

BUILDING CAPACITIES AND STRATEGIES OF TRADE UNION INVOLVEMENT IN SHAPING A JUST TRANSITION TOWARDS A SUSTAINABLE AND DECARBONISED INDUSTRY

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D.5 ELECTRIFICATION OF THE AUTOMOTIVE SECTOR AND PRODUCTS IN GERMANY

D.5.1 Context of the case

The challenge of decarbonisation of the automotive industry is twofold. First, direct emissions by industry processes of production must be decreased. Second, and this is the main challenge, the vehicles this sector produces need to become more emission neutral. This latest challenge is at the heart of the efforts imposed on the sector by European and national climate plans. As a result, the electrification of the automotive industry means the replacement of combustion engine vehicles by electric vehicles.

This transition brings plenty of transformations to be implemented in the sector. The approach of sectoral trade unions and employers' federations is usually to join their efforts regarding the introduction of strict emissions standards for cars: together, they team up to support the need for decarbonisation while advocating to minimise compliance costs and to favour incremental approaches" (Thomas & Pulignano, 2021, p. 256). They also call for decision-makers to have a pragmatic approach while establishing emission limits for cars and insist on being consulted during such processes (IG Metall, 2014).

This case presents the context of the transition towards electrification in the car industry and then the main steps taken towards it by one of the main German car manufacturers, Mercedes-Benz, and the representative trade union in the automotive sector, IG Metall (IGM).

D.5.1.1 Settings of the case

The case was conducted online with desk research (based on IG Metall and Mercedes-Benz publicly available documents and media sources) and online interviews with one representative of IG Metall's 'Transformation Team' in Baden-Württemberg, one IG Metall representative in Gaggenau and 2 IG Metall shop stewards at Mercedes-Benz Untertürkheim plant.

D.5.1.2 Climate plans in Germany

In line with European regulations, the German government adopted national climate plans. The "Climate Action Plan 2050" was adopted in March 2016. The purpose of the plan is to decrease greenhouse gas emissions up to 80 to 95% in 2050 (compared to 1990). To do so, seven areas of action were identified, including transport. This area of action focuses mainly on road transport. A climate strategy addresses emissions "from cars, light and heavy commercial vehicles and issues related to GHG-free energy supply, the requisite infrastructure and the interlinking of sectors (through electric mobility)" (Federal Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection 2016, p. 8). Electric mobility is clearly identified in the plan as a leverage to achieve energy transition in "private motor traffic" (Federal Ministry for Environment, Nature Conservation, Nuclear Safety and Consumer Protection 2016, p. 19). The Climate Action Plan also emphasizes the necessity for the government and the industry to cooperate in the energy transition path. In this regard, consultations with social partners were organised prior to the plan to discuss its main orientations. During these consultations, it was also agreed that actions to be taken and foreseen results were to be discussed with social partners before being included in the Climate plan. Moreover, intermediary impact assessments were carried out in 2018 to adjust sectoral targets in concertation with sectoral social partners. Afterwards the measures of the Climate Action Plan have been translated in a legislative document adopted on 18 December 2019, the Climate Protection Act ⁸⁴.

⁸⁴ <https://www.gesetze-im-internet.de/ksg/BJNR251310019.html>

More recently, in 2021, the German government revised this Act in a more ambitious way, upon request of a ruling from the Constitutional Court (Bundesverfassungsgericht, 2021). The ruling was introduced by environmentalist groups (amongst whom the German branch of the youth movement “Friday for Future”). The ruling said that measures included in the Climate Protection Act are insufficient in scope and timing to protect future generations. Consequently, the German government reformed the Climate Change Act⁸⁵ and brought the aim for climate neutrality forward in 2045, with milestones in 2030 (65% of emissions reduction) and 2040 (88% of emissions reductions). To do so, stricter targets on CO₂-emissions by 2030 were established in the transport sector, alongside the energy and the construction sector.

D.5.1.3 Climate plans and the electrification of the German automotive sector

Transition towards electrification in the automotive sector finds its root in the transition of the whole mobility sector. In line with European guidelines (namely the ‘Fit for 55’ climate package), the German automotive sector will gradually shift its way of producing from combustion engines towards electric engines. More specifically, German major cars manufacturers (such as Volkswagen, BMW, Daimler) focus their transition on battery-electric vehicles.

The National Electromobility Development Plan⁸⁶ (NEMDP) was launched by several German ministries in 2009 to execute the Integrated Energy and Climate Programme set up in 2007 by the German Government. According to the NEMDP, 1 million electric vehicles should be deployed by 2020. To push for the NEMDP as well as to suggest measures to frame the electrification of the automotive sector, a National Platform for Electric Mobility has been set up in 2010. This platform acts as an advisory council allowing societal actors involvement to support the German government (IG Metall 2014). It gathers high ranking members from the private sector, academia, civil society, and public administration. IGM has one of the 23 seats in this platform.

To match the ambitions of the amended Climate Change Act and accelerated reduction of emissions, more important targets regarding the production of electric vehicles are discussed. On the basis of these documents, Jörg Hofmann (IGM’s president) expects 14 to 16 million electric vehicles to be deployed by 2030, (CleanEnergyWire, 2021a). These figures are in line with the coalition treaty of the new German government that took office in December 2021 (Koalitionsvertrag 2021-2025, pp. 38-42). These new targets are a concern for workers, because it will speed up electrification in the automotive industry, and by doing so, increases the risk of job losses according to IGM’s leader.

German public authorities are setting up policy instruments to achieve this ambition. The NEDP started to be implemented from 2011 onwards and includes incentives encouraging the development, production, and purchase of electric vehicles. For example, one of the measures involves a double expenditure for Plug-In Hybrid Vehicles (PHEV) and Battery-powered Electric Vehicles (BEV) research and development. Besides, in 2016, buyers’ premium for BEV (€4,000) and PHEV (€3,000) has been launched as an environmental bonus to encourage the use of electric vehicles. This ‘environmental bonus’ can be combined with other subsidies. A tax exemption of 10 years for all electric vehicles has also been implemented.

⁸⁵ The amended Climate change act entered into force on 31 August 2021.

⁸⁶ <https://www.bmvi.de/blaetterkatalog/catalogs/219118/pdf/complete.pdf>

D.5.1.4 Employment in the automotive industry and the impact of electrification thereon

The automotive industry is a key sector for employment in Germany: providing jobs for more than 800,000 workers⁸⁷. Numerous studies attempt to estimate the impact of the electrification of the German automotive sector on job losses and job transitions (CleanEnergyWire, 2021b). Despite the absence of convergence on the figures provided, it seems to be a consensual view that the impact of electrification on jobs will be real but limited. From a technical point of view, the main cause of job losses would be the electrification of powertrains. The powertrain traditionally is the most labour-intensive component of a car, while its electric counterpart requires less labour input. Among others, a discussion paper by the Research Institute of the Federal Employment Agency estimates that the number of “employed persons resulting from the electrification of powertrains in passenger cars will therefore be almost 150,000 by 2035” (IAB, 2019). A report on the Future of the EU Automotive Sector requested by the European Parliament emphasises the territorial impact on employment that the shift to electrification of vehicles will have. Key regions for the sector in Germany, like Bavaria (estimation of around 40.000 job losses), Baden-Württemberg (35.000) and Niedersachsen (25.000) are specifically at risk (European Parliament, 2021).

Given the temporality of the transition, which is taking place over several years, part of these job losses will be covered by retirements and natural turnover. But that will not be enough to solve employment-related issues. Social partners in the automotive industry (trade union IGM and employers’ national association VDA) warn about the potentially negative impact that this shift can have on employment (Reuters, 2021). A study commissioned by VDA and conducted by IFO (German Institute for Economic Research) in 2021 estimates that the shift to electric cars will affect 215,000 employees depending on combustion engines by 2030. Among these workers, 147,000 will retire by then (Clean Energy Wire, 2021c). Measures are, therefore, required for the remaining workers. Such measures like retraining and upskilling are included in the EU Pact for Skills (2020) and are an important part of the debate in the German automotive sector.

D.5.2 Case Study: Mercedes-Benz and the shift towards electrification

Daimler AG is a company originating from Stuttgart, where the main offices as well as many of the production sites are located still today. In December 2021, the company split into two parts: Daimler trucks, producing commercial vehicles, and Mercedes-Benz, producing passenger cars. The shift towards electrification being more advanced in passenger cars than in commercial vehicles, this case study focuses on the latter.

An overarching programmatic strategy sets the main milestones of Mercedes-Benz’s shift towards the production of electric vehicles: *Ambition 2039*. The *Ambition 2039* strategy was elaborated by Mercedes-Benz’s management bodies and exposes the purpose of the company to be CO2 neutral no later than 2039 (and sooner if possible) regarding the whole value chain: “from technical development to the extraction of raw materials, to production, service life and recycling” (Mercedes-Benz Group, *Ambition 2039: our path to CO2 neutrality*).

Of course, this global strategy brings many consequences for work organisation. It is not only the shift from combustion engines to electric engines that matters, but also the whole way of producing cars that changes drastically. In the existing plants and factories of the company, changes in production and assembly lines must be organised and implemented. A “People plan” section is included in the strategy and focuses on employees’ skills development. However, a gap between the strategic vision conveyed by the *Ambition 2039* plan and the concrete implications it entails at plants

⁸⁷ on basis of narrowly defined sector with NACE29 (Drahokoupil, 2019). This number is in line with the one provided by the European Car Manufacturers Association (ACEA 2020-2021)

level is mentioned as problematic for trade unionists active at this latter level. This case focuses more in particular on the work conducted by IGM in the plants of the land of Baden-Württemberg.

D.5.2.1 The land of Baden-Württemberg: a key area for the Mercedes-Benz group

The Stuttgart region located in the *land* of Baden-Württemberg is alongside the region of Mannheim, the historical birthplace of the German automotive industry. Among others, the Mercedes-Benz group has several major plants in this area. This argument motivated the decision to base this case study on this specific *land*.

The desk research and interviews conducted in the framework of this case study gathered data on the following two plants in Baden-Württemberg:

- Untertürkheim: there are approximately 20,000 employees in the plant of Untertürkheim, distributed between three sites. The plant is already part of the transition towards electrification with the production of electric batteries as well as electric powertrain.
- Rastatt: Rastatt plant is a pure assembly plant of 6,500 workers. Pure assembly plants risk facing more of a tough time because this type of work requires a lower level of skills than work in R&D facilities for example.

Untertürkheim and Rastatt are not the only Mercedes-Benz plants in the *land* of Baden-Württemberg. Amongst the other plants, the plant of Sindelfingen is worth mentioning since it is the biggest plant in the area with approximately 40,000 people working there. The plant of Sindelfingen hosts on its site the “Factory 56”, which aims to be a zero-emission factory working with the latest technological equipment and employing 1,500 people (Mercedes-Benz Group, 2020).

Untertürkheim, Rastatt and Sindelfingen are Mercedes-Benz main plants in Baden-Württemberg and the largest employers in the area. They play therefore a key role in the economy of the region. Each of these huge sites are made of several sub-plants. It is already clear and certain that these plants are and will continue to be involved in the manufacturing of electric cars.

Besides having representatives in works councils and in the supervisory board of Mercedes-Benz, IGM has numerous offices in Baden-Württemberg. There is one office for district management located in Stuttgart as well as 27 local offices distributed in the *land*⁸⁸. This thick network allows IGM to support its representatives active at company and plant level.

D.5.2.2 Timeline

Currently Mercedes-Benz is producing both combustion and electric vehicles. While the production of electric vehicles is expected to increase, the production of combustion vehicles is expected to gradually decrease.

In 2016, Mercedes-Benz started organising its shift to electric vehicles (Clean Energy Wire, 2021d). Before this period, Mercedes-Benz management expressed reluctance on communicating on the electric future of the company. There was still hope in the company management’s mind that combustion engines could still be part of the future. However, from 2018 onwards, there was a change in management and communication, and a clear movement towards electric vehicles has been endorsed. This decision affects every part of the company, all plants, all business units.

⁸⁸ The list and map of the local offices are available on the website of IGM in Baden-Württemberg: <https://www.bw.igm.de/wir/regional.html>

The transition phase towards the complete electrification of the vehicles production is planned to last approximately a decade. The All-electric Strategy that supplemented the Ambition 2039 Strategy organises the shift of production towards 100% electric (Mercedes-Benz Group, 2021). In 2022, one of the company's objectives is to produce battery electric vehicles (BEV) in all its market segments. In 2025, "all newly launched vehicle architectures will be electric-only, and customers will be able to choose an all-electric alternative for every model the company makes". By the end of the decade, their intention is to shift the production completely to all electric "if market conditions allow it" (Mercedes-Benz Group, *Ambition 2039: our path to CO2 neutrality*).

D.5.2.3 Actors

At the company level, the main institutional players are the Mercedes-Benz management (at company and plant level), on the one hand, and the sectoral trade union IGM, on the other hand. IGM is the trade union that represents workers in the automotive sector, in addition to other sectors such as metals and electricals, iron and steel, textiles and clothing, wood and plastics, crafts and services and information and communication technology. IGM is represented by elected representatives in each of the local works councils of Mercedes-Benz Group plants in Germany.

Works councils play an active role in representing employees' interests in the different plants and have a front-row seat regarding the consequences of electrification for the workforce and for the work organization within each plant. Works councils are not trade union bodies but trade unions' members are strongly represented within them. Works councils ensure employees representation and can be established in every workplace with at least 5 employees. At plant level, works councils are one of the main venues of trade unions representatives to represent workers' interests towards the employer.

The Mercedes-Benz plants are well established in the *land* territory and are part of an active network of economic and political actors. Under the initiative of IGM, Baden-Württemberg public authorities also set up a "Transformation council for the automotive industry"⁸⁹. Participants represented in this Council represent the main players in the sector at the level of the *land*. The council gathers personnel directors and managing directors of vehicle manufacturers and suppliers from Baden-Württemberg as well as representatives of IGM, Südwestmetall (the sectoral employers' association in Baden-Württemberg), the German Engineering Federation (VDMA), the Stuttgart Economic Region (WRS) and the state agency "e-mobil BW" (innovation agency dedicated to electric mobility) for an industry meeting on the transformation process of the automotive industry. Given the massive presence of the automotive industry in the *land*, this council is an influential discussion body. In its aftermath, a "Strategic dialogue for the automotive sector in Baden-Württemberg" was created in 2017. Bringing together representatives of the industry, trade unions, the public authorities, the civil society and the universities, the strategic dialogue implements a 7-years programme "with the intention of opening innovation potential across industries" as well as to concretely assess the employment potential of these innovations (Strategiedialog Autowirtschaft Baden-Württemberg, 2018).

D.5.2.4 Trade union's involvement

D.5.2.4.1 Diagnosis of the sector's current situation

Given EU regulations and orientations, and the ambitions of the German Climate plan, the automotive industry has no choice for the future but to make a shift towards electrification. This shift is acknowledged and accepted by trade unions (IG Metall, 2014). As it seems that the production of

⁸⁹ <https://www.baden-wuerttemberg.de/de/service/presse/pressemitteilung/pid/branchentreffen-zum-transformationsprozess-der-automobilindustrie/>

electric powertrains and the assembly of electric cars are less labour intensive, there is a fear that the global shift towards electrification would lead to fewer jobs in the sector.

In the framework of this shift, IGM therefore calls for securing employment through policy interventions at political as well as company level. The discussion appears to be less emotional today than in the past.

IGM has been dealing with the shift toward electrification in the automotive industry for many years at Mercedes-Benz as well as in other car manufacturing companies. Following job protection, the union's main goal is to accompany the workforce in this shift and to develop in-depth internal expertise to protect workers' interests in every step of the transition.

IGM closely looks at the evolution of employment in the plants, as well as at management practices to deal with it. A slowdown in hiring is already observed in the plants. There is also a managerial policy of not replacing workers who decide to leave the company, and even encouraging them to do so by giving them financial bonuses.

D.5.2.4.2 TUs' objectives

IGM objective is to be involved in transitions plans as much as possible without using a conflictual approach. The point is to accompany every step of the transition while protecting workers' interests and to find good solutions for the future of the company and for the employees. The main purpose is to secure the survival of industrial activity and employment in Baden Württemberg.

Once employment security is guaranteed, IGM works on the improvement of actual and future working conditions. Crucial questions involve upskilling, production, and placement of new products in targeted production sites, etc. IGM also wishes to guarantee the best conditions for workers' mobility within the plant due to the development of new products and the end of older ones.

This phase-out will be organised in phases: the stop of development of new engines, followed by the stop of production and sales. Whereas the goal of stopping the production of combustion vehicles is mentioned in the company's strategy, an assessment of market conditions will be made to enforce (or not) this decision. As a result, uncertainties remain in the eyes of IGM regarding the stop of combustion vehicles production after 2030. At plant level, IGM negotiates to keep the production of combustion cars open as long as there is a (small) market segment to fill. At this level, the goal is to secure the production of current and/or new products. The question of which products are going to be produced in the plant is an important part of the discussions between the works councils and the plant management.

At company level, strategic programmes such as Ambition 2039 and the All-electric strategy do not provide, according to IGM, information on how the workforce will be concretely affected. Even though strategic plans and communications are useful in providing a vision for the future of the company, according to IGM representatives, the further the future is envisioned, the vaguer the strategies become. One of IGM's main endeavour is therefore to seek for more precise information to anticipate the impact of these plans on the workforce.

Finally, IGM attempt to raise awareness amongst workers to accept this major technological change in the automotive industry while ensuring that the trade union want to influence this process in workers' interests. IGM's intention is not to stop this transition and it needs a good communication strategy to get this message accepted and endorsed by workers.

D.5.2.4.3 Assessment of TU capacities

In Germany, collective bargaining in the automotive industry mostly happens at the sectoral level. Works councils' agreements at company level and at plant level can also be negotiated in the framework of sectoral agreements. IGM is represented at every level of negotiation and has a strong capacity as well as resources to defend workers interests in collective bargaining.

Regarding transition towards electrification, many discussions and negotiations unfold at the sectoral and the regional level (for instance in the consultative council and strategic dialogue body). However, IGM representatives at plant level emphasize that most of the concrete and immediate impacts of transition on the workforce have to be discussed at company and plant level. Topics discussed within company and plants works councils concern the organisation of workers mobility within the plant, workers participation in the dismantling of production halls and the rebuilding of new ones, etc.

There seems to be a consensus around the fact that IGM is well represented at Mercedes-Benz as well as in the German automotive sector (especially car companies and tier one suppliers) through their seats in the works councils at plant level and general work council and supervisory board at company level. Representative bodies are functioning well, IGM is strongly represented. It is more difficult for IGM to get information on smaller suppliers' companies in which social dialogue is weaker. It is difficult to demand and then also implement a concrete co-determination or expansion of co-determination of the work council in these smaller plants. In Mercedes-Benz, the amount of workers and their strong support to IGM provide leverage for the trade union in the negotiation with the plants management.

Regarding the impact of the company strategy on workers at plant level, IGM reactions are constraint by the lack of concrete detailed programmes. Transformations affecting the workforce are not always clear and well anticipated within the company. The issue is, therefore, not access to information, but that information stays blurred. The company provides access to its global strategy approach for the future (most important projects for the companies, on which products and market they will focus, etc.). However, the concrete impacts on each plant and production sites have to be deduced, since they are not communicated directly. So IGM has to ask questions on the future of production sites that may be impacted to anticipate the consequences on employment in each of the plants. IGM representatives would like to get more detailed plans from HR management while the employer wishes to remain flexible and to avoid making binding promises.

D.5.2.4.4 Actions conducted by the TU

IGM takes various actions in order to be at the forefront of the electrification transition at plant and company level. The actions listed below include: the involvement in representative bodies at plant and company levels; the negotiations for jobs security; pushing for workers' rights to training and qualification; accompanying workers' mobility; communication to workers on the current transformations.

IGM is also active in supporting workers beyond plant and company level. Within the trade union, IGM seeks to strengthen its expertise on the shift towards electrification. Externally, IGM also continue to set up its involvement in the regional (and national) economic network. Holding seats at various level of discussion, IGM is in a strong position and can launch actions at these different levels. The challenge is to ensure good coordination across these different levels of representation.

D.5.2.4.4.1 Involvement in representative bodies at company and plant level

At company and plant levels, one of the main leverages for action of IGM is its representation in works councils. IGM representatives use their voices to influence work councils work and decisions as well as to strengthen the work councils influence towards the plant management.

Work councils hold different participation rights: the right to be informed, the right to be consulted, a veto right, a co-determination right. Topics being covered by each type of right are determined by law. Regarding the electrification transition and transformations it entails, interviewees report that work council participation relies mainly on information rights. IGM calls for more participation of the work councils in these transformations. In Untertürkheim, IGM pushes for the work council to be involved in negotiation on product management. The employees noticed that products were being withdrawn while new products were being introduced and were concerned about this. In 2015 the work council declared that it should be involved in these discussions and from then on the issue is discussed once a year between the plant management and the work council. On the one hand, it asks to be informed when a product is no longer to be produced, in order to negotiate compensation if it affects employment and working conditions. On the other hand, it can ask for new products to be manufactured and demand investments and commitment from the company to the future of the plant. In 2017, it asks for a battery assembly unit to be created in the plant.

Through their representatives within works councils, IGM is also involved in the transformation of the internal architecture of the plant to set up new production lines and assembly plants.

IGM also aims at investing in capacity building of the work councils. Regarding the electrification transition, it entails the sensibilisation of works councils to start looking at the mid- and long-term future of every plant and workplace. To do so, IGM provides works councils with tools (for ex. questionnaires, expertise) to develop a strategy and to try to find out the future of the product and thus the future of the plant. In this way, works councils can develop an own strategy how to cope with the mid- and long-term plans.

D.5.2.4.4.2 Negotiations for job security plans and solutions for job losses

There is a collective agreement negotiated between Mercedes-Benz management and the central work council (whose members are almost all members of IG Metall) that prevents workers dismissals. It has been signed at company-level for the first time in 2004 and has already been renewed two times. The current agreement ensures that there will not be any redundancies before 2030. However, the company still tries to reduce the workforce, for instance by offering early retirement schemes, support for workers who wish to find a new job by facilitating their transfer from one workplace to another (same system as an employment agency, but between companies). IG Metall looks after these actions to be sure that compensation offered by the company are fair to workers.

D.5.2.4.4.3 Securing the development of new products at plant level

In general, IG Metall is aware that the shift towards electrification will ultimately lead to fewer jobs in the automotive industry. At plant level, one strategy to guarantee employment is to fight for the manufacturing of new products and components needed to manufacture electric vehicles (battery cells, electric powertrains, etc.). In Untertürkheim, the work council asked for a battery assembly to come to the plant. The issue back then was that the management was thinking about creating a legally distinct company (GmbH in German law) with its own working conditions that would be operated outside the already negotiated company collective agreements. IGM fought against that proposal and claim for battery production to take place in the Untertürkheim plant in the framework of existing collective agreements. This claim led to conflictual actions by IG Metall involving workforce mobilisation (workers but also employees), work stoppages, plenty of information meetings and negotiations with the management. In the end the battery production unit was included in the plant of Untertürkheim.

The work council additionally negotiated that in the case of job mobility within the plant due to the development of new products related to the production of electric vehicles, workers should keep the same level of position (rank, salary scale, etc.) as well as to work in a similar kind of function.

D.5.2.4.4.4 Defending workers' rights to qualifications and training

IGM pushes for qualifications and training initiatives. Workers' training to improve their qualifications in drive technologies, sustainability of technology and production, is a crucial lever to keep workforce within the company and to make workers ready for whatever future they might face. IGM wishes for a more proactive approach concerning qualification and training. One of its initiatives is the launch of a qualification series for trade unions shop stewards and representatives at works councils. This is part of a large training offer by IGM that goes from technical qualifications (on powertrains, different types of drives, etc.) to participation skills to strengthen influence through the work councils. At plant level in Rastatt, the work council asked the management to improve measures for workers to get retrained/reskilled. Some provisions were included in collective agreements allowing works councils to demand for skills planning for an individual worker and retraining to be at least partially paid by the company.

D.5.2.4.4.5 Provision of information to workers on the whole transition process

The challenge is to accompany change so that it is not perceived negatively. IGM tries to seize the current transition as an opportunity to create openness to change and lifelong learning among workers. IGM also invests a lot in internal communication within the company and the plants to trigger a positive attitude from workers towards the change process. It seems that some workers fear or are sceptical towards the transformations brought by the electrification shift. The first step of IGM communication is based on information provision. The goal is to explain why the shift towards electrification is happening and what are the foreseen changes at company and plant level. The second step is to present IGM actions facing these transformations: employment protection as a priority, as well as guarantees on qualifications and positions.

D.5.2.4.4.6 Fostering IGM internal expertise

IG Metall hired experts on decarbonisation and digitalisation at national level in order to support these transitions in the industry from a trade union perspective. However, given the federal nature of the German state, there are disparities across regions and a regional approach to the transition is needed as well. At the level of the regional office of Baden-Württemberg, a "transformation team" was created in 2018. This team of 5 people is entirely dedicated to support companies (via the works councils) and local offices in shaping a Just Transition (regarding the shift to electric vehicles but also other factors such as digitalization, relocation, etc.). The transformation team is working on a hands-on approach in developing strategies (such as communication plans to inform workers about the transition) that have an impact on the work floor. IGM shop stewards in the different plants are, indeed, not experts in transition related issues. The transformation team can provide guidance and expert knowledge upon request of works councils for example. However, there seems to be no consensus on whether it is necessary to set up such transformation teams in every region of Germany. Another opinion on this is that every trade unionist with a representative role should become expert on these issues.

In this perspective, IG Metall also offers qualification programmes, workshops and seminars for its members or to works councils. The purpose of these trainings is to clarify the stakes, as well as the terminology of what the transition entails at a technical level. That allows people to understand the dynamics of the transformations happening at plant level.

D.5.2.4.4.7 Involvement in the regional economic network

Finally, IGM is involved at all levels of negotiations within the company but also at the level of public authorities (local, regional, national). In the region of Stuttgart, there is a tradition to involve political and scientific stakeholders in discussions with industrial players and trade unions. Car companies like Mercedes-Benz are important economic players for the development of the region. A big part of these talks is therefore about building convergent views on the future of these industrial players in line with the future of the land. How can the region remain attractive for the company? And how

can the company still play a key role in the future in the region? And what do both sides need from each other?

Besides institutional bodies such as the “Transformation council for the automotive industry” at the land level, the trade union is involved in the creation and management of Agentur Q which is an agency dedicated to support training initiatives (in the framework of a collective agreement) within the sector.

In Rastatt, a local transformation advisory board was established. It gathers the local actors involved in the automotive cluster in Rastatt: representatives of Original Equipment Manufacturers (OEM, representing automotive manufacturers and big suppliers companies), supplier companies group and SMEs, works councils chairmen, Employment Agency, Lord Mayor, District Administrator, Regional Council, Chamber of Industry and Commerce, Südwestmetall and IGM representatives. As a recognized trade union, IGM wants to be involved in such institutional bodies and usually have no problem to secure its representation. This established institutional position and relations with economic and political stakeholders can help IGM to secure employment in the area as well as to coordinate the stimulation of innovation, R&D and training with these actors (Hancké and Mathei 2020).

D.5.2.5 Impacts of the actions

Overall IGM is confident that its involvement and initiatives efficiently help the workforce to face the transition. The support of the workforce provide legitimacy to IGM actions and positions. Thanks to its strong position and resources, IGM achieves to protect workers at plant level: securing employment or providing solutions in case of job losses; providing or pushing for the company to provide training; organizing the conditions of workers mobility within the plant, etc.

IGM combined presence in works councils and regional bodies allows the trade union to gather information and to influence the future of the industry. There are also possibilities to enhance work councils' participation rights (for example in the negotiations on products in Untertürkheim). IGM supports works councils by providing information, training, expertise.

Actions can be based on a conflictual attitude as well, even if it is not the most favoured approach in the transition. When workers in Untertürkheim mobilized in favour of the implementation of a battery production unit within the plant, IGM provided an effective support to its representatives and workers in conducting their actions and winning the negotiation.

However, there are some elements that keep actions to be fully efficient.

The size of the company is a challenge and top-level discussions not always easy to translate at (sub)plant level. Although IGM is quite strongly organised within Mercedes-Benz, it is not so easy to find out on which level which decision is made and how to get access to the real decision makers. The fact that decisions are taken both at group (company) level and plant level is quite challenging and often takes a lot of time to union representatives to coordinate their work. This multi-level structure challenges IGM's attempts to be ‘on the ball’ regarding transition-related issues.

There are also coordination challenges in the trade union strategies between the many levels of action and representation. Even though IGM is a powerful and well-established organisation with many layers for its representatives to meet, it seems sometimes difficult to elaborate a coordinated strategy about the future of companies and plants involved in automotive sector at the level of the land or of the country. As a result, there is a risk of competition between plants, for instance about which sites are going to develop and to produce the necessary components for electric vehicles. The placement of new products in the future amongst the different production sites allows to secure a strategic role for the selected production sites within the company.

D.5.2.6 Uncertainties

D.5.2.6.1 Negative spill-over effect on other segments of the automotive industry

The future is at risk for other segments of the automotive industry. Car manufacturers such as Mercedes-Benz may handle the shift to electrification more smoothly than smaller companies, making parts for combustion engines that will no longer be needed. These OEM companies are mainly located in Central and Eastern Europe but some of them can also be found in Germany, namely in Baden-Württemberg. Amongst them, smaller supplier companies which are dependent on the automotive industry usually do not have the financial resources to change to alternatives.

Even though works councils and IGM representatives at plant level fight to secure the production of new products, some IGM representatives fear that the shift to electrification would supply an incentive to such companies to move their production abroad where manufacturing is cheaper. Components for combustion cars produced in Germany would be replaced by components for electric cars produced abroad.

Production sites in Baden-Württemberg might be negatively affected by Mercedes-Benz global strategy. It looks like they are now focusing on developing other products than those that use to be produced there. IGM might better ask what the future of these production sites in the future strategy is.

D.5.2.6.2 Changes in the structure of the sector

The automotive sector used to be organised in a stable manner with the OEM, and some sub-contracting companies. It can be observed that the shift towards electrification entails structural changes in the sector organisation. On the one hand, some car manufacturers position themselves to organise the replacement of products (from combustion to electric components) and sometimes to produce it themselves. Some of them, like Tesla, produce every component themselves. On the other hand, some components suppliers decide to go for the whole electric car manufacturing. These changes impact the sectoral organisation and the interests of the different stakeholders. These changes in the structure of the sector will have impact on the distribution of workers amongst the sector and IGM may have to adapt its representation strategies to this new sectoral reality in the future.

D.5.2.6.3 Projections on production

IGM representatives report that projection figures in the automotive sector have always been uncertain and difficult to estimate. The transition towards electrification being organised on a time span of more than a decade makes it even more difficult to produce reliable figures. This projection exercise is more complicated because some segments of the shift towards electrification are not as advanced as others. For example, Mercedes-Benz is positioning itself in new business areas related to electrification such as the production and the recycling of batteries. It is not yet foreseeable what quantity and nature of employment will be needed. There are also uncertainties on the shift of commercial vehicles (such as trucks) towards electrification. Interviewees estimates that there is a 5-year lag in the transition compared to passenger cars. As a result, even if the transformation is in full swing, it is not certain whether there will be enough production to secure existing employment. Currently, products are manufactured for combustion vehicles as well as for electric vehicles. But when combustion vehicles will stop being produced, this is projected to lead to fewer jobs in the plants.

D.5.2.6.4 Changes in workforce profile

The kind of workforce that is needed to produce a high-tech, electric, digital car is different from the workforce that is needed to produce a combustion car. The production of powertrains for electric car are less labour intensive as the one of combustion cars. However, manufacturing electric cars requires more R&D and engineering competences. One of the fundamental issues is the reskilling of the workforce: can the employees who used to work to combustion cars be requalified to work in the transformed electric car industry? There are plenty of initiatives that have been undertaken to tackle the qualification issue. Knowing that there is already a shortage in qualified and skilled workers in certain segments of the industry (for example digitalisation), training was already an essential part of the sector employment policy. A pending question concerns the extent to which the current workforce can be retrained and what additional kind of workers are needed (for example software engineers).

D.5.2.7 Future needs to strengthen TUs involvement in shaping a Just Transition of the sector

D.5.2.7.1 To strengthen social dialogue in new and smaller companies

Despite risks of relocation, Germany remains an attractive location for automotive industries, including electric cars producers such as NIO (GTAI, 2021) or Tesla. However, these foreign companies challenge the German industrial relations system. At first, Tesla wanted to avoid the codetermination system – as well as the establishment of a work council – in its new “gigafactory” near Berlin thanks to a legal loophole. IGM mobilisation finally led to the organisation of work council elections in February 2022. This incident illustrates the necessity of for trade unionists to remain attentive to the functioning of the collective bargaining in these times of transformation (IndustriAll Europe, 2021).

There is also concern about social dialogue in smaller suppliers' companies. IGM could strengthen resources to build support networks between the big car manufacturers and medium-sized or small companies in the same surrounding areas.

D.5.2.7.2 To document the actions undertaken in the framework of the transition

IGM initiatives at plant level could be useful to be documented so that they can inspire and support initiatives in other plants or companies.

D.5.2.7.3 To make the transition a reality on the ground

So far, the shift towards the production of electric vehicles has been widely discussed at political levels (national, regional, etc.) from a theoretical and rather abstract perspective. Now that the transition is happening in practice, in the plant, it would be interesting to create working groups within work councils to tackle the transition from a practical perspective. It is already partially happening, with IGM supporting work councils capacity in being involved in the transition but it could be strengthened.