

# BARMETAL



## Digitalization, Automatization and Decarbonization: Opportunity for Strengthening Collective Bargaining in the Metal Sector

### Barmetal Country Report: Germany

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Funded by the European Union, Project No. **101052331**

## Introduction

Germany generates a significantly higher proportion of its gross domestic product than many other countries in the manufacturing sector, the largest of which is the metal industry. The digitalisation of production and the decarbonisation of the economy are a prerequisite for maintaining the competitiveness of the manufacturing industry and achieving climate targets. The future of the most important industrial cluster, the automotive industry with its many suppliers, depends on the successful transition to electromobility.

Accordingly, these topics enjoy a high level of attention in industrial and technology policy, which support companies in their search for technical solutions. At the same time, however, all stakeholders are aware that social innovations are also necessary alongside technological innovation. German industry specialises in quality products and employs a predominantly qualified workforce that needs to be trained and educated for the new requirements. At the same time, many employees will have to change jobs and possibly even companies, which causes anxiety. If digitalisation and the green transformation are to be accepted by society and not blocked by climate opponents, these fears must be taken seriously and socially acceptable solutions for structural change must be found. This requires sufficient support for requalification and protection against loss of income and social decline during structural change.

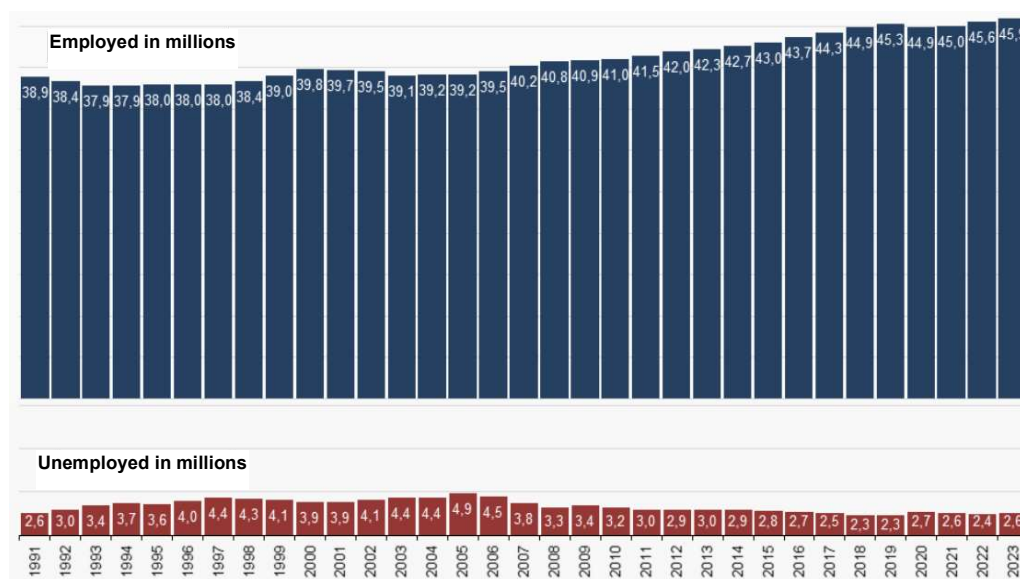
The state must support further training during the transformation through a proactive labour market policy. The social partners play the most important role in shaping a socially responsible transformation at company level. They can shape change in companies through collective agreements or, within the framework of German co-determination, through company agreements and help to avoid social hardship through forward-looking corporate and personnel planning. They are also responsible for modernising job profiles in the German apprenticeship system. Finally, they can influence legislation especially when they act together.

In the following, the role of the social partnership, in particular collective bargaining policy, in shaping DAD in the German metal industry is analysed. To this end, the current situation of the labour market and the role of the metal industry will first be described (Section 2). This is followed by a description of industrial relations in Germany as a whole as well as the metal industry (section 3). It then examines the national and industry dialogue on DAD, including government and social partner initiatives, including collective bargaining policy (section 4). This is followed by an overview of the current future collective agreements on DAD in the metal industry (section 5). The paper concludes with a summary of the findings and policy recommendations (section 6).

## 1. National and sectoral labour market situation

The German economy recovered quickly after the 2008/9 financial crisis. Thanks to state-subsidised short-time work, mass unemployment was avoided despite a massive slump in demand. As production capacities, including the workforce, were maintained as a result, the German economy and the export-heavy manufacturing sector benefited from the global upturn between 2010 and 2023. The number of people in employment increased from 41,0 to 45,9 between 2009 and 2023. In the same period, the number of registered unemployed fell from 3.2 million to 2.6 million in 2023 (Figure 1).

Figure 1: Employed and unemployed 1991 – 2023 in millions



Source:

<https://www.sozialpolitik-aktuell.de/arbeitsmarkt-datensammlung.html#arbeitsmarkt-im-ueberblick-erwerbstaetigkeit-arbeitslosigkeit-erwerbsformen> (accessed 14.3.2024)

Germany was particularly affected by the disruptions to global supply chains during the Covid-19 crisis and the energy crisis following the start of the war in Ukraine due to its export-orientated economy and high dependence on Russian gas supplies. The growth rates of the German economy are therefore at the lower end of the developed industrialised countries. Due to the sharp rise in energy import prices, the export surplus halved in 2022 compared to 2021, from +175,3 billion euros to +88.6 billion euros. Despite the low economic growth, employment continues to grow - albeit at a slower pace - due to the even lower productivity increases. Unemployment will rise slightly to 2.610 million in 2023, partly due to the high number of refugees (IMK 2023).

At 24% (2022), industry's share of gross value added in Germany is higher than in most other industrialised countries (USA 14%, FR 13.3%, IT 20.5%, UK 13.4%, Japan 23.4%) (WIKO 2023). The German metal industry is the largest manufacturing sector. The sector grew at an above-average rate between 2000 and 2018. Its share of gross value-added rose from 13.9% in 2000 to 15.2% in 2018. Due to the disruptions to supply chains during and after the coronavirus pandemic, the share fell to 13.4% in 2021 (IW Consult 2022). Despite the slight decline in

employment following the coronavirus crisis, the sector employs 3.934 million people in 25,571 companies in 2022, more than in 2000 (Gesamtmetall 2023).<sup>1</sup>

Due to the acquisitions of intermediate inputs from other sectors, the overall economic significance of the metal-industry extends beyond its pure share of gross value added. Including intermediate inputs, the metal-industry industry accounts for around 20% of gross value added (IW-Consult 2022: 5). Due to its specialisation in high-value products, the German metal-industry, like other sectors of the German manufacturing industry, employs a predominantly qualified workforce. Table 1 shows that the proportion of employees without a recognised two- or three-year vocational qualification has continued to fall over the last two decades and now stands at just 10.5%. The proportion of employees with vocational qualification has also risen and, at 66.4%, is higher than in the rest of the economy - the proportion of employees with a university degree has grown at an above-average rate, particularly in the last decade. Despite more than 2.6 million unemployed people in the economy, many jobs in the metal-industry remain unfilled. The current shortage of skilled labour is the result of inadequate training and further education in the past and demographic trends. Despite the weakening economy, the shortage of skilled labour is particularly high in the fields of mathematics, IT, natural sciences, and technology.

**Table 1: Qualification structure of employees in the metal industry and the overall economy - shares in 2021 in per cent, change compared to 2000 in percentage points.**

	metal-industry		Overall economy	
	2021	Difference from 2000	2021	Difference from 2000
<b>Without vocational qualification</b>	10,5	-10,2	12,4	-5,5
<b>With vocational qualification*</b>	66,4%	2,2	60,7	-2,0
<b>With an academic degree</b>	18,4	8,4	18,1	9,6
<b>Education unknown</b>	4,7	-0,4	8,8	-2,1
<b>Total</b>	100	0	100,0	0

\* Degree in a recognised occupation with two to three and a half years of training

Source: IW Consult 2022: 92

## 2. Insight into industrial relations:

Collective bargaining coverage in Germany before reunification was around 85% (Visser 2019). This was several times greater than trade union density, which at 35.5% in 1978 was more than twice as high as in 2019 (16.3%). Collective bargaining sovereignty lies with the industry trade unions, which predominantly conclude industry wide collective agreements with the companies' industry associations. In particular, the agreed terms in well-organised industries - especially those in the metal industry - functioned as pattern agreements, which were adopted by the less organised sectors.

Since 1990, collective bargaining coverage began to erode and fell to 49% by 2022 (Bispinck 2023). There are several reasons for this. The social partners were unable to transfer West

<sup>1</sup> These figures do not include the sales and the skilled trades, such as the motor trade or electricians.

German industrial relations to East Germany with its newly established and economically weaker companies. Product market deregulation, the opening of previously 100% collectively agreed public services to private providers, meant that collective bargaining coverage in the affected sectors (postal services, local transport, waste disposal, etc.) fell dramatically. Added to this were labour market deregulations, a growing supply of posted foreign workers who were not covered by domestic collective agreements and changes in strategy by employers' associations. Since the end of the 1990s, the employers' associations have no longer voted in favour of applications for the general applicability of collective wage agreements in the national collective bargaining committee with equal representation. Until the turn of the millennium, employers were still interested in declaring collective agreements generally binding to ensure a level playing field. However, with the decreasing vertical integration of value creation, this interest has waned. The business models of large and now also medium-sized companies are based on long, often untransparent supply chains with low-cost subcontractors. Not only the relocation of activities to other countries, but also outsourcing at home is increasingly aimed at reducing costs, particularly in terms of wages. In addition, employers' associations have partly solved their organisational problems by offering cheaper membership without collective bargaining coverage but with access to all other services (such as legal advice).

As a result, considerable differences in working conditions have built up over the last three decades between companies that are covered by collective agreements and those that are not. In 2019-2021, unweighted hourly wages in companies not covered by collective agreements were around 21% lower than those in companies covered by collective agreements. When weighed according to company size, economic sector, qualification structure of employees and level of technical equipment, the gap narrowed to around 11%. Furthermore, full-time employees in companies without collective agreements work an average of 54 minutes longer per week than in companies with collective agreements (Lübker/Schulten 2023). The differences in pay are even higher on an annual basis, as companies not bound by collective agreements pay mostly less or no holiday pay and/or Christmas bonuses. The transformation-related reorganisation of entire value chains thus offers companies good starting points for reducing costs by relocating activities to companies that are not bound by collective agreements. The threat of relocation is also an effective means of exerting pressure on trade unions in collective bargaining.

Trade union density and collective bargaining coverage vary greatly between sectors and company sizes. The results of a company panel, which has been conducted annually since 1995, show that collective bargaining coverage in the public sector is almost 100% and 55% in the manufacturing industry, while in the IT sector it is only 16.3% (2022) of employees. In companies with 1-4 employees, 16.8% of employees are covered by collective agreements, while in companies with 201 or more employees the figure is 79.3% (WSI-Tarifarchiv 2023).

**Table 2: Indicators of collective bargaining policy in Germany as a whole and in the metal industry in per cent (2019 - 2022)**

	Trade union density	Employer's density (by employees)	Coverage by collective agreements (by employees)	Bargaining levels
Metal-industry	approx. 40,0% <sup>3</sup>	62,9% (46,6%) *	approx. 64,0% <sup>3</sup>	sectoral, company
Overall economy	16,3% <sup>1</sup>	67,9% <sup>1</sup>	49,0% <sup>2</sup>	sectoral, company

\* Including companies without collective bargaining coverage (in brackets only companies with collective agreement)

Source: OECD<sup>1</sup>; Bispinck 2023<sup>2</sup>; own estimates <sup>3</sup>; Gesamtmetall 2023

The trade unions do not publish sector data on their membership strength. However, the union density in the metal industry can be estimated from the number of members in IG Metall (2.17 million in 2022) and the employees in its organisational area. Assuming that it is between 10 and 20% in its high-employment craft sector, it is around 40% in the metal industry, which indicates a significantly higher organisational power than in other sectors of the economy. Gesamtmetall states its membership at 62,9% and distinguishes between members with (46,6%) and without collective bargaining coverage (16.6%). The OECD data on employer density in the economy as a whole is far less precise and also includes membership of employers' organisations that do not negotiate collective agreements.

Collective bargaining coverage in the metal industry has fallen in recent decades. According to Gesamtmetall, 68% of employees in the West German metal industry were still covered by the industry collective agreement in 1992 (Fritsch/Kolev 2018: 9). In 2022, it was only 46.6% (Gesamtmetall 2023). However, there are also companies with a company collective agreement, which is estimated to be higher than the figures for the manufacturing industry (11% WSI-Tarifarchiv 2023), as Volkswagen is one of the major players with a company collective agreement.

**Table 3: Collective bargaining coverage by economic sector in 2022**

Overall economy	49%
Manufacturing industry	51%
Manufacture of metal products	30%
Manufacture of computer, electronic and optical products	46%
Mechanical engineering	54%
Manufacture of motor vehicles, trailers and semi-trailers	87%
Other vehicle construction	83%

Source: Federal Statistical Office

Since 2022, the Federal Statistical Office has been publishing data on collective bargaining coverage by economic sector on the basis of the new earnings survey. This survey is based on a larger sample than the panel data cited above and enables more differentiated analyses by economic sector. Table 3 shows that collective bargaining coverage in the metal industry is above average and is particularly high in motor vehicle construction at 87%.

The continued high level of collective bargaining coverage in manufacturing and the metal industry as well as in vehicle manufacturing with its many large companies, is due to the

higher level of trade union density in these companies and the German co-determination at the plant and company level. In almost all medium-sized and larger companies, works councillors are elected, which are released from their duties and have strong statutory co-determination rights, including monitoring compliance with laws and collective agreements. In the metal industry, almost two-thirds of employees are represented by works councils, while in the hospitality sector, the figure is just over 10%. According to Jirjahn and Smith (2017), current empirical studies based on extensive data sets can demonstrate the predominantly positive effects of works councils on various dimensions of corporate success. Accordingly, works councils contribute to higher productivity, higher wages and increasing returns. In addition, co-determined companies can boast more ecological investments and gradual innovations, further training and dual training. Staff turnover decreases, there are fewer labour shortages and more family-friendly practices and flexible working time models. The reason for this lies in the common trustful search to improve work processes in such a way that they are efficient and at the same time guarantee good working conditions. In addition, employee representatives in larger companies make up half of the supervisory board mandates.

Research shows that co-determination helps companies weather crises better. Co-determined companies were more robust during the financial and economic crisis and recovered more quickly from its effects (Rapp et.al 2019). Co-determined companies kept their investments in research and development and their fixed assets at a higher level than companies without co-determination. Compared to non-co-determined companies in Europe, co-determined companies show higher investment and productivity efforts (Vitols/Scholz 2021). While trade unions are weak in most small companies and no longer apply collective agreements, the larger companies with collective agreements are closer to co-management due to their institutional power.

In the metal industry, the organisational power of IG Metall is therefore supplemented and stabilized by the institutional power of co-determination in medium-sized and larger companies. Müller-Jentsch (2016) has described industrial relations in such industries as a conflict partnership, in which fierce conflicts can certainly arise in collective bargaining, but in which trusting cooperation through to co-management dominates during long periods of industrial peace without strikes.

### 3. D-A-D and its effects

#### 3.1 The social dialogue in national discourses Sectoral discourse

The introduction of Industry 4.0 and the successful decarbonisation are the most important industrial policy projects to achieve the goals of sustainability on the one hand and to maintain the competitiveness of the German manufacturing sector on the other. The term and the guiding principle of Industry 4.0 were "invented" and disseminated by key actors of the manufacturing industry to create a spirit of optimism and focus the activities of stakeholders in various policy areas - including the social partners - with a common goal. The Industry 4.0 platform at the Federal Ministry of Economics includes representatives from business and science as well as the metal-industry trade union (IG Metall)<sup>2</sup>. Trade unions are

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<sup>2</sup> <https://www.plattform-i40.de/IP/Navigation/DE/Plattform/Struktur-Organisation/struktur-organisation.html> (accessed 27.10.2023).

also represented in other advisory and coordination bodies at national level that are important for the transformation, in addition to companies. The German Trade Union Confederation, the Chemical Workers' Union (IGBCE) and the services union (ver.di) were involved in the Coal Commission, which negotiated the socially responsible phase-out of lignite by 2038<sup>3</sup>. IGBCE is represented on the national hydrogen council<sup>4</sup> and IG Metall is represented on the expert committee for the Future Fund for the Automotive Industry<sup>5</sup>. The list of topics covered by these committees is broad. It ranges from working groups on training and further training in the Industry 4.0 platform, to subsidising the switch to hydrogen and phased redundancies in the lignite industry, including the training and placement of redundant employees (Bosch 2023), to the promotion of technology projects and regional transformation networks in the automotive industry (see section 4.2).

The national debate on the employment effects of DAD is also characterised by the results of several major studies. Wolter et al. (2015) simulated the employment effects of the expected innovation boosts from digitalisation (Industry 4.0). Like most other authors, they expect only a minimal increase in productivity growth. In their baseline scenario, they calculate a loss of 60,000 jobs for the economy as a whole by 2030. Employment losses in manufacturing industries, such as automotive or mechanical engineering, are expected to be almost offset by growth in service industries. The reassuring conclusion is that the overall loss of 60,000 jobs can be avoided by a slight reduction in working hours and/or an increase in public investment. Finally, it is expected that the proportion of simple jobs will continue to decline and that many jobs in existing occupations will be replaced by new technologies, resulting in a need for reform of vocational education and training (Dengler/Matthes 2018).

As a result of the "all-clear" against the threat of technological unemployment, the debate has also focussed on training and further training for DAD within companies and when changing companies due to the growing shortage of skilled workers and the ageing of the workforce. In labour market policy, a paradigm shift from work-first to train-first was implemented by the Hartz laws of 2003. Since 2016, several major reform laws have prioritised qualification-related further training for the unemployed for up to a 2-year retraining in a new occupation. At the initiative of IG Metall, a training allowance (Qualifizierungsgeld) equal to the unemployment benefit for employees in companies in which more than 20% of employees require further training due to the transformation was passed by parliament in 2023. In companies with fewer than 250 employees, only 10 per cent of employees must be affected and in companies with fewer than 10 employees, a written declaration from the employer is sufficient.

At the same time, the social partners, who are responsible by law for the occupational profiles and curricula of vocational training, modernised vocational training. Between 2013 and 2022, 118 existing occupations were modernised, and 6 new occupational profiles were created (BiBB 2013: 63). At the same time, the social partners agreed on four so-called standard occupational profile positions, which define minimum standards for the future creation and reorganisation of all occupations, including for the topics of digitalisation and sustainability

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<sup>3</sup> [https://www.bmwk.de/Redaktion/DE/Downloads/A/abschlussbericht-kommission-wachstum-strukturwandel-und-beschaeftigung.pdf?\\_\\_blob=publicationFile](https://www.bmwk.de/Redaktion/DE/Downloads/A/abschlussbericht-kommission-wachstum-strukturwandel-und-beschaeftigung.pdf?__blob=publicationFile) (accessed 27.10.2023).

<sup>4</sup> <https://www.wasserstoffrat.de/nationaler-wasserstoffrat/mitglieder> (accessed 27.10.2023).

<sup>5</sup> [https://www.bmwk.de/Redaktion/DE/Publikationen/Wirtschaft/bericht-des-expertenausschuss-zum-zukunftsfonds-automobilindustrie-forderschwerpunkte-fur-den-weg-in-die-mobilitat-der-zukunft.pdf?\\_\\_blob=publicationFile&v=1](https://www.bmwk.de/Redaktion/DE/Publikationen/Wirtschaft/bericht-des-expertenausschuss-zum-zukunftsfonds-automobilindustrie-forderschwerpunkte-fur-den-weg-in-die-mobilitat-der-zukunft.pdf?__blob=publicationFile&v=1) (accessed 27.10.2023).



(BiBB 2021). The Federal Institute for Vocational Education and Training (BiBB) supports the social partners by conducting studies on the status of digitalisation and sustainability in the various occupations.

### 3.2 Sectoral discourse

The main topic in the metal industry is the transition to electromobility and the impact of digitalisation. The same model that was used to calculate the employment effects of digitalisation was also used to estimate the effects of the transition to electromobility. According to the model, there are initially growth and employment effects in a transition phase due to the necessary additional investments in the automotive industry, as well as the construction investments in the charging infrastructure and re-equipping the electricity grid (Mönning et al. 2018). As the assembly time of an electric car will be reduced from 20 to 15 hours compared to that of a combustion engine and imports of electric cars and traction batteries are expected to increase, the authors anticipate the loss of 114,000 jobs in the automotive industry by 2035, mainly concentrated in the regions of Munich, Stuttgart and Hanover (Mönning et al. 2018: 6). It remains to be seen whether the job losses be adjusted downwards if battery production takes place in Germany. VW has started battery production in Braunschweig and Salzgitter and is planning another plant in Germany.

It is still assumed that car manufacturers will intersource a larger proportion of production to utilise their capacities, which will exacerbate the problems for suppliers. It is also assumed that there will be a high demand for further training, as the new qualifications required cannot be met by new recruitment and generational change alone. "For the projection of future further training measures within the automotive industry, it is assumed that 23 per cent of employees ... will have received further training by 2035. With an estimated further training costs of 718 euros/person ... this will result in additional costs of 7.5 billion euros over the entire forecast horizon." (Mönning et al. 2018: 30). For the subsequent discussion on the financing of continuing education, it is important to mention that the high sum is relativised, as it is spread over 17 years. As a result, it is expected that the share of expenditure on continuing education of corporate expenditure will increase from around 0.28 % to around 0.30 % in 2053.

A direct result of the trade union's involvement in the Automotive Industry Future Fund is the financing of regional transformation networks with with a total of 200 million euros from 2022. Transformation networks have now been established in 27 automotive regions, 25 of which were initiated by the regional IG Metall branches. In the region around VW Wolfsburg, for example, such a network is being funded by €7.8 million over three years with the participation of social partners, chambers, local authorities, science and companies. The central themes of the networks to date have been training for new production, securing skilled labour for the future, the socially responsible transfer of personnel from companies without a future and the new division of labour between OEMs and local car dealerships. The focus is on the suppliers. IG Metall is coordinating the activities of the 25 networks in which it is involved. The open question is whether the three-year funding of the networks is sufficient.

There is also great concern that the state will partially withdraw from financing the transformation due to the debt brake. One example is the expiry of subsidies for the purchase of electric cars following the decision of the Federal Constitutional Court at the end of 2023,

which declared the use of unused corona funds for the transformation to be inadmissible and demanded compliance with the debt brake.

A central topic of industry dialogue is the modernisation of vocational training. Digitalisation has been changing working conditions since the 1980s and is a gradual process with step-by-step changes in most companies. This can be seen very clearly in the reform of metalworking professions in recent decades. In 1987, 45 metal apprenticeship occupations, some of which were highly specialised, were combined into 16 occupations. In a further reform in 2004, the 16 metalworking occupations were merged into 5 core occupations with common basic qualifications. The innovations of the next reform in 2018 include, firstly, a new occupational profile item "Digitalisation of work, data protection and information security", secondly, an update of the in-company learning content about Industry 4.0 and, thirdly, optional additional qualifications, such as "additive manufacturing", which are also tested and certified. These reforms reflect the transition of training for companies with a hierarchical, strictly functional division of labour to companies with flat hierarchies and teamwork between different professions in changing work groups.

The comprehensive evaluation of the modernisation of 2018 (Becker et.al. 2022) shows that the new digital content about Industry 4.0 has been implemented across the board. The additional qualifications, on the other hand, hardly play a role in internal training because they must be tested by the chambers additionally. They are rather points of reference for further training and the revision of the content of in-company training, as is the new occupational profile item. The 15 company case studies on changes in internal training show that the tasks of skilled workers are rarely characterised solely by metalworking, electrical engineering or information technology. The authors therefore propose the development of a new qualification profile focussing on industrial mechatronics, in which several domains and existing occupations are combined. The first phase of vocational training should focus on a broader basic qualification in the industrial occupations and the second on specialisation according to the profile-defining operational fields of activity "maintenance", "production", "manufacturing" and "design".

So far, the social partners have not yet agreed on such a far-reaching reform of vocational training that would combine several occupational profiles. The level of digitalisation in companies varies greatly and there are fears that companies will withdraw from apprenticeship training if the training profiles become more demanding. The technological openness of the German training regulations also enables technologically advanced companies to modernise training within the framework of the old training regulations, so that the quality of training varies greatly despite the same training regulations.

#### 4. Sectoral relevance of DAD – responses via collective bargaining

The protection of employees against the risks of structural change through collective bargaining has a long tradition in the German trade unions. As early as the 1960s, the first collective agreements on rationalisation protection (*Rationalisierungsschutzabkommen*) were concluded, which gave priority to internal transfers and further training over redundancies. During the major structural crises in the manufacturing sector in the 1980s, particularly in the steel industry, as well as in shipbuilding and consumer electronics, trade unions attempted to "buy time" through training measures, short-time working and working groups to convert production in order to qualify employees for the companies for new jobs.

However, this was only successful in a few cases (Bosch 1992). At that time, the majority of job cuts were managed through short-time work and early retirement and were essentially financed by the state and social insurance schemes.

The temporary 4-day week agreed by collective agreement in 1994 prevented 30,000 redundancies at Volkswagen. Since this experience, as well as the prevention of many redundancies through temporary reductions in working hours after reunification in East Germany, almost all regional collective agreements in Germany allow for temporary reductions in agreed working hours to prevent redundancies. In the metal industry, for example, the working week can be temporarily reduced to 30 hours without wage compensation. This regulation was used during the financial crisis and is still used today in the transformation to bridge restructuring phases, e.g. at Daimler or ZF Friedrichshafen, whereby the weekly working hours are usually only reduced by 2 to 3 hours in order to limit the loss of wages (Bosch 2022: 18).

With the expiry of statutory early retirement options, the gradual raising of the statutory retirement<sup>6</sup> age and increasing digitalisation, further training has become increasingly important for securing employment. Between 2001 and 2006, IG Metall and the regional employer's organizations of Gesamtmetall therefore agreed in all regions on the individual entitlement to an annual qualification discussion with the line manager, in which the level of qualification and necessary further training measures are recorded. As these collective agreements did not stipulate any enforceable claims, they were referred to as "soft law" (Bahn Müller/Hoppe 2012). However, the evaluation showed that, in practice, these collective agreements had little influence on further in-house training until 2012 and acted more as a trend booster in companies that were already willing to provide said training. Above all, there was a lack of pressure from the workforce on this issue (Bosch 2015). However, these collective agreements continue to apply and could be utilised by new players and in new company constellations.

In 2021, the collective qualification agreement from 2001 was updated in Baden-Württemberg. In contrast to other regions, full-time employees in Baden-Württemberg who have been with the company for five years are entitled to a one-off temporary part-time period or a maximum five-year leave of absence for further qualifications as part of personal development. The prerequisite for this is that the employee is suitable in principle to carry out a job that is likely to meet the company's qualification requirements. In addition, companies and works councils are advised by the joint agency<sup>7</sup> of the social partners for the promotion of further vocational training in the metal and electrical industry.

The dominant collective bargaining topic in the metal industry in the decade after 2004 was the deviating collective agreements that were made possible by the Pforzheim Agreement of 2004 - named after the location of the negotiations - in order to secure the location and which are still in force today after being extended twice. According to this agreement, in exchange for location or investment commitments and a waiver of compulsory redundancies, the weekly working hours can be temporarily extended without wage compensation and wages, or annual special payments can be reduced. The deviations are linked to a collective agreement and not a works council agreement. This gave IG Metall the opportunity to

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<sup>6</sup> From the 1947 cohort onwards, the age limit was raised by one month per cohort and by two months from the 1959 cohort onwards. The age limit of 67 years applies from the 1964 cohort onwards.

<sup>7</sup> The name of the agency is AgenturQ (<https://www.agenturq.de/>).

coordinate the deviating collective company agreements and to mobilise the workforce, including industrial action, what works councils are prohibited from doing by law. In practice, IG Metall not only succeeded in obtaining more favourable commitments from companies by mobilising the workforce, but also in gaining new members (Haipeter 2010). However, the trade unions had the sobering experience that their concessions were often only used by companies as an easy way out of the crisis, but not for a strategic repositioning to avoid getting into the same predicament again.

Getting out of the defensive situation and to develop strategic competence in the workplace was the aim of several experimental trade union projects. In the project of several industrial trade unions in North-Rhine-Westphalia (Bosch/Schmitz-Kießler 2020), for example, with the help of external consultants financed by public funds (EU structural funds), the current and expected upheaval processes in 90 companies were analysed. Risks for the company and its employees were visualised in a simple form on company maps. Co-operation with the management was recorded in a "letter of intent". Many especially medium-sized companies were interested in the project, as they did not yet have any ready-made answers to the challenges of the future.

Based on the stocktaking and risk analyses, future oriented agreements (Zukunftsvereinbarungen) were concluded in 30 participating companies, in which future negotiation topics such as flexible working hours, data security, project management, leadership, health management and stress reduction were agreed. Some future oriented agreements provide for concrete action steps, such as the expansion of vocational training or the identification of individual qualification needs. Further joint work was regulated in all agreements. The agreed topics are dealt with by joint committees that meet regularly. The participation of employees was also regulated in several agreements. Most of these future oriented agreements were classic works council agreements, some also bore the signature of IG Metall, reflecting the growing influence of the trade unions on company policy.

This experience with future oriented agreements, which has also been gathered in other districts, should be generalised and, above all, become part of collective bargaining policy. In the 2021 collective bargaining round, IG Metall succeeded in negotiating framework collective agreements in all districts for the agreement of future oriented company collective agreements (Zukunftstarifverträge). The framework agreements provide consultations between management and works councils with the involvement of the parties to the collective agreement in the event of major operational changes. Company-specific future oriented collective agreements can be negotiated on the basis of an assessment of the need for change in the company. The following areas of action were named as possible contents: target setting for the company/operation, qualification, change management and location and employment development. Deviations from collective bargaining standards are also possible in order to secure employment. However, there is no obligation to conclude future oriented collective agreements. The term "target image" (Zielbild), which is not used everywhere, refers to the business model of the company or the various locations.

## 5. Future oriented collective company agreements

Future oriented collective agreements have now been agreed in several companies (see Figure 2). Pure concessionary collective agreements without strategic participation and consideration for concessions, for example in the form of investment commitments, do not

fall into this category. The first future oriented collective agreement, the namesake of all subsequent agreements, was concluded for Volkswagen AG already in 2009. It provides protection against dismissals, two innovation funds, a high degree of working time flexibility, strong works council involvement, needs-based training and ambitious targets for innovative forms of work organisation. It still applies today and is the framework for the ongoing transformation of the plants, such as the introduction of battery production in Braunschweig and Salzgitter.

The new future oriented collective agreements reflect very different company constellations. The agreement at Mushasi emerged from a committed defence against massive wage cuts without job security (IG Metall 2022) and the one at Faurecia against an announced site closure. Other agreements ensure early involvement, usually with the involvement of IG Metall, in the strategic and economic direction of the company and the individual sites (e.g. Bosch Mobility and Schaeffler AG). The more recent agreements incorporate the content of the industry wide framework collective agreements and provide for the early involvement of trade unions and works councils and in some cases, employees in the target-setting processes. In several agreements, IG Metall has secured additional resources for training its shop stewards and informing its members. At Atos and also at Trilux, collective qualification agreements were concluded for planned reorganisations. Concessions in some of the companies are offset by commitments to secure the location for investments, innovation funds, increased training or profit sharing in the event of an improved business situation. For reasons of fairness, concessions always stipulate equivalent contributions from employees with salaries above the collective agreements and management. Differentiation regulations in favour of IG Metall members, whose contributions make this collective bargaining policy possible, are playing an increasingly important role. The duration of the agreements ranges from two years for specific reorganisation projects to indefinite terms with the usual notice periods. Unsurprisingly, the agreements focus mostly on the automotive industry and its suppliers, which are particularly affected by the transformation. They also include medium-sized companies that are well organised in terms of trade unions, belong to larger companies that are professionally supported by IG Metall and whose works councils are networked across locations. The agreements were all reached on the initiative of IG Metall and in some cases were only implemented following mobilisation of the employees.

Figure 2: Example of future collective agreements

Company year of agreement, covered 120.000 employees	Central contents
Volkswagen 2009 120.000 employees	Exclusion of compulsory redundancies, safeguarding of the 6 locations, increase in productivity, flexible working hours with a minimum of 33 hours per week, innovative decentralised work organisation, needs-based training, involvement of the works council, innovation fund of € 20 million per year for the further development of the locations and € 20 million for new products
Faurecia Interior Systems Scheuerfeld, 232 employees 2016 and 2019,	Withdrawal of the closure decision, preservation of the site, commitment of product groups to safeguard jobs, safeguarding 222 jobs by the end of 2022, 190 by the end of 2024, and 190 in 2025, establishment of a transfer company, a weekly working time of 37.6 hours, equivalent contribution of employees with salaries above the collective agreements and management, parity steering groups, 5-day shop stewards' seminar during working hours, paid IGM general meetings
Schaeffler AG 2019, 30.000 employees	Joint steering committee with IGM participation, which advises on corporate planning, exclusion of compulsory redundancies, more flexible staff deployment,

	expansion of further training, continuation of training, decentralised work organisation conducive to learning, preservation of collective bargaining agreements, €50 million for innovation fund for five years
Hauni and Baltic Maschinenbau, 2,200 employees, 2020 to 2024	Securing a core workforce of 1,600 full-time positions, staff reduction to this size without the redundancies already announced, equal representation on the steering committee with IGM participation, expansion of further training, €1 million per year for collecting innovation ideas from the workforce, increase in weekly working hours to 40 hours, membership bonus for IGM members
Miele Gütersloh site, 6.500 employees 2020 - 2022,	Expansion of the plant into a lead and innovation location, joint working group for process improvement and qualification with possible involvement of IGM, expansion of further training, increase in the further training budget by € 0.5 million per year, redundancies for operational reasons only with the consent of the works council, cancellation of the collectively agreed additional allowance
MAN Trucks & Bus SE (MTB), 12.000 employees,	Safeguarding of transformation and employment, investment budget of 4% of sales, safeguarding of lead functions between Scania and MTB even if additional companies are included in the TRATON Group, exclusion of compulsory redundancies and a core workforce of 12,560 employees during the term of the agreement (at least until 31 December 2026), member bonus and two days off per year for IGM members
Voith Automotive / BTI Machining Technology 1.200 employees, 2020 - 2022	Employment guarantee of 897 jobs until 31 December 2023, investments of €22 million, employee contribution through reduction of special payments, reimbursement of employee contribution in the event of lower investments and EBIT of 3%+ repayment into a future fund for employees, €30,000 for works council experts, information on economic and financial situation to works council and IGM, recovery allowance for IGM members only
Musahi Europe 2.000 employees, 2022 – 2030	Conversion to electromobility by 2030, retention of all locations and their sustainable positioning, guarantee of 1246 jobs, review of the commitment at the end of 2026, protection against dismissal until the end of 2025, guarantee of a training quota of 4%, Parity Group and site advisory boards with IGM on the topic of "process organisation", exemption of works councils even at small sites, paid IGM general meeting following works meetings, suspension of additional pay under collective agreements, postponement of wage increases by 1 year, profit sharing in the event of positive results
Magna Salzgitte 500 employees, 2022 – 2025	Development into lead plant for axle components and coated vehicle components, 50 million investments by 2028, joint steering committee with participation of IGM, commitment to employment volume for 446 employees, redundancies only if sales decline by at least 15%, annual training budget of € 250,000, employee contribution of up to 42 hours per year for training, 4 new apprenticeships per year, suspension of additional pay under collective agreements, profit sharing at EBIT 1% +
Trilux GmbH 1,400 employees 2021 - 2025	Transition from LED to new technologies, investment volume of €50 million in 5 years, no redundancies for operational reasons, 66.7% of temporary employees taken on, increase in working hours to 36-37.5 hours per week, postponement of wage increases, comparable contributions from non-tariff employees and management, 3 days of training per year for everyone, financing: 1 day company, 1 day employees from additional pay, 1 day contribution from non-tariff employees and management, 7% training rate, repayment of employee contribution in the event of EBIT profit of 2%+, commitment to maintain collective bargaining agreements
Atos Holding, 4.000 employees, 2021 - 2023	Personnel and qualification need analyses for the transformation process, steering group for further training and implementation measures and implementation measures with the involvement of IGM, reasonableness criteria for transformation-related transfers, pay protection for transfers
Bosch Mobility, 80.000 employees 2024	Comprehensive involvement in the target-setting processes for the company and its individual locations, definition of the steps in the target-setting process from analysing the initial situation to coordinating the future concepts, formation of economic advisory boards with equal representation at locations and across

	locations for these processes, involvement of the workforce in this process, protection against dismissal until 2027
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Source: Own evaluation of the future collective agreements

An evaluation of the implementation of these collective agreements is only possible with the help of case studies in the companies and businesses concerned. In the larger companies, the future oriented collective agreements can only be understood in conjunction with other collective agreements and company agreements, for example on further training.

## 6. Findings and policy recommendations

The socially acceptable shaping of structural change has long been an issue for social partners in the various political arenas of action. In the 1980s and 1990s, the negative consequences of redundancies and restructuring were prevented by company social plans and collective agreements to protect against rationalisation, particularly in medium-sized and larger companies with a high trade union density and strong co-determination. Collectively agreed temporary reductions in working hours to safeguard jobs and training measures also played an important role back then and are still part of the toolbox for organising DAD today. However, until the turn of the millennium, the majority of staff reductions were implemented through early retirement.

While digitalisation tends to promote gradual change, decarbonisation and, in the metal industry in particular, the transition to electromobility is leading to structural breaks in companies and regions that specialise in combustion engines. The end of early retirement, the increase in the age limit, cuts in active labour market policy and the dualization of the German labour market have increased the risks of involuntary job changes. The biggest concern for employees is the transition to a low-paid job in a company not covered by a collective labour agreement.

As the transition to electromobility is a long-term planned and politically organised process, there are also new opportunities for social partners to exert an influence on. In contrast to previous technology programmes, the trade unions are now represented in platforms and coordination bodies at national level that are important for DAD. IG Metall was able to push through the promotion of regional transformation networks in the "Future Fund for the Automotive Industry" and initiated 25 such networks in the automotive regions. The networks are primarily intended to support the transformation and digitalisation of small and medium-sized enterprises with fewer resources.

At the same time, the priority of train-first over work-first in labour market policy was enforced in several reform laws. With the introduction of a qualification allowance for in-house training in companies particularly affected by the transformation, a proposal by IG Metall was taken up politically. Thanks to multiple reforms of job profiles by social partners (1987, 2004 and 2018), employees in the metal industry are now prepared for teamwork, the use of digital tools and further learning in flexible forms of production.

After sobering experiences with concessionary collective agreements, which were often not used for the strategic reorganisation of companies and long-term personnel planning, IG Metall is now trying to proactively help shape DAD in companies with future oriented collective agreements. In important companies in the automotive industry, following mobilisation of the employees, it has now been possible to implement such collective

agreements to secure locations, new co-determination options in corporate planning and systematic qualification planning.

In summary, it can be said that social partners can draw on tried and tested collective agreements developed in the past and their cooperation via co-determination in the company and enterprise as well as in vocational training when shaping DAD. At the same time, new forms of cooperation in strategic corporate and personnel planning have been agreed on with the future collective agreements, which help to shape operational restructuring considerably earlier than the traditional "aftercare" of staff reductions. However, the strong dualization of the German labour market remains problematic, as employees in companies with collective bargaining agreements and strong co-determination are far better protected than those in the many small and medium-sized companies.

The reliability of state support for the transformation (purchase of electric cars, further training, etc.) is was called into question by the decision of the Federal Constitutional Court at the end of 2023. The Federal Constitutional Court declared the use of unused funds from the coronavirus fund to finance the transformation unlawful and calls for a return to the debt brake which allows only minimal borrowing, even for long-term transformation projects.

However, companies and employees need reliable long-term framework conditions so that the transformation can succeed. Firstly, a reform of the restrictive debt brake is therefore recommended. The greatest fear of employees during the transformation is the involuntary change from a well-paid job to a company with poor wages that is not bound by collective agreements. Secondly, an increase in collective bargaining coverage is therefore recommended. To this end, the mandatory consultations under the European Minimum Wage Directive can be used with a concrete action plan to increase collective bargaining coverage to 80%.



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