

Can Fair Transition be Achieved through Social Dialogue in Europe’s Automotive and Energy Sectors?

Interim Comparative Summary Report of the EGRUIEN project Work Packages 3 and 4, on Automobiles and Energy

Nathan Lillie, University of Jyväskylä, Finland, nathan.a.lillie@jyu.fi

2 April 2026

Prologue

This comparative report is based on the results of the interim reports of the EGRUIEN project teams. More specifics on the individual cases can be found by clicking on the country case reports also found on this website. As an interim report and work in progress, we welcome feedback to help us improve the final report; for feedback to specific country case research please contact those teams directly.

Introduction

The Draghi report (European Union 2024) and consequent discussion of the Accelerator Act signals a (possible, likely) return to serious industrial policy in the European Union. This is the focus of the EU’s policy response to geopolitical realignments and technological changes which have been occurring under the surface for a long time, but are now reaching a tipping point. Such historical periods, labelled by economic historians as “industrial revolutions” signal moments of rapid change, in economics, politics and society. These present many dangers, but also opportunities. The current “4th industrial revolution” is characterized by green and digital technologies (Xu et al. 2018). These, whether we like them or not, are changing the basic structures of European and global economies, which in turn change the power basis for trade unions, who derive most of their influence from their position in the production process.

On the green left, there is a strong tendency to attempt to paper over very real and deep conflicts between the green transition and the bread-and-butter interests of workers in carbon intensive industries. In policy as well as academia, the framework for resolving possible conflicts between labour and green interests is the Fair Green Transition concept, which assures us that through the mechanisms of social dialogue, growth-oriented green capitalism, and forward-looking industry policy, green technologies can displace fossil fuel technologies. Jobs and living standards will not suffer, because the former fossil fuel-dependent workforce will be redeployed in a socially responsible way into new green jobs.

These dynamics can be understood through a set of interlinked theoretical concepts that address technological change, environmental sustainability, and social adjustment. A number of core concepts useful here are ‘creative destruction’, ‘green growth’, and ‘fair transition’.

“Creative destruction” is the term used by Schumpeter (1950) to describe the innovation process under capitalism. Obsolete capital and productive processes are destroyed and replaced by new, more efficient capital and processes. Creative destruction is inherent to capitalist growth and tends to increase general wages and living standards over time. In the short term, however, it reduces the wealth and power of capital and labour in declining industries, while making room for expanding industries, products, and production processes. There is a clear notion that in order for the new to be born the old must disappear. In this way creation of new product markets and production processes is linked to the destruction of old product markets, production processes and industries. This dual nature is why Schumpeter dubbed the process ‘creative destruction’ and assigned it the role of the core driver of capitalist development.

The “Green Growth” concept harnesses the power of capitalist creative destruction to bring about market-based change, while decoupling growth from ecological harm by deploying green technology (Khan et al. 2021). “Fair Transition” in turn involves addressing the resulting social and economic disruption, and the political opposition it generates through social policy, and social partnership interest representation. However, there are two obvious potential pitfalls in that 1) there may not be new green *jobs* (i.e., some of the new processes involve very few workers) 2) if there are new jobs, they might not go to the same communities, workers and unions who are losing the old jobs 3) the new jobs might be precarious, poorly paid, and poorly organized. Workers may, as a result, lose secure jobs with good wages, and once their old unions are gone, no longer retain the political influence to ensure social settlements to mitigate their losses.

These are the research questions which we address in our reports: what is the nature of the Green and Digital transition in our case companies? Are workers’ interests protected via social dialogue institutions? What characterizes cases in which dialogue occurs, as opposed to those where it does not? What kinds of structures and policies can prevent workers from becoming unemployed, or from falling into precarity?

We examine two industries that depend on fossil fuels in distinct but interconnected ways: automotive manufacturing and energy.: auto manufacturing and energy. These are also industries core to Europe’s industrial future: autos because it is an important provider of industrial employment, and energy, because it is key to ensuring the cost-competitiveness of other industries. There are tensions within these industries’ change dynamics, which derive from (fossil fuel) capital’s interests and strategies to avoid being disrupted. Fossil fuel companies, and to a lesser extent auto manufacturers, obfuscate or outright deny the validity of climate science, and/or the reality of the ongoing technological disruption in a global disinformation campaign in order to continue mobilizing political support for their industries, and to reassure investors. Social dialogue around green and digital transition, as an integrative

bargaining problem-solving exercise, depends on a mutually accepted reality around which to marshal facts and present future scenarios and solutions. Such an exercise is difficult if unions reject management scenarios, or vice versa. It is therefore easy to see how unions might find it in their best interest to support management's political strategy – whatever that might be – rather than developing a green transition agenda of their own. On other hand, we also find hopeful examples, where preliminary findings suggest that mobilizing to gain external support such as subsidies for green innovation projects, unified management and unions around a transition project.

Unions in fossil fuel dependent industries face a structural dilemma. Renewables and electrification often result in the destruction of labour intensive processes in well paid fossil fuel dependent production with high levels of union representation. The new jobs which appear are, in general, smaller in number, often in different locations, use different skills and are not necessarily secure, well paid, and union represented. In such situations, it can appear more attractive for unions and management alike to turn to disinformation and political obfuscation. Social dialogue is in danger of promoting integrative solutions around political action to prop up fossil fuels, and to allow opportunities for delayism (Harry & Maltby 2026)

The starkness of the choice faced by any particular union depends on union perceptions of the possibility for workers to shift into new renewable jobs, which depends mainly on conversion of existing capital assets to new uses. If the conversion can be accomplished within the organization, job guarantees and union continuity can be assured – in some cases, this seems to facilitate transition. It can also be facilitated by longer conversion times and political payoffs, such as grants and subsidies to cushion the local impact. The coal industry cases, with long conversion times and moves to renewable electricity production within the legacy firms involved these sorts of deals.

Political support for conversion (c.f. future oriented industrial policy) also holds out possibilities, as well as dangers. The Accelerator Act, currently under discussion in the EU, holds out great promise as well as great danger in this respect. The Devil is in the details, and the ability of the EU to craft a coherent instrument which both drives forward renewable technology and electrification, while protecting the rights of workers in new, transitioning and sunseting industries alike is key to success. Unions need a great deal of more vision and autonomy from narrow parochial firm-level interests than they have shown in recent times if they want to play a productive role. There is a strong danger of the project devolving into parochial protectionism, as firms and their unions seek ways to extend electrification timelines rather than develop Europe's industrial base for the future.

Our research examines cases in 9 European countries: Finland, UK, Norway, Italy, Estonia, Austria, Spain, Poland and Slovakia. We look at one case in each industry in each country. At

this point, the cases we examine are preliminary, with only a small part of the empirical data collection and analysis complete.

Automobile manufacturing

The European auto manufacturing industry is in crisis, due to its slowness to adapt to technological changes. The main change is the growing importance of battery electric vehicles (BEVs), but it has also been slow to adapt to digitalization and the growing importance of software in cars. The emergence of Tesla after the development of the Model S from 2012, and much more importantly the Model 3 and then the Model Y in 2018 and 2021 respectively, took European automakers completely by surprise, as Tesla grabbed market share in the mid-market cost segment. In the meanwhile, European auto manufacturers found themselves being outcompeted in the growing Chinese market by Chinese brands. These Chinese brands – including EVs in all categories, at price points the European manufacturers can't match, have begun to show up on the European market. Tariffs and price minimums negotiated directly with Chinese firms have slowed the impact somewhat.

Meanwhile, the European Union has set targets for the phase out of carbon emitting vehicles, the so-called „ICE ban”, which, among other things, requires passenger vehicles to be 100% emission by 2035. This has been the focus of much political consternation, prompting a proposal to allow a certain amount of carbon emitting vehicles to continue to be sold. In the context of Chinese EVs being available at more attractive prices than European ones, the fear is that this will wipe out the European auto industry. The counter argument to this is that Chinese EVs are already cheaper to buy and much cheaper to run than European ICE cars – so it is not the European regulation that is the problem, but rather the fact that they are being out-competed.

Stellantis

A fortunate coincidence gave us the opportunity to focus in several countries on the same case, Stellantis, at various of its production sites, in UK, Italy, Spain, Poland and Slovakia, so we are conducting multi-site research of the same company. The others provide various chances to compare and contrast different companies across countries, and even across work packages, for example as in our Norway and Estonian cases show workers shifting from fossil fuel extraction shift to new energy vehicle production.

For the auto sector, five countries look at Stellantis facilities. Unions and shop stewards, have met with our researchers, and some interviews with management are planned. Stellantis is the result of mergers, and then mergers of mergers, so that it has become a giant conglomerate spanning Europe and North America, owning many well-known and formerly loved brands such as Abarth, Alfa Romeo, Chrysler, Citroën, Dodge, DS Automobiles, Fiat, Jeep, Lancia, Maserati, Opel/Vauxhall, Peugeot and Ram. Efforts to unify platforms and generally to share parts and designs across nameplates has resulted in complaints that Stellantis is destroying the

character and tradition of national brands, although how much this is simply the complaints of the small minority who care about such things, and how much it really matters to actual car buyers and overall sales is not clear. Sales have been on a steady and sharp decline over the past decades. There are many possible reasons for this; indeed, Stellantis' decline seems a bit overdetermined.

A defining characteristic of Stellantis' EV strategy over the past decade has been to portray its limited and belated efforts as a compliance response to political pressures to electrify, most notably from the European Commission. Most recently, Stellantis has posted a €22,3 billion loss, which they attribute to EV-related activities (<https://www.media.stellantis.com/en/corporate-communications/press/stellantis-reports-full-year-2025-financial-results>).¹ How this fits with continued strong expansion of BEV sales on the European market from 2024-2025, and a steep decline in petrol and diesel powertrains is not clear ([car registrations by powertrain](#)), but it seems likely that Stellantis' public statements are more about political framing than informative analysis.

It is possible to argue that while some EVs *are* selling well, those manufactured by Stellantis are not. For some models, this seems to be the case, but other models are popular. The problem is more likely that Stellantis is obliged to sell EVs with thin or negative margins. While Stellantis is not fully on track to meet EU zero emission targets, the company is also not far off; these targets, to the extent they hold firm, are more likely to clear away Japanese competition, who appear to be making no effort to meet them, than to bankrupt Stellantis. Models like the Citroen e-C3 have proven to be good sellers ([citroen-e-c3](#)) even if overall Stellantis sales are in decline ([stellantis-vehicle-sales](#)). There is intense price competition in the economy segment, however, by European competitors such as the Renault 5, but also by new Chinese entrants able to offer similar vehicles for a lower price ([cheap EVs](#)). It is likely therefore that the e-C3 is being sold on very thin or negative margins.

Still, Stellantis is ostentatiously redirecting its research and development efforts toward non-BEV powertrains while pushing for European protectionist legislation ([EV pullback](#)). In this, they are probably trying to redefine the issue as a political problem of the EU's creation that will require continued tariff walls and perhaps also large public subsidies to avoid redundancies and bankruptcy in the near future.

Stellantis has a reputation as a company that has little interest in social dialogue with its workforce, and this is confirmed by our cases. They do adapt to local practice, and conditions, however, possibly reflecting national preferences, or the legacies of management styles from

¹ This trend continued into January at least; <https://www.acea.auto/pc-registrations/new-car-registrations-3-9-in-january-2026-battery-electric-19-3-market-share/>. While figures for post-Iran oil crisis sales are not yet available, it is possible the sharp increase in oil prices will affect customers' powertrain selection as well.

their many different brands. Stellantis takes advantages of possibilities for coercive comparisons between production sites, as evidenced by the way the Zaragoza, Spain won out over the Slovakian site, and the Polish Tychy site, for new EV production with the Chinese firm Leap Motors. Spain's cheaper renewable energy costs, given Slovakia's higher costs due to continued fossil fuel dependence may have motivated this decision.

Despite the often oppositional posture on other issues, the Italian unions at least – as well as the UK ones - have been largely supportive Stellantis' foot dragging on electrification, for example by pushing for and getting a return to hybrid production at Fiat in Turin, Italy. Concern for retaining ICE engine production has fueled Italian union activity in Stellantis, or in obtaining production of specific models. At Vauxhall at Ellsmere Port in the UK, the union negotiated payouts so management could gain assent to build EVs. It seems likely the lack of complexity of EV manufacturing is problematic for unions, who correctly assess that their members will lose work.

On the other hand, for the Zaragoza case, investment in EV production is likely to signal that this factory is less likely to be closed than some others, as the Stellantis is forced to consolidate due to declining market share.

Contract manufacturers for auto assembly

The other cases include two contract manufactures, Valmet Automotive in Uusikaupunki, Finland and Magna Steyr in Graz, Austria, both of which assemble cars and undertake other industrial activities on contract from other manufacturers. Both have been seen as possible entry points for Chinese firms to bypass the European tariff walls protecting companies like Stellantis from bankruptcy, and both are connected to larger operations involved in diverse manufacturing activities – Valmet is a major Finnish manufacturer of heavy machinery with operations in Germany and Poland as well, while the Magna group is a major global auto parts manufacturer which supplies many OEMs. The Valmet union is quite cooperative with management, and its dialogue around company strategy have focused entirely on preventing or mitigating layoffs: other matters such as what to produce and how are not considered part of the union's area of responsibility. In the Valmet Automotive case, Chinese investors were bought out by the Finnish state, which is now a majority shareholder, possibly due to national security concerns, and in order to take a contract for Patria armoured vehicle production. Valmet has also recently contracted to produce electric buses with Jeti Industries, a small Finnish start up.

Parts for BEVs

Finally, the Norwegian and the Estonian cases involve firms attempting to position themselves within the new BEV supplier network framework. In the Estonian case, NPM Narva is a firm producing sintered magnets for use in electric motors for EVs; it is currently developing

production. It is considered a key strategic production capability, and there is EU funding behind subsidising it. This also has the potential to absorb some of the local workforce which is now involved in the shale oil production details in the Estonia's energy case – detailed in that section. The union in the shale oil production is strong and assertive, but it is not clear if and what its role at NPM Narva is: the small number of workers there are not unionized but this may change as more are hired.

The Norwegian case is of Kongsberg Automotive, a former weapons' manufacturer and auto parts supplier, which is now positioning itself as a parts manufacturer for EV batteries, with the idea to supply electric bus manufacturers. European battery producers have lagged behind Chinese in terms of skills and know how, making such ventures dependent on industrial policy support, as the recent Northvolt bankruptcy case shows, and so the success of this venture is likely in part dependent on political developments.

Energy: Renewables disrupt fossil fuels

The production of electricity results from a diverse set of activities, but in fossil fuel terms these can be broadly divided into three main types 1) extraction (of oil, gas & coal) 2) refining (to prepare oil for use) and 3) electricity production. The impact of renewables is to eliminate the need for extraction and refining, and also to change the technology of electricity production in disruptive ways. Solar panels and wind turbines replace not only the gas power plant, but also all activities along the chain leading to it. Some of these activities may find new productive activities and new markets, while others are likely to become “stranded assets” (Livsey 2020). The energy transition until about 2020 was defined by a political push to reduce carbon emissions, but since then has been defined more and more by cost competition from wind, and especially from solar, capturing market share from fossil fuel production. Solar and wind production costs have declined rapidly and continue to decline, meaning that the replacement of fossil fuels for electricity production is just a matter of time, if left to market forces. The cost competition has triggered a political and media backlash fueled by fossil fuel money, resulting in continued contention in the public debate. The looming threats from Russia, from the United States, and now also the attack on Iran, have clarified the need for secure domestic energy production in Europe, however, and in the short term and medium term, that means solar and wind as these are the only sources than can be scaled up quickly. Concerns about variability, and grid stability are proving to have been largely imaginary, as grid scale batteries have also declined in cost, and are proving adequate to the task.

The energy cases we look at are quite diverse, but cover the industry from extraction to refining to utilities. Our cases can be divided into coal phases outs, in Slovakia (HBP), Spain (Endesa), Poland (PGE, and PGG). Similar to these is oil extraction in Estonia (shale oil), and Norway (offshore). There are two refineries: in Finland (Neste Porvoo), and Italy (ENI Porto Marghera),

and two greenfield renewable cases: offshore win on the Dogger Bank (UK), and VERBUND hydropower in Austria.

Coal phase-outs

The coal phase outs are characterized by the high political salience of the industry and its unions, and by the vertical integration of the companies involved. In all three cases, the firms in question both mined coal, as well as burning it, so that the activity of burning coal was replaced by renewables and other generation, providing new jobs. The number of such new jobs seems in all cases to have been smaller than the number of old jobs, so redundancies were nonetheless part of the process. Still, the decline was managed and negotiated through Social Dialogue institutions, more or less, in all cases.

In Slovakia, two interconnected companies were chosen in Slovakia's north-western Upper Nitra region, which is currently experiencing a socio-economic and energy transition due to coal phase-out. This region is among those financed nationwide through the Just Transition Fund, receiving EUR 226 million out of a total EUR 440 million budget (CEPA, 2023). Similarly, the Spanish Endesa is a company that both generates electricity and mines coal, and also experienced a negotiated transition from coal to renewable energy, involving both a reduction of overall employment levels, as well as shift of employment types into new energy jobs in the expanding renewables sector.

Similarly, the Polish cases of PGE and PGG represent a negotiated wind-down of coal mining by firms that are involved both in coal mining, and in energy production. Therefore, the wind-down of coal means large job losses – in these job losses number in the 10s of thousands. However, it does not mean the total end to the companies' operations. There is therefore some possibility of moving workers to renewable energy jobs, and other electricity sector operations. However, there is no guarantee it will work this way as unions seem not to be present in renewables, and even if it does, the number of workers needed is much smaller. In all the coal cases, the unions pushed for and got a gradual transition, however, so although there are large redundancies, these have occurred over time, within a supportive subsidized exit framework for this politically important group. Most notably, workers use of early retirement schemes is facilitating the reduction of staff numbers. The union framework and social dialogue infrastructure are strong, which explains this outcome, despite the anti-green attitude of the government that signed the deals in 2021-22.

Oil Production

The Estonian case of Eesti Energia is somewhat like the coal-exit cases, as the shale oil is produced through mining for local energy generation, as well as for export for maritime bunker fuel. Enefit Power and Enefit Green are separate entities in the same group, with the former operating mines and thermal plants and the later operates wind, solar, hydro and waste-to-energy plants in Estonia and elsewhere. The transition, as with the coal cases, involves a

reduction of the workforce, which hits the mining and thermal generation most sharply. The unions are skeptical of claims of job creation. The commitment to end oil shale mining and to convert entirely to zero carbon electricity has been perceived as driven by environmental politics.

Norway already uses largely zero carbon forms electricity generation for domestic consumption and even for export, because of its substantial hydropower resources, but still produces oil for export and expects to continue to do so for the foreseeable future. Equinor is a major part of the Norwegian economy, and contributor to Norway's "oil fund". The firm has renewable operations, but these are not a major part of its revenue generation; "carbon neutrality" for Equinor is about addressing the carbon intensity of its own operations, rather than shifting away from inherently carbon intensive products. The firm is thoroughly unionized, and there is active social dialogue around issues like change negotiations when these occur. At the moment, in the near term the company and the unions do not foresee major changes or competitive threats in the near term.

From oil refineries to biofuels?

Both the Neste, in Porvoo, Finland, and ENI, in Porto Marghera, Italy, are oil refineries, which are moving from being entirely focused on refining oil products to producing "biofuels". Porto Marghera is currently producing biofuels from waste feedstock, with a small amount of fossil fuel input, as a pilot facility to test its economic feasibility. Unions have been active in negotiating the transition, vacillating between facilitating and opposing, evidencing at times skepticism of the "ideological" approach, and concerned that "biofuels" is merely a subterfuge to hide "disguised decommissioning". Neste Porvoo similarly has seen development of biofuel related plans, but these have been delayed, probably due to the possibility the EU will push back decarbonization plans. The union has not been directly involved in the green transition of Neste Porvoo activities.

Zero-carbon fuels are predicted by some to be needed to decarbonize hard-to electrify sectors – those sectors for which batteries and renewable electricity for one reason or another cannot substitute in existing production processes. Depending on technological developments, these sectors might include long-distance shipping and aviation. They are not competitive against fossil fuels, and are unlikely to become so through purely market means, so the biofuel sector is not benefiting (or losing) from creative destruction dynamics in the same manner as autos, coal and oil are. The process is therefore driven by the uncertain politics of subsidies and government mandates more than by economic competition with fossil fuels (Nordin et al 2024). For this reason, Neste in particular seems to be watching carefully which way the political winds blow to place their investment. There is a concern that less ambitious decarbonization targets might leave biofuels in an uncompetitive position. The lack of market-driven logic and wavering political support means that biofuel refineries face an inherently uncertain future; until the market and the technologic logic behind it is more certain, it is likely to stay this way.

OMV and VERBUND (Austria) and Dogger Bank offshore wind (UK)

These produce electricity for grids. VERBUND relies on hydropower and pumped storage and is a counterpoint to OMW which burns fossil fuels. OMW has made commitments to move away from fossil fuels, although the renewables investments seem to be limited and therefore fairly unconvincing. If the coal phase out cases are any indication, OMW will likely shed a fair amount of labour in the process of conversion. VERBUND is embedded in the Austrian corporatist labour relations framework, and because it does not have a fossil fuel legacy, the primary concern is establishing and maintaining worker representation frameworks in this new production. Dogger Bank is an offshore wind company, with union structures being established. Offshore wind relies on similar infrastructure and skill profiles to offshore oil production, and so represents a possible case for using the highly trained manpower from the declining offshore oil industry.

Findings

Our cases suggest that unions and social dialogue processes in fossil fuel dependent industries tend to be focal points of resistance against green transition, to the extent that the green transition threatens existing jobs. Unions are inherently conservative, and suspicious of management's motives in implementing the green transition. They are disinclined to believe promises of job preservation and generation, from new, green activities.

In cases where organization are configured in such a way as to internally create new jobs in renewables and transfer workers to those, this may obviate their suspicions in some cases. Still, as the ENI Refinery and the Vauxhaul Ellsmere Port cases suggest, workers may remain suspicious that the market may shift, or level of management or political commitment to the new green activities may prove insufficient to see the process through in the long term. The situation in those cases is likely exacerbated by the fact that for the former, biofuel demand is largely a political construct and long-term support uncertain. In the latter, Vauxhall and Stellantis are not market leaders in terms of EV technology, nor does the firms' messaging show commitment to the technology. Political shifts back and forth by national government and the EU in relation to the support for the green transition are likely to exacerbate this problem. Assessing whether or not to support management on green transition projects in the absence of trust requires a substantial independent research and market evaluation capacity, which unions will likely not have. Indeed, it is difficult for anyone to read the market disruption tea leaves, and which technologies will be most competitive during this period of intensified creative destruction. Policy and management practice should serve to increase certainty, and the activities of actors spreading disinformation, and delay transition, does the opposite.

Works Cited:

European Union 2025. The Future of European Competitiveness (Draghe Report), Brussels.

Harry, S. J., & Maltby, T. (2026). Navigating just transitions: Trade union strategies and climate delay in North Sea energy politics. *Earth System Governance*, 27, 100316.

Khan, J., Johansson, B., & Hildingsson, R. (2021). Strategies for greening the economy in three Nordic countries. *Environmental Policy and Governance*, 31(6), 592–604.

<https://doi.org/10.1002/eet.1967>

Livsey, Alan. 2020. “The Big Read Oil & Gas industry: the \$900bn cost of ‘stranded energy assets’” *Financial Times* FT Collections: Climate and Energy Transitions, 4 Feb 2020.

Nordin, I., Elofsson, K., & Jansson, T. (2024). Cost-effective reductions in greenhouse gas emissions: Reducing fuel consumption or replacing fossil fuels with biofuels. *Energy Policy*, 190, 114138.

Schumpeter, Joseph A. 1950. *Capitalism, Socialism and Democracy*. 3rd ed. New York: Harper-Collins.

Xu, M., David, J. M., & Kim, S. H. (2018). The fourth industrial revolution: Opportunities and challenges. *International journal of financial research*, 9(2), 90-95.