



Barbara Praetorius

# Towards a New Green Industrial Policy in Europe

The European Union (EU) has set itself the goal of achieving a climate-neutral economy by 2050. As recently as December 2020, it reaffirmed its ambition to reduce carbon dioxide (CO<sub>2</sub>) emissions to 55% of their 1990 levels by 2030. In order to achieve this, in 2021 it will outline its Fit for 55 Package. Despite the difficult economic situation that Europe faces today, the objectives of the 2019 European Green Deal remain relevant: with a view to aiding economic recovery after the coronavirus crisis, as part of NextGenerationEU the EU has created the Recovery and Resilience Facility, which will provide € 673 billion in funding over the coming years, at least 37% of which is dedicated to climate-friendly investments and reforms. But to achieve climate neutrality, these tools must be used in a more directed way. It is time for a paradigm shift, this is a unique opportunity that Europe cannot afford to miss. The primary allocation for funds from post-COVID recovery programs as well as the 2021–2027 multi-annual financial framework should be investment in the green transition of key European industries. In Germany, as in the EU, there must be an industrial policy which clearly defines and guides economic and financial activity according to the principle of »carrot and stick« (Fördern and Fordern). This means: economic and regulatory incentives for a carbon-neutral technological strategy, and temporary, targeted economic protection from »climate dumping« actors outside the EU.

## A climate testing ground for investment in key European industries

For the European economy, climate neutrality means that all production processes and products must be progressively transitioned towards climate-neutral

technologies. This is because the technological competitiveness of the EU can only be saved if its key industries, particularly industrial facilities, the automotive sector and the basic materials industry, which consumes a lot of energy invest early enough in these technologies and their development. Since investments are long-lived, the course for investment must be set in these coming years, yet climate protection incentives still have a low profile in investment programs. In this regard, the EU is doing its industry a disservice. Any investment in conventional, long-life fossil-fuel technologies will meet doom in the 2040s. Even investments in conventional efficiency-enhancing technologies can be serious financial pitfalls, as they do not have the expected technical life expectancy, or are not profitable.

The good news is that for the most part, the technologies that will lead to climate neutrality in 2050 already exist. But in the international competition of our global economy, cost pressure hangs like Damocles' sword over any effort to achieve climate neutrality, which involves expensive early investments. On the other hand, if we do not invest in green technologies today, we risk losing access to the markets of tomorrow.

Concretely, this means that the automotive industry, for example, must set up competitive and carbon-neutral vehicle and battery production within Europe. With a turnover of € 436 billion, it is Germany's main industrial sector. By way of comparison: in Germany, the automotive sector employs 833,000 people, or 11.8% of the workforce in the manufacturing industry, against 7.4% in France. But German production lines are designed for combustion engines, which are slated to

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disappear from our roads in the course of the 2030s. This is the climate imperative, and it puts Germany in a difficult situation. Countries like Japan, which began making electric vehicles early on, are now market leaders, and even battery production is based primarily in other parts of the world. Europe is therefore right to want to set up its own production. However sustainable battery production also involves skills and capacities for battery recycling. This recycling must be envisioned on a Europe-wide scale if the EU is to remain a leader in this technology, and take advantage of synergies and economies of scale.

Basic industries, heavy consumers of energy, also face challenges that are primarily economic in nature, as shown in [a study by the Berlin think tank Agora Energiewende](#). Technically speaking, manufacturing CO<sub>2</sub> neutral steel is already possible, for example, but it is far from being competitive. Yet by 2030 many production facilities will need to be updated. In the chemicals industry, industrial process heat must be produced in a way that does not impact the climate – it can be done with electricity, but the process is very expensive. In the aluminum industry, innovative approaches are currently being developed, such as the flexible electrolysis of aluminum; and the cement industry is moving towards carbon neutrality thanks to increases in the proportion of recycled materials used, and more recently, through carbon capture and storage. Still, key technologies that are low in CO<sub>2</sub> emissions are currently suffering in the face of weak demand for climate-neutral products, and the costs of reducing emissions remain well above the price of CO<sub>2</sub> on the emissions market. Since climate protection cannot wait for emissions trading to raise prices sufficiently, it is up to states to set this dynamic in motion by creating the right mix of market incentives, subsidies and regulatory requirements all along the industrial value chain, to accelerate the innovation cycle and encourage investments for the future. These might be new catalysts, innovative processes using biomass, e-crackers, cement recycling, heating processes based on current and hydrogen, or even digital processes. The development of these new technological and climate-neutral processes is in itself an opportunity for German and European industrial facilities to position themselves against global competition. After all, the EU's

goal should be to set new global standards for carbon-neutral products and technologies, and to supply the constantly growing market for environmentally friendly products.

Finally, all industries will require significant amounts of hydrogen from renewable sources. In the long term, much of this hydrogen will have to be imported, as the surface area needed for renewable energy and its expansion may be insufficient. Hydrogen strategies in Europe must therefore incorporate planning for reliable supply and transport arrangements, and soon. However, since hydrogen is expected to remain expensive, it should only be used in cases where other forms of renewable energy (e.g. electricity) are not technically sufficient, such as in basic industries and heavy transport.

### Market incentives are an essential component of a green industrial policy

In many areas, the EU already has an effective climate policy. The European Emissions Trading System, initially thought to be all bark and no bite, has developed successfully and has been influencing the European electricity sector for around three years: today, coal power plants are no longer profitable. On the other hand, in Germany, energy-intensive industries are still protected from potential competition by a number of specific regulations that afford them compensation for the price of electricity, easy allocation of emissions certificates and the »Spitzenausgleich« (tax exemptions protecting the competitiveness of high energy-consuming sectors) which altogether mean that CO<sub>2</sub> pricing creates very little incentive for change outside the electricity sector. These exemptions for energy-intensive companies are understandable, and will remain necessary as long as CO<sub>2</sub> prices are set unilaterally at European level, but not at a global level. We must avoid »carbon leakage«, where carbon production sites, and therefore carbon emissions, are relocated to countries with more lax climate protection requirements. With the tightening of the EU target to 55% however, the authorized emissions volumes (caps) will decrease from 2021 to 2030, the fourth period of the EU-ETS, most likely causing a further increase in CO<sub>2</sub> prices. To deal with this dilemma, in March 2020 the

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European Commission presented an Inception Impact Assessment on the establishment of a mechanism for adjusting carbon emissions at the borders of Europe (CBAM), which will hopefully replace the other rather opaque special regulations, and strengthen market incentives.

### Good green industrial policy makes for stable and resilient industry

Since industry is usually let off the hook whenever new policies are implemented, one cannot help but be impressed by Germany's recent initiatives for accelerating the development of renewable energy, which include clear objectives such as a series of climate-protection measures. Certainly, climate pricing incentives are important to compensate for the economic costs of climate protection and to ensure that companies factor the external costs of climate change into their calculations. But green investment must also be matched with a targeted green industrial policy that is harmonized at the European level, and that encourages investment and innovation. This is where we see the usefulness of targeted innovation incentives such as Carbon Contracts for Difference (CCfD), a version of financial market »contracts for difference« that allows the state to cover the additional costs of an investment. CCfDs are also being considered as an option in the German National Hydrogen Strategy and in the recent initiatives of the German Federal Minister for Economic Affairs and Energy. Their final form is yet to be established, as is the reform of the aid directives, however the legal implementation must take place quickly if upcoming investments are to be oriented toward climate neutrality. A European green industrial policy that promotes investment and innovation could also be inspired by pioneering innovations developed in Germany in the field of green tech or cleantech – »clean technologies« that have already reached technical maturity and economic viability. These include renewable energies, but also products from the manufacturing industry, whose innovations have always been driven by a concern for efficiency and quality. In financial markets too, environmental and climate protection have been increasing in influence. Institutional investors started to withdraw from fossil fuel investments several years ago; the European Green Deal is a continuation of that development. The EU Taxonomy adopted in July 2020 laid the

foundation for a uniform classification system for sustainable economic activity. Within its framework, investments comply with the taxonomy if they significantly contribute to at least one of six environmental objectives, without going against the others (Do No Significant Harm – DNSH). And the trio of ESG criteria (Environmental, Social, Governance) creates clear standards for financial investments which can help activate industry transformation. Here as well it would be desirable for the EU to impose more stringent requirements, in order to ensure the sustainability of subsidized and credit-financed investments.

### Franco-German moves toward a European green industrial policy

If Europe is to achieve climate neutrality, there must be green investment based on long cycles of reinvestment. Together with a green industrial policy that is smart, targeted and harmonized across Europe, this would stabilize European industry and make Europe a technological leader in carbon-neutral processes and products. What is required is a combination of market incentives (such as emissions trading), investment aid, regulatory measures and temporary protection against carbon leakage. The European Green Deal and post-COVID stimulus programs make important first steps, but they must be more firmly grounded in climate neutrality. This is where Franco-German cooperation can create momentum. In May 2019, Chancellor Angela Merkel and President Emmanuel Macron proposed a minimum price for CO<sub>2</sub> – a carbon price floor – and announced joint initiatives targeting climate protection and innovation in the digital and automotive sectors. France and Germany should implement these initiatives resolutely, and harness the tools of the European Green Deal to achieve climate neutrality.

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### Author

Barbara Praetorius is Professor for Sustainability, Environmental and Energy Economics and Policy at the Berlin University of Applied Sciences for Engineering and Economics (HTW). An economist with a PhD in political science, she was the co-chair of the »Growth, Structural Change and Employment« commission set up by the German federal government to phase out coal-fired power generation. Until 2017, she was Deputy Director at Agora Energiewende. Her research focuses on the analysis of climate and energy policy instruments and on pathways to transformation within the energy transition.

### The Series

The paper series »Green Deal reloaded — Perspectives for a Sustainable and Just Transition of the EU« is a joint project of the Genshagen Foundation and the Institut Montaigne as part of the Genshagen Forum for French-German Dialogue. In the context of the COVID-19 crisis and the European recovery programmes, it aims to promote a high-level French-German dialogue on the economic, social and political implications of climate policies. The series provides a platform for leading French and German experts to outline a more sustainable and resilient model for the future and examine the European Union's potential as a key actor of the ecological transformation.

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Institut Montaigne: Alexandre Robinet-Borgomano and Anuchika Stanislaus

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