

POSITION PAPER OF FOUNDATION 2°

A Strong Climate Stimulus Programme for Industry

Using Crisis Management as a Catalyst for Climate-Neutral Transformation





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Foundation 2°

Foreword

Following a powerful surge in climate policy momentum last year, the COVID-19 pandemic has now dominated our lives and the political agenda for months. This inevitably raises the question: what comes next for corporate climate action at a time when a global pandemic has the world in suspense and is threatening the livelihoods of many companies?

68 companies – including multiple DAX-listed organisations and many large enterprises within the German economy – provided a striking response to this question just weeks ago. In a joint business statement addressed to the German Federal Government, initiated by Foundation 2° and released ahead of the 11th Petersberg Climate Dialogue, they made clear: short-term measures must support the economy on its way out of the Corona crisis. Medium and long-term stimulus and investment programmes, however, must be systematically climate-friendly.

The signatories of the business statement included several companies from the energy-intensive industrial sector for whom ambitious climate goals are a particular challenge. It is these companies who require a policy framework that supports investment in climate-friendly manufacturing processes and which makes products competitive that have been manufactured in a climate-neutral way.

The development of stimulus programmes now and in the coming months offers the opportunity to accelerate the climate-neutral transformation of industry with targeted policy interventions. Foundation 2° thus brought together selected companies especially from the energy-intensive industrial sector for intensive discussions about which mix of instruments is, in their perspective, necessary in order to reach climate neutrality by 2050. Among others, we succeeded in bringing together companies from the steel, non-ferrous metals, chemicals, and cement sectors (a list of the company names can be found on the next page).

We as Foundation 2° have derived political claims directed at the Federal Government from these discussions. With this Foundation 2° position paper, we are publishing these calls as our constructive contribution to the creation of a strong climate stimulus programme for the transformation of the industrial sector.

This paper contains concrete proposals on how the up-scaling of low carbon breakthrough technologies can be advanced while simultaneously stimulating the economy. We propose a combination of incentives and regulatory instruments to create lead markets for industrial products from low-carbon manufacturing. The paper also provides a clear commitment to a bold expansion of renewable energies, without which the climate-neutral transformation of the industrial sector cannot succeed.

I sincerely hope I have aroused your interest in our position paper!

Yours,

A handwritten signature in black ink that reads "Sabine Nallinger". The signature is fluid and cursive.

Sabine Nallinger

The following companies were involved in the dialogue process for the position paper:

- Aurubis AG
- BASF SE
- Covestro AG
- HeidelbergCement AG
- Otto Fuchs KG
- Salzgitter AG
- Siemens Energy
- thyssenkrupp Steel Europe AG
- Papier- & Kartonfabrik Varel GmbH & Co. KG
- Wacker Chemie AG

The companies involved contributed their perspectives and know-how to the preceding discussions. Foundation 2° derived claims from this process and has acted as the sole author of this position paper.

Introduction

The Corona pandemic has had unprecedented impacts on the entire European and German economies. Manufacturing had to be curbed, and sometimes even completely interrupted. The medium-term impacts of the crisis on the economy and industry are at this time nearly impossible to predict. For the strongly globalised industrial sector, with its high levels of international connectivity, the consequences of the pandemic are particularly strongly felt.

Many industrial companies have thus come under great economic pressure. At the same time, industry and society must meet the goal of climate neutrality, meaning emissions reductions by 2050 of 95% relative to 1990 levels, while preparing for a possible increase in European climate targets for 2030 in order to meet the goals of the Paris Agreement. By 2030, the industrial sector must reduce its emissions by up to 51% relative to 1990 according to the climate protection plan (Klimaschutzplan) of the German Federal Government. These targets require a fundamental change of processes and products within the industrial sector. It is thus important to speak about them openly: the transformation needed to reach the climate protection targets will lead to enormous costs – both in terms of CAPEX (capital expenditure) and OPEX (operating expenses). Costs which industry will, for the most part, be unable to pass on to end consumers. Therefore, a new regulatory framework is needed to create new market conditions fit for this purpose.

Despite the changes in economic conditions brought about by the Corona crisis, large portions of the German industrial sector stand behind national and European climate targets in line with the Paris Agreement. Policymakers must continue to consistently design and implement climate policy measures – while accounting for the impacts of the Corona crisis – to support those companies already preparing to meet these challenges. They are developing new business models and are planning investments. Reliable political offers are thus needed. Policymakers must put industry in a position to meet the climate targets even in the midst of the Corona pandemic.

Following the short-term measures taken to rescue companies, crisis management and climate policy should be conceptualised together in a long-term economic recovery plan at European and national level. The programmes to boost economic growth should be used to mobilise investment for both the transformation of industry and the innovations needed to achieve it.

Many industrial companies are, given the crisis situation, even more reliant on a regulatory framework which allows to quickly scale up climate-friendly technologies for market readiness. Fast and decisive action by policymakers is needed to strengthen Germany as a centre of industry and lead it into a climate-neutral future.

Elements of an effective mix of instruments for a climate-neutral industrial sector

In our view, a regulatory framework that strengthens industry in a difficult situation while also stimulating its climate-neutral transformation should be based on **three points**:

- Creating an investment programme with national and European impacts for the scaling of low carbon breakthrough technologies in the industrial sector (e.g. technologies to replace carbon with hydrogen) to make industry more fit for the future and enable a substantial reduction in the sector's CO₂ emissions.
- Making Germany and the EU world market leaders in industrial products from low-carbon manufacturing and corresponding manufacturing technologies, while also creating lead markets for them.
- Stimulating the expansion of generating capacity and infrastructure for an adequate and reliable supply of renewable energy for industry at globally competitive prices.

Important guiding principles for the right mix of instruments are in our view:

- Strengthening planning security, predictability and reliability;
- Simple, non-bureaucratic design with long-term stability;
- Use of instruments with high likelihoods of implementation;
- Covering of CAPEX (capital expenditures) and OPEX (operating expenditures);
- Quickly realisable, transparent financing systems;
- Enabling a scale-up of future technologies;
- Timely and adequate provision of transformative transport infrastructure (e.g. for hydrogen, CO₂ and electricity from renewable energy);
- Nuanced consideration of the temporal effect of individual instruments;
- Support for the establishment of new, climate-neutral industrial structures and removal of (regulatory or tax) barriers to climate-friendly business models;
- Ensuring an effective carbon leakage protection mechanism for industry;
- The ability to combine national measures with European and international trade relations (esp. conformity with EU state aid and competition law)

In the following sections, central elements of such a mix of instruments are proposed:

Investment programme for low-carbon breakthrough technologies in industry

Achieving climate targets in the industrial sector requires various low carbon breakthrough technologies (LCBT) and infrastructures (e.g. for the transport of H₂ und CO₂) that make possible a far-reaching reduction in process emissions. Time is pressing: Within this decade, extensive investment in the renewal of Germany's industrial plant stock is needed. However, scaling up LCBT is very challenging for many industries.

Policy measures with national and European impact designed to strengthen the industrial sector after the acute phase of the corona pandemic should therefore be used for an investment programme in industry's conversion to LCBT.

In concrete terms, this means:

Making LCBT ready for market and up-scaling

- **Coordinate the up-scaling of LCBT and necessary infrastructures:** The Federal Government should provide *cross-sectoral support* for the up-scaling of essential LCBT in individual sectors and the expansion of the infrastructure this requires. There must be coordination between the political framework and the roadmaps drawn up by industry to ensure that the overall balance of demand for important energy sources such as electricity and hydrogen is maintained across all sectors. In principle, it should be ensured from the outset that the ramping up of LCBT is synchronised with the expansion of the necessary infrastructure.
- **Expand incentives, create innovation and investment fund:** The Federal German Government should expand the financial resources for direct innovation and investment support of LCBT into a comprehensive innovation and investment programme by both extending existing, and introducing new funding programmes. This could take the form of *tax incentives* such as, for example, degressive depreciations for LCBT investments. The scope of the new funding programme “Decarbonisation in the Industrial Sector” (current volume ca. 1 billion EUR) of the Federal German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) should, in addition, be broadened and expanded into an *innovation and investment fund* with much higher volumes that offers direct financial support to investments aimed at reducing process emissions. Both tax incentives and direct financial support to investments should be designed to be long-term and open to new technologies and to account for the divergent stages of development and infrastructure needs of LCBT.

In addition to the national measures described above, the Federal Government should become proactive at the EU level in pushing for a *financial top up of the EU Innovation Fund*. Moreover, it is important to consider an *adaptation and opening of EU state aid law* so as to avoid both limits being placed on the necessary national financial support measures and having their im-

plementation complicated by long legal evaluations. Adjusting the provisions of competition law is also necessary to enable industrial cooperation or even joint industrial production networks, including between competitors.

- **Swiftly evaluate and introduce carbon contracts for difference or comparable incentive instruments:** Industry requires an instrument that minimises the risks of the high investment and operating costs of LCBT and which creates planning security, especially in times of crisis and in view of the difficulty in predicting developments in CO₂ certificate prices. *Project-related carbon contracts for difference (CCfD) or similar incentive instruments* could be a part of a mix of measures for LCBT. CCfD guarantee a fixed CO₂ price to the investor for a predefined period of time. If the market price for CO₂ certificates is lower than the agreed fixed price, the state compensates the difference. If the market price exceeds the agreed fixed price, the business pays the difference back to the state.

CCfD must be long term, for a period of at least 20 years, to provide adequate planning security. They should also be awarded to pilot facilities, but especially to industrial-scale facilities to help realise the climate-neutral transformation of industry. CCfD should also be flanked by *effective measures for carbon leakage protection* (including sufficient allocation of free certificates for the respective LCBT, as well as further reciprocal financing measures in case of increasing scarcity of the certificates) and measures to account for further cost variables of LCBT (e.g. increased costs for renewable electricity and hydrogen) so as not to weaken the effectiveness of the CCfD via other demands that overstrain industry.

Advancing the development of a hydrogen economy at the national and European levels

- **Advance hydrogen (H₂) as an industrial policy field of the future:** Especially with a view to processes that cannot be efficiently electrified, *hydrogen on the basis of renewable energies* is a key technology for the climate-neutral transformation of the industrial sector. The expansion of a domestic H₂ economy offers the opportunity to link financial resources for crisis management and the strengthening of an industrial policy field of the future while extending German technology leadership in the field of power to gas (PtX). This requires an accelerated market ramp-up of H₂ technologies. The expansion goal of an electrolysis capacity of 3-5 GW by 2030 contained in the draft of the Federal Government's national hydrogen strategy should therefore be reached much sooner, for instance by the middle of the decade.
- **Implement a coordinated and efficient market ramp-up:** The market ramp-up of H₂ technologies will have to be coordinated by the Federal German Government. It must be ensured that sufficient volumes of climate-neutral H₂ are available for key LCBT projects promising to induce significant CO₂ reductions. The expansion of H₂ production capacities must be synchronised with construction of infrastructure for distributing hydrogen and CO₂.
- **Make possible a market ramp-up with climate-neutral hydrogen and the highest possible share of renewable energy:** By 2050, German demand for hydrogen must be met completely by climate-neutral hydrogen and as high

as possible a share of hydrogen from renewable energy. The Federal German Government should therefore introduce an ambitious and temporally phased *quota for hydrogen from renewable energy* and ensure that the expansion of H₂ production capacity is coupled with a sufficiently ambitious expansion path for renewable energies and effective instruments for their realization. As a start, the quota should focus on especially advantageous industries in which there is no alternative to the use of hydrogen or in which its use promises the greatest returns in terms of CO₂ reductions. The use of hydrogen should then be successively increased and expanded to additional industries. On the way to being fully supplied by climate-neutral hydrogen and the highest possible share of renewable energy, the choice of technologies applied should remain open while oriented towards the carbon footprint and the long-term potential of the respective H₂ production route for a climate-neutral society.

- **Fiscal incentives for the build-up of H₂ production capacity:** Significant fiscal incentives are needed to quickly expand H₂ production capacity. These sorts of incentives could stimulate valuable investments in the current crisis. This can be achieved, for example, via their recognition in the framework of the *Special Equalization Scheme (Besondere Ausgleichsregelung; BesAr)* or via improved depreciation options.
- **Conceptualise a European and international hydrogen economy:** The construction of a hydrogen economy must become a European project and a focus of the German Presidency of the EU Council. The Federal Government should take a leading role in the realisation of *Important Projects of Common European Interest (IPCEI)* relating to hydrogen in the framework of its Council Presidency. It should play a coordinating role among the EU member states to steer substantial investments into this sector. The Federal German Government should further systematically advance the building of international partnerships for the production and import of climate-neutral hydrogen. In doing so, it should make clear the attractive business perspectives offered by such H₂ partnerships to countries with a large potential for the cost-effective production of renewable electricity.

Make Germany and the EU global market leaders and create lead markets for low-carbon industrial products and manufacturing technologies

The climate-neutral transformation offers the German industrial sector an opportunity to become a global market leader in low-carbon manufacturing technologies and the export of products from low-carbon manufacturing. In this way, it can emerge from the economic crisis even stronger. This makes it indispensable to create a level playing field for such products. This includes targeted measures to create lead markets as well as effective protection from carbon leakage for German industry.

Boldly stake demand for products from low-carbon manufacturing

- **Create the conditions for the market launch of industrial products from low-carbon manufacturing:** The Federal German Government should use a mix of measures to create the conditions needed in *key value chains* for the purchase of energy-intensive products, such as in the automobile or construction industries, to accelerate the market launch of low-carbon but currently more expensive industrial products (especially steel, chemicals, cement, and non-ferrous metals like aluminium).
- **Boost demand through incentives and regulations:** Policy incentives and regulatory measures should be created to stimulate demand for industrial products from low-carbon manufacturing. These could include, for example, the ability to receive credits for sectoral CO₂ reduction requirements for using products from low-carbon manufacturing, bonuses, or quotas (considering the entire lifecycle of each product). At national and European levels, *incremental and binding timetables* should be developed to clearly define by when production and sale of products will be limited exclusively to low carbon products. These timetables must be informed by the availability of necessary transformative infrastructures and the existence of demand and willingness to pay for products from low-carbon manufacturing so as to support promising climate-friendly business models. In addition, a labelling system for end products from low-carbon manufacturing should be introduced to increase consumer acceptance and awareness.
- **Leverage public-sector procurement:** Public investment projects – along the entire value chain – are an important economic stimulus in difficult times. They should be used to create markets for industrial products from low-carbon manufacturing. For this reason, ambitious specifications should be considered as *prerequisite for procurement of key products* such as steel, cement, base chemicals, and non-ferrous metals like aluminium in consideration of CO₂ intensity, resource and material efficiency, as well as circular-

ity. Existing regulations in European and German public procurement law should be utilised and expanded. The entire lifecycle of a product considering all sustainability dimensions should be applied as the assessment basis.

Ensure effective carbon leakage protection

- **Give high political priority to carbon leakage protection:** Effective carbon leakage protection ensures the competitiveness of industry in the coming phase of transformation and is an essential prerequisite for investments in LCBT and the creation of lead markets for products from low-carbon manufacturing. It must be a central component of a *European and German industrial policy* that brings together crisis management and climate policy. Existing carbon leakage protection is insufficient with a view to achieving climate neutrality by 2050 and probably also for German and European 2030 climate targets. Therefore it must be developed further.
- **Weigh the risks of a carbon border adjustment system and evaluate alternatives:** We welcome that the EU Commission has given high priority to the topic of carbon leakage in its industrial strategy, thus signalling that it seeks to act decisively to secure and strengthen Europe as a centre of industry. A carbon border adjustment system is just one possible instrument to do so, one which is highly complex in its implementation and bound up with many uncertainties. In the course of the current impact evaluation and assessment of various design options for a possible carbon border adjustment system, the EU Commission should weigh it against *other instrument options* that are preferably directed within the borders of the EU and pursue the same goals. The EU commission should seriously consider these options. As a basic principle, a possible border adjustment system must not replace existing carbon leakage protection, but rather complement them should they be insufficient. Therefore, existing emissions trading provisions – i.e. the extent of free allocations and the CO₂ electricity price compensation – must not be tightened further before 2030 for energy-intensive sectors and those engaged in international competition.
- **Build European and international pioneer coalitions:** The Federal German Government should also support the formation of climate-policy pioneer coalitions at the European and international levels. It should advance the broad market introduction of climate-friendly technologies and products and the climate-friendly design of the required primary materials industries with the help of concrete measures (e.g. the inclusion of climate standards or quotas for technologies and products) in trade agreements.

Create an adequate and reliable supply of renewable energy at internationally competitive prices

To achieve the European and German climate targets, it is essential to increase the efficiency potentials of industrial processes and, where efficiently possible, to transition to electrification on the basis of renewable energy and/or hydrogen from renewable energy. Large amounts of electricity from renewable sources – reliable and at internationally competitive prices – are thus an indispensable requirement for the climate-neutral transformation of the industrial sector. Studies conducted by businesses and the Federal Government assume a massive increase in the demand for electricity from renewable sources. For example, the Verband der Chemischen Industrie (Chemical Industry Association, VCI) predicts in one scenario for a largely climate-neutral chemicals industry in 2050 an 11-fold increase in electricity demand by the chemicals industry relative to today, beginning with a steep increase from the mid-2030s. Therefore, a political offensive is needed to boost the expansion of renewable energy sources and the import of electricity and hydrogen from renewable energy.

In concrete terms, this means:

Enabling a rapid expansion of generation capacities

- Define an appropriate expansion pathway: In view of increasing electrification and sector coupling, the Federal German Government must adjust its currently very conservative scenarios for the development of electricity demand upwards to a significant degree. In order to reach the target of having 65% of German electricity consumption covered by renewable sources by 2030, a mechanism is urgently needed that ensures *technology-specific and reliable expansion pathways* that can meet the massively growing demand for power from renewable sources and which must be accompanied by an accelerated expansion of the electricity grid. A strategy for the import of electricity and hydrogen must be developed to cover the expected gap in domestic production; the strongly increasing demand for renewable electricity by the German industrial sector can only be met to a small degree by sources within Germany. Priority should be given to European collaboration in this regard.
- **Accelerate the expansion of generating capacity:** The Federal Government must create the conditions needed to significantly accelerate the expansion of renewable energy. In our view, the following points are key:
 - Setting ambitious and long-term expansion targets for photovoltaics, as well as for onshore and offshore wind with clear milestones along the way. The expansion must not be hindered by additional regulatory hurdles.
 - The legal bottleneck of planning and approval processes for the expansion of wind energy facilities must be resolved. The measures unveiled by the Federal German Ministry of Economics in October 2019 for accelerating approval processes for wind energy installations, including the shortening of opposition and legal complaint proceedings, must be

implemented as quickly as possible. With approval processes of about 5 years for every facility, the necessary expansion cannot succeed and businesses are unable to plan investments. Further measures should be developed in collaboration with private sector businesses.

- **Accelerate the expansion of transmission grids:** Ambitious expansion pathways for the generating capacity of renewable energy must be accompanied by an accelerated expansion of transmission grids. To do so, a package of measures should be devised that simplifies and accelerates planning and approval procedures, for example through uniform federal guidelines for the documentation necessary, creates uniform guidelines for dealing with environmental regulatory frameworks, as well as improving the personnel and technical equipment of the approval agencies.
- **Increase investment and planning security:** Reliable long-term frameworks for the expansion of renewable energy generating capacities and the purchase of renewable energy are an important contribution to planning security for energy providers and industrial enterprises. The Federal Government should therefore make the regulatory frameworks for the corresponding purchase agreements more attractive.
- **Make renewable energy the project of the future:** The Federal German Government must work towards enhancing the acceptance for renewable energy among businesses and industry as well as in the federal states and municipalities, making the expansion of renewable energy a project of the future, both for industry and society. An adequate supply of electricity from renewable sources at competitive prices is a key factor for industrial companies when choosing their locations. The availability of proximal renewable energy generating capacities can make an important contribution to making industrial regions fit for the future, thus securing and creating jobs.

Ensure globally competitive energy costs, strengthen engagement for renewable energy expansion

- **Reduce renewable energy costs, sustain the transformation:** The Federal German Government should lower the burden on industry posed by energy costs, especially those from renewable energy sources, to use its energy for mitigating the impacts of the Corona pandemic and mobilising investment for the climate-neutral transformation. To do so, the state-controllable share of energy costs must be further limited, for example by quickly reducing *taxes on electricity* and/or the surcharge for renewable energy (Erneuerbare Energien Gesetz-Umlage). It must be ensured that the latter is done in compliance with EU state aid law to avoid further state aid reviews of the renewable energy law (EEG) by the EU Commission. In addition, the Federal German Government should push for competitive energy costs for industrial companies at the EU level. Taking up the current debate on the distribution of the costs of the energy transition, the opportunities and risks associated with possible instruments, such as increased harmonisation of tax and levy systems in the EU member states or a uniform EU industrial electricity tariff, should be considered with the inclusion of the views and interests of different stake-

holders so as to develop an approach that supports the industrial sector in the coming transformation and increases its competitiveness.

- **Strengthening the engagement of industry in the expansion of renewable energy:** The Federal German Government should create incentives for more engagement by industrial enterprises in the build-up and financing of renewable energy generating capacity. Such incentives should support, for example, direct investments in own production facilities, participation in larger renewable energy projects near to the companies' respective locations (e.g. a share in a central wind farm), or the conclusion of green power purchase agreements (PPAs).

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