions towards a net zero economy from the industrial sector, notably through the tightened EU Emissions Trading Scheme (ETS) directive and Effort Sharing Regulation (ESR), complemented by a [carbon border adjustment mechanism](#) (CBAM). The EU taxonomy for sustainable activities, the new State aid guidelines, the gas package or the yet to come Eco-design directive embedded in the Sustainable Products Initiative additionally aim to support the development of new sectors.

The proposed [reform of the ETS](#) aims to reduce the cap – the maximum emissions allowed in the EU reflected in the number of traded certificates – more rapidly than it is being reduced today. Free allocations, which have been historically attributed to industries according to the risk of carbon leakage, should also be phased out. Instead, the CBAM, designed with adequate protection for exporters, could cover the risk of carbon leakage, a mechanism ensuring that all imported products from a predefined list would enter the EU carrying the same cost of emissions as those in the EU. As such, European industries would carry the cost of their emissions according to the market price. This would have the dual-advantage of industries steadily increasing, while being protected

from cheaper imports that would not include the cost of emissions. Combined, this will incentivize climate-neutral investments more effectively. Several distortionary incentives that have been working against deep decarbonization will also be corrected.

The ETS reforms would have another major benefit. According to a recent [study](#) by Agora Energiewende, it would raise up to 40 billion euros annually, due to the sale of currently free allocations in the ETS, which could be recycled back to industry to support investments in (more expensive) breakthrough technologies through the Innovation Fund. An instrument such as the carbon contracts for difference (CCfD) could cover the cost difference between breakthrough low carbon technologies and conventional technologies, based on effectively avoided emissions in specific sectors. This could be attributed for limited periods of time, based on an auctioning or tendering system. Furthermore, adjustment mechanisms must be built in to avoid windfall profits. However, it is important to note that reforming the European legislation and implementing new mechanisms such as the CBAM are processes that take time. The final European regulations will be refined in the coming months and years, and a CBAM and ETS reform are not likely to come into force until 2025-2026. Several uncertainties remain, while national policies currently being developed will need to serve climate targets and transform industry today, in order for Europeans to be able to achieve their 2030 climate targets.

Until the CBAM and reforms such as the ETS have been effectively implemented, the national and European recovery plans could cover the cost and provide the necessary funds to kickstart the decarbonization of industry. Germany and France have adopted hydrogen strategies including up to €9 billion of national investments in order to build up an industry by 2030. They also recognize the need to cooperate on files and are involved in the European [Battery](#) and [Clean Hydrogen Alliances](#), as well as in discussions around [Important Projects of Common European Interest](#) (IPCEI) that aim to support and simplify common investments in key technologies. At any rate, Germany has newly expanded the portfolio of the Ministry of Economy to Climate protection, which will allow better integration of both projects in the future.

Why a more holistic approach to industrial decarbonization is fundamental

Though there is increased awareness that it has never been more urgent to accelerate the deployment of new technologies and new business models in the industrial sector, a more holistic approach is fundamental to a successful transition. Breakthrough technologies will initiate change on the supply side by reducing the emissions of production processes. But to achieve a broader transformation, other initiatives need to be implemented in conjunction.

First, to scale up the share of low carbon products in a cost-effective way, demand for low-carbon products need to ultimately lead to changes in consumer behavior. Creating lead markets e.g. by introducing quotas for public procurement supported by a product certification system – be it basic materials or energy vectors such as hydrogen – the need for public support could potentially be reduced to a fourth of what would be needed otherwise, freeing those funds for other uses. As such, public funds should be used wisely and support industry indirectly, by carrying the additional cost of using sustainable products.

Second, recycling materials and the »energy efficiency first« principle should be integrated into the industrial sector. This can be achieved by expanding the circular economy, while material efficiency would also reduce the need for energy-intensive primary materials. As a result, emissions can be effectively reduced while also developing new sustainable industries. This should be seen as an opportunity for Europe to keep its industrial base, rather than a threat to its established industries and jobs.

Third, this transformation is also an opportunity to reduce structural inequalities that exist between regions. The establishment of new decentralized value-chains could be used to increase the attraction of some regions, by spreading employment more equally and relieving congestion in other areas. In order for this to occur, we will need to engage with regional authorities and civil society ahead of time, and coordinate on the implementation of necessary measures. Professional training schemes will need to be set up

early on, in order to both reskill workers from sectors meant to be phased down or out, and cover the future needs of new generations of skilled professionals.

For this transition to be equitable, a dialogue is required between civil society, policymakers and other stakeholders at the regional, national and European levels. Beyond industrial and climate policy, there is a need to establish a kind of social contract and governance mechanisms among EU citizens, businesses and policymakers. France and Germany could play a central role in coordinating these efforts by integrating these initiatives throughout their common positions and cooperation channels. Guided by a holistic approach, such initiatives should be developed in coordination with the 2020 Franco-German Treaty of Aachen (e.g. »Future of Work« working group) or in reinstating the Meseberg Climate Working Group with a stronger involvement of the Ministries of Economy.

A German-French cooperation to boost international decarbonization

Effective policies for industry decarbonisation will require the involvement of all large trading partners in international cooperation. Europe cannot expect to decarbonise industry on its soil alone. The CBAM could be a stepping stone in this collaboration, complemented by the »Climate Clubs« championed by the German government, the International Monetary Fund (IMF) and the Organization for Economic Co-operation and Development (OECD) as a platform to establish common principles for managing differences in short-term national policy ambitions. The revenues should be assigned to support international decarbonisation as well as a just transition within the EU. The design of instruments currently under discussion at the European as well as national levels, such as the CCfDs, should also be coordinated in order to foster synergies and simplify their implementation across borders. New alliances and IPCEIs could be helpful to develop new segments of the industry and develop the infrastructure of the future without leaving citizens behind.

France and Germany can drive these initiatives if they manage to set aside their differences. France in particular aims to protect existing leading industries such as aviation and nuclear power, while reindustrializing its economy that has increasingly shifted to the service sector in the last decades. Germany, on the other hand, intends to safeguard its leading industrial position in Europe and globally, and protect the various small and medium size industries that form the majority of its significant national exports. Exports represented 47% of the German GDP in 2019, compared to 32% in France. The decisions made by the next governments in both countries, on the instruments, design and budget, as well as levels of support and coordination towards effective EU regulation and international cooperation, are going to be critical for the achievement of targets and in a quick and cost-effective manner.

France and Germany will both have important roles to play as strong industrial nations, with the French Presidency of the Council of EU and the German G7 Presidency in 2022. A reinforced cooperation on these files is more than encouraged. The working groups for industrial cooperation announced on February 7, 2022 by both Ministers of Economy Habeck and Le Maire represent a good start – if there is effective coordination between both ministries. Climate neutrality of industrial production should, in any case, be at the heart of future common projects.

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