

The Road Towards a Carbon-Free Society

A Nordic-German Trade Union Cooperation on Just Transition

DENMARK
FINLAND
GERMANY
ICELAND
NORWAY
SWEDEN



This publication is part of a joint project entitled **“The Road Towards a Carbon Free Society – A Nordic-German Trade Union Cooperation on Just Transition”**. The project is a collaboration between the Council of Nordic Trade Unions (NFS), the Friedrich-Ebert-Stiftung (FES) and the German Trade Union Confederation (DGB). Represented by the Council of Nordic Trade Unions (NFS) in the project are 13 national Trade Union Confederations within NFS, from five Nordic Countries: Denmark (FH, Akademikerne), Finland (SAK, STTK), Iceland (ASÍ, BSRB, BHM), Norway (LO-N, Unio, YS) and Sweden (LO-S, TCO, Saco).

A Just Transition towards a carbon neutral future is the most urgent environmental, social and economic issue of our times. This project aims to develop strategies and requirements from a trade union perspective on how to manage the process to a carbon free society. The participating labour organisations are united in their vision that this goal can only be reached if the social costs of this transition process are socially mitigated. This means harmonising efforts to combat climate change with the aim of ensuring decent working and living conditions. To this end, the participating labour organisations have not only analysed their respective countries’ transition path towards a fossil free future but have also formulated joint policy recommendations for the national and European arenas. The ensuing discussions and debate have strengthened the cooperation and dialogue between the Nordic and the German trade union movements on common challenges and solutions.

A total of six country reports on the Just Transition path of the participating countries (Denmark, Finland, Germany, Iceland, Norway, and Sweden) have been formulated. Each contains an analysis of the climate policies, economic and societal consequences, an evaluation of the respective national instruments and offers European perspectives. The main findings of the country reports are brought together in a synthesis. It features policy recommendations that aim to help guide the transition to a decarbonised society and an economy that is just and sustainable. The reports and their results are presented and discussed in a series of events nationally as well as in terms of Nordic and European cooperation and at the international level.

The German country report was written by **Frederik Moch** (German Trade Union Confederation, DGB - Deutscher Gewerkschaftsbund) and **Patrizia Kraft** (German Trade Union Confederation, DGB - Deutscher Gewerkschaftsbund).

Content

- 01** Current state of play | 04
 - 1.1** The impact of climate change on Germany | 05
 - 1.2** Climate targets | 06
 - 1.3** Economy | 10
 - 1.4** Society | 14
- 02** National instruments | 16
- 03** European Instruments | 23
- 04** References | 25

01 CURRENT STATE OF PLAY

Table 1: Overview

	Germany	EU-28/OECD
Population 2019 (EU-28 and Norway + Iceland)	83,000,000	519,160,000
Real GDP aggregates per capita, 2019	35,980 €	28,630 €
GHG emissions CO ₂ e per capita (excl. LULUCF), 2017	11 t	8.5 t
GHG emissions CO ₂ e (excl. LULUCF), 2017	907 mt	4,323 mt
Difference (excl. LULUCF) from 1990 to 2017	-28 %	-23 %
Net GHG CO ₂ e emissions/removals from LULUCF, 2017	-15 mt	-258 mt
Share of renewable energy in gr final energy consumpt. 2018	16 %	18 %
Workforce, "active population", (aged 20-64), 2019	41,231,000	238,515,000
Collective bargaining coverage, 2016	56 %	32 %
Union density, 2018	17 %	N/A

(Data source: Eurostat 2019a, Eurostat 2019b, UNFCCC 2017, Eurostat 2018, Eurostat 2019c, OECD 2016 , OECD 2018)



1.1 **THE IMPACT** **OF CLIMATE** **CHANGE ON** **GERMANY**

Climate change and its effects can already be seen in Germany. Research provides data showing past changes and gives a preview of what is to come (Umweltbundesamt 2019):

- Since 1960, every decade has been warmer than the previous one.
- The average mean annual temperature has increased by 1.5°C from 1881 to 2018.
- While there were on average only three hot days (over 30°C) in 1951, today we see 10 hot days per year. In 2018, 20 hot days were recorded.

These facts may appear abstract, but they have practical implications for every sector of our society and economy: from a lack of cooling water in thermal power plants to lower productivity in agriculture and forestry; from rising electricity demand due to air conditioning to damaged infrastructure because of extreme weather situations.

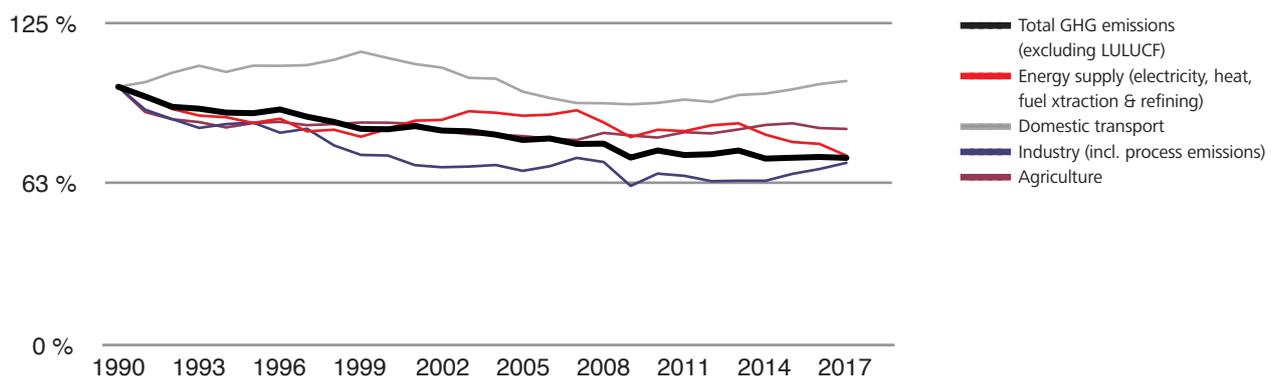
1.2 CLIMATE TARGETS

It is clear that Germany faces several challenges linked to climate change. Thus, climate and energy policy have been high on the political agenda for some years. Just last year (2019), the Climate Protection Act was passed. The legislation sets the goal of climate neutrality by 2050. Achieving climate neutrality requires a complete transformation of society and the economy.

To better illustrate the situation in Germany, some more detailed information is helpful: final energy consumption is divided between industry (29.5 per cent), transport (30 per cent), private households (25.5 per cent) and commerce and services (15 per cent) (BMWI 2019:5). This shows that measures must be taken in each sector, because final energy consumption is widely distributed among them.

Of the greenhouse gas (GHG) emissions in 2018, some 84 per cent were related to energy. In total, energy-related emissions equalled 752 mt of CO₂ equivalent (CO₂e) (Umweltbundesamt 2020a). Therefore, by shifting the energy supply to climate-neutral sources, an 84 per cent reduction in emissions is possible. The remaining emissions originate from industrial processes (7.5 per cent)¹, agriculture (7.3 per cent)² and waste management.

Figure 1: Germany's domestic greenhouse gas (GHG) emissions, indexed to 1990



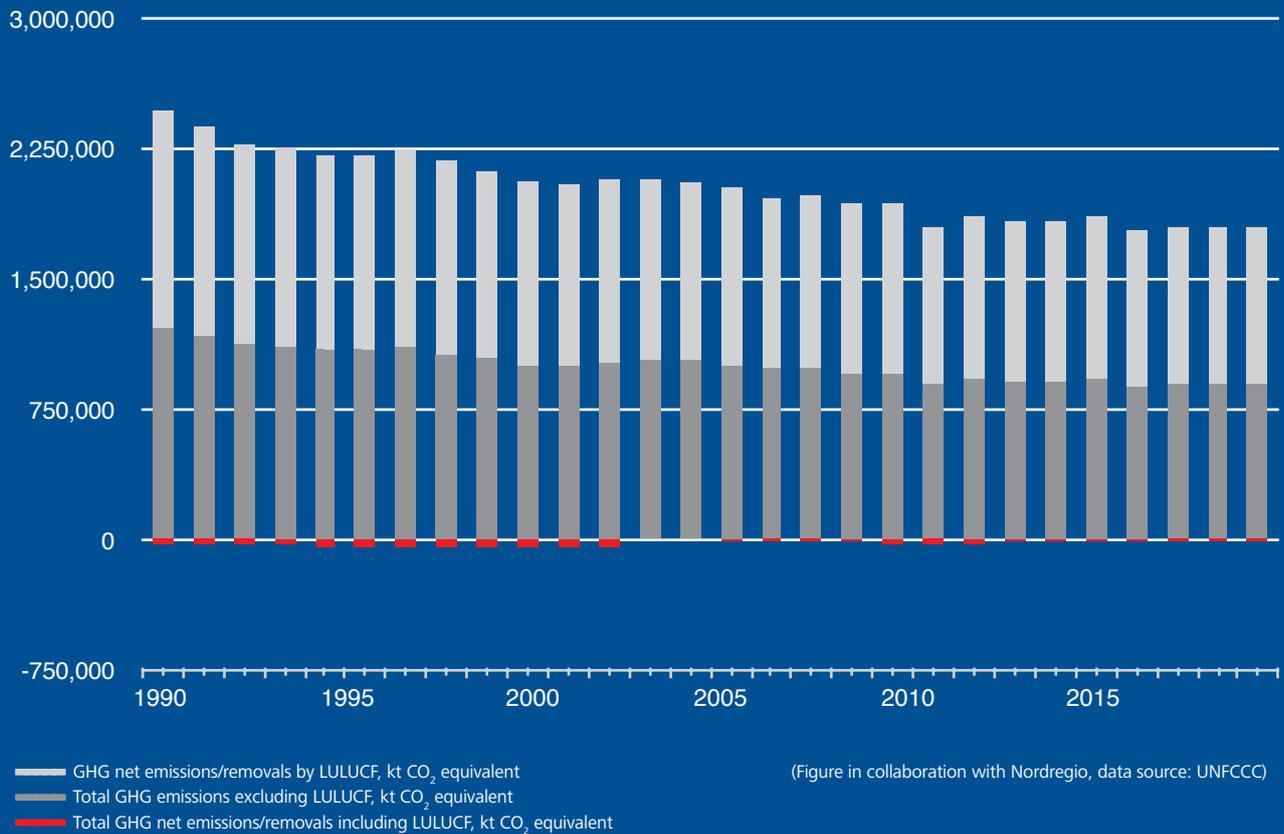
(Figure in collaboration with Nordregio, data source: UNFCCC; indexed to 1990)

Climate target: Carbon neutrality by 2050. A 55 per cent reduction in GHG emissions by 2030 compared to 1990 levels. Sector-specific targets for 2030 (see figure 3).

¹ Arising from the production of metals, mineral and chemical products as well as from use of the product itself.

² Emissions in agriculture originate primarily from methane emissions from livestock, agricultural land use / land use change and the use of fertilisers.

Figure 2: Germany's total domestic GHG emissions including and excluding LULUCF in kt CO₂e



LULUCF (Land use, land-use change, and forestry) plays a minor role in Germany from today's point of view. In 2017, it was reported that this field reduced emissions in Germany by 15 mt (Umweltbundesamt 2020b). A closer look at LULUCF shows that the reductions come mainly from the forestry sector, while emissions in agriculture are rising due to land use and land use change.³

As figure 3 shows, specific climate targets have been set for each sector. Historically, emissions reductions have so far been very different in the different sectors. Due to the European Emission Trading System (ETS) and the measures taken as part of Germany's energy transition, most CO₂ reductions have occurred in the energy and industry sector. Some more light is shed on the sector-specific reductions and climate targets in figure 4.

³ In 1990, the annual impact of LULUCF was 31 mt of emissions reduction. Historically, the reductions in forestry have been diminishing and thus the overall emissions reductions in LULUCF are also decreasing.

The energy sector:

Taking the emissions of 2018 into account, the energy sector must still cut emissions by 43 per cent (-136 mt) (BMU 2020:4). The energy sector has already seen massive job losses due to various factors such as the phase out of labour-intensive areas such as coal mining, privatisation, rationalisation and German reunification. The total number of workers decreased from over 550,000 people in 1991 to little over 200,000 in 2018 (BMWI 2019:9).

The industry sector:

The 2030 target requires a reduction of emissions to 140 mt (-50 per cent less than in 2018) (BMU 2020:4). Many industries will require complete modernisation to achieve further reductions. A transformation process that is too forceful could cost many jobs and relocate energy-intensive industries abroad (carbon leakage). But it also presents a huge opportunity, since modernisation could save jobs if the industrial core can be strengthened to be able to withstand international competition.

The transport sector:

To reach the national 2030 target, the transport sector must reduce emissions to 95 mt (-41 per cent over 2018) (BMU 2020:4). This underlines the big challenges ahead in the transport sector. The lack of political action puts a large number of jobs at risk, particularly in the automotive sector (see below).

The building sector:

From 2018 to 2030, emissions reductions of 47 mt (-40 per cent) are needed. Emissions reductions have been stagnating since 2010 (BMU 2020:4). There is a shortage of workers in the construction sector. Furthermore, the limited number of well-qualified workers creates a bottleneck for future emissions reductions.

The agriculture sector:

Here, a reduction of 8 mt (-12 per cent) is required from 2018 to 2030 (Umweltbundesamt 2020c). In past years, developments were rather dynamic with emissions rising and falling.

Figure 3: Climate targets in total and by sector

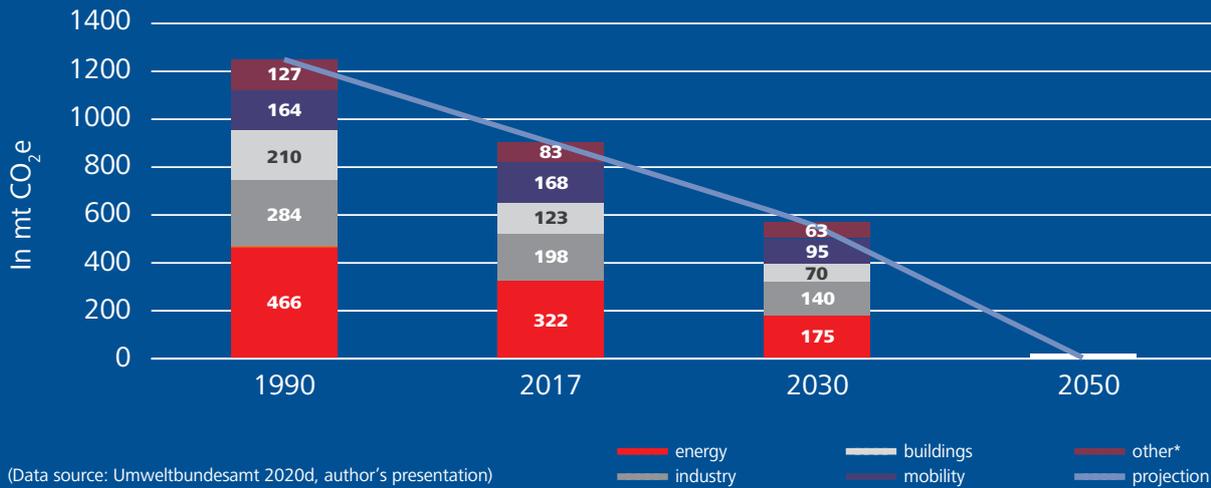
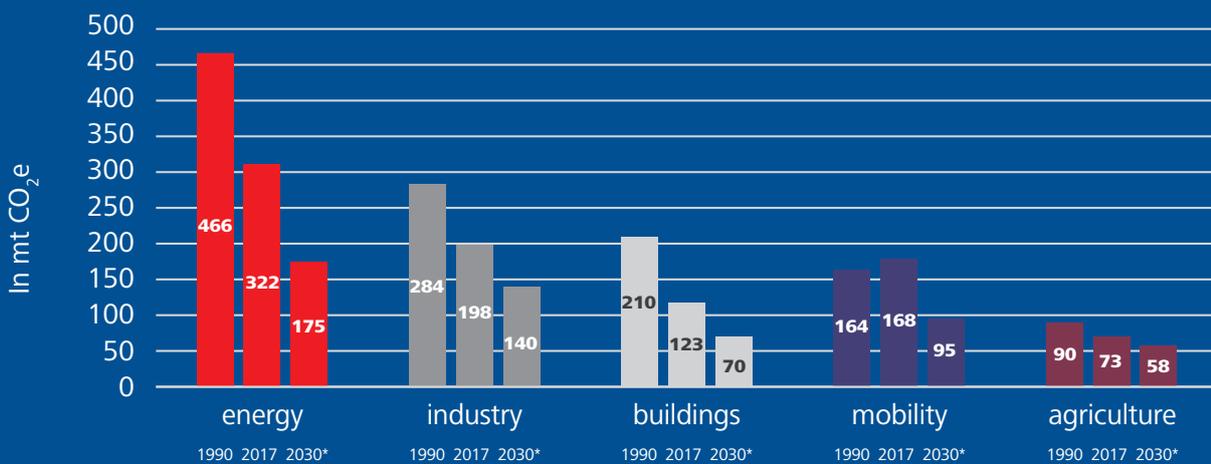


Figure 4: Emissions reductions by sector, until 2030



1.3 ECONOMY

Germany's GDP was 3,436 billion euros in 2019: 69.3 per cent was generated in miscellaneous economic sectors and services, 24.2 per cent in manufacturing (excluding construction), 5.6 per cent in construction and 0.9 per cent in agriculture, forestry and fisheries (Statistisches Bundesamt 2020a:11). Manufacturing is therefore more important in Germany than in many other EU member states (average of 19.7 per cent).

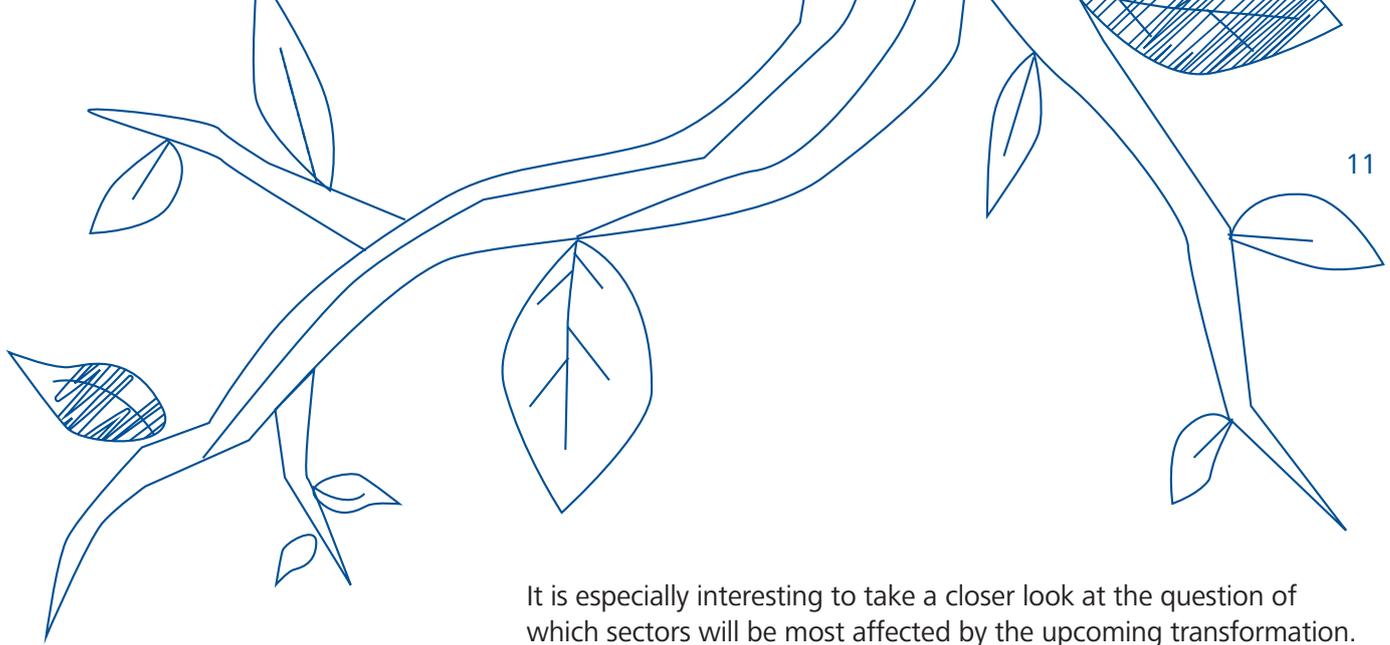
The export of goods to elsewhere in Europe and the rest of the world forms the backbone of the German economy. The top three exports in 2019 were cars and car parts (223 billion euros), machinery (194.5 billion euros) and chemicals (118.1 billion euros). When it comes to imports, cars and car parts ranked first as well, at 126.5 billion euros. Computer, electronic and optical products came in second (117.5 billion euros) and machines third (86.7 billion euros) (Statistisches Bundesamt 2020b).

In 2019, Germany had 45.2 million workers, with 1.3 per cent working in agriculture, forestry and fisheries (primary sector), 24.1 per cent in manufacturing (secondary sector) and 74.5 per cent in other economic sectors and services (tertiary sector) (Statistisches Bundesamt 2020c).

In fact, the importance of manufacturing industries is even higher than these numbers suggest. Some services are industry-related, e.g. logistics, facility management, cleaning etc. Due to outsourcing processes, these services are often provided by separate companies. An effect of this is that you can find several formally independent companies in one factory. One motive for these outsourcing efforts is to avoid collective agreements and worker participation. These kinds of structures sometimes impede unionisation and collective action.

In the mechanical engineering sector one finds predominantly medium-sized companies ("Mittelstand"). Some of these companies are world-leading providers of highly specialized machines or components ("hidden champions"). Because these companies are smaller, the influence of trade unions is usually a bit weaker than in other sectors.

Apart from this key data, it is relevant to stress that the work environment is changing rapidly and massively. To address this issue, the IG Metall trade union, for example, published an atlas of transformation (Transformationsatlas; more information below) in cooperation with its members. Interestingly enough, two thirds of the respondents of a recent study said that they did not think that the energy transition will have any influence on their job (Wolf 2020:16). This is a contradiction that needs to be addressed by trade unions.



It is especially interesting to take a closer look at the question of which sectors will be most affected by the upcoming transformation. Many sectors that are affected lie at the very heart of the “traditional” system: the automotive sector centred on the combustion engine, fossil fuel exploration, coal mining and industry as well as energy-intensive industries such as steel, concrete and chemicals. Notably, energy-intensive sectors make up a large share of German exports and innovations. The jobs in these industries offer high wages and good working conditions because trade unions play an important role in these sectors.

Each of these sectors consists of an ecosystem of companies that are connected along the supply chain – contractors, industry-related services, productive networks. So the discussion about losers and winners in the transformation process is never only about individual companies. It is about a complete network of companies where SMEs are as important as big, internationally known companies.

In addition, it should be clear that certain sectors are closely related to specific regions. The German coal phase out clearly outlines the importance of these relations, since three German regions⁴ are primarily affected by it. The automotive supplier regions in Thuringia, Brandenburg, Saxony and Saxony-Anhalt⁵ are another example of regional dependency on a particular industry (Blöcker et al. 2020). Similar geographical hot spots can be identified for several industries. So even if a sector may not seem crucial at the national level, the regional impact of losing such industries can be massive.

Many different sectors in Germany are facing transformation: energy-intensive industry, the automotive sector, electricity and heat production, agriculture. It would take too long to provide details on each of these sectors. Therefore, for the sake of this report, we will focus on the example of the automotive sector:

⁴ Lusatia in Brandenburg, Rhineland in North Rhine Westphalia, Central German mining region in Saxony / Saxony-Anhalt

⁵ This is only a selection of regions important for the automotive suppliers based on the study in the citation. Automotive suppliers are important in far more regions.



EXAMPLE

AUTOMOTIVE SECTOR

Currently, 840,000 people are directly employed in the automotive sector. The suppliers along the value chain account for another 1.5 million workers. If you take a look at the mobility sector as a whole, we find around six million workers. This shows that while the automotive sector may be at the heart of the transformation, the entire mobility sector will be affected as well.

The biggest challenge ahead for the automotive sector is the transition to e-mobility. It is estimated that 125,000 jobs could disappear by 2030 (Mönnig et al. 2018). Another report concludes that 240,000 workers working in vehicle construction could lose their jobs, with another 200,000 jobs at risk in related sectors such as metal production and construction, machine and vehicle technology and production control (NPM 2020).

German car manufacturers are catching up at the moment. The share of the e-mobility market they are able to gain in the future will be decisive. The smaller the share, the more jobs could be at risk. Alongside market share, another major transformation process lies ahead because the production of battery electric vehicles (BEV) is based on different processes and value chains than for combustion engine powered vehicles.

Automisation will impact car manufacturing and could lead to a smaller workforce. If BEV production processes are largely automatised, it is estimated that around half of today's activities in the field of automotive manufacturing could at least be partially automatised.

A closer look at automotive suppliers is also necessary. These companies often specialise in a single product. The shift to BEV could make their products obsolete. The often small or medium-sized companies do not have the resources to invest in the development of new products or in advanced training for their workers. For such firms, the risk of insolvency is rising and financing for the development of new production lines is hard to come by.

As of today it is assumed that BEVs will require far less service and maintenance. This will pose a major challenge to car repair shops. Not only will they need fewer workers to maintain the same number of cars, the workers will need new qualifications.

Beyond the many challenges that have already been mentioned, some economic sectors can be expected to grow. Naturally, this holds especially true for those sectors that can adapt quickly to future ways of doing business or those that are even pioneering them.

Examples could be new key energy-related technologies such as renewable energies, BEV, heat pumps, batteries, fuel cells, carbon removal technologies (CCS / CCU) or sector coupling technologies. Rail and public transport are also expected to grow and will require more qualified workers. Manufacturers of sustainable products in areas such as energy efficiency, organic food, fair fashion, multimodal mobility or sharing platforms are expected to grow as well.

Aspects like reuse and recycling will be fundamental to establishing a circular economy. Sectors such as repair services (especially SMEs) and bioeconomy will benefit from these trends.

But what does this mean for people? A recent study by the Friedrich-Ebert-Stiftung predicted positive employment effects in several sectors (Hoch et al. 2019:22ff):

- Electricity, electrical services, heating and cooling
- Manufactured gases and gas supply
- Manufacture of non-metallic products
- Construction and civil engineering works
- Non-ferrous metals
- Site preparation, building installation

Since 2003, more than half a million jobs have been created in the sector of renewable energy, energy efficiency and climate-friendly mobility (Hoch et al. 2019:2). In 2018, around 1.2 million jobs were reported in these sectors (Hoch et al. 2019:9). It is assumed that employment will rise until 2050: five per cent of all workers will be working in one of these sectors. The construction sector in particular will benefit.

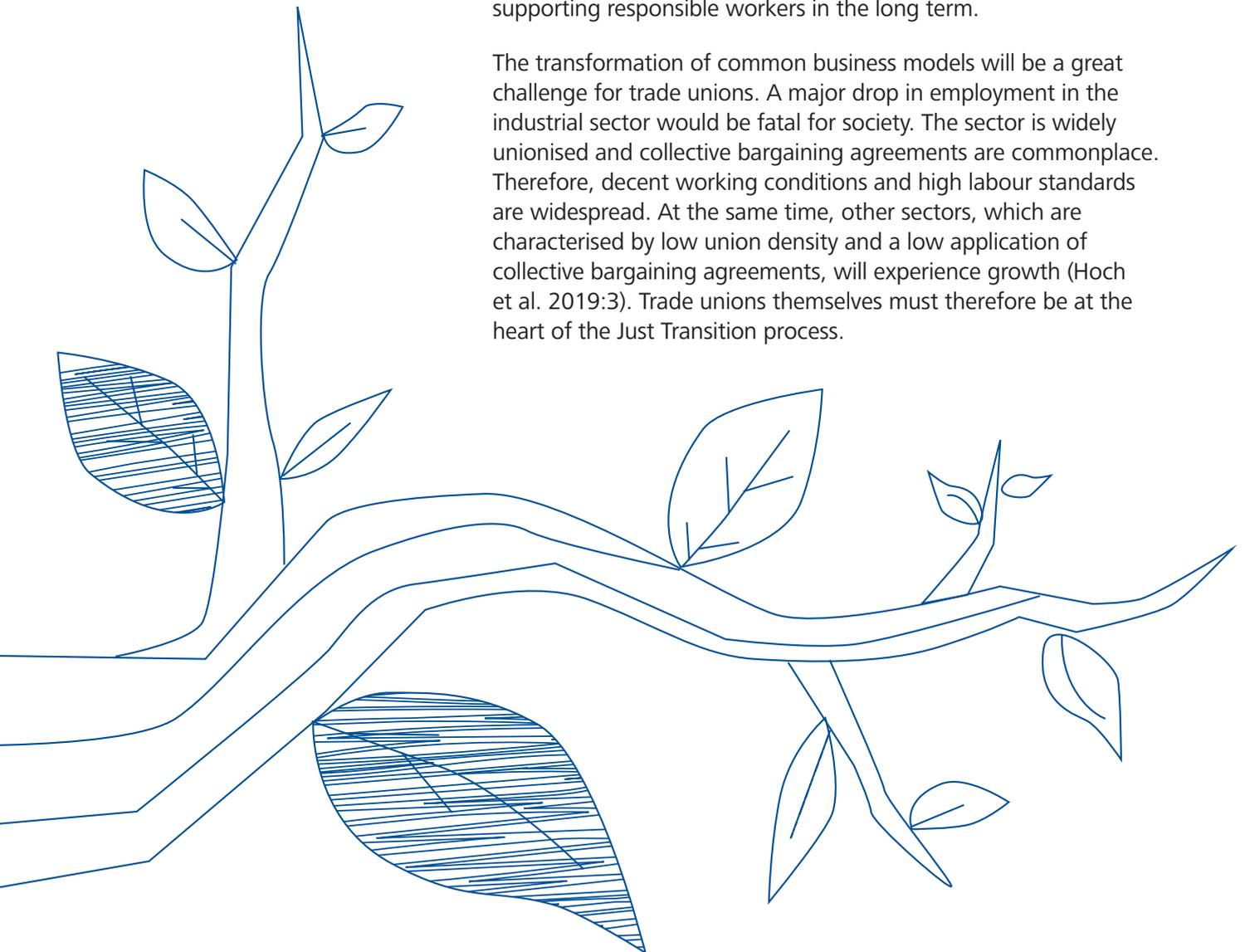
At the same time, these new markets are still rather dynamic. Major increases in employment have been followed by huge decreases. In 2010, the photovoltaic (PV) sector employed around 100,000 people (up from 20,000 in 2003). By 2018, only 42,000 jobs remained. At the same time, the number of jobs in the wind sector grew from 38,000

to 71,000. This shows that new markets create new jobs, but that these are not necessarily lasting jobs let alone decent jobs (Hoch et al. 2019:10ff).

A priority during the development of new sectors should therefore be integrating social partnership as well as codetermination. Codetermination is not an end in itself: studies show that companies with codetermination are more successful and more innovative (Hans Böckler Stiftung 2020). They usually focus on the quality of a product rather than on cost leadership. This is reflected in the economic data: the return on assets and EBIT is higher. Cash flow per share is even three times higher. This makes it clear that codetermination, collective bargaining agreements and other elements of the social partnership are the key to creating sustainable new sectors.

Unfortunately, it is often the other way round: a sector grows substantially at the expense of poor working conditions and quick wins. But a Just Transition is not about quick wins. It is about creating decent work which channels innovation while at the same time supporting responsible workers in the long term.

The transformation of common business models will be a great challenge for trade unions. A major drop in employment in the industrial sector would be fatal for society. The sector is widely unionised and collective bargaining agreements are commonplace. Therefore, decent working conditions and high labour standards are widespread. At the same time, other sectors, which are characterised by low union density and a low application of collective bargaining agreements, will experience growth (Hoch et al. 2019:3). Trade unions themselves must therefore be at the heart of the Just Transition process.



1.4 SOCIETY

Many of the instruments deployed in the German energy transition are based on the use of energy and are thus a financial burden, especially for those people with low incomes.

Therefore, to ensure the social compatibility of climate and energy policies one must always consider the related compensatory measures and the basis of funding. Taxes on resources often have a regressive distributional effect. To compensate for this, effective measures must be put in place (IMK 2019:56).

To give one example: in 2019, Germany decided to implement a national emissions trading system for the construction and mobility sectors. Initially, the prices of the certificates were fixed, but they will increase over time and will later be determined by a trading scheme. Studies have shown that this national emissions trading system disproportionately affects low-income households.

A closer look at energy poverty in Germany shows that the regressive effect has a significant impact on electricity and heating expenses. Fuel expenses are regressive as well, but less drastically so (Bach et al. 2018:4). Most publications mention an energy poverty ratio of around 13 per cent of households in Germany (Bleckmann et al: 2016:148).

There are two possible solutions to the problem of these regressive effects: either compensatory measures targeting low-income groups can be implemented or else energy transition measures can be financed through taxation. This is one of the demands of the German Trade Union Confederation (DGB) when it comes to financing renewable energy in Germany, since the tax system is far more just than a regressive energy fee.

The Social Barometer on Sustainability (Soziales Nachhaltigkeitsbarometer), a study carried out by the Institute for Advanced Sustainability Studies (IASS), provides more information about the energy transition and society. Some 46 per cent of the respondents said that the energy transition is unjust and 78 per cent said it is too expensive (Wolf 2020:15). A central issue: 55 per cent of the respondents think that social justice is not taken enough into account (Wolf 2020:15). This shows clearly that the funding of the energy transition but also of climate change measures in general must be tied more closely to social justice.

NATIONAL INSTRUMENTS

The approaching fundamental changes resulting from transformation could cause insecurity for people, regions and companies. Rules that held true in the past are changing and people cannot be sure what the future holds. To engage workers in the transformation process, it is therefore essential to offer them solid prospects and stability. A coal miner will resist the coal phase out if he has the feeling that the only thing awaiting him is unemployment, even if he knows that coal-fired plants are incompatible with climate neutrality. The phase out of coal demands nothing less of him than sacrificing a certain future in exchange for a political promise.

In a democratic society, a Just Transition can only take place if it is accepted by the people. Therefore, social security plays a key role. The people do not need to know exactly how their lives will be in ten years. But they want to be sure that their future is worth fighting for. A state that takes the people seriously should provide a social security system that helps people get back on their feet if they lose their jobs due to the transition.

Politics has to give people a choice. A choice to engage in this transformational process. A choice to contribute their ideas. A choice to shape their own future.

The keystone of a successful Just Transition is the workforce. Thanks to their work on the ground, workers possess in depth knowledge of their industry. They are trusted partners in industrial relations and bargaining processes. They know their companies better than anyone and have the skills and knowledge needed to create innovation. Ideas and innovation coming from the workforce can only emerge in a corporate culture that encourages commitment. Moreover, ongoing worker qualification as well as increased training and further education empower workers. Works councils are key players in implementing climate protection on the ground. Therefore, decent work, binding collective agreements and codetermination must be strengthened to create an environment of trust and acceptance. This should apply to both existing and new jobs and sectors.

An active state should anticipate and proactively balance social, economic and ecological effects. Required is an integrated implementation of labour market, social, innovation, structural,

industrial and regional policies. Trade unions are experienced in achieving reliable results while reconciling conflicting aims and should therefore be part of the decision-making process. It is especially important that the state does not only look at the regions which are already struggling. The biggest transformation processes are often expected in regions that are doing well at the moment. If they should get into financial difficulties, Germany as a whole will suffer. A successful Just Transition policy should therefore anticipate transformation and take a look at all regions and the unique challenges facing them.

For a successful transformation to create feasible and robust solutions, massive investment is needed. Such an investment push is not only a prerequisite for transforming the economy towards carbon neutrality, but would strengthen social cohesion and foster equal living conditions throughout society. Investment in climate-friendly infrastructures, innovative technologies, buildings and mobility are particularly important. This investment would ensure the future viability of the economy, the environment - and thus the decent work of tomorrow. Investment in this necessary transformation is investment in our future. It is a contribution to sustainable production which increases competitiveness while providing prosperity and employment.

Part one gave an overview of Germany's climate targets. These targets build on a broad legal framework with intertwined programmes and strategies. Some essential cornerstones are as follows:

Climate Action Plan 2050 (Klimaschutzplan 2050; KSP):

The KSP was adopted in late 2016 and is Germany's long-term emissions development strategy as required under the Paris Agreement. To achieve the target of a 55 per cent reduction in GHG by 2030, sector targets were defined. The foundation of the plan was a nearly year-long dialogue process with the German federal states, municipalities, associations and members of the public. The process was carried out by the Federal Environment Ministry (BMU).

Climate Action Programme 2030 (Klimaschutzprogramm 2030):

Adoption in 2019. This is a catalogue of measures that should be taken by the federal government to achieve the national climate target goal of -55 per cent GHG emissions by 2030. The programme includes measures for all sectors but focuses mostly on the weaker performing sectors: transport, building and agriculture (Bundesregierung 2019).

Federal Climate Change Act (Klimaschutzgesetz; KSG):

The KSG defines the governance structure for the Climate Action Programme 2030. The act contains binding climate targets for every year and sector through 2030 and defines clear responsibilities for the relevant federal ministries. If a sector does not reach its goal, a binding adjustment mechanism comes into effect. The Federal Environment Agency and an independent council of experts will be responsible for monitoring. In addition, the act laid down in law for the first time Germany's target of becoming climate neutral by 2050. (BMU 2019).



Even if the government has a strategy for 2030 and 2050, its plans contain inherent contradictions and blind spots which need to be addressed immediately. Just Transition is shaped by many different criteria within this framework. For example, job creation and good working conditions are not part of the discussion at all. But, leaving the transformation to the market would increase the risk of social and environmental dumping. Instead, there must be a sustainable, political framework that brings together climate protection, decent work and sustainable prosperity. To achieve these aims, the state should actively shape structural change in cooperation with trade unions and employers.

The most prominent example in recent politics where the German government has done just that is the Commission on Growth, Structural Change and Employment. The commission is one of the largest and most recent bodies concerning Just Transition. It was put into place to reach a compromise on the politically initiated phase out of coal. Trade unions participated in the negotiation process as did stakeholders from industry, the affected coal regions, academia, politics, NGOs and energy companies.⁶

The resulting compromise was presented in a final joint report. The report stressed the necessity of creating high-quality jobs and value creation to fully compensate for the loss of economic activity in lignite mining regions and hard coal power plants. Important aspects from the trade union point of view are, for example, tools like adjustment allowances that provide a bridge to retirement for older workers, specific collective bargaining agreements focused on plant decommissioning as well as financial structural aid for coal regions.

The commission may not be a blueprint for every transformational process in Germany, but it was an important learning experience for the participants as well as for society. The work of the commission can inspire other transformational processes because certain standards were established for the workers (e.g. adjustment allowances, retraining, creation of new jobs) and the affected regions (e.g. structural aid, infrastructure projects, involvement of stakeholders). Seen from the perspective of a Just Transition, the commission did a lot of groundwork in Germany for the coming era.

The commission was an instrument used by the German government, but more often it is the responsibility of trade unions to actively shape and demand Just Transition instruments. The following bullet points outline some exemplary initiatives taken by German trade unions.

⁶ See also <https://www.dgb.de/themen/++co++5ce061b8-16a6-11ea-a36d-52540088cada>

Ask union members for their opinion

The Transformation Atlas (Tranformationsatlas) published by IG Metall is a good example of action taken by a trade union (IG Metall 2019). The atlas is based on a survey of works council members and shows a negative trend concerning the overall numbers of workers. Some major problems could be identified: nearly 45 per cent of the companies surveyed lack strategies to cope with the challenges posed by transformation. Half of the companies do not have a human resources management strategy and lack a systematic approach to addressing the need for qualifications. At the same time, 95 per cent of works council members think that the need for qualifications is rising. Fifty-two per cent of them are not informed about transformational projects at an early stage and more than 60 per cent are not involved in the development of projects and their implementation. This shows that even if transformation is addressed in companies, it is often propelled by management, meaning that workers are disconnected from the process. The Transformation Atlas made clear that more than 60 per cent of the workforce is not well enough informed about the challenges ahead.

The IG BCE trade union held an internal process titled “Perspektiven 2030+” over several months. During this time, four possible scenarios for the future were developed.⁷⁸ The scenarios were discussed at a large Future Congress. Based on the discussion, a new industrial strategy proposing future activities was devised.

Make union members experts on Just Transition

The IG BAU trade union incorporated topics such as climate protection and nature conservation into the vocational training plan of the cement industry. Other sectors are expected to follow. These measures help to promote the transformation of the sector from within by enabling trainees and future workers to shape change themselves. This improvement goes directly back to a 2002 agreement concerning the sustainable development of the cement industry (Gardeik et al 2002).

Another example of worker empowerment is the “eco” collective agreement reached by IG BAU. The first of its kind, the agreement was instituted in 1995 in certain fields in the construction sector. The core of this collective agreement was the appointment of environmental protection officers and the establishment of an ecological committee at the enterprise level which had certain rights concerning corporate environmental protection and the introduction of new production processes.

⁷ The four scenarios were “under pressure”, “smart growth”, “new horizons” and “hullabaloo”.

⁸ More information can be found under this link <https://igbce.de/igbce/themen/berichterstattung-zukunftskongress> (10.09.2020).

Use classic instruments for Just Transition

Social partnership is based on an ongoing relationship between trade unions and employer organisations (social partners). Dialogue between the social partners concerning transition is necessary and important. Furthermore, collective bargaining agreements can be used to shape dialogue on transition. One recent example in Germany concerns IG Metall. The trade union offered the employer side a “Future Package” (Zukunftspaket): if employers agreed to implement important measures to safeguard jobs (investment in qualification and production sites), the trade union would refrain from demanding higher wages (IG Metall 2020).

Seek out alliances to promote trade union ideas

Different processes and bodies where stakeholders come together are crucial to implementing climate and energy policy. Naturally, trade unions are an important stakeholder here, too. Examples of this are the stakeholder process surrounding the formulation of the Climate Action Plan 2050 and the Climate Protection Action Group (Aktionsbündnis Klimaschutz). The normal legislative process also offers several opportunities to formulate the trade union position (e.g. expert opinions, written statements).

Apart from the formal arenas initiated by the government, there are also coalitions with other stakeholders that differ in terms of quality and timeframe. Some are short-term and focused on a single issue (e.g. the formulation of a position paper together with industry associations). Some are long-term such as alliances with associations and NGOs. These coalitions are systematically used to influence policy and public perception as well as to shape the discussion about transformation and climate neutrality. One example is the Alliance Shaping Structural Change (Bündnis Strukturwandel Gestalten). In this case, a regional chapter of the DGB worked together with the Chamber of Industry and Commerce to discuss the coming transformation in a coal region. Together with other important regional stakeholders, they developed measures to support the region during the transformation process.

The greatest divestment of capital comes with unemployment. Even if certain measures are in place, a lot still needs to be done. Whatever the instrument or measure, it has to be clear that the people affected by it should be integrated into the decision-making process. Instruments can help guide workers through uncertain times and provide them with better qualifications and a future in the workforce. Some specific proposals for missing measures can be found in the following list.

List of a few missing measures

Green, decent jobs: Germany needs an employment-oriented industrial policy, which fosters innovation and industry networks. A complete value chain in Germany or at least in the EU is highly relevant when it comes to creating new jobs and prosperity. In this regard, Germany should also support the idea that “green” jobs should be “decent” jobs with binding collective agreements and codetermination.

Short-time working allowance for transition: The introduction of a short-time working allowance for transition (Transformationskurzarbeitergeld) would support workers as well as companies facing structural change. The transition process will lead to fundamental restructuring, bringing with it slumps in production. This time could be used to combine short-time work with the (re)qualification of workers without job losses. The transformation process could thus be shaped together by the company and the workers, with the Federal Labour Office in the background.

Transition Training Concept: The short time working allowance for transition should be linked to a training concept, which focuses on the transformational challenges in the various sectors. Regional competence centres could be a good solution to make sure training programmes are widely available.

Transformation guide: Workers have huge potential for innovation and are drivers of change within companies. They are experts in their field. They know where energy can be saved and what is needed for climate-friendly production. To boost and use this knowledge, companies should employ a “transformation guide”. The main task of this person would be to initiate environmental and climate protection measures linked to transformation as well as providing information to workers. He or she should work together with the works council and trade unions.

Right of initiative for works councils: The introduction of a universal right of initiative and codetermination for works councils for qualifications and qualification plans would help to strengthen the voice of workers. At the moment, qualifications and qualification plans are the prerogative of management.

Right to advanced training: The introduction of a universal right to advanced training and retraining for all workers and not only for those whose jobs are at risk, as well as for the unemployed. At the moment, workers need the permission of their employer to be able to participate in re-training.

Salary protection: The mechanism of salary protection should be reintroduced for those who are forced to switch to a new sector and therefore face a lower income. Salary protection should only be paid if the new job is bound by a collective agreement, to avoid subsidising the low-wage sector.

Regional transformation plans: Regional transformation plans can help regions maintain their industrial core while at the same time transforming it. Through transformation plans, new industrial clusters can be integrated into existing industrial structures, thus establishing new networks and value chains. A consulting fund can help SMEs and works councils rework their strategies and cooperate with research and training facilities.

Transformation councils: Transformation councils can be a useful instrument to address transformation in selected industries. They have already been used for the automotive industry in Baden-Württemberg or for digitalisation in Rhineland-Palatinate. Such councils bring together companies, unions, researchers and political actors. Their task is to devise a future strategy for the affected sector.

03

EUROPEAN INSTRUMENTS



22

At the European level the same necessities apply as at the national level. We urgently need an active policy on structural change to ensure that we emerge strengthened out of this transformation and economic crisis. The main goal of every European initiative in this regard should be to provide workers, sectors and regions a sustainable and reliable outlook for the future.

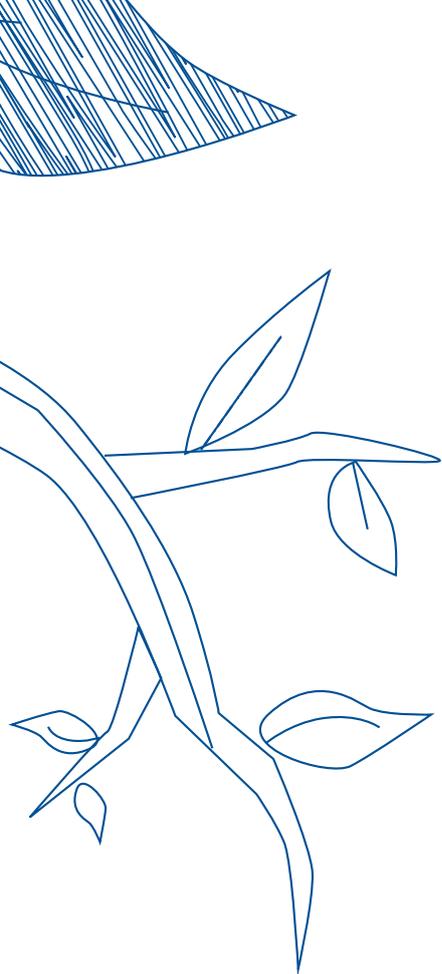
As already mentioned, no single instrument exists to adequately promote Just Transition. This means that there will be different instruments on different levels: regional, national and European. Focussing on the European level, the following aspects are most important:

Take into account the different needs of different regions:

Many regions have already undergone a major transformation. Others are in the middle of the process. Some are economically strong regions with a tough transformation process ahead. This shows that regional measures should consider each of these challenges. We need instruments to strengthen the weak, as well as instruments to uphold strength. The EU must make sure that the different regions are not played off against each other because every region has its own challenges. There are very few regions in the EU that won't need any guidance at all.

It is essential to create reliable prospects and sustainable concepts for all affected regions, industries and workers. An approach could be to also direct state aid to well-performing regions if it is clear that the foundations of their economy are facing a huge transformation. Without a doubt, this is a sensitive issue. One idea would be to introduce a cap on state aid – the maximum level would correspond to the region's current economic performance, and the money would go to transformation-related projects.

Instruments such as the European Cohesion Funds are key when it comes to shaping structural change in different European regions and helping workers and people in times of transformation. Here, the EU already possesses a very effective and well-established policy that can be used to shape Just Transition. The financial volume of the funds



should be increased and existing measures should be evaluated from the perspective of a Just Transition. Necessary measures and their funding should be implemented above and beyond existing levels.

Join forces on key technologies:

Several relevant issues will arise on the path to climate neutrality that pose a challenge to all member states, so the EU should act on them. The European battery cell consortia are a good example. Closer coordination should also be achieved in fields like hydrogen production and utilisation, CCS/CCU, renewable energy resources and the transformation of energy-intensive industries. Our trade union projects show clearly that energy-intensive industries are facing the same challenges in different European countries. Climate-friendly technologies and the existence of decent jobs are crucial for the future of European prosperity. For this reason, the EU should support their development.

Promote European networking instead of competition:

The EU should opt for an employment-oriented industrial policy, which fosters innovation and industry networks all across Europe. Establishing (nearly) complete value chains within the EU is highly relevant to the ability to create new jobs and prosperity. In this regard, the EU should support the idea that “green” jobs should be “decent” jobs with binding collective agreements and codetermination. Codetermination is not an end in itself. Companies with a high degree of codetermination are more innovative and more economically successful.

Implement climate and transformation-friendly rules on state aid:

A concentration on the single market alone won't be sufficient in the future if the EU wants to shape the structural change. A Just Transition requires an active state. This means a state which is able to steer developments and support specific policies and industries financially. Many urgent climate-friendly modernisations and new industrial processes lie ahead. To develop and implement these solutions, we cannot rely on private investment. Only with state support can we enable the green production of steel, concrete, chemicals and glass in Europe. The EU has to make sure that these key investments are possible, in order to keep the industrial heart of Europe beating.

Support the voice of workers:

To fill the words “Just Transition” with life, the EU must put workers at the centre of transformation. Transformation is a time of insecurity and this insecurity can trigger rejection of change and innovation. Giving people security in times of transformation thus facilitates the process. The EU should adopt measures that support workers all over Europe. Decent work has to be a standard in the EU that counts for everyone. We need legally binding minimum standards for all workers to raise the standard of living and working conditions. Workers' rights are crucial for innovation. Only workers who identify with their work will give their all to innovate and modernise.

Defend achievements against unfair competition:

Not every country in the world is following the same strategy on climate change. With the EU aiming for climate neutrality by 2050, it is clear that a complete transformation of the economy lies ahead of us. During this process we will develop new products and production methods that might not be able to compete with less climate-friendly products from around the world. To defend these achievements, we will need instruments that create a level-playing field between green and less climate-friendly products.

Combine targets with frameworks:

The EU's goal of achieving climate neutrality by 2050 is a huge step. When climate targets are raised, the EU has to create the necessary framework to reach these goals. This framework cannot only be shaped by the member states themselves, because a positive impulse from the EU level is needed. The EU Green Deal is thus heading in the right direction. Necessarily, the Deal covers a huge diversity of topics. At the same time, the EU has to make sure that all of the elements of the Green Deal interconnect. To make the Green Deal come alive, the EU should give up its focus on liberalisation, privatisation and the market. The backbone of the transformation should be the people working for it and not the market that depends on it.



REFERENCES

Bach, Stefan; Harnisch, Michelle; Isaak, Niklas 2018: Verteilungswirkungen der Energiepolitik – Personelle Einkommensverteilung. DIW Endbericht, https://www.bmw.de/Redaktion/DE/Publikationen/Studien/verteilungswirkungen-der-energiepolitiken.pdf?__blob=publicationFile&v=8 (10.09.2020).

Bleckmann, Lisa; Luschei, Frank; Schreiner, Nadine; Strünck, Christoph 2016: Energiearmut als neues soziales Risiko? Eine empirische Analyse als Basis für existenz-sichernde Sozialpolitik. Abschlussbericht über das von der Hans-Böckler-Stiftung geförderte Projekt Nr. 2013-654-4. Universität Siegen. Siegen, https://www.boeckler.de/pdf_fof/97606.pdf

Blöcker, A.; Dörre, K., Holzschuh, M. 2020: Auto- und Zulieferindustrie in der Transformation. Beschäftigtenperspektiven aus fünf Bundesländern. Ein Projekt der Stiftung Neue Länder in der Otto Brenner Stiftung. Frankfurt am Main, https://www.otto-brenner-stiftung.de/fileadmin/user_data/stiftung/01_Die_Stiftung/04_Stiftung_Neue_Laender/02_Publikationen/SNL_11_Autoindustrie.pdf

BMWi 2019: Energiedaten: Gesamtausgabe Stand: Oktober 2019, Bundesministerium für Wirtschaft und Energie, https://www.bmw.de/Redaktion/DE/Downloads/Energiedaten/energiedaten-gesamt-pdf-grafiken.pdf?__blob=publicationFile&v=40 (10.09.2020).

BMU: Roadmap to a climate-neutral Germany. Climate Action Plan 2050 – Germany's long-term emission development strategy, <https://www.bmu.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050/>(10.09.2020).

BMU 2019: Minister Schulze. Climate action becomes law, Press release. Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, <https://www.bmu.de/en/pressrelease/minister-schulze-climate-action-becomes-law-1/> (10.09.2020).

BMU 2020: Entwicklung der Treibhausgasemissionen in Deutschland, Bundesministerium für Umwelt, Naturschutz und nukleare Sicherheit, https://www.bmu.de/fileadmin/Daten_BMU/Download_PDF/Klimaschutz/pi-thg_abbildungen_bf.pdf (10.09.2020).

Bundesregierung 2019: Climate Action Programme 2030, <https://www.bundesregierung.de/breg-en/issues/climate-action/klimaschutzprogramm-2030-1674080> (10.09.2020).

Eurostat 2018: Share of renewable energy in gross final energy consumption, https://ec.europa.eu/eurostat/databrowser/view/t2020_31/default/table?lang=en (15 June 2020).

Eurostat 2019a: Population on 1 January, <https://ec.europa.eu/eurostat/databrowser/view/tps00001/default/table?lang=en> (15 June 2020).

Eurostat 2019b: Real GDP per capital, https://ec.europa.eu/eurostat/databrowser/view/sdg_08_10/default/table?lang=en (15 June 2020).

Eurostat 2019c: Employment and activity by sex and age - annual data, https://ec.europa.eu/eurostat/web/products-datasets/-/LFSI_EMP_A (15 June 2020).

Gardeik, Hans Otto; Kollorz, Fritz; Schmoltdt, Hubertus; Weißenborn, Michael; Wiesehügel, Klaus; Wilms, Hans-Joachim 2002: Nachhaltigkeit und Zementindustrie. Branchenvereinbarung zur Schaffung einer Initiative für Nachhaltigkeit in der deutschen Zementindustrie, https://www.zement-verbindet-nachhaltig.de/images/studien/nachhaltig_vereinbarung.pdf (10.09.2020).

Hans Böckler Stiftung 2020: Nachhaltiger durch Mitbestimmung. Böckler Impuls 2020, Ausgabe 09/2020, <https://www.boeckler.de/de/boeckler-impuls-nachhaltiger-durch-mitbestimmung-23870.htm> (10.09.2020).

Hoch, Markus; Lambert, Jannis; Kirchner, Almut; Simpson, Richard; Sandhövel, Myrna; Mündlein, Tabea 2019: Jobwende. Effekte der Energiewende auf Arbeit und Beschäftigung. Bonn. Friedrich-Ebert-Stiftung 2019, <http://library.fes.de/pdf-files/fes/15696-20200318.pdf>

IG Metall 2019: Transformationsatlas wesentliche Ergebnisse. IG Metall Vorstand, Pressekonferenz der IG Metall, https://www.igmetall.de/download/20190605_20190605_Transformationsatlas_Pressekonferenz_f2c85bcec886a59301d8ebab85f136f36061ccd.pdf (10.09.2020).

IG Metall 2020: Metall-Tarifrunde 2020. IG Metall schlägt Zukunftspaket vor, <https://www.igmetall.de/tarif/tarifunden/metall-und-elektro/tarifrunde-ig-metall-schlaegt-zukunftspaket-vor> (10.09.2020).

IMK 2019: Wirtschaftliche Instrumente CO₂-Bepreisung (Belastungsanalyse). Vorläufige Fassung des Abschlussberichts, unkorrigiert, https://www.boeckler.de/pdf/p_imk_bmu_gutachten_co2.pdf (10.09.2020).

Mönnig, A., Schneemann, C., Weber, E., Zika, G., Helmrich, R. 2018: Elektromobilität 2035. Effekte auf Wirtschaft und Erwerbstätigkeit durch die Elektrifizierung des Antriebsstrangs von Personenkraftwagen. IAB-Forschungsbericht 8/2018. Nürnberg, <http://doku.iab.de/forschungsbericht/2018/fb0818.pdf>

NPM 2020: 1. Zwischenbericht zur strategischen Personalplanung und Entwicklung im Mobilitätssektor. Arbeitsgruppe 4 Sicherung des Mobilitäts- und Produktionsstandortes, Batteriezellproduktion, Rohstoffe und Recycling, Bildung und Qualifizierung. Nationale Plattform Zukunft der Mobilität, <https://www.plattform-zukunft-mobilitaet.de/wp-content/uploads/2020/03/NPM-AG-4-1-Zwischenbericht-zur-strategischen-Personalplanung-und-Entwicklung-im-Mobilit%C3%A4tssektor.pdf> (10.09.2020).

OECD 2016: Collective bargaining coverage, <https://stats.oecd.org/Index.aspx?DataSetCode=CBC#> (15 June 2020).

OECD 2018: Trade Union, <https://stats.oecd.org/Index.aspx?DataSetCode=TUD#> (15 June 2020).

Statistisches Bundesamt 2020a: Bruttoinlandsprodukt für Deutschland 2019. Begleitmaterial zur Pressekonferenz am 15. Januar 2020 in Berlin, https://www.destatis.de/DE/Presse/Pressekonferenzen/2020/BIP2019/pressebroschuere-bip.pdf?__blob=publicationFile (10.09.2020).

Statistisches Bundesamt 2020b: Kraftfahrzeuge und Kraftfahrzeugteile im zehnten Jahr in Folge Deutschlands wichtigstes Exportgut. Pressemitteilung Nr. 082 vom 9. März 2020, https://www.destatis.de/DE/Presse/Pressemitteilungen/2020/03/PD20_082_51.html?sessionId=BB4F45B2B55236402E3324F63FB55162.internet722 (X.X.2020).

Statistisches Bundesamt 2020c: Konjunkturindikatoren Erwerbstätige im Inland nach Wirtschaftssektoren, <https://www.destatis.de/DE/Themen/Wirtschaft/Konjunkturindikatoren/Lange-Reihen/Arbeitsmarkt/lrwr13a.html> (10.09.2020).

UNFCCC 2017: Greenhouse Gas Inventory Data - Detailed data by Party, https://di.unfccc.int/detailed_data_by_party (15 June 2020).

Umweltbundesamt 2019: Klimaentwicklung in Deutschland. Monitoringbericht 2019 zur Deutschen Anpassungsstrategie an den Klimawandel, <https://www.umweltbundesamt.de/monitoringbericht-2015-klimaentwicklung-in-5> (10.09.2020).

Umweltbundesamt 2020a: Energiebedingte Emissionen, <https://www.umweltbundesamt.de/daten/energie/energiebedingte-emissionen#energiebedingte-treibhausgas-emissionen> (10.09.2020).

Umweltbundesamt 2020b: Emissionen der Landnutzung, -änderung und Forstwirtschaft, <https://www.umweltbundesamt.de/daten/klima/treibhausgas-emissionen-in-deutschland/emissionen-der-landnutzung-aenderung#veranderung-des-waldbestands> (10.09.2020).

Umweltbundesamt 2020c: Beitrag der Landwirtschaft zu den Treibhausgas-Emissionen, <https://www.umweltbundesamt.de/daten/landforstwirtschaft/beitrag-der-landwirtschaft-zu-den-treibhausgas#massnahmen-in-der-landwirtschaft-zur-senkung-der-treibhausgas-emissionen> (10.09.2020).

Wolf, I. 2020: Soziales Nachhaltigkeitsbarometer der Energiewende 2019: Kernaussagen und Zusammenfassung der wesentlichen Ergebnisse. IASS Brochure, https://www.iass-potsdam.de/sites/default/files/2020-04/Online_IASS_Barometer_200422_FINALFINAL.pdf (10.09.2020).

Umweltbundesamt 2020d: Entwicklung der Treibhausgasemissionen in Deutschland 2019, <https://www.umweltbundesamt.de/galerie/entwicklung-der-treibhausgasemissionen-in-2019> (30.11.2020).

DGB

The German Trade Union Confederation (DGB - Deutscher Gewerkschaftsbund) is the umbrella organisation for eight German trade unions. These trade unions are

- IG Bauen-Agrar-Umwelt (IG BAU), Industrial Union for Construction, Agriculture, Environment
- IG Bergbau, Chemie, Energie (IG BCE), Industrial Union Mining, Chemicals, Energy
- Gewerkschaft Erziehung und Wissenschaft (GEW), Union for Education and Science
- IG Metall, Industrial Union for Metalworkers
- Gewerkschaft Nahrung-Genuss-Gaststätten (NGG), Union for Food, Beverages, and Catering
- Gewerkschaft der Polizei (GdP), Police Union
- Eisenbahn- und Verkehrsgewerkschaft (EVG), Railway and Transport Union
- Vereinte Dienstleistungsgewerkschaft (ver.di), United Services Union

Together, the DGB member unions represent the interests of over 5.9 million people. This makes the DGB by far the largest confederation of trade unions in Germany and one of the biggest national confederations of trade unions worldwide.

The Friedrich-Ebert-Stiftung

The Friedrich-Ebert-Stiftung (FES) was founded in 1925. It is the political foundation with the longest history in Germany. It has remained true to the legacy of its founder and namesake, and it upholds the values of social democracy: freedom, justice and solidarity. Its ideals are linked to the Social Democratic Party and free trade unions.

The FES promotes social democracy primarily through:

- political education work to strengthen civil society
- political consultancy work
- international collaboration with foreign offices in over 100 countries
- providing financial support for gifted students
- preserving the collective memory of social democracy with facilities including an archive and a library

NFS

The Council of Nordic Trade Unions (NFS) is a regional trade union council. Its affiliates are 15 national trade union confederations of the Nordic countries which together represent more than 8.5 million members from blue collar, white collar and academic sectors in Denmark, Finland, Iceland, Norway, Sweden, Greenland and the Faroe Islands.

Founded in 1972, the main task of NFS is to coordinate and foster regional trade union cooperation in the Nordic countries, particularly with regard to employment, economic and social policy and in relation to ETUC, ITUC, TUAC, ILO and PERC. NFS represents its members in relation to the Nordic Council and the Nordic Council of Ministers and has close ties with the Baltic Sea Trade Union Network (BASTUN).

Project Management

Meike Büscher, FES Nordic Countries, Stockholm
José Pérez Johansson, NFS

Imprint

© 2021

Dr. Philipp Fink (v.i.S.d.P)

Friedrich-Ebert-Stiftung

Nordic Countries

Västmannagatan 4, 11124 Stockholm, Sweden

The views expressed in this publication are not necessarily those of the Friedrich-Ebert-Stiftung. The commercial exploitation of the media published by the FES is allowed only with the written permission of the FES.

Design concept: facts and fiction GmbH

Implementation/layout: facts and fiction GmbH

The person within the FES who is responsible for this publication is Dr. Philipp Fink (FES).

Abstract

Our aim is to bring climate action together with fairly distributed prosperity and decent jobs. To achieve this we need a Just Transition. This report elaborates on the German economic structures and social groups affected by climate mitigation measures. It provides an overview of national policies as well as climate targets and measures. It includes many examples of best practice on how to shape a Just Transition from the trade union perspective. The country report also spells out recommendations directed at the national and European level.