

# The political economy of electric cars

*The question of how consumers can be encouraged to switch to electric cars has received substantial attention from European policymakers. Yet as **Bob Hancké** and **Laurenz Mathei** write, the shift to electric vehicles risks being derailed if the interests of existing car manufacturers and workers are ignored.*

If we are serious about the green transition, it will involve a significant shift in the relationship that humans have with transport: not only less travel and fewer miles, but also different sources of energy and power. Increased public transport, a reduction in air miles and more telework will have to be accompanied by greener modes of individual transport, from bicycles to electric cars.

## From marketing to making electric cars

Much of the thinking and action in this area has gone to how a market can be constructed, i.e. how consumers can be persuaded to change from cars based on internal combustion engines to battery-powered vehicles (shorthand: electric cars). Range anxiety – will the car allow me to travel long distances without running out of juice? – has dominated the debate and that explains why so much of our thinking has gone into battery development.

But that almost exclusive attention to the market and the consumer side has swept a very different, equally important set of considerations under the carpet: electric cars need to be produced, and the product design and manufacturing processes are, or can be, sufficiently different from standard cars as we know them today. Not a single policymaker is oblivious to what we have begun to call the ‘just transition’: a green transition that takes on board the gains and losses for workers (and companies) embedded in the traditional automotive technologies, and who risk losing their jobs and livelihoods.

## Why making electric cars is a political-economic problem

That debate has been very static, however: it thinks of technological shifts as exogenous shocks against the canvas of existing products, jobs and organisations. Yet the almost entirely unrecognised dark side of the just transition is that its distribution of gains and losses may also produce its own veto coalitions of workers with specific skills that do not travel well, and capitalists with investments in specific machines and factories that cannot simply be repurposed.

[Here is, in a nutshell, why.](#) Electric cars have about 6,000 (often simpler, standardised) parts; their fossil-fuel predecessors feature about 20,000, usually much more complex parts and systems. The design and assembly of the latter require increasingly more contextual skills, while parts for electric vehicles could almost be bought off the shelf and assembled like an IKEA flatpack (the electric engine in your washing machine is not qualitatively different from the one in your car, for example).



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An electric car meetup, Credit: Jakob Härter (CC BY-SA 2.0)

If the tasks and the design are simpler, the supply chain will shorten. Instead of relying on capable suppliers with extensive R&D departments, the car producers can simply sit out technological developments. First-mover advantages will almost certainly be quite modest, if they exist at all: the second mover can avoid the mistakes of the first, while entering the market with an established brand, sales and marketing experience, an extensive dealership network, and a superior product.

And shifting from one underlying technology to another is a 'lumpy' process: you do not add one electric car to an existing assembly line today, a second tomorrow, and so on until you have replaced one type of car with another. Instead, you run down production on one site, retrain a part of your workforce and/or make them redundant, and start afresh with a greenfield plant. Since brownfield conversions usually do not work well within one product paradigm, imagine how they play out in such disruptive shifts.

### **Conservative producer coalitions**

Now, if neither workers (and their unions) nor managers, engineers and/or shareholders see a bright future in electric cars, chances are that they, with their combined not insignificant clout, can seriously hinder the transition to greener cars. It would be hard to imagine the powerful engineering and metalworkers' unions, and the large automobile companies throughout Europe simply accepting mass redundancies, foregone investment and the social and economic upheaval that will follow in its wake. While some companies seem to see the move into electric cars as a way to reset their industrial relations systems, many trade unions increasingly acknowledge the problematic nature of such a shift. The foundations are laid for a failed transition, a social bloodbath, or an extinct European car industry.

### **The regional effects of a green transition**

There is more: if supply chains shorten and technical sophistication is to a large extent replaced with powerful but standardised parts, many regional economies with a strong car industry, including suppliers, in its centre – typically a hub and spokes model – will face deep adjustment problems. Imagine the very wealthy manufacturing-rich southern German economies – the envy of the entire world in many ways: high productivity, high skills and high wages – in such a transition.

Half a million people are employed in this enlarged car industry today in these regions; many of the suppliers, who specialise in functions associated with the internal combustion engine but absent from electric cars, will face (euphemism alert!) a very uncertain future; and regional governments would see their employment, growth and income prospects dwindle. Without active shaping of the transition, they would go from among the wealthiest regions in the world to some of the poorest. Think of Detroit in the US or Humberston in the UK if you are looking for helpful examples. The endogenous conservative producer coalition now has powerful political allies. Good luck with the green transition under those conditions.

### **The just transition: right, and necessary**

A just transition is, therefore, not only the right thing to do from an environmental, moral and social point of view, it is also a necessity because of the political economy of gains, losses, socioeconomic effects and their associated hold-ups. Both parties thus have to be made aware of the zero or negative sum nature of the game and the risks of failure (social or economic) involved. They will need to be nudged to explore alternatives in technology, organisation, and regional political economy. The institutionalised cooperation in the sector's industrial relations systems will certainly help (its absence helps understand why Detroit and the north of England are what they are today), as will the fact that labour law imposes adjustment costs on the companies that more deregulated labour markets with loose hiring and firing rules do not. But those are necessary and not sufficient conditions.

### **Positive-sum adjustment**

Those require the active development of positive-sum alternatives. Reintegrating tasks from suppliers into final assembly enhances the skills basis of workers while redistributing employment without large job losses; abandoning assembly lines in favour of cellular, stationary assembly in small groups cuts investment costs dramatically, while raising employment numbers and, potentially, wages.

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Regional cooperation between firms, governed by local political actors with a solid stake in the outcome, allows them to pool innovation, R&D and training. The performance of companies thus depends on the existence of such regional network externalities, which ties them much more strongly to the place where they are located. Global supply chains, with their steep social and environmental costs, will give way to dynamic regional production systems. It is, as this suggests, far from impossible to envision alternatives well beyond the somewhat dire future of job losses, skills and regional collapse.

The green transition is necessary, so much is obvious. But what is necessary does not always exist. In our complex political-economic systems, collective action problems emerge easily – and with them come hold-up problems that may push us into regress rather than progress. The shift to electric cars is an instance where social calamities and political battles are almost easier to imagine than a cooperative solution – even in the much-lauded German and other north-west European car industries. If we want to avoid those, we better start thinking now about how to develop cooperative alternatives.

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*Note: This article gives the views of the authors, not the position of EUROPP – European Politics and Policy or the London School of Economics. Featured image credit: [Jakob Härter \(CC BY-SA 2.0\)](#)*

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