ROSA LUXEMBURG STIFTUNG BRUSSELS OFFICE

JULIA EDER

WE ARE STRONG!

TOWARDS A COORDINATED ACTION FOR THE SOCIAL-ECOLOGICAL TRANSFORMATION OF THE EUROPEAN AUTOMOTIVE INDUSTRY

JULIA EDER*

Julia Eder is a social scientist specialised in trade and industrial policy. She has worked as a researcher and lecturer for various institutions, including the Johannes Kepler University Linz and the Marie Jahoda – Otto Bauer Institut in Linz, Austria. She has also been a lecturer in trade union education programmes and, more recently, she has been engaged as a policy adviser for left-wing political parties and organisations in Germany and Austria. In addition, she is active in a number of civil society organisations, including as deputy chair of the Mattersburg Circle for Development Policies, and is a member of the editorial board of the *Austrian Journal of Development Studies*.

* The author would like to thank Alexandra Spaeth, Manuela Kropp and Florian Horn of the Rosa-Luxemburg-Stiftung's Brussels Office, Karin Fischer, Matteo Gaddi, Nadia Garbellini, Georg Hubmann, Etienne Schneider and Michael Windisch for their valuable comments on the draft or parts of it at different stages of the writing process, and Linguanet sprl in Brussels for the excellent copyediting.

TABLE OF CONTENTS

INTRODUCTION	4	
THE TRANSNATIONALISATIONOF CAPITALIST PRODUCTION	8	
The Input-Output Structure of a Global Value Chain	11	
Global Value Chain Governance and Power	13	
Identifying the Most Important Global Value Chains for Europe	15	
The Central Role of Car Manufacturing	18	
The Global Automotive Value Chain	20	
The Transformation of European Automotive Production Chains	23	
Latest Developments	25	
A LABOUR PERSPECTIVE ON GLOBAL VALUE CHAINS	27	
Labour Organisation Beyond Borders	30	
Transnational Company Agreements	31	
European Works Councils	32	
Establishing Transnational Solidarity	34	
Challenging the Competitiveness Narrative	39	
Industrial Policy Proposals by Trade Unions	42	
Progressive Industrial Policy	45	
Moving Beyond E-Mobility	47	
Research for the Mobility Transition	50	
WHAT IS TO BE DONE?	52	
References		

INTRODUCTION

Starting in the late 1970s, we witnessed the spread of neoliberalism, building on market liberalisation and privatisation. The dismantling of tariff and non-tariff barriers to international trade and the opening of countries to foreign investment, technological progress in the fields of information and communications technology (ICT), and decreasing costs of coordination and transport completely changed the organisation of production. As a consequence, large companies in the Global North could outsource and offshore a significant share of their economic activities. So-called global value chains (GVCs)¹ emerged, multiplying the trade of intermediates and semi-finished goods across borders (Barrientos et al. 2016: 1214). In fact, this geographic dispersion of globally integrated production steps represents the distinctive feature of the latest wave of globalisation in comparison to earlier waves, which displayed – from a trade perspective – an increased exchange of finished goods on the world scale.

The deepened trade integration through cross-border production chains has also changed the power relations among companies and between capital and workers. On the one hand, we witnessed what Bennett Harrison (1994) termed "concentration without centralisation". This major structural transformation of capitalism is characterised by the emergence of big transnational companies (TNCs), which have become lead firms in global value chains and control the core functions related to the chain, while other economic activities - mostly associated with production - are decentralised through different types of outsourcing (see Figures 1 and 2). The subcontractors are often based in low-wage regions, for example, in the case of the European Union (EU) in Eastern Europe or in emerging economies of the Global South (for a detailed explanation see below). The suppliers of lead firms are often small and medium-sized enterprises (SMEs), which are sometimes directly affiliated to the lead firm, and sometimes formally independent but reliant on its orders. Thus, ultimate control of the means of production has become more concentrated, but production processes have not become geographically more centralised.

¹ In other theoretical traditions, the fragmented organisation of production has been termed 'global commodity chains' (GCCs) or 'global production networks' (GPNs) (Fischer / Parnreiter 2007). While acknowledging the valuable debates associated with those concepts, I will stick to the terms 'global value chain' (GVC) and 'production chain' in the following, which I use interchangeably, in order to avoid confusion.



The fragmentation of production has posed certain challenges for the trade union movement. The constant threat of relocation of economic activities to countries with lower labour costs as well as less rigid social and environmental standards has increased competition among groups of workers (inside the EU and beyond) and has aggravated environmental problems. Furthermore, the core-periphery division in Europe has intensified together with the reorganisation of production, with foreign direct investment (FDI) in manufacturing playing a crucial role in this (Weissenbacher 2019: 253–260). More recently, digitalisation and the climate crisis have posed further challenges to those industries characterised by global value chains such as the automotive industry (Galgóczi 2019b; Drahokoupil 2020b; Kropp 2020).In this context, the European Commission (EC) (2019b) highlights the "twin challenge" of the digital and ecological transformation.² Finally, in 2020, the prospects for

² While the term 'transition' indicates that a gradual conversion to a greener capitalism is possible and desirable, the term 'transformation' has traditionally been used to emphasise that a more disruptive break with the prevailing patterns of production and consumption is necessary (Eder / Schneider 2018: 120–121). However, the EU institutions have started to use both terms interchangeably in their publications, and I will do likewise in this brochure (even if it might draw criticism due to the usefulness of the above-mentioned distinction).

production, exports and sales of industrial goods deteriorated further as a result of the COVID-19 pandemic.

In the EU, the automotive industry accounts for several million jobs (ACEA 2020a; EC 2020b), including in other sectors acting as suppliers to car manufacturers. The digitalisation of production (Industry 4.0) and products (e.g. autonomous driving), as well as the decarbonisation of the transport sector (through the promotion of e-mobility, for example), will significantly affect the existing global automotive value chains governed by European companies. Furthermore, the economic effects of the COVID-19 pandemic have hit the industry hard. According to a press release of the European Automobile Manufacturers' Association (ACEA) (2020b) from November 2020, passenger car registrations declined by 26.8% in the first ten months of 2020. All these factors do not only pose challenges to the headquarters of the companies concerned but also to trade unions and workers.

This brochure begins by explaining what led to the transnationalisation of production chains and identifying – based on the study *Evolution of International Production Chains: Towards a Coordinated Action of European Working Class Organisations* by Gaddi and Garbellini (2020) – the most relevant industrial sectors in the EU in terms of value added and employment. Due to the centrality of the automotive industry, the brochure then focuses on the challenges associated with the ongoing transformations in this sector. First, it outlines how European working-class organisations have responded to these challenges, before presenting additional proposals regarding what could be done.

THE TRANSNATIONALISATION OF CAPITALIST PRODUCTION

The liberalisation of trade and investment combined with innovations in the sphere of transport allowed capital to rely increasingly on global value chains (GVCs). This started to create a new international division of labour from the mid-1970s on (Fröbel et al. 1977), in which transnational companies have subsequently become the dominant actors. To a large degree, GVCs are the outcome of relocations of production sites (along with foreign direct investment (FDI) into the manufacturing sector of distant countries). Different forms of outsourcing, which can also take the form of offshoring (= relocation), have promoted the creation of GVCs (see Figure 1).



There are different definitions of outsourcing and offshoring, but the key questions are always:

- 1) Who owns and controls the production sites?
- 2) Where is the economic activity located?

According to the World Trade Organization (WTO) (2005: 267), four different types of outsourcing exist (see Figure 1). Domestic outsourcing can happen in either a captive or non-captive way. In the former case, a firm affiliated to the parent company performs the outsourced activity, in the latter case the firm is non-affiliated. Classic examples of outsourcing are hiring an external firm for facility management or replacing all or part of the core workforce with 'external' contract workers (Blöcker 2018: 9). The WTO applies the term 'offshoring' in those outsourcing cases in which firms locate their production sites abroad or purchase supplies from non-affiliated firms abroad. Offshoring can also be captive, through FDI, or non-captive, via the subcontracting of local firms. There are also other definitions of offshoring and outsourcing (e.g. Galgóczi et al. 2007: 7), but for the purposes of our brochure the important thing to bear in mind is that we are concerned with where production takes place and under what conditions, i.e. which governance and ownership relations prevail.



OUTSOURCING AND OFFSHORING

Figure 1 / Source: own elaboration based on World Trade Organization (2005: 267).

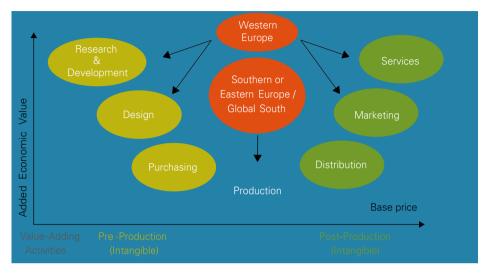
THE INPUT-OUTPUT STRUCTURE OF A GLOBAL VALUE CHAIN

Offshoring does not happen randomly. It is determined by, among other factors, wage levels, labour and environmental standards, proximity to key markets, the existence of relevant infrastructure, tax-based regulations, legal security, trade union density and the existence of a sufficiently gualified workforce. Driven by all these factors, a new distribution of economic activities around the world has emerged, with transnational companies tending to keep the higher value-adding, so-called 'core activities' in the Global North (or Western or Central European countries, such as Germany or Austria). By contrast, the lower value-adding 'non-core activities' tend to be outsourced or, more precisely, offshored to Europe's peripheries (e.g. to Southern, South-Eastern or Eastern Europe or to the Middle East and North African countries - known as 'nearshoring') or to the Global South (Gereffi / Stark-Fernández 2016: 14). A prominent way of depicting a global value chain (GVC) is the smile curve (see Figure 2), which indicates at which stages the economic activities forming a GVC create higher and lower value added³ (leading to the image of a smile).

Figure 2 provides an overview of the main economic activities that are needed to produce a finished manufactured good and shows – from a European perspective – where they usually take place. Thus, from an input-output perspective:

[a] global value chain of a final product is defined as the value added of all activities that are directly and indirectly needed to produce it. This global value chain is identified by the country-industry where the last stage of production takes place before delivery to the final user. (Timmer et al. 2014: 100)

³ Value added measures the increase in value that a good or a service experiences at each stage of production, after subtracting the cost of inputs.



THE 'SMILE CURVE' OF GLOBAL VALUE CHAINS



Gaddi and Garbellini (2020) call the country-industry responsible for generating the final good the 'head' of the chain. In statistical terms, it is important where the production chain ends because the product is included in that country's basket of final commodities. However, the identification of the country hosting the top end of the chain tells us nothing about the ownership relations. While a country might host the firm responsible for the final assembly of a specific good (and, thus, appears in the input-output-tables as the final goods producer), the assembly sites often belong to a transnational company headquartered in another country and controlled by a diverse set of shareholders. Ownership relations, in turn, do not inform us about the exact distribution of profits and dividends (Blöcker 2018: 8).

0

GLOBAL VALUE CHAIN GOVERNANCE AND POWER

In the early days of global value chain (GVC) research, scholars identified the governance structure of GVCs – or global commodity chains – as either producer-driven or buyer-driven. In the first case, lead firms typically constituted global oligopolies, for example, car or aircraft manufacturers. They exerted control over the profit margins and so had a highly hierarchical relationship with their raw material and component suppliers (called 'backward linkages') as well as with agents responsible for distribution and retail (termed 'forward linkages'). In buyer-driven value chains, by contrast, large retailers such as Walmart or Zara were identified as the most powerful economic actors. The apparel industry was cited as a typical example of such chains, in which suppliers were usually non-affiliated firms that worked in a highly competitive environment. While transnational industrial capital was said to lead producer-driven chains, in buyer-driven chains transnational commercial capital hold the dominant position (Gereffi 1999; Gereffi / Stark-Fernández 2016: 10–11).

More recently, this rather crude definition has been refined, distinguishing now between five different types of GVC governance (see Figure 3). While in GVCs driven by 'market governance' the price is the decisive determinant of exchange, 'modular governance' is characterised by relatively standardised production processes and the use of generic machinery, so that the suppliers can change the lead firm they are delivering to more easily – and vice versa – than in the more explicitly coordinated value chains (to the right). The electronics industry is an example of modular governance. 'Relational governance' exists when suppliers and customers mutually depend on each other, because the production of a product requires complex information and, thus, constant knowledge exchange between both sides. However, the lead firm specifies the demand, and suppliers, often specialised in differentiated products, need to comply. This governance type is nowadays typical for the apparel and parts of the automotive industry. Where production processes become more standardised and codified, relational governance tends to transform into modular governance. In 'captive' value chains, small suppliers rely on one or very few purchasers, which makes them very vulnerable to lead firms. In a 'hierarchical' value chain, all suppliers are vertically integrated into the lead firms, which has centralised managerial control. It should be noted, however, that this classification is not stable. The predominant form of governance in an industry can change over time and the type of governance can differ at different production stages (see Figure 2) within the same industry (Gereffi / Stark-Fernández 2016: 10–11).

The governance type of a global value chain is also relevant from a labour perspective because it entails specific opportunities and restrictions for organising labour along the chain.



FIVE TYPES OF GLOBAL VALUE CHAIN GOVERNANCE

Figure 3 / Source: Gereffi and Stark-Fernández (2016: 11).

IDENTIFYING THE MOST IMPORTANT GLOBAL VALUE CHAINS FOR EUROPE



The fragmentation of production also affected Europe and significantly increased the involvement of European companies in global value chains (GVCs). This profound structural transformation also called for new statistical measurements of international trade that did not focus merely on final goods, but also considered the exchange of intermediates and semi-finished goods⁴ at different production stages.

A powerful tool for this is input-output analysis, which serves to trace the origin of factor inputs. The World Input-Output Database (WIOD) is the first to provide detailed data for the connections among 56 industries in 44 countries (the other countries are merged into 'Rest of the World'). For example, the WIOD makes it possible to capture all – domestic and foreign – direct and indirect inputs⁵ that enter into the production of a car in a specific country. As you need machinery to build a car, the machinery and equipment industry appears as a supplier of the vehicles industry (together with many other industries). Furthermore, we can see from where those intermediates were sourced and how labour-intensive they were. Thus, this methodological approach can help to better understand outsourcing dynamics of GVCs headed by European transnational companies.

Based on the World Input-Output Database (release 2016), Gaddi and Garbellini (2020) determine the most important European production chains with regard to employment and value added. In total, they identify 11 final commodities pertaining to 11 different chains that were crucial in 2000 and/or 2014, which they divide into four different categories according to the technology intensity (see Table 1).

⁴ Some scholars argue that it is now rather an exchange of 'tasks and activities' than of goods.

⁵ In the car industry, for example, direct inputs are all inputs that are needed to directly build the car, i.e. parts and components, while indirect inputs are other economic activities that are necessary to produce the finished product.

MOST SIGNIFICANT EUROPEAN PRODUCTION CHAINS

	FINAL COMMODITIES	'HEAD' OF THE PRODUCTION CHAIN LOCATED IN
Low tech	Food and tobacco	Germany, France, Ireland, Italy, UK
	Textiles and leather	Germany, Italy
	Furniture	Germany
Medium-	Coke and refined petroleum	Germany, France, Belgium
low tech	Fabricated metals	Germany
Medium-	Chemicals	Germany
high tech	Electrical equipment	Germany
	Machinery and equipment n.e.c.	Germany, Italy, France
	Vehicles	Germany, Spain, UK, France, Belgium, Czech Republic, Hungary, Slovakia
	Other transport	Germany, France
High tech	Electronic and optical products	Germany, France, UK, Ireland

Table 1 / Source: own elaboration based on Gaddi and Garbellini (2020: 11-18).

Germany was the only country in which all significant production chains have a top end or head, meaning that companies conduct the final assembly or last production step there. This is congruent with other research that identifies Germany with its highly competitive companies as the dominating country of the Central European (CE) manufacturing core, which also encompasses Austria and the Visegrád countries⁶ (Stehrer / Stöllinger 2015). With the exception of Poland (18.9%), all of these countries had a share of manufacturing in value added of more than 20% in 2017, while the European average was only 16.5% (German Federal Ministry for Economic Affairs and Energy 2019).

A very important reason for the emergence of the CE manufacturing core was the Eastern enlargement of the European Union. While German imports from Southern Europe declined, they rose from the East. This was due to the integration of Eastern European suppliers into German and - to a far lesser degree – Austrian production chains, including through the offshoring of production sites (Simonazzi et al. 2013: 660). Thenceforth, the Visegrad countries adhered to the "industrial workbench model" (Gräbner et al. 2020). Comparatively low wages combined with a relatively high-skilled workforce made them an attractive location for transnational companies. Ultimately, the outcome was the emergence of a European "manufacturing divide", where "members of the CE manufacturing core benefit from participation in global value chains in terms of structural change towards manufacturing, whereas in other EU member states GVC participation, if anything, accelerates the deindustrialisation process" (Stöllinger 2016: 801). This placed German industrial capital in a very powerful position, which was further strengthened in the wake of the 2008/2009 financial crisis.

THE CENTRAL ROLE OF CAR MANUFACTURING

Table 1 also shows that car manufacturing is currently the most significant industrial sector in the EU in terms of value added and employment. Indeed, the automotive industry has been the lead sector of economic development over the past century in many countries around the world. Furthermore, all the major car sector crises since the mid-1970s have been connected to global recessions, which is a further sign of the relevance of car manufacturing for the growth dynamics of global capitalism (Wolf 2020). The manufacturing model prevailing in the Western world after World War Two was even named 'Fordism', after the car manufacturer Henry Ford. It relied on a combination of standardised mass production and mass consumption. To this day, the automotive industry carries considerable weight in the global economy and the leading automakers as well as the largest suppliers are extremely powerful (Sturgeon et al. 2009: 17; 22). This is also valid in the EU context (Haas / Sander 2019).

Furthermore, Table 1 shows that firms carry out the final assembly of vehicles in several European countries, meaning that automotive production chains end there. However, as mentioned above, WIOD data does not tell us anything about ownership relations, which are particularly concentrated in the automotive industry, because it is dominated by only a few large lead firms (Gereffi 1999; Sturgeon et al. 2009):

This dirty dozen still controls around three-quarters of global car production, although these companies now have large factories in China. These are the four Japanese companies Toyota, Nissan, Honda, and Suzuki; the three German companies VW, Daimler, and BMW; the two US manufacturers GM and Ford; the two French companies Renault (with Dacia and Lada) and PSA (with Peugeot, Citroen, Opel and Fiat-Chrysler); and the South Korean manufacturer Hyundai. (Wolf 2020) For example, according to its website, the Volkswagen Group produces 12 brands of cars, trucks, buses and motorbikes, originating in seven European countries: Volkswagen passenger cars, Bentley, Ducati (motorcycles), Audi, Bugatti, Volkswagen Commercial Vehicles, Scania, MAN, Seat, Lamborghini, Skoda and Porsche. In total, it operates 125 production plants in 20 European countries (Volkswagen Group 2020). This structural concentration without geographic centralisation of production sites is also important when it comes to transnational labour organisation, because it means that workers in different subsidiaries of the same transnational company have the right to establish European Works Councils.

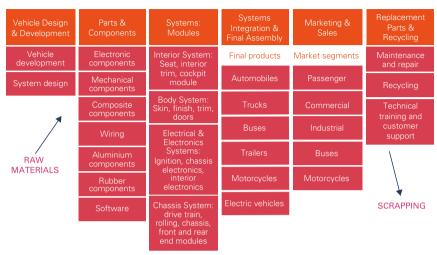
Considering the relevance of the automotive industry for Europe, we will now explore the structure of this production chain before discussing some major trends in European automotive production over the past 20 years.



THE GLOBAL AUTOMOTIVEVALUE CHAIN

A passenger car is usually composed of thousands of parts coming from hundreds of suppliers (see Figure 4). As in other capital- and technology-intensive industries, the ownership structures are highly concentrated, with a few, globally dominant lead firms (e.g. General Motors, Volkswagen, Groupe PSA). It is a typical example of a producer-driven chain (Gereffi 1999: 1). Usually, the complex and high value-adding activities, such as design, research and development, as well as services related to marketing and sales, remain in-house, concentrated in the facilities of original equipment manufacturers (OEMs; major automotive companies mostly headquartered in countries of the Global North). Other tasks and activities tend to be outsourced and are very often also offshored (see Figure 4). In the case of the automotive industry, the final assembly is usually located very close to the end markets in order to shorten the transportation routes, and due to "political sensitivities", that is, the fear that the large-scale offshoring of the production of an important status symbol might cause adverse reactions among potential car buyers (Drahokoupil 2020a: 9-10; Sturgeon et al. 2009: 9, 14-15).

Parts and components, particularly the lighter and more generic ones, are often produced far away in order to exploit economies of scale and lower wages. They are then shipped for sub-assembly to plants located closer to the sites of final assembly. The production of bulky and model-specific parts, by contrast, usually takes place close to the assembly sites (Drahokoupil 2020a: 10). At the next production stage, parts and components are assembled into modules, which are then integrated to form systems. Ultimately, systems integration and final assembly are the responsibility of lead firms (the 'heads' of the chain). However, more recently, the most important direct suppliers to the big automakers have increased their power (Sturgeon et al. 2016: 4–6).

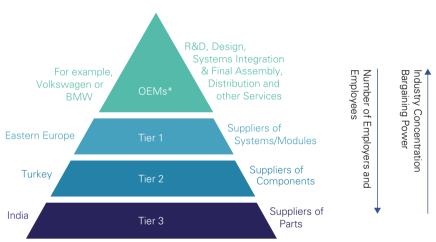


THE GLOBAL AUTOMOTIVE VALUE CHAIN

The automotive industry has a so-called 'tiered' structure (see Figure 5). At the top, we find the car assemblers, which are original equipment manufacturers (OEMs). Tier 1 consists of suppliers that sell directly to the car manufacturers. In many cases, they have proper research and development units and may be involved in an OEM's vehicle development process. Tier 2 suppliers usually provide smaller and less complex components for the production process, while Tier 3 suppliers produce small parts with low value added. As in the case of OEMs, the ownership of large Tier 1 suppliers is highly concentrated. In peripheral locations, foreign-controlled OEMs and upper-tier suppliers perform more complex economic activities and account for more value added than domestic lower-tier suppliers, which tend to be specialised in simpler tasks (Drahokoupil 2020a: 11; Las Heras 2015: 97–98; Sturgeon et al. 2016: 11–12).

Figure 4 / Source: reproduction and slight adaptation of figure in Sturgeon et al. (2016: vi).

Depending on the tier, the relationship between lead firms and suppliers (see Figure 3) can be either 'relational' (OEM – Tier 1) or 'captive' (e.g. Tier 1 – Tier 2) (Sturgeon et al. 2009: 9). While the consolidation of Tier 1 automotive suppliers has increased their size and scope, the mostly local actors in Tiers 2 and 3 have seen their room for manoeuvre decrease (Sturgeon et al. 2016: 3). Thus, the tiered structure entails a specific distribution of bargaining power among the actors, which also affects the opportunities (and limits) of labour organisation (Las Heras 2015: 98).



VALUE CHAIN AND POWER STRUCTURE IN THE AUTOMOTIVE INDUSTRY

* OEM = original equipment manufacturer; car manufacturer, e.g. Volkswagen or BMW

Figure 5 / Source: own reproduction and slight adaptation of a figure by Las Heras (2015: 98).

THE TRANSFORMATION OF EUROPEAN AUTOMOTIVE PRODUCTION CHAINS

In their study, Gaddi and Garbellini (2020) found that the production chains of the automotive sector are the most important in terms of generating value added and employment in the EU. This is consistent with figures presented by the European Commission (EC 2020b), according to which the automotive sector is – directly and indirectly – responsible for 13.8 million jobs in the EU, equivalent to 6.1% of total EU employment. The European Automobile Manufacturers' Association (ACEA) points out that, of those 13.8 million, only 2.6 million are jobs directly linked to car manufacturing, that is, held by the workers employed in the 229 vehicle assembly and production plants in the EU (ACEA 2020a). Of all workers employed in manufacturing in the EU, 8.5% work in the vehicle industry. Furthermore, 7% of the EU's GDP can be traced back to the automotive sector (EC 2020b). Thus, in the current production structure of the EU, the automotive chains carry great weight in terms of output and employment.

With respect to the development of European automotive production chains, Gaddi and Garbellini (2020: 32-67) show that domestic value added has decreased guite sharply in all eight countries with 'heads' of a production chain, while supplies from firms in other EU and non-EU countries have increased in all production chains. Looking at the development of the production chain ending in Germany, which had the biggest weight, we see the following: Germany-based companies have shifted a significant share of their automotive production activities abroad. Eastern European countries have continuously increased their weight as Tier 1 suppliers to German car manufacturers since the Eastern enlargement of the EU. As skills development and labour shortages drove up labour costs, these countries started to source less specialised parts from non-EU countries with lower labour costs, such as Turkey, and focused on the assembly of more complex automotive components. However, German lead firms still acquire the most sophisticated high-quality components from Western and Central European countries, such as Porsche dashboards from Northern Italy (Gaddi / Garbellini 2020: 69). While firms from Eastern European EU Member States became Tier 1 suppliers of low labour-intensive automotive components, they reduced capacities in almost all basic industries (that are not strictly tied to car production). This significantly increased their dependence on the original equipment manufacturers to which they deliver and made them vulnerable if the companies concerned considered offshoring further east (Gaddi / Garbellini 2020: 69) or reshoring to their own country, supported by Industry 4.0 technologies.⁷ Indeed, there was already evidence in 2016 that offshoring from Western Europe had decreased, while increasing from Eastern Europe (Eurofound 2017). Should this trend continue, the Visegrád countries would be left with a distorted economic structure that would be hard to diversify again.

Turkish firms have gained importance as suppliers of labour-intensive automotive components for German car production. Gaddi and Garbellini (2020: 70–71) therefore assume that companies based in Turkey became Tier 2 suppliers for Eastern European (Tier 1) suppliers, which then sell to the German automotive industry. Furthermore, Turkish firms have decreased the provision of less specialised intermediates to Germany, with Indian producers taking on this role. Hence, Gaddi and Garbellini reason that a significant strand of the German automotive chain probably starts with Indian firms supplying Turkish firms with less complex small parts and intermediates, which are used in Turkey to build labour-intensive components.⁸ Those are supplied to Eastern European manufacturers, which then deliver to Germany-based lead firms. Chinese inputs have also gained importance, but they have become increasingly complex and heterogeneous, which makes producers from China less dependent on European purchases than firms based in countries like Turkey or India (Gaddi / Garbellini 2020: 70–71).

⁷ However, the potential and probability that widespread reshoring will take place due to the expansion of Industry 4.0 technologies is highly disputed (see footnote 2).

⁸ In fact, Baldwin and Venables (2013: 246) have rightly pointed out that it makes sense to distinguish between "snakes", i.e. generally linear production chains, and "spiders". The latter have "multiple limbs (parts) coming together to form a body (assembly), which may be the final product itself or a component". Such spider-like chains are quite common in the automotive industry, where assembly sites draw on parts and modules stemming from different value chains.

LATEST DEVELOPMENTS

In summary, the fragmentation of production has led to the establishment of a new transnational division of labour, in which Germany - together with its satellites - constitutes the European manufacturing core and other countries have suffered deindustrialisation. However, as noted above, offshoring has also become a problem for Eastern European countries more recently, whereas the phenomenon seems to have peaked in Western European countries before the crisis of 2008/2009 and has declined since then (Eurofound 2017). Additionally, new concerns have come to the fore, associated with digitalisation and decarbonisation. With respect to the former, a study on Industry 4.0 edited by Gaddi et al. (2018) concludes that the advancement of Industry 4.0 is conducive to outsourcing and offshoring, because the new technologies make it easier to exert control over the whole value chain and the workers concerned⁹ (for a summary of the study, see Wimmer 2019). Regarding decarbonisation, Galgóczi (2019a: 13) highlights that the shift to electrified powertrains will affect more than 30% of the value added connected to car production, and some products and activities, in which European car manufacturers have strong capabilities (e.g. the combustion engine), might even disappear entirely.

In the new EU industrial strategy published in March 2020, the European Commission (EC 2020a) highlights the need to ensure the competitiveness of European industry on the global market and, with this objective in mind, to tackle the twin challenge of the digital and ecological transformation.

⁹ Interestingly, in German-speaking countries the academic and public debate is more focused on whether technological change (e.g. the progress of the digitalisation of industry/Industry 4.0) might also lead to a centralisation of production. The main argument is that the technologies employed in Industry 4.0 (3D printing, artificial intelligence, etc.) will enable the relocation of production capacities back to developed economies (for the expected changes in the automotive industry, see the different contributions in Drahokoupil 2020b). However, as Gaddi and Garbellini (2020: 7–8) and Butollo (2020) point out, there are also good reasons to be sceptical that we will witness the widespread relocation of production sites to Europe.

The latter was already a cornerstone of the European Green Deal (EC 2019b), which was presented in late 2019. With respect to the automotive industry, the acceleration of the shift to "sustainable and smart" mobility has become key. The promotion of e-mobility as an alternative to combustion-engine vehicles is the most widely known component of this. Furthermore, the Commission has started to implement a Strategic Action Plan on Batteries, which aspires to create a "circular and sustainable battery value chain for all batteries, including to supply the growing market of electric vehicles" (EC 2019b: 9). More recently, on 10 December 2020, the Commission proposed a new Sustainable Batteries Regulation (EC 2020d). Meanwhile, the European Automobile Manufacturers' Association (ACEA 2019: 3) has emphasised its commitment to providing "clean" and "safe" mobility and formulated clear instructions about "what Europe should do" to support them.

It is clear then that major structural transformations are under way in these global value chains, particularly but not exclusively the automotive industry. These changes are socially contested, so it is not yet clear what shape they will take. However, in one way or another they will have significant effects on workers and on the labour organisations which represent them and coordinate their actions.



A LABOUR PERSPECTIVE ON GLOBAL VALUE CHAINS

Deregulation created new opportunities for outsourcing and offshoring in the course of the transnationalisation of production. These developments also considerably weakened labour vis-à-vis capital and destabilised the existing institutions of industrial relations (e.g. collective bargaining). On the one hand, outsourcing reinforced already-existing tendencies to deregulate and decentralise bargaining, because collective bargaining agreements barely include (outsourced) suppliers and service providers. On the other hand, the possibilities of outsourcing have changed the power relations between capital and labour. Also, employees in the core workforce have come under pressure to accept a deterioration of their working conditions, as they fear that their jobs might be outsourced or offshored as well (Flecker 2009: 253).

Still, global value chain (GVC) research has mostly focused on the position that countries/regions or, more specifically, firms hold in GVCs. Labour has only played a substantial role in a few analyses (Phillips 2016; Selwyn 2016), while in mainstream literature it has often remained subordinate to the above-mentioned features. This is problematic, however, because the position of a firm in a production chain and the prevailing mode of governance heavily influence employment relations and the quality of work (Flecker 2009: 252). The working conditions, wage differentials, degree of unionisation and collective bargaining coverage correlate with a company's position in the value chain (Las Heras 2015: 99).

However, as Las Heras (2018: 314) points out, labour is not simply a passive victim of the transformation of capitalism. Workers and their associations also play a key role in the reproduction or modification of the regulation of a production chain, which is also important with respect to the twin challenge ahead. Still, the options for change are clearly restricted if a firm is situated in a subordinate position in the value chain, e.g. as an affiliate of a transnational company (TNC) headquartered elsewhere (hierarchical governance; see above) or as a non-affiliated supplier to a TNC (relational or captive governance). Particularly in sectors in decline or transition, this is likely to strengthen competition between firms and their workers. In order not to weaken labour's bargaining power, labour organisations need to devise an elaborate transition strategy to counteract this tendency. Therefore, we will

now focus on how labour agency takes form in the European automotive industry, what basic reasoning it follows, and what opportunities and limitations arise from this.



LABOUR ORGANISATION BEYOND BORDERS

Trade unions originated as local groupings seeking to improve their working conditions on site, and only unified at national level with the consolidation of the nation states (Mayer 2013). From the 1890s to the 1970s, the nation state was the central unit for labour organisation and struggle (although trade union work has always defended an internationalist ideology, albeit sometimes only on paper). Therefore, employment relations are still regulated to a large degree at the national level. However, the increasing fragmentation of production has entailed a "multi-scalar competitive fragmentation [of labour]" (Hürtgen 2020: 5). Consequently, the new circumstances place clear limits on national solutions. Thus, recent decades have witnessed numerous - more or less successful - attempts by labour organisations to shift the regulation of employment relations to a higher - European or global - level (Bieler / Lindberg 2011: 220). However, it is important to keep in mind that "while national trade union structures are no longer sufficient, globalisation should not be an argument to weaken existing national unions. [...] globalisation ['merely'] provides a new and additional task, that of restraining competition between workers in the new global framework" (ibid.: 231).

At the European level, the first steps to create worker representation structures go back to the 1970s, when the first European industry federations, such as the European Metalworkers' Federation (EMF; 1971), and the European Trade Union Confederation (ETUC; 1973) were founded. While the ETUC consists of national trade union confederations, the European industry federations are composed of European sector unions, e.g. metalworkers' unions in different European countries. These organisations started to shape labour relations at the European level. For instance, the EMF has been responsible for the EU-wide coordination of national collective bargaining in its sector since the 1990s, based on the formula "inflation plus productivity gains" (Bieler / Lindberg 2011: 223). In 2012, the EMF merged with the European Trade Union Federation of Textiles, Clothing and Leather (ETUF-TCL) to become IndustriAll European Trade Union.

TRANSNATIONAL COMPANY AGREEMENTS



One important task of – national, European and/or global – trade union federations is to negotiate and conclude transnational company agreements (TCAs) with transnational companies. TCAs are a (voluntary) regulation mechanism, which the European Commission encourages firms to sign. They are presented as a governance tool to enhance corporate social responsibility (CSR). Currently, more than 320 such agreements are in force (EC 2019a). The most prominent forms are European framework agreements (EFAs) and global framework agreements (GFAs). According to IndustriAll Global Union (n.d.), they "put in place the very best standards of trade union rights, health, safety and environmental practices, and quality of work principles across a company's global operations, regardless of whether those standards exist in an individual country". About half of GFAs also explicitly refer to the suppliers and subcontractors making up the transnational company's global value chain. In the automotive sector, BMW, Daimler, MAN, PSA Peugeot, Citroen, Renault and Volkswagen have signed GFAs (IndustriAll Global Union n.d.).

However, Fichter and McCallum (2015) found that the implementation of Global Framework Agreements (GFAs) was poor in many cases. This is not surprising considering that GFAs are not legally enforceable (which is a major difference from supply chain laws, which are binding). In practice, they were mostly inserted into the CSR agenda of the transnational companies, which requires corporate protocols for its implementation. While Fichter and McCallum concluded that "social partnership" at company level might be useful for negotiating a GFA, this was not the case when it came to its implementation. By contrast, "GFAs resulting from a broader mobilization of workers and from a wider array of union participation are more apt to be implemented" (ibid.: 81). Rather than resorting to "social partnership", they recommend to enter a "conflict partnership" relying on a combination of "battle and dialogue". In this kind of partnership, labour and capital are in a constant struggle to shift the balance of power in favour of their side, which generates a different dynamic from a corporatist logic and has proved to be more effective (ibid.: 71).

EUROPEAN WORKS COUNCILS

Another trade union tool counteracting the effects of fragmented production are European Works Councils (EWCs).¹⁰ Based on the corresponding directive adopted in 1994 and revised in 2009, EWCs enable workers' representatives from different European plants belonging to the same transnational company to exchange information and to coordinate their actions. However, the body has only an advisory role to the company management and its decisions are not binding for the company as a whole, which has led to extensive debates on the effectiveness of this institution in its current form (Las Heras 2015: 100–101). There have been calls for EWCs to be given compulsory instruments and to be converted into negotiating bodies, rather than just forums for consultation (Gaddi / Garbellini 2020: 77–78). However, EWCs should not be underestimated, as they have occasionally proven effective means of coordinating transnational labour action.

In the European automotive industry, European Works Councils (EWCs) have played a vital role in resisting management whipsawing, in other words countering management strategies aimed at playing off plants against each other, for example with regard to possible investments or closures. For example, the EWC of General Motors Europe/Opel on several occasions successfully organised protests and industrial action across borders and pursued a strategy of "sharing the pain" among all plants in order to avoid closures (Greer / Hauptmeier 2012: 287–288). However, in other cases, EWCs have not played such a progressive role. For instance, at European steel company ArcelorMittal, the EWC was used as a "management tool to divide and conquer". The management succeeded in co-opting labour into its competitiveness discourse, which led to "hegemonic whipsawing" (Aranea et al. 2018: 12–15).

¹⁰ In globally active transnational companies, World Works Councils (WWCs) sometimes exist. However, huge global disparities make it even more difficult to organise effective resistance through these institutions.



Furthermore, the defence of local and national micro-corporatist interests often undermines the emergence of transnational European solidarity (Las Heras 2015: 101). In such cases, each plant attempts to outdo the other (based on concessions) in order to receive investments or other benefits or – some-times – to preserve the production site. This can happen even if national trade unions have intensified their contact, as this does not automatically result in transnational solidarity (Bieler / Lindberg 2011: 222).

ESTABLISHING TRANS-NATIONAL SOLIDARITY

However, a progressive labour strategy needs to unite workers, which also requires a new approach to international/transnational solidarity (see Figure 6). "For unions to survive and thrive, the principle of solidarity must not only be redefined and reinvented. Workers on the ground must be active participants in this redefinition and reinvention" (Bieler / Lindberg 2011: 228). Hyman (2011) argues that trade unions need to become "learning organisations", open to new knowledge and different experiences, in order to achieve this. Successful labour struggles have always depended on the creation of solidarity, which is based on dynamics of inclusion (other workers) and exclusion (capital). It can expand beyond national borders and is shaped in action. Rank-and-file workers need to support transnational solidarity so that it can fully develop. "[U]nion solidarity is something much more than joint action for mutually shared interests. A sense of shared identity plays just as important a role" (Lindberg 2011: 219). However, as workers do not share one single identity, the objective is to create a feeling of "mutuality despite difference"¹¹ (Hyman 2011). The importance of identity work for the emergence and deepening of solidarity has been confirmed by several investigations, for example concerning the case of General Motors/Opel (Anner et al. 2006; Greer / Hauptmeier 2012; Pernicka et al. 2017). Transnational solidarity relies on class consciousness, which can only develop in concrete struggles, and is therefore not compatible with a corporatist industrial location policy (Bieler / Lindberg 2011: 231).

¹¹ The Austrian development education NGO 'weltumspannend arbeiten' ('working globally'), founded by the Austrian Trade Union Federation (ÖGB), applies an interesting approach aimed at strengthening transnational solidarity. It organises regular study trips for affiliates of Austrian trade unions to countries with lower labour standards, where they visit factories, meet local trade union representatives and learn more about the lives of ordinary workers. Destinations have included South Africa, China, Brazil, Moldova and Georgia (for more information see www.weltumspannend-arbeiten.at).

As we have seen, the trade unions' strategy in the manufacturing sector currently focuses primarily on securing and/or improving employment conditions in the fragmented production process, inspired by the European social partnership arrangements (Bieler / Lindberg 2011: 220). In this context, they encounter the problem that competition of workers among and within countries has tremendously increased, which makes it difficult to establish solidarity. Bieler and Lindberg (2011: 221–222) observe that cooperation between trade unions is more likely within sectors operating globally, but often stalls when workers are directly competing. "In short, solidarity is more needed but also more difficult when there is direct competition between different production sites" (Bieler / Lindberg 2011: 222).

The twin transition ahead reinforces this contradiction, as Drahokoupil (2020a: 15–16) explains:

[C]orporate headquarters [...] may have a slight preference for launching innovative pilot projects at headquarters sites. However, competition between MNC [multinational company] affiliates is key to understanding the motivation for investing in Industry 4.0 technologies. [...] MNC affiliates face continuous pressure from their parent companies to cut costs. They need continually to improve efficiency and flexibility. The initiative to implement Industry 4.0 technologies thus comes from local managements seeking to improve the competitive position of the affiliates. [...] Moreover, in CEE [Central and Eastern Europe], labour shortages were a key motivation for investing in automation.

Moreover, production sites also compete for new investments by their headquarters in decarbonisation. Drahokoupil (2020a: 10) found that European "carmakers tend to introduce production of new electric models in Germany and at other core locations". Thus, the twin transition to a digital and green economy is likely to increase competition among plants and workers.

In this context, Strötzel and Brunkhorst (2019: 260) from the German metalworkers' federation IG Metall highlight that "global value chains can only be countered with supranational trade union work". With respect to the deep structural transformations that are under way in the energy, transport and industrial sectors, trade unions are calling for a "just transition", which "has become the main concept and strategy tool for managing the transformation towards a net zero-carbon economy in a way that is both balanced and fair" (Galgóczi 2019a: 7). However, Galgóczi explains that, in many cases, a just transition is only associated with decarbonisation efforts in the energy sector (e.g. the phase-out of coal), while the automotive industry "is often not even recognised as a case for 'just transition', with the main focus of demands at this point being the mobilisation of resources regarding transitioning from the combustion engine towards electric vehicles and how this process can be shaped and facilitated" (Galgóczi 2019a: 25). Yet, this transition too needs to be just and solidary in order to leave no worker behind.



Based on the case studies presented in their book, Bieler and Lindberg (2011) summarise some important findings regarding the possibilities and limits of transnational solidarity (see Figure 6). First, they highlight that each sector needs to be studied separately because different sectors face different conditions. For instance, trade unions in the manufacturing sector have better conditions for organising across borders than those in the service sector (Bieler / Lindberg 2011: 221–224). Hence, what is said in this brochure cannot and should not be generalised to other sectors.¹²

Second, in manufacturing, workers' organisations in producer-driven chains, such as the automotive production chain, are less likely to form broader alliances with other social actors (e.g. NGOs) compared with actors linked to buyer-driven chains such as existing in the apparel industry (Bieler / Lindberg 2011: 224–225). However, particularly in the automotive sector, trade unions could seek closer cooperation with NGOs such as Transport & Environment and with social movements like Fridays for Future.¹³ On the one hand, this could increase the leverage of trade unions and environmental and consumer protection organisations in transport policymaking in the EU (Haas / Sander 2019: 14). On the other hand, such coalition-building might fuel the development of a joint concept for a mobility transition that combines visions of community members with those of workers employed in the vehicle industry.

Third, in order to avoid being played off against each other, workers would need to organise industrial action not only within transnational companies,

¹² For more about the different conditions in which trade unions operate around the world, see the special issue of the Austrian Journal of Development Studies on 'Trade Union Work in North and South' (in German), edited by Eder (2015). Nowak (2016), by contrast, presents examples of transnational solidarity in other sectors.

¹³ Obviously, such an arrangement, whether cooperation or even a coalition, would not be free of conflicts and dissenting opinions. For example, Dörre (2020: 50, 56–57) states that the traditional class conflict is increasingly becoming a social-ecological transformation conflict, with a (social) class and an ecological conflict axis. In demobilised class societies, different interest groups tend to play off social and ecological sustainability objectives against each other (the old dilemma of preserving jobs vs. protecting the environment). This can ultimately serve to stall more radical transformation policies. Kaiser (2020: 282–283) therefore argues that climate activists and movements require a "labour turn", while trade unions need to take a "climate turn", so that they can work successfully together. Some scholars and activists consider a Green New Deal as an adequate proposal to unite the two camps (e.g. Broder 2019).

but across the whole sector, at least regionally – for example, in the European vehicle industry. Instruments such as new transnational bargaining structures, legal regulations for cross-border strikes, joint regional consultation processes and maybe even a regulatory framework for co-determination, would need to be developed for the entire sector in order to stop workers from different companies underbidding each other (Bieler / Lindberg 2011: 223). In this connection, IndustriAll Europe (2018: 19) is right to call for the development of "long-term strategies based on worker participation" to replace the short-term, profit-oriented company strategies.

Fourth and lastly, Bieler and Lindberg (2011: 230) insist that workers in core countries need to critically reflect their country's position in the transnational division of labour and formulate their strategy in consideration of this. From a left-wing perspective, this entails at least two different challenges in the EU. On the one hand, industrial capacities in the EU are very unevenly distributed and inside those structures we find strong hierarchies, with Germany being the most important core country. Therefore, transnational solidarity of the German working class towards the others is extremely important and could express itself, for example, in the struggle to significantly increase labour's share of national income instead of opting for a strategy of sharing the pain, thus accepting restructuring in order not to strain the social partnership arrangement. On the other hand, the reality of global value chains makes it ever more necessary to include North-South relations in a meaningful proposal for change. This could take different forms, but it would definitely also mean engaging critically with the consequences of the upcoming transformations for suppliers and other actors in the Global South. Furthermore, it would require arguing against the strong export orientation of the EU, particularly of some of its Member States like Germany, and advocating a reduction in the large trade surpluses (Durand 2019).

CHALLENGING THE COMPETITIVENESS NARRATIVE

The feasibility and limits of transnational solidarity depend - to a significant extent - on the position in and towards globalised production structures. Kapeller and Gräbner (2020: 9-10) rightly point out that outsourcing is an outcome of the competitive pressure existing among transnational companies, not a deliberate expression of the wish to exploit labour. However, the latter is the ultimate result of squeezing as much profit as possible out of workers in the Global North and (even more) in the Global South in order to survive in global competition. Selwyn (2019: 72) thus calls the fragmented production processes "global poverty chains"¹⁴ because "empirical evidence suggests that, contrary to optimistic claims, these GVCs [global value chains] generate new forms of worker poverty". If our problem is linked to how we organise production, is it sufficient to struggle for the homogenisation of working conditions along the value chain? It is not, as Hürtgen (2020: 4) argues: "Only with reference to production, in short, we can theorize and problematize a European space of labour that is marked by harsh translocal and transnational competition." In other words, in order to fundamentally change the living conditions of the working class, we need to transform the social relations of production.

In order to tackle the "multi-scalar competitive fragmentation" among labour, we need to "redefine social relations among (all) European working people – which is to question the contemporary social form of production. Hereby, one important starting point is to attack dominant considerations of competitiveness as a means of development, theoretically and politically" (Hürtgen 2020: 5).

¹⁴ Other scholars emphasise the development potential opening up through the integration into global value chains (GVCs). However, Staritz (2012) emphasises that "integration in GVCs should not be seen as 'a panacea' for development but as 'windows of opportunity' that can have important development effects (...) but should be complemented by more locally and regionally based development approaches".

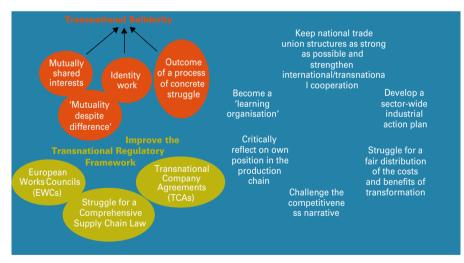


In this context, it is important to highlight that boosting Europe's economic competitiveness has been at the heart of the EU's competition regulations since the 1990s (Buch-Hansen / Wigger 2011: 1). In the wake of the financial and economic crisis of 2008/2009, this issue has become even more important. In 2013, the European Commission claimed that improving the cost and price competitiveness of EU manufacturing was a precondition for successfully competing on the world market (Wigger 2019: 356). As boosting competitiveness through external (currency) devaluation was not possible for many EU countries due to their participation in the eurozone, the European Commission and some national governments opted for internal devaluation. In other words, they aimed to reduce unit labour costs through wage repression, lowering prices by intensifying competition among enterprises and cutting corporate taxes. Many of the austerity measures imposed by EU institutions in the wake of the crisis tied in with this strategy (Wigger 2019: 354).

Wigger (2019: 357) points out that many labour associations did not challenge the narrative of lacking competitiveness, but pushed it further. In 2016, the European Trade Union Confederation (ETUC) joined forces with BusinessEurope – a lobbying association of European companies – to "call

40

on EU institutions to bring competitive and sustainable industry back to the core of the EU policy agenda" (ETUC / BusinessEurope 2016). While the ETUC has not sought to resolve the crisis through the devaluation of labour, it has shared the perception that it could be overcome by increasing competitiveness (Wigger 2019: 357). This is also a widely held view among European social democratic parties (Wigger / Horn 2019) and it has gone largely unchallenged in the new EU industrial policy. The latter is based on "internal devaluation through the backdoor" because it seeks to squeeze labour costs in order to increase global competitiveness (Wigger 2019: 356–359). However, adherence to the competitiveness mantra cannot be overcome without tackling the root cause, namely the capitalist organisation of production. Thus, it seems reasonable to combine concrete labour struggles for the improvement of employment relations with a broader vision for structural change, supported by industrial policy.



STRENGTHENING LABOUR TRANSNATIONALISM

Figure 6 / Source: own composition based on the sources in the text.

INDUSTRIAL POLICY PROPOSALS BY TRADE UNIONS

Processes of industrial restructuring are taking place all the time; the crucial question is whether they are shaped by the state or by the market, by public interest or by profit (Blöcker 2018: 10), and who foots the bill. On the labour side, the primary concern raised by restructuring is huge job losses, particularly in the traditional strongholds of the labour movement. Consequently, industrial trade unions have to some extent a 'natural' interest in conserving the existing production structures – at least in the short term (Candeias 2011: 258; Dörre 2020: 57) – and striving for the highest level of competitiveness possible (which conflicts with the proclaimed goal of transnational worker solidarity). However, this does not mean that there are not serious debates under way inside the trade unions, as the following proposals for the automotive industry put forward by IndustriAll Europe and the German metalworkers' federation IG Metall show.

In July 2020, IndustriAll Europe presented "demands for a robust and sustainable recovery" of the European automotive industry and called for a "long-term strategy that facilitates the necessary transformation of the EU automotive industry towards sustainable vehicles and vessels as well as alternative fuels". They argue that an employment strategy guaranteeing a just transition needs to be supplemented with "a comprehensive industrial strategy that aims to keep the automotive industry and related value chains in Europe as millions of highly qualified quality jobs are at stake" (IndustriAll Europe 2020). In an earlier publication from 2018, IndustriAll Europe emphasises that it wants to "contribute to a strong and world-leading European industry" (IndustriAll Europe 2018: 2). The organisation highlights that it is engaged in sectoral social dialogue in 11 sectors at European level, with the aim of "defining a coherent industrial policy strategy that creates favourable framework conditions for our industrial sectors to grow" (IndustriAll Europe 2018: 3). They argue that the necessary transformation requires cooperation between workers and employers. However, such an approach may underestimate the contradictory interests of employers and workers and could result in a strategy that is too slow and too tentative to resolve the pressing environmental issues in a timely fashion.

For its part, IG Metall has issued several proposals concerning the transformation of the German automotive industry. For example, they suggest introducing two different funds to support the suppliers of original equipment manufacturers in the automotive industry – often small and medium enterprises – with restructuring. One would target suppliers that need to decrease their production volume due to the phase-out of combustion powertrains (Best Owner Group), while the other (Transformation Fund or *Transformationsfonds*) would provide the necessary capital for innovation and transformation investments to small and medium enterprises in the sector that want to invest in structural change. While the financial resources are supposed to come from the state and from private actors, IG Metall suggests that the state or the German development bank KfW partially hedge risks of the Transformation Fund according to a first-loss policy (IG Metall 2020).

In spring 2019, IG Metall also supported the creation of Transformation Maps (*Transformationsatlanten*), facilitated by works councils at company level. Together with trade union-affiliated workers, the works councils assessed the company-specific risks and opportunities associated with the digital transformation. Of all surveyed companies, 16% belonged to the automotive industry. Based on the results, IG Metall is seeking to manage the digital transformation in a social and participatory way. One element of this endeavour is the development of an active industrial policy (IG Metall 2019b, 2019c). In addition, IG Metall has proposed the introduction of a "transformation short-time work allowance" (*Transformationskurzarbeitergeld*), targeted at companies whose production volume of non-sustainable products will decrease due to the transformation.¹⁵ While in receipt of this allowance, workers could either focus

¹⁵ However, while the benefits of the transformation short-time work allowance are that workers will be able to keep their jobs and that the state can participate in the respective company's decision-making regarding sustainable transition strategies, the proposal also shifts the costs for workers' retraining and qualification from the companies to the unemployment insurance fund, which is predominantly financed by employees' social security contributions. Furthermore, it socialises entrepreneurial risks.

entirely on retraining or work part-time in the company while also retraining. The allowance would be funded by the German Federal Employment Agency (IG Metall 2019a).

These proposals are very valuable, but they were developed from a 'social partnership' rather than a 'conflict partnership' perspective. In other words, they conceive the upcoming transformation as a common project of employers and workers, which the state should support with substantial funding for the benefit of all members of society. Such an approach ignores the fact that the state is not an independent actor, but that it condenses the "relationship of forces between classes and class factions" (Poulantzas 2000 [1978]: 132). Thus, the state does not necessarily act in the interests of wider society, but might also be used to make the working class pay for the major transformations, while the future profits remain in the hands of a few. Hence, it is not enough to call for state intervention in the economy, because the state responds selectively to the different interests present in society. For progressive policymaking, we need to examine "how a given structure may privilege some actors, some identities, some strategies, some spatial and temporal horizons, some actions over others" (Jessop 2014). Before the state can play - from a labour perspective - a truly positive role in the transformations, the selectivity of the state needs to be altered from capital to labour interests (Eder / Schneider 2018: 117). Otherwise, state intervention will only support the capital side in opening up new opportunities for capital realisation. Arguably, a progressive labour strategy should not burden the whole of society with the costs of transition while allowing (future) profits to remain in a few private – shareholder – hands (a threat that has increased with the COVID-19 recovery plans).

PROGRESSIVE INDUSTRIAL POLICY



For the reorganisation of production with workers' participation, we need a progressive industrial policy, as suggested by different publications released by the Rosa-Luxemburg-Stiftung (Pianta et al. 2016; Durand 2017; Rosa-Luxemburg-Stiftung (ed.) 2017). Such a policy needs to have a transformative orientation, moving beyond considerations of competitiveness and economic growth by considering distribution and other cross-cutting issues such as gender sensitivity and economic democracy.

Moreover, the purpose and opportunities of state intervention in the economy and of public ownership need to be newly debated (Eder / Schneider 2018: 119–125). If we take into consideration the multiple challenges faced by industries such as the automotive sector in the years ahead, working-class organisations could demand that the state acquires strategic shares in those companies that need to be restructured in order to actively influence their corporate strategies to make them congruent with the social-ecological transformation.

However, state intervention should not be glorified per se. Two factors are crucial from a labour perspective: First, the state should not take action to facilitate capital accumulation, but to secure societal and ecological needs. It should be guaranteed that post-transition dividends will benefit wider society, not just the successfully restructured companies. Second, state intervention should be matched with bottom-up – labour and civil society – initiatives in setting the pathway for the social-ecological transformation.

Furthermore, progressive industrial policy needs to question the goal of ever-increasing transnational market integration through European and global value chains. The elimination of trade barriers has exposed weaker economic actors to ferocious international competition within a transnational division of labour. In view of this, progressive actors should scrutinise their position on the prevailing competition policy in the EU. For instance, the introduction of a golden rule for public investment, as suggested for example by IndustriAll Europe (2018: 8), would be a positive signal. Such a rule would mean that public investments are excluded from the EU's strict deficit criteria. It is also time to reconsider the EU's single market rules, because in their current design they perpetuate – and in many cases even aggravate – uneven industrial development patterns in Europe (Eder / Schneider 2018: 132).

However, coming back to the 11 most important final commodities identified by Gaddi and Garbellini (2020: 11–18), it is clear that some of these end products are ecologically harmful, in particular cars and aircraft. This raises the question of how the productive transformation can be achieved in line with the social-ecological transformation (Candeias 2011; Dörre et al. 2020; Wissen et al. 2020).

There is no blueprint strategy for this endeavour. Rather, it has to be developed jointly and through action, in a process in which the involvement of labour associations and rank-and-file workers is key (Eder / Schneider 2018). A progressive labour strategy cannot purely aspire to organise workers; it needs to accompany democratically organised processes in shrinking industrial sectors that produce ecologically harmful products, such as the automotive industry.

Obviously, due to the size of the sector, the jobs involved and the power of the associated capital fractions, the short- and medium-term objective cannot be the complete elimination of private passenger cars. However, the promotion of e-mobility alone will not be sufficient, because the car-centred organisation of mobility is part of the problem (Blöcker 2018: 4).

MOVING BEYOND E-MOBILITY

BUND - Friends of the Earth Germany mentions several conditions that have to be fulfilled in order to make e-mobility a favourable option, including that electric vehicles should not replace public transport and should not conflict with the long-term objective of car-free cities (BUND n.d.). Other NGOs and researchers have presented an even more fundamental critique of e-mobility, particularly with respect to private passenger cars.

First, under the given conditions, an electric car emits a maximum of 25% less CO_2 than one fuelled by petrol or diesel,¹⁶ against the backdrop of a still growing number of conventional cars. Hence, experts raise doubts that CO_2 emissions from mobility will significantly decrease soon thanks to the expansion of e-mobility.

Second, electric vehicles are often used as second cars. Thus, they could even increase the current traffic level (Wolf 2019).

Third, in order to charge those cars, you need huge amounts of additional electricity, which can – currently – only be generated from 'dirty' sources such as coal and nuclear energy (MISEROR et al. 2018: 42–47; Wolf 2019).

Fourth, the construction of an electric vehicle, particularly the engine, requires far more (scarce) raw materials than the assembly of a conventional car. In many cases, these are extracted by workers in the Global South amid labour and human rights violations (MISEROR et al. 2018: 23–41).

Fifth, experts have raised concerns that the 'green' image of electric cars might generate a so-called rebound effect, namely that people start to use their cars more frequently because they think that driving such vehicles is 'environmentally friendly'. This could erase the potential positive impact of

¹⁶ Aside from the additional CO2 emissions stemming from the extraction of raw materials and vehicle production itself, the reasons for this are that many electric car models are large in size, and they weigh on average 25% more than conventional cars, thus causing higher emissions than smaller and lighter models. Furthermore, the power resources required for e-mobility are likely to rely to a significant extent on brown electricity (see text).

e-mobility and might even further aggravate the situation (Brunnengräber / Haas 2020).

Finally, the manufacturing of electric vehicles requires lower labour volumes due to fewer parts/production steps, which means that the green transition cannot in any case preserve the current level of employment in the automotive industry (Blöcker 2018: 12).

While the introduction of sustainable technologies may be part of the solution, additional, more radical steps are required, designed to "disrupt existing pathways of industrial production and associated norms of consumption" (Eder / Schneider 2018: 121). With specific regard to the automotive industry, the disruption needs to be more radical than the shift towards e-mobility. Furthermore, it also needs to counter the growth paradigm, because the decoupling of growth from resource use has clear limits.¹⁷ Thus, progressive industrial policy has to carefully consider which industries should be developed or stabilised and which need to be cut back or phased out in a socially and ecologically acceptable manner (according to the long-term objective of achieving the social-ecological transformation). Trade unions need to play a key role in this, among other things by fighting for working time reduction and other measures facilitating a just transition (Eder / Schneider 2018: 120, 123).

However, the restructuring of 'brown' industries faces big structural obstacles. On the capital side, we find powerful fractions behind those industries which exert great pressure on policymakers, for example to grant state subsidies for car purchases or motorway construction (Blöcker 2018: 8). A recent study commissioned by the NGO Transport & Environment found that "[s]ubsidies for company cars are costing European taxpayers €32 billion every year, [...] and almost all of it is spent on polluting petrol and diesel engines" (Transport & Environment (T&E) 2020). In this context, Haas and Sander (2019: 17) point out that:

¹⁷ On this subject, Jackson (2009) argues that the introduction of more efficient technology makes relative decoupling possible. However, Jackson rejects the possibility of absolute decoupling because of the exponential nature of growth, the need for material inputs for production and the rebound effect.

The car lobby has many allies in the EU institutions and all kinds of ways of asserting their interests. This is clear from many clashes about the political regulation of the automotive industry. One of the most significant examples of such a conflict concerns CO_2 fleet targets, [...]. The political wrangling about this shows how the automotive industry – and German manufacturers in particular – has repeatedly tried to weaken the targets and postpone their application, while environmental organisations and their interlocutors in the EU institutions have argued in favour of ambitious targets.

Thus, the lobbying power of the car sector needs to be severely weakened (Eder / Schneider 2018: 121).

This can only happen if the trade unions, particularly in the European core countries, redefine their approach to industrial relations from 'social partnership' to 'conflict partnership'. In the current pandemic situation, this would mean moving from crisis corporatism directed at 'sharing the pain' towards a strategy of 'battle and dialogue', which aspires to defend broader working-class interests and to fight for them if negotiations fail.

With respect to the prevailing challenges in the automotive industry this would mean:

- screening every existing proposal for winners and losers, not only inside the sector but also in wider society and along the value chain (including actors in the Global South);
- 2) starting to define mechanisms of long-term compensation for broader society if it supports private companies in restructuring. Furthermore, the introduction of a temporary transformation wealth tax used solely for transformation purposes might be considered. Finally, companies supported by state aid should be taxed more highly for a certain period as soon as they have become profitable again (or the state should retain a significant shareholding in order to benefit from future dividends).

Ultimately, the crucial question is: Who will pay the bill for the transformation?

RESEARCH FOR THE MOBILITY TRANSITION

In addition to the very valuable research closely tracking developments in the European automotive industry, such as that carried out by the European Trade Union Institute (Galgóczi 2019b; Drahokoupil 2020b) or GERPISA, the Permanent Study and Research Group on the Automobile Industry and its Employees (GERPISA n. d.), we also need more radical research agendas geared towards the social-ecological transformation of the car industry (i.e. more disruptive than the gradual transition to e-mobility).

In the summer of 2018, the Rosa-Luxemburg-Stiftung set up the Future Car Environment Mobility discussion group (Gesprächskreis Zukunft Auto Unwelt Mobilität; ZAUM), which aspires to develop concrete suggestions for the social-ecological transformation of the car industry. The group consists of researchers in various fields, politicians, trade union representatives as well as representatives of environmental and transport associations. They aim to consider the interests of the 800,000 workers of the German automotive industry and their families, and of people in the Global South involved in the extraction of automotive raw materials. In addition, they seek to satisfy mobility needs and to reduce mobility pressure (which often arises from the lack of local availability of jobs and infrastructure). They state that due to the need for rapid action because of climate change and the significance of the car industry for whole regions, conversion cannot happen through a gradual and slow phase-out as in the coal sector. Rather, it needs to rely on the promotion of alternative production, radical worktime reduction and economic democracy. Thus, we need to develop "alternatives to the currently existing forms of mobility, to the product and to the relations of production. It is also and especially about protecting the affected workers in the automotive industry and the communities from the foreseeable decline" (Gesprächskreis Zukunft Auto Umwelt Mobilität (ZAUM) n.d.), Furthermore, the Rosa-Luxemburg-Stiftung is currently funding a study on the social-ecological mobility transition. As part of this study, researchers and activists interviewed unionised workers and works council members at German car manufacturers and their suppliers. The initial results have been summarised recently (Boewe et al. 2020). Further information on the topic in English or German can be found in the Changing Lanes dossier (Rosa-Luxemburg-Stiftung 2020).

In Austria, the research project 'Social-Ecological Transformation: Industrial Conversion and the Role of Labour (CON-LABOUR)' (CON-LABOUR 2018-2020) represents an interesting approach. As part of the three-year project, headed by Ulrich Brand, researchers from the University of Vienna's Department of Political Science and the Institute of Social Ecology of the University of Natural Resources and Life Sciences in Vienna explored the opportunities for a social-ecological transformation of the Austrian automotive supplier industry. The project was funded by the Austrian Climate and Energy Fund, and extensively studied the role of labour associations and rank-and-file workers, assuming that they would need to become the backbone of the transformation process (Högelsberger / Maneka 2020; Wissen et al. 2020). Arguably, we need more such discussion groups and research projects in cooperation with labour associations and the affected employees to help resolve the pressing issues arising from globalised production and environmental damage *with* the workers and not *for* them (Blöcker 2018).



WHAT IS TO BE DONE?

The European industry is faced with the twin challenge of mastering the digital and ecological transformation. In 2020, the COVID-19 pandemic created new problems, linked in part to the way production is predominantly organised nowadays, namely in global value chains controlled by big transnational companies with hundreds of suppliers. As far as the automotive industry is concerned, the challenge is to decrease transport emissions, particularly those stemming from individual motor car traffic. While the public debate revolves mostly around promoting electric mobility, this brochure has pointed out that such a shift will not be enough to significantly reduce global warming. Instead, we need a mobility transition, in which the central role of private passenger cars is reduced in favour of other means of transport. This task will also require the social-ecological transformation of the vehicle industry. As the car industry is a major employer in Europe and carmakers have very substantial lobbying power, this will be no mean feat. However, opportunities do exist to initiate such a transformation. In the following section, I will address the measures and policies that could be adopted at different levels (the 'what'). I will then introduce the actors who could push for them (the 'who'). Finally, I will present some thoughts on how they might proceed (the 'how').

IndustriAll Europe (2018) is right to state that the current challenges require labour organisations to develop an employment strategy based on the idea of 'just transition' and – additionally – an industrial strategy for every sector that will undergo deep transformations due to the 'twin challenge'. This has become even more important in the context of the pandemic because one of the vital tasks of working-class organisations is to ensure that the public at large does not end up paying for the crisis, and that private companies do not use the crisis as an opportunity for implementing long-planned restructuring measures and redundancies. To this end, working-class organisations in Europe need to follow a multi-level approach (IndustriAll Europe 2018). At plant and company level (see Figure 7), the main actors that need to promote the social-ecological transformation are the works councils and trade union affiliates. They should be encouraged to conduct a survey – similar to the Transformation Map that IG Metall (2019b, c) sponsored in spring 2019 in Germany – in all automotive industry plants across Europe. However, this time the focus should be on the social-ecological transformation, rather than on the digital transformation. Such a Transformation Map 2.0 could be used to identify opportunities for conversion and diversification towards the production of ecologically less harmful goods. In big EU-based original equipment manufacturers such as Volkswagen and Groupe PSA, IndustriAll could support the European Works Councils of those companies to facilitate such studies and to initiate serious debates on 'conversion by design' at the company level (see the 'social-ecological conversion' section of CON-LABOUR 2020). Furthermore, suppliers to the automotive industry should also be encouraged to participate, particularly those that are in a captive relationship with the transnational company they are supplying to.

However, in line with the idea of transnational solidarity, attention should also be paid to mitigating the possible consequences that transformations inside the plant might have for the workers of other subsidiaries and of suppliers, not only in Europe but also in the countries of the Global South (in cooperation with the working-class organisations there). Furthermore, the introduction of a transformation short-time work allowance, also proposed by IG Metall (2019a), is an interesting concept to support companies in making their employees 'fit' for the transformation. However, it seems unfair to burden all social security contributors (employees and employers) with the costs of this measure, as the beneficiaries are largely privately-owned, profitable companies, which should at least pay their share for the (re)qualification of their workforce. Thus, any struggle for the social-ecological transformation needs to approach the issue of the distribution of costs and benefits from a class perspective.

At the regional level (see Figure 7), 'just transition' measures will be particularly important in those regions where car manufacturers are currently the main employers. Both policymakers and companies have to take responsibility for those people who might need retraining or who could lose their jobs, e.g. by introducing work-time reduction, early retirement measures, etc. The European Union's Just Transition Mechanism, which also includes a Just Transition Fund, is a first step in the right direction. However, currently the fund has a rather limited capitalisation of €17.5 billion, far less than the €40 billion the Commission had promised earlier in 2020 (EC 2019c; EC 2020e). Furthermore, the EU's structural and cohesion policy focusing on the regional level needs to be better coordinated with industrial and innovation policy, so that those regions can embark on a new path before they start declining. It would also be a good idea for labour organisations to encourage regional stakeholders to incorporate the regional industrial transformation requirements into the smart specialisation strategies (S3) which the EU is supporting to boost innovation in Europe's regions (EC 2020c).

At the national level (see Figure 7), labour and business associations need to work with the state to define an industrial policy strategy that addresses the specific national challenges. However, as the state cannot act independently outside the framework of societal power relations, it is crucial that working-class organisations not only develop a firm, solidarity-based position before negotiations, but also that they actively push for the alteration of the selectivity of the state. Therefore, much of the effort needs to be directed at identifying the institutions that show more favourable selectivity for labour interests and pushing them to design and implement industrial policy programmes that give trade unions the permanent right to take part in decision-making and to monitor implementation processes. From a solidarity perspective, it is particularly important that the national industrial policy strategies of the EU core countries (Germany, Austria, etc.) do not come at the expense of the workers of peripheral countries, whether inside or outside the EU. The labour organisations should subject their industrial policy proposals to an impact assessment with respect to this question. Another positive signal would be to fight for the introduction of a comprehensive supply chain law that covers not only Tier 1 but right up to 'Tier n' and that encompasses duty of care and liability.

Lastly, the states should consider becoming an active shareholder in those companies that need to be transformed and shaping their long-term strategy. Furthermore, the states should use their public procurement power to practise demand-oriented industrial policy. In the context of our topic, this could mean only purchasing staff cars for civil servants that are small, lightweight and with hybrid or electric powertrain and – concomitantly – requiring employees to use public transport whenever possible. Additionally, the development of sector-wide industrial action plans is required because this is the only way that a reduction in the production of one original equipment manufacturer will not be offset by that of another. In order to finance these measures, the creation of Transformation Funds (also proposed by IG Metall) should be considered by other countries too.

At the EU level (see Figure 7), European labour organisations should also campaign for a comprehensive supply chain law (with the characteristics mentioned above). Furthermore, they should demand that the EU institutions themselves also pursue a progressive public procurement strategy. The necessity for a deep and ecological restructuring of European industry is already recognised in the European Green Deal (EC 2019b). What is still mostly missing are financing mechanisms that go beyond market-based 'sustainable'

or 'green' finance schemes. Gabor (2020) argues that the European Green Deal's Sustainable Finance agenda is insufficient. To become progressive, it would need to minimise the possibilities for greenwashing through establishing a more rigid taxonomy, to climate-align the European Central Bank's activities and to impose a Green Financial Transaction Tax. Arguably, the question of providing sufficient and adequate financial resources is crucial for any kind of industrial policy, including for more radical concepts geared towards the social-ecological transformation.

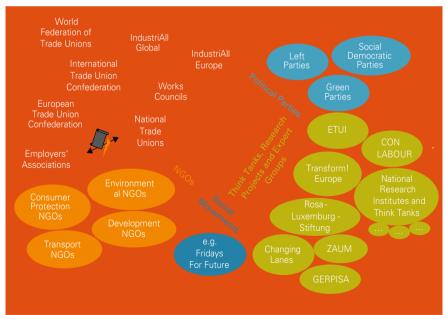
Furthermore, the broader objectives of the European Green Deal and the EU industrial strategy (EC 2019b, 2020a) need to be translated into concrete sector-specific transformation plans that not only set emission reduction targets but also develop a non-market-based mechanism for complying with them. One option could be to coordinate at a Europe-wide level the reduction of production in the most environment-harming industrial sectors in line with the principle of a just transition (similar to the phase-out of the German coal sector). In this context, both industries with energy-intensive production processes and industries producing unsustainable final goods (cars) should be tackled. Special care must be taken not to reinforce the already existing imbalances and inequalities in the European Union. Finally, trade unions and associated think tanks as well as research institutions need to be directly involved in the drafting and implementation of those sector-wide proposals at the national and EU level.

At the global level (see Figure 7), the mobilisation of workers is most difficult. However, European working-class organisations could carry on campaigning for the establishment of transnational company agreements. They could also fight for global trade and supply chain regulations that favour weaker actors and create scope for their development. In this context, they should strongly oppose the free trade agreements being pushed by the EU, particularly those with countries and blocs in the Global South, such as the Economic Partnership Agreements with African countries and the EU-MERCOSUR Agreement with South American countries (the European automotive industry is a significant driver of the latter, see Eder 2020). In this context, IndustriAll Europe is only calling for these trade deals to be better regulated, e.g. by adding a chapter on sustainable development and

labour rights, but not halted altogether, because it "considers free and fair trade to be of great importance for European economic and industrial growth" (IndustriAll Europe 2018: 17). This position is understandable, as IndustriAll mostly represents workers from export-oriented sectors. However, heterodox economists have argued for centuries that trade cannot be 'free and fair', but that free trade is a "project of the mighty" (Hermann 2014; see Chang 2002 for the theoretical foundation). Therefore, European working-class organisations should struggle against such trade agreements, even if their European members supposedly benefit from them. The problem is not merely different environmental and social standards, but diverging economic power, which leads to the destruction of industrial capacities in the trading partners' economies if trade barriers are eliminated. Transnational solidarity also means caring about the fate of workers outside Europe, who are seriously harmed by agreements of this kind (Bieler 2015).



As outlined throughout the text, the establishment of transnational solidarity is a cross-cutting issue for labour action at all levels discussed above. It requires a move from social partnership characterised by (crisis) corporatism to conflict partnership with employers. This new alignment does not exclude dialogue, but it does not see the employer side as the main ally but workers in other countries. Thus, to enter into corporatist negotiations is essential, but if the employer side pushes for an industrial strategy that harms workers domestically or in other countries, workers should be mobilised to struggle for different solutions. This will become particularly important in the context of COVID-19 as and when the employer side tries to shift the costs of the pandemic onto workers and their families (here and elsewhere). Thus, instead of committing themselves to the stabilisation of national industrial relations, labour organisations should strive to build a broad coalition for the social-ecological transformation in the EU.



COALITION FOR THE SOCIAL-ECOLOGICAL TRANSFORMATION

Figure 8 / Source: own elaboration.

If we want more than merely a shift to electric individual motor car traffic, i.e. if the aim is a more comprehensive mobility transition, different actors need to form a broad coalition (see Figure 8). Labour organisations have to be at the core of such an alliance, because they are organically linked to the workers of the affected industries and to the employees in public transport. Furthermore, political parties, NGOs, social movements, critical research and expert groups, and probably also some capital factions need to become involved. Those coalitions will take different shapes in each EU country, because the economic structures and thus the exact fractionation of capital and labour – and associated potential for class compromises – differ.

Hence, it is the task of every national trade union to think about which actors should be considered for participation in such a coalition in order to make it congruent and strong at the same time. Furthermore, a 'just transition' strategy and a progressive industrial strategy must not recognise the given limitations for labour-friendly policymaking, but they need to stretch the boundaries of the possible. In this context, "progressive industrial policy can be pivotal in successively changing the relations of forces through targeted interventions" (Eder / Schneider 2018: 116; 114-118). At the national level – and even more at the EU level –, it is crucial to strengthen labour relative to capital interests. This can only succeed if different actors striving for the social-ecological transformation mutually support each other.

REFERENCES

Anner, Mark / Greer, Ian / Hauptmeier, Marco / Lillie, Nathan / Winchester, Nik: The Industrial Determinants of Transnational Solidarity: Global Interunion Politics in Three Sectors, in: European Journal of Industrial Relations 12/1 (2016), 7–27. https://doi. org/10.1177/0959680106061368

Aranea, Mona / González Begega, Sergio / Köhler, Holm-Detlev (2018). The European Works Council as a management tool to divide and conquer: Corporate whipsawing in the steel sector, in: Economic and Industrial Democracy (2018), 1–19. https://doi.org/10.1177/0143831X18816796

Baldwin, Richard / Venables, Anthony J.: Spiders and snakes: Offshoring and agglomeration in the global economy, in: Journal of International Economics 90/2 (2013), 245–254. https://doi.org/10.1016/j.jinteco.2013.02.005

Barrientos, Stephanie / Gereffi, Gary / Pickles, John: New dynamics of upgrading in global value chains: Shifting terrain for suppliers and workers in the global south, in: Environment and Planning A: Economy and Space 48/7 (2016), 1214–1219.

Bieler, Andreas: From "Free Trade" to "Fair Trade": Proposals for Joint Labour Demands Towards an Alternative Trade Regime (2015), at: www.researchgate.net/ publication/344190317_From_Free_Trade_to_Fair_Trade_Proposals_for_Joint_Labour_ Demands_towards_an_Alternative_Trade_Regime (22.12.2020).

Bieler, Andreas / Lindberg, Ingemar: Conclusions: A variable landscape of emerging transnational solidarities, in: Andreas Bieler / Ingemar Lindberg (eds.): Global Restructuring, Labour and the Challenges for Transnational Solidarity. Routledge, London 2011, 220–231.

Blöcker, Antje: Auto, Umwelt und Verkehr – revisited! Neun Thesen des Initiativkreises «Zukunft Auto» (March 2018), at: www.rosalux.de/news/id/38648?cHash=7c4fcf0abe841 43639e64b7aab850dff (30.08.2020).

Boewe, Jörn / Krull, Stephan / Schulten, Johannes: Automobilindustrie, Transformation, Verkehrswende – die Sicht der Beschäftigten. Sieben Beobachtungen aus Interviews (21.09.2020), www.jungewelt.de/artikel/print.php?id=386787 (23.09.2020).

Broder, David: The Left Is Back (Sort Of) (25.11.2019), https://jacobinmag.com/2019/11/ the-left-is-back-sort-of (28.12.2020). Brunnengräber, Achim / Haas, Tobias (eds.): Baustelle Elektromobilität. Sozialwissenschaftliche Perspektiven auf die Transformation der (Auto-)Mobilität. transcript, Bielefeld 2020.

Buch-Hansen, Hubert / Wigger, Angela: The politics of European competition regulation. A critical political economy perspective. Routledge, Abingdon, Oxon/New York 2011.

BUND - Friends of the Earth Germany: E-Auto, aber richtig (no date), at: www.bund.net/ themen/mobilitaet/autos/elektroautos (17.11.2020).

Butollo, Florian: Kein Ende globalisierter Wertschöpfung, in: PROKLA 50/1 (2020), 125–131. https://doi.org/10.32387/prokla.v50i198.1855

Candeias, Mario: Konversion – Einstieg in eine öko-sozialistische Reproduktionsökonomie, in: Mario Candeias / Rilling Rainer / Röttger Bernd / Stefan Thimmel (eds.): Globale Ökonomie des Autos. Mobilität. Arbeit. Konversion. VSA, Hamburg 2011, 253–274.

Chang, Ha-Joon: Kicking Away the Ladder: Development Strategy in Historical Perspective. Anthem Press, Cambridge 2002.

CON-LABOUR: Social-Ecological Transformation. Industrial Conversion and the Role of Labour (CON-LABOUR), 2018-2020 (2020), at www.univie.ac.at/intpol/en/home/forschung/projekte/con-labour (16.11.2020).

Dörre, Klaus: Gesellschaft in der Zangenkrise. Vom Klassen- zum sozial-ökologischen Transformationskonflikt, in: Klaus Dörre / Madeleine Holzschuh / Jakob Köster (eds.): Abschied von Kohle und Auto? Sozial-ökologische Transformationskonflikte um Energie und Mobilität. Campus, Frankfurt a. M./New York, Campus 2020, 23–69.

Dörre, Klaus / Holzschuh, Madeleine / Köster, Jakob (eds.): Abschied von Kohle und Auto? Sozial-ökologische Transformationskonflikte um Energie und Mobilität. Campus, Frankfurt am Main/New York 2020.

Drahokoupil, Jan (a): Introduction: Digitalisation and automotive production networks in Europe, in: Drahokoupil, Jan (ed.): The challenge of digital transformation in the automotive industry. Jobs, upgrading and the prospects for development. European Trade Union Institute, Brussels 2020, 7–20, at: www.etui.org/publications/challenge-digital-transformation-automotive-industry (15.11.2020).

Drahokoupil, Jan (b) (ed.): The challenge of digital transformation in the automotive industry. Jobs, upgrading and the prospects for development. European Trade Union Institute, Brussels 2020, at: www.etui.org/publications/challenge-digital-transformation-automotive-industry (15.11.2020).

Durand, Cédric: Toward a Progressive Rejuvenation of Industrial Policy (05.09.2017), at: www.rosalux.eu/en/article/686.global-progressive-industrial-policy-an-alternative-for-more-social-justice.html (02.07.2020).

Durand, Cédric: Against Trade Wars How global imbalances are threatening peace, justice and democracy (01.12.2019), at: www.rosalux.eu/en/article/1530.against-trade-wars.html (02.07.2020).

Eder, Julia (ed.): Gewerkschaftsarbeit in Nord und Süd [Trade Union Work in North and South]. Austrian Journal of Development Studies 31/2 (2015), at: www.mattersburgerkreis.at/site/de/publikationen/jep/alleausgabenartikel/article/36.html (02.07.2020).

Eder, Julia / Schneider, Etienne: Progressive Industrial Policy – A Remedy for Europe!?, in: Austrian Journal of Development Studies 34/3-4 (2018), 108–142. https://doi.org/10.20446/JEP-2414-3197-34-3-108

Eder, Julia: Rette sich, wer kann! Das EU-Mercosur-Abkommen vor der Ratifizierung (2020), at: https://jbi.or.at/wp-content/uploads/2020/11/Perspektiven_2020_12.pdf (25.11.2020).

Eurofound: ERM annual report 2016: Globalisation slowdown? Recent evidence of offshoring and reshoring (01.02.2017), at: www.eurofound.europa.eu/sites/default/files/ ef_publication/field_ef_document/ef1652en.pdf (02.07.2020).

European Automobile Manufacturers' Association (ACEA): Leading the Mobility Transformation. The future of the EU auto industry: Manifesto 2019 – 2024, (05.09.2019), at: www.acea.be/publications/article/the-future-of-the-eu-auto-industry-acea-manifesto-2019-2024 (22.11.2020).

European Automobile Manufacturers' Association (ACEA) (a): COVID-19: Jobs of over 1.1 million EU automobile workers affected so far, data shows (31.03.2020), at: www. acea.be/press-releases/article/covid-19-jobs-of-over-1.1-million-eu-automobile-workers-affected-so-far-dat (20.11.2020).

European Automobile Manufacturers' Association (ACEA) (b): Passenger car registrations: -26.8% 10 months into 2020; -7.8% in October (18.11.2020), at: www.acea.be/press-re-leases/article/passenger-car-registrations-26.8-10-months-into-2020-7.8-in-october (20.11.2020).

European Commission (EC) (a): Database on Transnational Company Agreements (May 2019), at: https://ec.europa.eu/social/main.jsp?catld=978&langld=en (03.07.2020).

European Commission (EC) (b): The European Green Deal (11.12.2019), at: https://eur-lex. europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/ DOC_1&format=PDF (19.11.2020). European Commission (EC) (c): The Just Transition Mechanism: making sure no one is left behind (2019), at: https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal/actions-being-taken-eu/just-transition-mechanism_en (19.11.2020).

European Commission (EC) (a): A New Industrial Strategy for Europe (10.03.2020), at: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0102&from=EN (19.11.2020).

European Commission (EC) (b): Automotive industry (no date), at: https://ec.europa.eu/ growth/sectors/automotive_en (15.06.2020).

European Commission (EC) (c): Smart Specialisation Platform (2020), https://s3platform. jrc.ec.europa.eu/ (27.11.2020).

European Commission (EC) (d): Questions and Answers on Sustainable Batteries Regulation (10.12.2020), at: https://ec.europa.eu/commission/presscorner/detail/en/ ganda_20_2311 (28.12.2020).

European Commission (EC) (e): Commission welcomes the political agreement on the Just Transition Fund (11.12.2020), at: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_2354 (28.12.2020).

European Commission (EC): EU Emissions Trading System (EU ETS) (no date), at: https:// ec.europa.eu/clima/policies/ets_en (27.11.2020).

European Trade Union Confederation (ETUC)/BusinessEurope: Joint Statement on Industrial Policy (16.03.2016), at: www.businesseurope.eu/sites/buseur/files/media/position_papers/social/2016-03-16_tss_-_statement_on_industrial_policy.pdf (28.06.2020).

Fichter, Michael / McCallum, Jamie K.: Implementing global framework agreements: the limits of social partnership, in: Global Networks 15/s1(2015), 65–85. https://doi.org/10.1111/glob.12088

Fischer, Karin / Parnreiter, Christof: Globale Güterketten und Produktionsnetzwerke – ein nicht staatszentrierter Ansatz für die Entwicklungsökonomie, in: Becker, Joachim / Imhof, Karen / Jäger, Johannes / Staritz, Cornelia (eds.): Kapitalistische Entwicklung in Nord und Süd: Handel, Geld, Arbeit, Staat. Mandelbaum, Vienna 2007, 106–122.

Flecker, Jörg: Outsourcing, Spatial Relocation and the Fragmentation of Employment, in: Competition & Change 13/3 (2009), 251–266. https://doi.org/10.1179/102452909X451369

Fröbel, Folker / Heinrichs, Jürgen / Kreye, Otto: Die neue internationale Arbeitsteilung: Strukturelle Arbeitslosigkeit in den Industrieländern und die Industrialisierung der Entwicklungsländer. Reinbek bei Hamburg, Rowohlt 1977. Gabor, Daniela: Greening the European Financial System: Three ideas for a progressive Sustainable Finance agenda (June 2020), at: www.feps-europe.eu/attachments/publica-tions/feps%20paper%20three%20ideas%20gabor.pdf (28.12.2020).

Gaddi, Matteo / Garbellini, Nadia: Evolution of international production chains: towards a coordinated action of European working class organisations. Unpublished study. Fondazione Claudio Sabattini/Associazione culturale puntorosso/transform! europe, Brussels 2020.

Gaddi, Matteo / Garbellini, Nadia / Garibaldo, Francesco (eds.): Industry 4.0 and its Consequences for Work and Labour (2018), at www.fondazionesabattini.it/download/743 (02.09.2020).

Galgóczi, Béla (a): Introductory overview. Two faces of (a) just transition: the coal story and the car story; in: Béla Galgóczi (ed.): Towards a just transition: coal, cars and the world of work. European Trade Union Institute, Brussels 2019, 7–29.

Galgóczi, Béla (ed.) (b). Towards a just transition: coal, cars and the world of work. European Trade Union Institute, Brussels 2019.

Galgóczi, Béla / Keune, Maarten / Watt, Andrew: Relocation: Challenges for European trade unions. European Trade Union Institute, Brussels 2007.

Gereffi, Gary: A Commodity Chains Framework for Analyzing Global Industries, (12.08.1999), at: http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.608.812&rep=rep1&type=pdf (24.06.2020).

Gereffi, Gary / Stark-Fernández, Karina: Global Value Chain Analysis: A Primer. Center on Globalization, Governance & Competitiveness (July 2016), at: https://gvcc.duke.edu/ wp-content/uploads/Duke_CGGC_Global_Value_Chain_GVC_Analysis_Primer_2nd_ Ed_2016.pdf (24.06.2020).

German Federal Ministry for Economic Affairs and Energy: Share of manufacturing in value added across EU Member States, 2007/2017 (08.06.2018), at: www.bmwi.de/ Redaktion/DE/Infografiken/Europa/wertschoepfungsanteil-des-verarbeitenden-gewerbes-in-de-eu-mitgliedsstaaten.html (05.11.2019).

GERPISA: The International Network of GERPISA (no date), at: http://gerpisa.org/en/ node/571 (20.11.2020).

Gesprächskreis Zukunft Auto Umwelt Mobilität: Gesprächskreis Zukunft Auto Umwelt Mobilität (ZAUM) – weitere Informationen (no date), at: www.rosalux.de/stiftung/ gespraechskreise/zukunft-auto-umwelt-mobilitaet/gespraechskreis-zukunft-auto-umweltmobilitaet-zaum-weitere-informationen (30.08.2020). Gräbner, Claudius / Tamesberger, Dennis / Heimberger, Philipp / Kapelari, Timo / Kapeller, Jakob: Trade Models in the European Union, ifso Working Paper 6 (2020), at: www. uni-due.de/imperia/md/content/soziooekonomie/ifsowp6_gthkk2020.pdf (02.07.2020).

Greer, Ian / Hauptmeier, Marco: Identity Work: Sustaining Transnational Collective Action at General Motors Europe. Industrial Relations: A Journal of Economy and Society 51/2 (2012), 275–299. https://doi.org/10.1111/j.1468-232X.2012.00677.x

Haas, Tobias / Sander, Hendrik: The European Car Lobby. Rosa-Luxemburg-Stiftung, Brussels 2019, at: www.rosalux.eu/kontext/controllers/document.php/560.6/e/e86fdd.pdf (17.11.2020).

Harrison, Bennett: The Small Firms Myth, in: California Management Review 36/3 (1994), 142–158.

Hermann, Ulrike: Freihandel - Projekt der Mächtigen (2014), at: www.rosalux.de/publikation/id/7715/freihandel-projekt-der-maechtigen?cHash=4b7ff338dd02042d22d7311ebf5 38bb8 (26.11.2020).

Högelsberger, Heinz / Maneka, Danyal: Perspektiven für eine sozial-ökologische Konversion der Auto(zuliefer)industrie in Österreich, in: Brunnengräber, Achim / Haas, Tobias (eds.): Baustelle Elektromobilität. Sozialwissenschaftliche Perspektiven auf die Transformation der (Auto-)Mobilität. Transcript, Bielefeld 2020, 409–439.

Hürtgen, Stefanie: Precarization of work and employment in the light of competitive Europeanization and the fragmented and flexible regime of European production, in: Capital & Class (2020), 1–21. https://doi.org/10.1177/0309816819900123

Hyman, Richard: Trade unions, global competition and options for solidarity, in: Bieler. Andreas / Lindberg, Ingemar (eds.): Global Restructuring, Labour and the Challenges for Transnational Solidarity. Routledge, London 2011, 16–30.

IG Metall (a): Das Transformationskurzarbeitergeld. Faktenblatt (05.06.2019), at: www. igmetall.de/download/20190605_Faktenblatt_Transformationskurzarbeitergeld____ad5c79ba937cc7628d88a0ddebe62b5fe65bb89f.pdf (26.11.2020).

IG Metall (b): Transformation Map (21.06.2019), at: www.industriall-union.org/sites/ default/files/uploads/documents/2019/SWITZERLAND/Auto_experts/transformationsatlas_eng_ce.pptx (18.11.2020).

IG Metall (c). Transformationsatlas: wesentliche Ergebnisse (05.06.2019), at: www. igmetall.de/download/20190605_20190605_Transformationsatlas_Pressekonferenz_ f2c85bcec886a59301dbebab85f136f36061cced.pdf (17.11.2020). IG Metall: Ergebnisse des Autogipfels. Mit Fonds die Zuliefererindustrie stützen. (09.09.2020), at: www.igmetall.de/politik-und-gesellschaft/wirtschaftspolitik/indus-triepolitik/mit-fonds-die-zulieferindustrie-retten (17.11.2020).

IndustriAll Europe: Manufacturing Our Future! IndustriAll Europe's Action Plan for the Future of European Industry (2018), at: https://news.industriall-europe.eu/content/documents/upload/2018/10/636752157211544067_Manufacturing%20Our%20Future%20 AP%20EN%20COVER.pdf (25.11.2020).

Jackson, Tim: Prosperity Without Growth. Economics for a Finite Planet. Sterling, London 2019. https://doi.org/10.4324/9781849774338

Jessop, Bob: The Strategic Selectivity of the State: Reflections on a Theme of Poulantzas (16.06.2014), at: https://bobjessop.wordpress.com/2014/06/16/the-strategic-selectivity-of-the-state-reflections-on-a-theme-of-poulantzas (30.11.2020).

Kaiser, Julia: #Wirfahrenzusammen. Die Allianz von Fridays for Future und ver.di im Bereich Nahverkehr als Exempel ökologischer Klassenpolitik, in: Klaus Dörre / Madeleine Holzschuh / Jakob Köster (eds.): Abschied von Kohle und Auto? Sozial-ökologische Transformationskonflikte um Energie und Mobilität. Campus, Frankfurt a. M./New York, Campus 2020, 267–283.

Kapeller, Jakob / Gräbner, Claudius: Konzernmacht in globalen Güterketten, ifso Working Paper 7 (2020), at: www.uni-due.de/imperia/md/content/soziooekonomie/ifsowp7_kapel-lergraebner2020.pdf (02.07.2020).

Kropp, Manuela: The European Automotive Sector – Time to Rethink Mobility! (24.06.2020), at: www.transform-network.net/index.php?id=840&tx_news_pi1%5Bnews%5D=9308&tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&cHash=426dc36eeb48e9be9707f926a23b32fb (23.09.2020).

Las Heras, Jon: Framing Labour Strategies in the European Automotive Industry: Any Inflexion Point Ahoy? In: University of Applied Sciences bfi Vienna (ed.): Europe in Crisis: Challenges and Scenarios for Cohesion. University of Applied Sciences bfi Vienna, Vienna 2015, 95–111.

Las Heras, Jon: International Political Economy of Labour and collective bargaining in the automotive industry, in: Competition & Change 22/3 (2018), 313–331. https://doi.org/10.1177/1024529418764350

Lindberg, Ingemar: Varieties of solidarity: An analysis of cases of worker action across borders; in: Bieler, Andreas/Lindberg, Ingemar (eds.): Global Restructuring, Labour and the Challenges for Transnational Solidarity. Routledge, London, 2011, 206–219.

Mayer, David: Grenzen der Grenzenlosigkeit? Zu Vergangenheit und Gegenwart internationaler Solidarität, in: Pellar, Brigitte (ed.): Wissenschaft über Gewerkschaft. Analysen und Perspektiven. ÖGB Verlag, Vienna 2013, 277–307.

MISEREOR/Brot für die Welt/Powershift: Weniger Autos, mehr globale Gerechtigkeit. Diesel, Benzin, Elektro: Die Antriebstechnik allein macht noch keine Verkehrswende (2018), at: www.misereor.de/fileadmin/publikationen/Studie-Weniger-Autos-mehrglobale-Gerechtigkeit.pdf (18.11.2020).

Nowak, Jörg: Grenzüberschreitende Solidarität unter ArbeiterInnen. Eine Bestandsaufnahme von vier Fallstudien (2016), at: www.rosalux.de/fileadmin/rls_uploads/pdfs/ sonst_publikationen/Studien_10-2016_Solidarit%C3%A4t.pdf (24.06.2020).

Pernicka, Susanne / Glassner, Vera / Dittmar, Nele / Mrozowicki, Adam / Maciejewska, Małgorzata: When does solidarity end? Transnational labour cooperation during and after the crisis – the GM/Opel case revisited, in: Economic and Industrial Democracy 38/3 (2017), 375–399. https://doi.org/10.1177/0143831X15577840

Phillips, Nicola: Labour in Global Production: Reflections on Coxian Insights in a World of Global Value Chains, in: Globalizations 13/5 (2016), 594–607. https://doi.org/10.1080/1474 7731.2016.1138608

Pianta, Mario / Lucchese, Matteo / Nascia, Leopoldo: What is to be produced? The making of a new industrial policy in Europe (2016), at: www.rosalux.de/fileadmin/rls_uploads/pdfs/sonst_publikationen/What-is-to-be-produced-2016.pdf (02.07.2020).

Poulantzas, Nicos: State, Power, Socialism. Verso: London 2000 [1978].

Rosa-Luxemburg-Stiftung (ed.): Progressive Industrial Policy for the EU? Outmanoeuvring Neoliberalism (2017), at: www.rosalux.eu/en/article/643.progressive-industrial-policy-for-the-eu.html (02.07.2020).

Rosa-Luxemburg-Stiftung: Changing Lanes (2020), at: www.rosalux.de/en/dossiers/ changing-lanes (23.09.2020).

Selwyn, Benjamin: Global value chains and human development: a class-relational framework, in: Third World Quarterly 37/10 (2016), 1768–1786. https://doi.org/10.1080/01 436597.2016.1156484

Selwyn, Benjamin: Poverty chains and global capitalism, in: Competition & Change 23/1 (2019), 71–97. https://doi.org/10.1177/1024529418809067

Simonazzi, Annamaria / Ginzburg, Andrea / Nocella, Gianluigi: Economic relations between Germany and southern Europe, in: Cambridge Journal of Economics 37/3 (2013), 653–675. https://doi.org/10.1093/cje/bet010 Staritz, Cornelia: Value Chains for Development? Potentials and Limitations of Global Value Chain Approaches in Donor Interventions (April 2012), at: www.oefse.at/fileadmin/content/Downloads/Publikationen/Workingpaper/WP31_value_chains.pdf (03.07.2020).

Stehrer, Robert / Stöllinger, Roman: The Central European Manufacturing Core: What is Driving Regional Production Sharing? (2015), at: www.fiw.ac.at/fileadmin/Documents/ Publikationen/Studien_2014/Studien_2014_adapted_file_names_stoellinger/02_ Stoellinger_FIW_Research_Report_The_Central_European_Manufacturing_Core_What_ is_Driving_Regional_Production_Sharing.pdf (20.06.2020).

Stöllinger, Roman: Structural change and global value chains in the EU, in: Empirica 43/4 (2016), 801–829. https://doi.org/10.1007/s10663-016-9349-z

Strötzel, Maximilian / Brunkhorst, Christian: Managing the transformation of the German automotive industry, in: Béla Galgóczi (ed.): Towards a just transition: coal, cars and the world of work. European Trade Union Institute, Brussels 2019, 243-272.

Sturgeon, Timothy J. / Daly, Jack / Frederick, Stacey / Bamber, Penny / Gereffi, Gary: The Philippines in the Automotive Global Value Chain (2016), at: www.researchgate.net/publication/305000071 (24.06.2020).

Sturgeon, Timothy J. / Memedovic, Olga / van Biesebroeck, Johannes / Gereffi, Gary: Globalisation of the automotive industry: main features and trends. International Journal of Technological Learning, Innovation and Development 2/1-2 (2009), 7–24.

Timmer, Marcel P. / Erumban, Abdul Azeez / Los, Bart / Stehrer, Robert / Vries, Gaaitzen J. de: Slicing Up Global Value Chains, in: Journal of Economic Perspectives 28/2 (2014), 99–118. https://doi.org/10.1257/jep.28.2.99

Transport & Environment: Taxpayers fork out €32bn a year to subsidise polluting company cars (05.10.2020), at: www.transportenvironment.org/press/taxpayers-fork-out-%E2%82%AC32bn-year-subsidise-polluting-company-cars (17.11.2020).

Volkswagen Group: Portrait & Production Plants (18.06.2020), at: www.volkswagenag. com/en/group/portrait-and-production-plants.html# (24.09.2020).

Weissenbacher, Rudy: The Core-Periphery Divide in the European Union. Springer International Publishing, Cham 2019.

Wigger, Angela: The new EU industrial policy: authoritarian neoliberal structural adjustment and the case for alternatives, in: Globalizations 16/3 (2019), 353–369. https://doi.org/ 10.1080/14747731.2018.1502496

Wigger, Angela / Horn, Laura: The Bed You Made: Social Democracy and Industrial Policy in the EU, in: Hay, Colin / Bailey, Daniel (eds.): Diverging Capitalisms. Britain, the City of London and Europe. Springer International Publishing, Cham 2019, 171–193.

Wimmer, Christopher: Industry 4.0. New Challenges for the European World of Work. Rosa-Luxemburg-Stiftung, Brussels 2019.

Wissen, Markus / Pichler, Melanie / Maneka, Danyal / Krenmayr, Nora / Högelsberger, Heinz / Brand, Ulrich: Zwischen Modernisierung und sozial-ökologischer Konversion. Konflikte um die Zukunft der österreichischen Autoindustrie, in: Klaus Dörre / Madeleine Holzschuh / Jakob Köster (eds.): Abschied von Kohle und Auto? Sozial-ökologische Transformationskonflikte um Energie und Mobilität. Campus, Frankfurt a. M./New York, Campus 2020, 223–267.

Wolf, Winfried: Mit dem Elektroauto in die Sackgasse: Warum E-Mobilität den Klimawandel beschleunigt. Promedia, Vienna 2019.

Wolf, Winfried: More of the Same Excuses. Why German car companies continue to perform despite crisis tendencies in the industry (27.08.2020), at: www. rosalux.de/en/news/id/42879/more-of-the-same-excuses?cHash=88bee234cb6d-1009cee5175fc468380e (24.09.2020).

World Trade Organization (WTO): World Trade Report 2005: Exploring the links between trade, standards and the WTO (2005), at: www.wto.org/english/res_e/booksp_e/anrep_e/ world_trade_report05_e.pdf (05.07.2020).

ROSA-LUXEMBURG-STIFTUNG

The Rosa-Luxemburg-Stiftung is an internationally operating, left-wing non-profit organisation providing civic education. It is affiliated with Germany's 'Die Linke' (Left Party). Active since 1990, the foundation has been committed to the analysis of social and political processes and developments worldwide. The Stiftung works in the context of the growing multiple crises facing our current political and economic system.

In cooperation with other progressive organisations around the globe, the Stiftung focuses on democratic and social participation, the empowerment of disadvantaged groups, and alternative economic and social development. The Stiftung's international activities aim to provide civic education by means of academic analyses, public programmes, and projects conducted together with partner institutions.

The Rosa-Luxemburg-Stiftung works towards a more just world and a system based on international solidarity.

www.rosalux.eu

Rosa-Luxemburg-Stiftung, Brussels Office Rue Saint-Ghislain 62, 1000 Brussels, Belgium www.rosalux.eu

> Legally responsible for publication Andreas Thomsen

> > Brussels, 2021

Author Julia Eder

Illustration, design and production HDMH srl

Photos

kaysgeog/flickr CC BY-NC-ND 2.0, cover Thomas B./pixabay, CC, p. 6 vespaburoks/pixabay, CC, p. 9 Chris Yarzab/flickr CC BY 2.0, p. 19 Bryan McLellan/flickr, CC BY-NC 2.0, p. 26 Sovab/wikipedia, CC, p. 29 Siyuwj/wikipedia, CC BY-SA 3.0, p. 33 Long Pyles/pixiorg, CC0, p. 36 AutomotiveRhythms/flickr, CC BY-NC-ND 2.0, p. 40 Cjp24/wikipedia, CC BY-SA 3.0, p. 51 LavUlv/flickr, CC BY 2.0, p. 58

Printed in Belgium

Funded by the German Federal Foreign Office.



The European automotive industry is undergoing deep structural transformations. In addition to the twin challenge of mastering the digital and ecological transition, it has to deal with the effects of the COVID-19 containment measures. All these changes are taking place within highly globalised value chains that have resulted from excessive offshoring and thus affect workers beyond single nation states or the European Union alone. The shift to electric mobility and the advancement of digitalisation will fundamentally restructure the value chains of the European automotive industry. This transformation poses multiple challenges to workers and to the organisations representing them. This brochure discusses those challenges from a labour perspective. More specifically, it explores what transnational solidarity means in this context and what role industrial policy needs to play in this process. On this basis, the brochure suggests concrete policies and measures which workers and their representative organisations should fight for, and identifies possible coalition partners for the social-ecological transformation of the European automotive industry.

WWW.ROSALUX.EU