





It has become commonplace to say that Europe is facing a twin transition: the digitalisation and decarbonisation of industry and the economy. The shift towards green technology, automatisation and artificial intelligence is now an undeniable reality – as is its impact on jobs. However, less clear, and less discussed, is the impact on the quality of jobs, on wages, conditions and job security for workers, as well as on social dialogue and collective bargaining at all levels. For unions, these questions are key to defending their members and strengthening the labour movement. While the concept of a Just Transition is now firmly embedded in policy debates – in no small part thanks to the work of unions – real action on the ground to protect workers and their communities is often lacking.

The present summary is based on a larger report commissioned by industriAll European Trade Union. To collect data, researchers met with trade unionists in a series of structured discussions and conducted desk research. While the full report delves more deeply into the case studies and policy implications of the transition to a green and digital economy, this summary will highlight some of the good practice identified by the research and point to where more action is needed. In doing so, this document will present the main arguments that need to be put to decision makers for more union involvement and more social safeguards in these transitions.

Fair digitalisation and a Just Transition are only possible with strong social dialogue and collective bargaining. This report shows that countries with strong structures are much further ahead with implementing a fair transition on the ground. In contrast, countries where structures are weaker are further behind in terms of creating quality jobs in the green and digital economy. This is why the EU and member states need to create an enabling environment for unions to negotiate effectively for their members.



The full report and its methodology

The full report was written as part of a project titled 'Promoting strong collective bargaining and decent working conditions in a time of rapid transition and extraordinary challenges in the European manufacturing industries' conducted by industriAll European Trade Union with the support of the European Union. It focusses on sectors heavily impacted by digitalisation and decarbonisation, such as automotive, chemical, steel and renewable energy. It also highlights the huge regional variation in how these industries are being transformed, and how trade unions are involved. The authors are Dorien Frans and Valeria Pulignano from KU Leuven, with input from Stefan Guga from Syndex. They selected specific empirical cases in different countries and sectors based on a preliminary analysis of collective bargaining agreements and expert interviews within the selected countries: Germany, Belgium, France, Italy, Spain, Sweden, Hungary, Romania, Czech Republic, Denmark and Finland.

What are the twin transitions?

When we talk about 'twin transitions' we mean the digital transition, on the one hand, and the green transition, on the other. Put simply, the digitalisation of industry represents the increased use of interconnected technologies, like smart sensors, advanced robotics and artificial intelligence to improve productivity. The green transition means putting industry on a more environmentally sustainable footing, so that it drastically reduces its emissions of the greenhouse gasses that cause climate change, a process known as decarbonisation.

Europe is now committed to becoming the first climate-neutral continent by 2050, i.e. to produce no more greenhouse gases than ecosystems can naturally absorb. This means massive changes in industry, and so is inexorably linked with the digital transformations already taking place throughout the economy, not least in manufacturing.

What is the impact on employment?

Despite long-standing concerns about the impact these large-scale changes in the economy may have on employment, there remains a notable lack of data on which jobs are being destroyed, which created and what impact the shift is having on workers. Furthermore, the data that does exist does not yet take account of the massive shifts in employment and the global economy caused by the covid-19 pandemic, Russia's invasion of Ukraine and the resulting energy crisis.

Existing studies generally expect the decarbonisation of the economy to create, over time, more jobs than are lost. In 2020, one estimate put the number of direct and indirect jobs in the EU photovoltaic (PV), bioenergy, hydropower



and wind power industries at 1.3 million. In contrast, around half a million jobs were directly or indirectly reliant on the coal sector in 2018.

The net gain in overall employment, however, does not tell the full story. New jobs are often not located in the same regions as the old jobs being lost. Whilst mining skills may be transferable from coal to rare earths, for example, these deposits are rarely found in the same areas as those hydrocarbons that are being phased out. If alternative employment in Europe's mining communities, for example in tourism, retail or logistics, is lower skilled and lower paid, workers are unlikely to support the transition.

Furthermore, in some sectors, like oil and gas, skills are not easily transferable. The International Energy Agency (IEA) has estimated that only about 600,000 jobs in the oil and gas sector would have skills that are transferable to emerging sectors, out of a total 2 million jobs lost (i.e. 30%).

The automotive industry represents 7% of the EU's Gross Domestic Product (GDP) and provides employment to 13.8 million workers, which accounts for

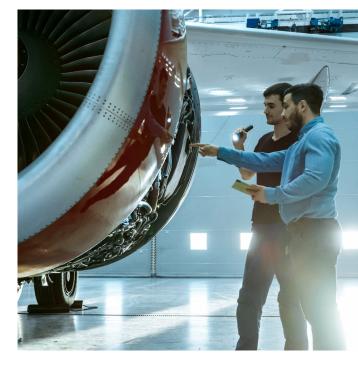
6.1% of total EU employment. About 2.6 million people are employed in direct automotive manufacturing, representing 8.5% of EU employment in manufacturing. The move towards the exclusive manufacture of electric vehicles (EVs) is already underway and will likely lead to a decline in overall employment in the sector. This is because manufacturing EVs involves fewer parts and less complexity. Furthermore, EVs will be produced on the most modern production lines with the highest level of automation. EVs will also require less maintenance as they are less prone to mechanical failure than vehicles with internal combustion engines.

However, there could eventually be a net positive job creation, if new employment in energy generation, software development and electronics is accounted for. But these roles will call for radically different skills to those currently possessed by many autoworkers and could be located in other regions.

About 3.2 million workers are employed in iron and steel, minerals, refining and chemical industries in the

EU27 (2020). These energy intensive industries (Ells) are playing a key role in the transition to the green economy. Nevertheless, the employment effects of such changes have been under-researched, even though Ells represent about 11% of total employment in industry and contribute about 15% of total value added of manufacturing in Europe. These industries are not likely to undergo the same disruptive changes as in the automobile sector, for example, except for the huge impact of phasing-out coal in certain European regions. The development of other Ells will be contingent on new technological advances, which will undoubtedly impact employment. One illustrative example is the steel industry where the entire production process needs to be adapted. Hydrogen must replace coal as a reducing agent if blast furnaces are to be

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maintained. The alternative, electric furnaces, will require large quantities of renewable electricity.

Likewise, the transformation of the European chemical sector will depend on the availability, and price, of low-carbon electricity. Transition is feasible by 2050 but it will require large increases in the generation of renewable energy at internationally competitive prices.

The situation with Ells illustrates the extent to which future changes in employment are dependent on as-yet uncertain technological change. But, perhaps more importantly, the availability and quality of future jobs across European manufacturing is also dependent on the policy decisions that are being taken now, both in companies and at governmental level.

How are the transitions changing industrial relations?

In researching the full report, the authors led discussions with trade unionists from across Europe. They analysed how the changes described above are impacting upon industrial relations, and what unions are doing to shape the transition. The major theme from this research is the diversity of strategies and responses that exist around the continent. These vary both by region and sector, with unions' ability to predict, react and adapt to change being shaped by a country's existing industrial relations model.



These disparities are reflected by the situation at EU level. Despite an emphasis on investing in digitalisation and skills, the Union's industrial strategy lacks a broader approach to the social dimension of transformation, although the Commission's recent recognition of social partners in its draft Net-Zero Industry Act and Critical Raw Materials Act may mark a positive change. There are, however, still no legally binding targets on the quality of employment, as there are on emissions reduction. Nor is there hard legislation at European level on the rights of workers to be involved in the anticipation and management of changes in their companies or industries. Trade union involvement relies on national legislation, causing discrepancies in workers' ability to participate in transformation processes between member states. Eurofound has concluded that social partner involvement in national Recovery and Resilience Plans (RRPs), for example, is uneven and rather weak in a relatively high number of countries. These plans represented the national implementation of the EU's ground-breaking plan for

financing the green and digital transitions as part of the recovery from covid.

Eurofound's conclusion is consistent with opinions expressed during this project. Worker representatives state that they were insufficiently informed – or not involved at all – in national recovery plans (NRRPs) and agreements with the EU. Some also believe that their positions on the twin transition have been



neglected. There is a strongly held belief that excluding workers' voices during these processes will have significant, detrimental effects on the workforce's ability to adapt to and carry out the required changes. This can only harm Europe's efforts to take full advantage of the twin transition.

Nevertheless, there is increasing evidence that, where collective bargaining and social partnership are leveraged to manage transitions, the outcomes are better for workers and industry. A 2019 study from the OECD found that 'the quality of the working environment is higher on average in countries with well-organised social partners and a large coverage of collective agreements.' This is the basis of the 'Just Transition' approach advocated by industriAll Europe, and the wider labour movement. It means not only maintaining and creating quality employment, but also strengthening social dialogue and collective bargaining as the most effective tools for ensuring widespread prosperity and social justice.



The major challenge for unions is the changing nature of employment and its impact on unionisation. Many of the jobs that will be negatively impacted by the reduction of greenhouse gas emissions are in sectors of the economy that are still well unionised and covered by advantageous collective agreements. Workers are more likely to be unionised in 'brown' industries with a large footprint due to having a long tradition of unionisation and because larger workplaces are easier to organise. In contrast, many of the newly created jobs are in industries with lower union density and will take place in smaller worksites that are more difficult to organise. Jobs in emerging green sectors will have to win the high standards of pay and conditions enjoyed in some industrial jobs almost from scratch, without the long tradition of collective action that exists in older heavy industries. Therefore, the rights of workers to join and/or to form a trade union, as well as to engage in collective bargaining, must be quaranteed.

What are unions doing?

The trade union movement has already had success in including the social and employment dimension in decarbonisation plans. In this respect, the Just Transition approach has become an integral part of the global union agenda on the environment. The concept has been included in both the Paris Climate Agreement and the European Green Deal.

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IndustriAll European Trade Union's Just Transition Campaign

In September 2021 industriAll Europe launched the Just Transition campaign, focusing on workers' experiences and sharing evidence across different industrial sectors and across Europe. It has taken the real-life experiences of workers living through the dual transition to European policymakers. The campaign centres on five demands:

- 1. an industrial policy that is fit for ambitious climate goals and good quality jobs
- 2. funding for the transition
- 3. stronger collective bargaining and social dialogue
- 4. a toolbox of workers' rights and companies' duties to anticipate and shape the change
- 5. tackling new skills needs and a right to quality training and life-long learning for every worker

The trade union movement is meeting these challenges in a difficult context for organised labour. Sustained attacks on the labour movement, declining trade union density and falling collective bargaining coverage have challenged the capacity of trade unions to weigh in on industrial policy. The decentralisation of collective bargaining, especially in the countries mostly hit by the previous 2008-09 crisis through the intervention of the Troika, has played a major role in weakening industrial relations. As a result, workers' involvement in the transition becomes patchy and contingent on local factors, like an enabling framework for social dialogue and collective bargaining, the respect of trade union rights, union strength, and engagement by management and policymakers.

Yet, there are still many success stories at company, sectoral, regional, national and European level. However, for them to be replicated more widely, unions need to be invited into policymaking at all levels.

At European level, industriAll European Trade Union has consistently campaigned for a wider recognition of, and support for, collective bargaining rights across the continent. Two consecutive campaigns, 'Together at Work' and 'Together In Action For High Wages' sought to communicate stories of workers being empowered through their unions and advocate for greater collective bargaining in order to spread that experience more widely.

Sectoral deals and future collective agreements in Germany

In Germany, unions play a pivotal role in defining how transition will be managed at all levels, through the country's co-determination system. This system allows German trade unions to ensure a just transition by investigating



and raising awareness of the impact of digitalisation and decarbonisation on employment and coordinating their efforts on national, sector and company level to keep future quality jobs in Germany.

As part of the project 'Arbeit 2020' in the region of North Rhine-Westphalia, companies and their works councils jointly developed strategies to deal with the transformations induced by digitalisation. The works councils, supported by the union IG Metall, have been able to create pressure in their companies to invest in innovative and climate-friendly technologies and products, to restructure their production processes, to develop sustainable business models and to open up new opportunities for value creation.

IG Metall has negotiated sectoral agreements for fair transformation for the metal and electrical industries. For example, the 2021 agreement covers target profiles, personnel requirements and qualifications for the jobs of the future. While the sectoral agreement sets the framework and ensures the right standards, the details are to be tailor-made at company level in accordance with each firm's reality. IG Metall found, in their *Transformation Atlas* research project, that about half of the companies have not yet developed plans to adapt to digitalisation. In this case, it is the trade union that is taking the lead in predicting and adapting to change. The objective is to engage in a discussion

on the impact of the transition on employment and to involve workers and their representatives in issues that must be tackled for the future of the company. Such agreements allow unions to actively intervene and negotiate with employers in order to avoid potential negative scenarios in the future, like plant closures, redundancies and skills mismatches.

Elsewhere, IG Metall has also taken an organising approach. It is important for unions to maintain and extend their coverage in sectors as new technologies come online and new players enter the market. The union has directed a targeted organising campaign at the new Telsa Gigafactory plant in Brandenburg, outside of Berlin. The labour movement in the German auto sector has traditionally been strong and well organised. As new firms, like Tesla, enter European markets, it is important to extend historic coverage as not to lose leverage in the sector.

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Negotiating future industry in France

In France, the automotive sector is undergoing tremendous changes with the switch in production to 100% electric vehicles in the coming decades. Social dialogue at the company level allows trade unions to anticipate these changes through their information and consultation rights. Each year, works councils need to be informed and consulted on company strategy and its consequences in terms of employment, skills and work organisation. This means unions are regularly shaping a firm's strategy to ensure it has a positive effect on the workforce.





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One example is the agreements arrived at by social partners to safeguard the social rights of employees in the creation of Renault ElectriCity. This is a new gigafactory which will supply batteries directly to Renault's new EV production line. The agreement provides guarantees to the employees of the new division in terms of remuneration, organisation of working hours, and management of mobility. However, it also confirms the carve-out of the new entity from the rest of the group, which is likely to have some negative consequences for workers' terms and conditions. Nonetheless, it also specifies the structures of social dialogue and reaffirms the importance of social dialogue as key to the group's performance, and underlines the importance of skill development for workers.

Tripartite relations in Italy

Italy faces specific challenges as it adapts to digitalisation and decarbonisation, due to the industrial structure of the

country. Most Italian firms are small and medium-sized entreprises. Italy lacks R&D centres, production lines for high value technology, has no manufacturing of batteries for energy storage and no wind turbine production. In this research, Italian trade union representatives raised their concerns that the accelerated pace of the twin transition, coupled with this lack of investment, will lead to significant layoffs in the energy and chemical sectors as companies restructure their supply chains and relocate production.

Trade unions demand a larger role for the state, specifically calling for greater investment, a clear industrial policy and more resources for retraining. However, Italian unions have also had successes at company level, winning good agreements that respond to the challenges of transition.

In the energy sector, Filctem-Cgil, Femca-Cisl and UILTEC have signed an agreement with oil group ENI, which combines early retirement provisions with new hiring. As many as 900 workers may take voluntary retirement and 500 new staff will be hired in order to facilitate the transformation to low carbon emissions by introducing new skills. The project will be accompanied by a training plan for some 20,000 workers. Similarly, an agreement secured by unions in energy company ENEL guarantees that all workers who transition from carbon-based production will be offered job placements inside the company.

Italy also has an important automotive sector that is undergoing restructuring against the backdrop of the European Green Deal. As in energy, the sector is experiencing massive change, including closures and job losses. However, unions have still been able to secure wins for their members. The carmaker Lamborghini has signed a collective bargaining agreement (CBA) that provides for twelve paid training hours a month. Stellantis, another carmaker, has reached an agreement with its unions that sees early retirements balanced against commitments to take on new young workers on permanent contracts.



But key for the Italian unions is the role the state must play in managing the transition. A socially just transition and job security cannot be secured in the absence of a concrete industrial policy with specific measures for strategic sectors such as the automotive industry, which faces major labour redundancies in the upcoming period. As it stands, Italy's Recovery and Resilience Plan lacks this. Trade unions will continue to insist on social dialogue as the best instrument to ensure a socially just transition as well as with mass mobilisations across the country as an effective instrument of trade union negotiation.

Job-to-job transitions and high union density in the Nordic countries

Nordic trade unions share an optimistic outlook and feel that job losses and gains roughly balance each other out, without any dramatic negative effects. In these countries, people are able to make job-to-job transitions relatively easily, with support of a well-functioning social dialogue

and collective bargaining systems, as well as from a generous welfare state and access to high-quality training.

Sweden, a country with a solid tradition of social partnership, takes a personcentred approach to job-to-job transition, underpinned by an institutional framework that offers accessible education and training facilities to people to re- or upskill. Such training will be required in, for example, the automotive sector, where manufacturing is changing rapidly. At the Scandia plant, unions enjoy a good relationship with management, which allows them to jointly evaluate the employment impact of new investments. Trade unionists do foresee a loss of jobs due to increased robotisation on a new battery production line. However, with quality, in-house training jobs can be more skilled and better rewarded.

Apart from its welfare state and tradition of social dialogue, the success of Nordic unions in managing transition to the benefit of their members lies in keeping union density high in workplaces. In Sweden, densities of 80-95% are common and resources are spent on ensuring new plants are unionised so this figure is not eroded.

Successes and challenges in Central and Eastern Europe

Central and Eastern European (CEE) countries are confronted with real challenges in dealing with the twin transition. Their economies are highly dependent on fossil fuel or carbon-intensive industries so there is a high share of employment in energy-intensive sectors that need to prepare for the transition to a decarbonised economy. These countries are highly dependent on foreign ownership with investments made due to cheap labour costs. This dependency on foreign capital makes it difficult to anticipate change, because many decisions on future investment and employment are taken in other countries, where the union has less leverage. Employers are generally



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For unions, the crux of the problem lies in the weak legal framework that does not allow for constructive social dialogue and collective bargaining at any level. less inclined than elsewhere to invest in education and training opportunities to reskill worker or engage in long-term employment relationships. Additionally, there is low social protection offered by the state, with little educational and training opportunities that facilitates workers' job-to-job transitions. However, for unions, the crux of the problem lies in the weak legal framework that does not allow for constructive social dialogue and collective bargaining at any level. If the litany of above-mentioned issues is to be tackled, government support for social dialogue and collective bargaining is a basic pre-requisite.

The different experiences shared by the trade union representatives with regards to the battery plants in Hungary and Sweden show how strong diverging outcomes for workers can be related to the different institutional features, industrial relations and employers' strategies in both countries. An enabling framework for social dialogue and collective bargaining, as well as trade union rights to access companies make a substantive difference. The Hungarian government plans to make the country a key battery producer and the country is already the 10th largest exporter of electric batteries in the world. These battery cell production plants, however, risk job quality degradation. It does not seem to create new jobs for local workers, but rather relies on bad jobs, which are done by migrant workers. This appears to be the case at a battery plant outside of Budapest where workers are employed on temporary contracts, with low pay and in unsafe working conditions. Union representatives and labour inspectors have been prevented from accessing the site.



Nonetheless, there are positive examples of where unions have broken through in the region, for example in the steel and energy sectors in Romania. Tenaris is a leading manufacturer of pipes for the world's energy industry. Tenaris production is exclusively based on EAF technology, the cleanest available, with emissions three times lower than the traditional method of making steel in blast furnaces. Unions at the plant affiliated to METAROM federation have been actively involved in planning investments in production of airbag components for the automotive sector. The new production line includes up-to-date technology with a more cost-effective manufacturing process, securing the company's competitiveness and future employment.

Good social dialogue and collective bargaining that result in good agreements are common in the energy sectors (gas, oil, extractive industries). Even if many of these agreements are concluded at company level,

companies with agreements employ almost all workers in these particular sectors. Trade unions across Central and Eastern Europe, like FSLI Petrol and FS Gaz in Romania, have managed to win substantive pay rises for their members and to improve their working conditions. They are now also engaging in discussions on the twin transition.



The Romanian labour movement is in the process of recovering from the dismantling of sectoral collective bargaining under the Troika in 2012, which has undermined workers' ability to force employers to the negotiating table. The harmful Social Dialogue Law of 2012 has recently been reformed, as part of Romania's obligations under the Recovery and Resilience Facility. This reform, together with the upcoming transposition of the European Directive for Adequate Minimum Wages, give opportunities to the movement to rebuild the collective bargaining system at sectoral level and increase its density.

What role for unions, employers and governments?

Trade unionists have long recognised the urgency of the green transition, and the opportunities in new technologies. This short summary has explained how these twin transitions are currently impacting employment and shown where the labour movement

is working to ensure a Just Transition for workers. This starts at negotiating tables in companies and extends up to sectoral, national and European levels.

The research has underlined continuing uncertainty about future employment developments. This reflects the experience of trade unionists on the ground. As such, when policymakers talk about the likely net gains in employment created by the twin transitions of digitalisation and decarbonisation, it is important to point out that:

- These estimates are still only speculative;
- Even if they pan out, net gains do not factor in the human impact of changing employment: the quality of the jobs, where they are located, and what skills will be required.

The only way to account for this uncertainty is by building the social dimension into the foundations of industrial policy. This means significant resources for training and support for workers to make job-to-job transition. It means investment in research and development and modern digital infrastructure. But, most importantly, it means involving workers at every level: in transitions in companies, in sectors, in policymaking at local and regional, as well as governmental level and in European industrial strategy. This requires support for collective bargaining and social dialogue from member states and the European Union.

Policymakers and employers must stop creating a false dichotomy between jobs and the environment. The labour movement has long said that there are no jobs on a dead planet. The social and environmental aspects of the twin transitions must not compete but complement each other. Targets that protect the social dimension of the transition do not undermine its environmental



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content. In fact, they should be a requirement of any EU funding to support the twin transitions.

For their part, unions will need to reallocate resources into organising younger workers brought into perform new roles. Unions will also need to organise new firms entering the market and new plants and industries in order to keep density high and maintain bargaining power.

Finally, the EU must require member states receiving EU funds for the twin transitions to actively encourage and require genuine involvement of both sides of industry when elaborating national programmes and spending funds. Thankfully, the European Commission has reversed much of its antipathy to collective bargaining from during the Troika years. However, this change of rhetoric must turn into reality on the ground. The EU must do more, with member states, to create industrial policy that supports social partners to negotiate

solutions to the challenges of decarbonisation and digitalisation that work for both industry and workers.





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