

## Workshop

The evolution of German and Italian industries and  
the changing competitiveness of Europe

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The winter of German discontent. And the risks for  
the whole of EU

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# Outline

- The present macroeconomic situation
- The underlying causes
- A polycrisis hitting the German industry: the case of the automotive industry
  - The green and digital transitions
  - China: partner and competitor
  - The US: a problematic ally
- Germany and Europe
  - Industrial policy
  - Macroeconomic and financial stance
  - Geopolitical riddles

# The background

- German output contracted 0.3 per cent in 2023. Europe's largest economy was the worst performer in the world, according to the IMF.
- All components of demand fell.
- Redistributive effects of inflation: reduced consumption, higher interest rates and increase in borrowing costs, fall in German house prices (10%).
- Wages and workers' unrest (construction workers and train drivers); fiscal austerity (cut in energy subsidies) → farmers' protests
- 17.3 million people (to 20.9% of the population) in Germany affected by poverty or social exclusion in 2022 (Destatis): 14.7% of the population at risk of poverty, 6.1% affected by severe material and social deprivation, 9.7% living in a household with very low work intensity
- Fractious German coalition fed growing popular anger, boosting support for the far-right AfD and increasing government tensions.

# The German 'business model' facing the 'polycrisis'

- Export-led: geopolitical risks and increasing protectionism increase vulnerability. Wage moderation and fiscal restraint may no longer work
- Weight of manufacturing: more energy intensive sectors entail greater costs to decarbonize
- Weak innovation in new technologies: digital and green transitions
- Dependence on China
  - imports (critical raw materials and inputs). Hidden dependencies: indirect exposure through other suppliers who ultimately rely on China for a key input.
  - Exports: concentrated in employment-intensive and politically sensitive sectors like pharmaceuticals and automotive

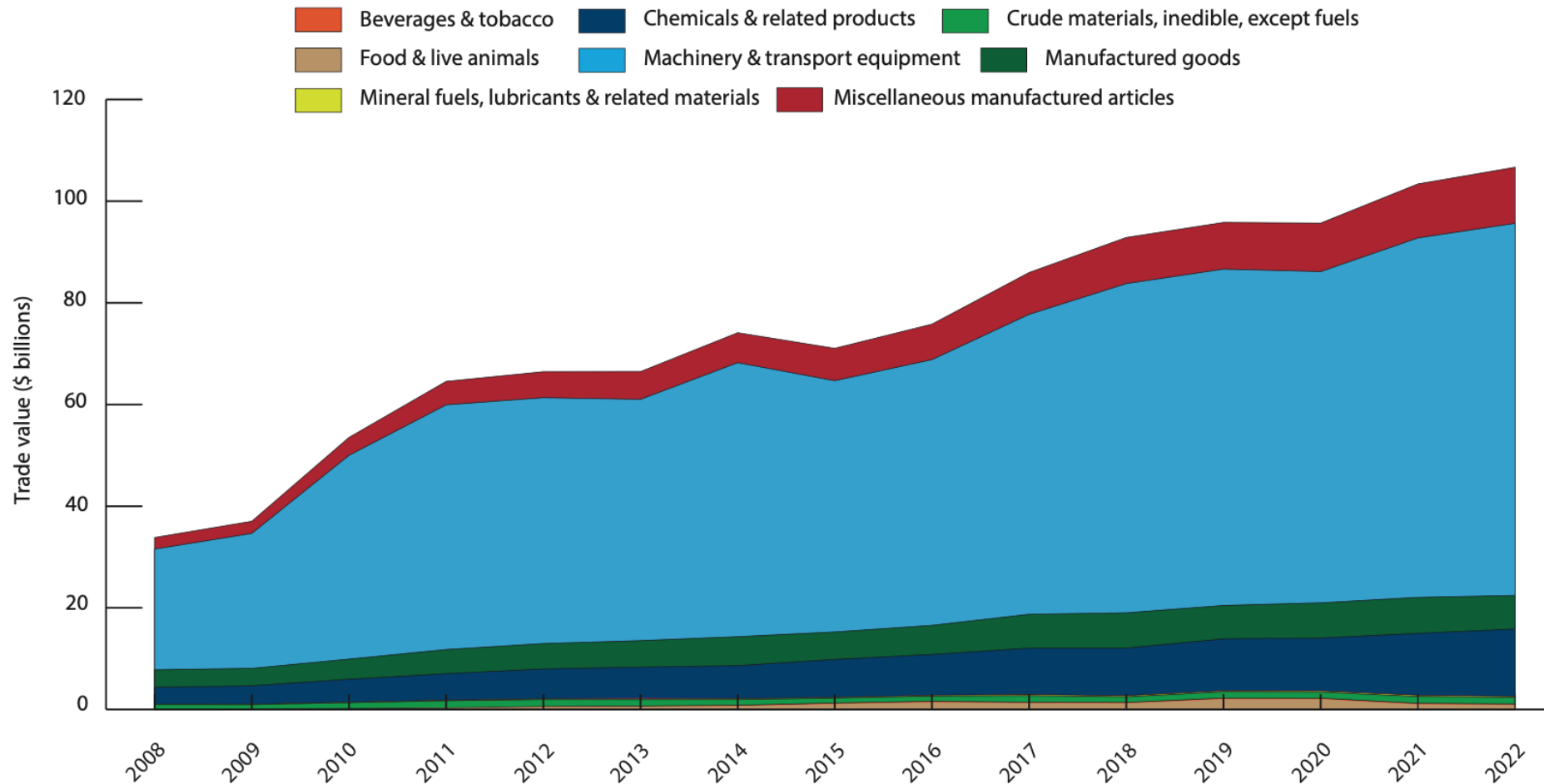
# From Europe's powerhouse to Europe's sick man

- Did China save Berlin from the contradictions of its own European policy (Sandbu 2022)?
- or it has hidden the long-term contradictions of Germany's (and EU) development model?
- German industry's success overshadowed the urge to innovate:
  - the great economic (and political) power of the export industry, based on sectors of traditional German specialization (chemical, automotive, engineer and electrical equipment) may have prevailed, blocking reform of the economic model and thwarting the opportunities for diversification into new areas.
  - the example of the green transition, where the interests of the incumbents have blocked the development of the entire supply chain up to the procurement of critical raw materials

# The Chinese challenge: a sudden wake-up call

- in 2022, and for the seventh consecutive year, China was Germany's main commercial partner.
- Chinese demand accounts for 10% of the overall value of German manufacturing.
- Germany's exports to China are overwhelmingly concentrated in manufacturing and transport goods. This sector accounts for
  - 25 % of total German GDP
  - 40% of overall German exports, and
  - 75% of exports to China, of which 25-30% automotive industry.
  - Automotive exports to China comprise between 5-10% of total demand for the German automotive industry (de Quant et al. 2023, 27)
- Almost 60 per cent of receipts from exports to China flow into only three regions, for which the share of manufacturing and transport exports reaches over 90 per cent: Baden-Wurttemberg, Bavaria, and North-Rhine Westphalia

# The automotive and machinery sector dominates Germany's exports to China



# The automotive industry

A German and European industry: the turnover generated by the automotive sector represents 7% of the EU's total GDP and employs 13 million workers (directly and indirectly), accounting for 7% of all EU jobs. (11.5% of EU manufacturing jobs)

**Two challenges:** transformation and restructuring of the sector (green transition and autonomous driving) and new competitors inside and outside the sector.



# Falling behind in digital innovation

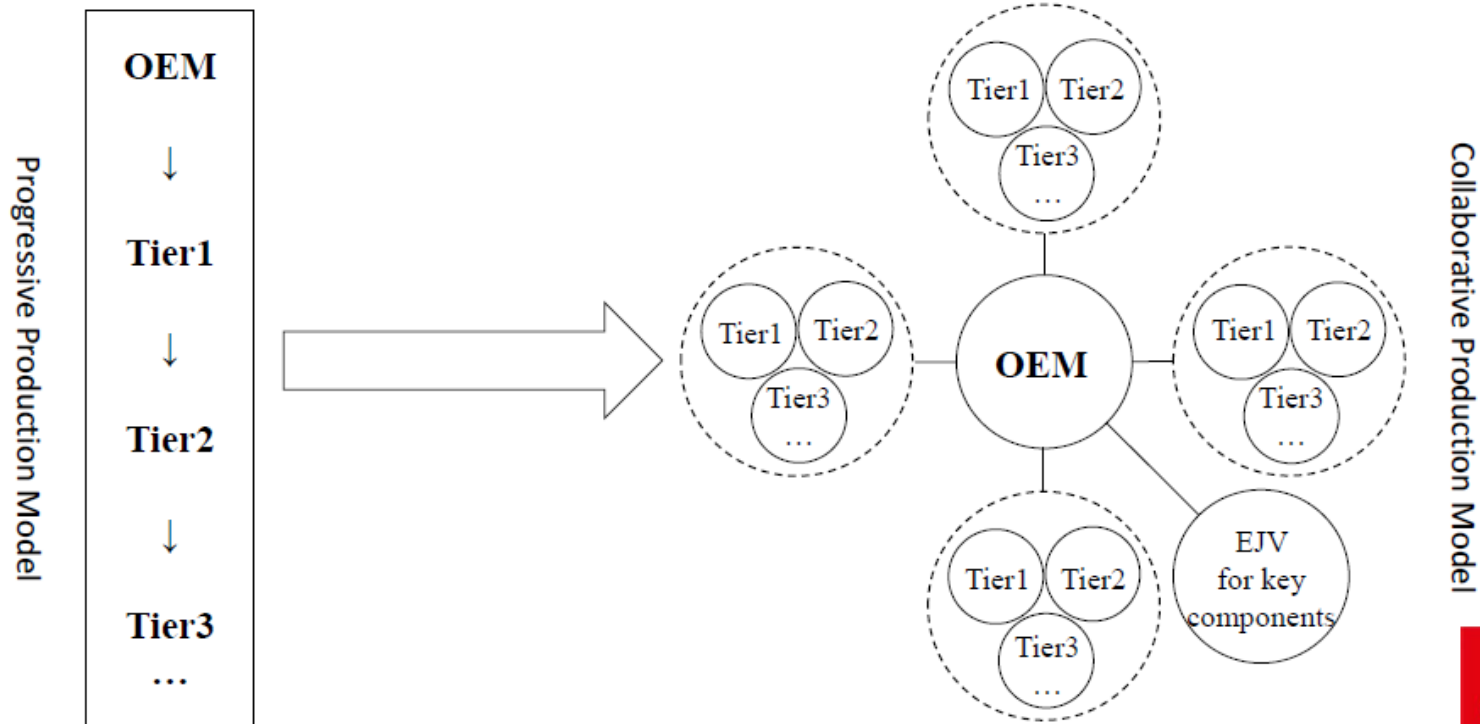
- New car models are no longer marketed on their engine capacity, but by software capabilities — a distinctive technological shift away from a German specialty to a field where the country's car industry has been notoriously slow.
- Emerging technologies rely on different knowledge bases. Non-automotive firms, and in particular ICT firms, are becoming more central to the automotive ecosystem.
- Young firms are instrumental in the relationship between research and academic institutions and businesses, with older firms specialised in the integration of these technologies (acquired through M&A) with the rest of the vehicle.
- A radical change in the organization of the industry. Global-scale technical systems depend on inputs from a diverse set of technological actors → creation of hubs (advantages of co-location)?

# The Future of the Automobile Industry – China Perspective

Hua WANG and Chuanjuan WU 2024

From the vertically integrated automotive value chain to a systemic integration

## Industry level innovation: from PPM (Progressive production model) to CPM (collaborative production model)



## Catching up in the technology race (Patent data, OECD 2023)

Huge increase in patents related to autonomous driving and e-v.

The major hubs account for the lion's share, but with different specializations:

- Germany, Korea and Japan, comparative advantage in combustion, hydrogen and electric vehicle technologies and to a lesser extent in autonomous vehicle technologies
- United States and Sweden in combustion engine and autonomous vehicle technologies, and a disadvantage in “green” technologies.
- France, Italy and the United Kingdom are at a disadvantage in the three emerging technologies.

# Changing location advantage?

- China is now the top world producer and exporter of vehicles. China's share of electric vehicles sold in Europe rose to 8% in 2022 and could reach 15% in 2025. Prices much lower than those of EU competitors, but quality even superior.
- **Germany.** Production of premium vehicles in China, with economic, technological and cost advantages resulting from the very rapid expansion of the EV market.
- **France and Italy,** specialized in the volume class (where the "local to local" model prevails), but less present on the Chinese market, have lost market shares in favor of low-cost countries.
- In 2023, the production of German luxury cars in China has grown, but exports have fallen. The simultaneous increase in imports led to a reversal in Germany's trade balance with China in the sector. As with "volume" cars, higher sales in China were fueled more by local production and less by exports.
- The increase in electric car imports from China can be attributed to Western brands (VW; BMW; Mercedes) with close relationships with Chinese car manufacturers

## How to de-risk Germany's economic model?

- German (and European) industry are caught between two fires: protection of the American market diverts Chinese exports to Europe; American subsidies (the US Inflation Reduction Act) attract European companies under pressure from Chinese competition
- Moreover, the extraterritorial reach of recent US-imposed controls leaves European companies with limited options if they wish to retain access to the American market.
- corporate risk management logic, especially in highly internationalised firms, diverges from government priorities. From 2018 to 2021 the three big German automakers - Volkswagen, BMW and Daimler, plus chemicals group BASF, accounted for a third of all European investment into China. Germany as a whole accounted for 43% of FDI (Reuter 2022).

# German companies vs. German industry

- Without the Chinese and Asian markets it will not be possible for German automakers to stabilize their production, as the European market is too small given its specialization.
- conflicting objectives, between protection of the European internal market and the risk of compromising their presence on the Chinese market, which is important for sales and acquisition of technologies.
- growing divergence between the growth of the German automotive industry and that of the automotive industry **in** Germany, with serious consequences for the components sector (Bosch and ZF Friedrichshafen).
- This conflict of interest is reflected in the debate in Brx, in particular on the introduction of tariffs on imports of Chinese vehicles: the proposal (supported by France) has not been warmly received in Berlin.
- While the need for governance at a European level is clear, it will have to manage strong social and economic conflicts of interest, between and within countries

# The European response: the new EU IP

- The multifaceted challenges the EU is confronted with have called for a redefinition of the EU's industrial policy, leading to an array of initiatives, alliances, plans:
  - Batteries, Raw materials, Decarbonisation, (Fit for 55 and Carbon tax, CBAM), Chips, Ipcei; and loosening national state aid rules.
- These programs are inspired by competitiveness (and 'resilience') concerns, but initiative (and resources) are still left to states and companies.
- A new European Sovereignty Fund to finance the new industrial policy agenda remains highly contested by more frugally-minded European states.

## Deviation from free trade?

Brussels is also considering protection from Chinese imports: support for solar panel makers and tariffs on e-v imports, screening of FDI.

Problems with tariffs:

- 1. Risk of retaliation
- 2. External protection of the EU market leaves individual countries subject to internal competition. This could affect the member countries differently if...
- 3. it encourages FDI aimed at circumventing protection, but directed mainly towards low-cost EU countries or those able to offer generous subsidies (as demonstrated by the planned locations of Chinese battery and assembly investments)



## EU industrial policy: a political challenge?

- Costs and benefits of transformation distributed very asymmetrically between countries, regions and social groups
- Decisions on where to locate new manufacturing sites are politically and socially fraught. The wealthier EU states have more resources (and more voice) on policies.
- Unlike the supposed 'neutrality' of the market, IP makes clear the choices, and therefore the conflicts of interest, taken by the (unelected) EC (and only marginally by Parliament)
- the new market activism, if not carried out in a way that is both successful and viewed as politically legitimate by European citizens, would potentially unravel the EU as a polity, rather than deepening it (MacNamara 2023, p. 18)

# Macroeconomic and finance

## How to finance the transition

- The debt brake enshrined in the German constitution in 2009, requiring balanced budgets, makes it very difficult for Germany to restructure its economy successfully and socially just.
- Germany's Constitutional Court (November 2023) forced the government to adopt a string of painful austerity measures, including scrapping the diesel subsidy for agricultural and e-vehicles (to a lesser extent, subsidies to businesses to attract or encourage investments?)
- The German position has affected the fiscal reforms at the European level, making restructuring difficult in the other member states.

# Summing up: Germany and the EU

The European growth model rested on two (vulnerable and interdependent) bases:

- Externally, Germany's export-led model came to rely on cheap imports - Russian energy, Eastern European manufactured inputs, Chinese consumer goods - and growing Chinese markets.
- Internally, the austerity doctrine and the long-lasting core-periphery divide weakened the demand-pull engine of growth and delayed industrial restructuring.

Thwarting opportunities for diversification, this model has weakened EU's technological capabilities increasing its import dependence and jeopardizing its long-term competitiveness

The lack of an EU-wide selective industrial policy has also contributed to the EU's technological backwardness in new frontier technologies. The revision of the EU industrial policy just started

# A different model?

It takes a strong Germany in a strong and cohesive Europe to navigate the turbulent waters of the world economy.

This may entail a shift from structural export surpluses towards larger domestic investments and policies more focused on the domestic market and social cohesion.

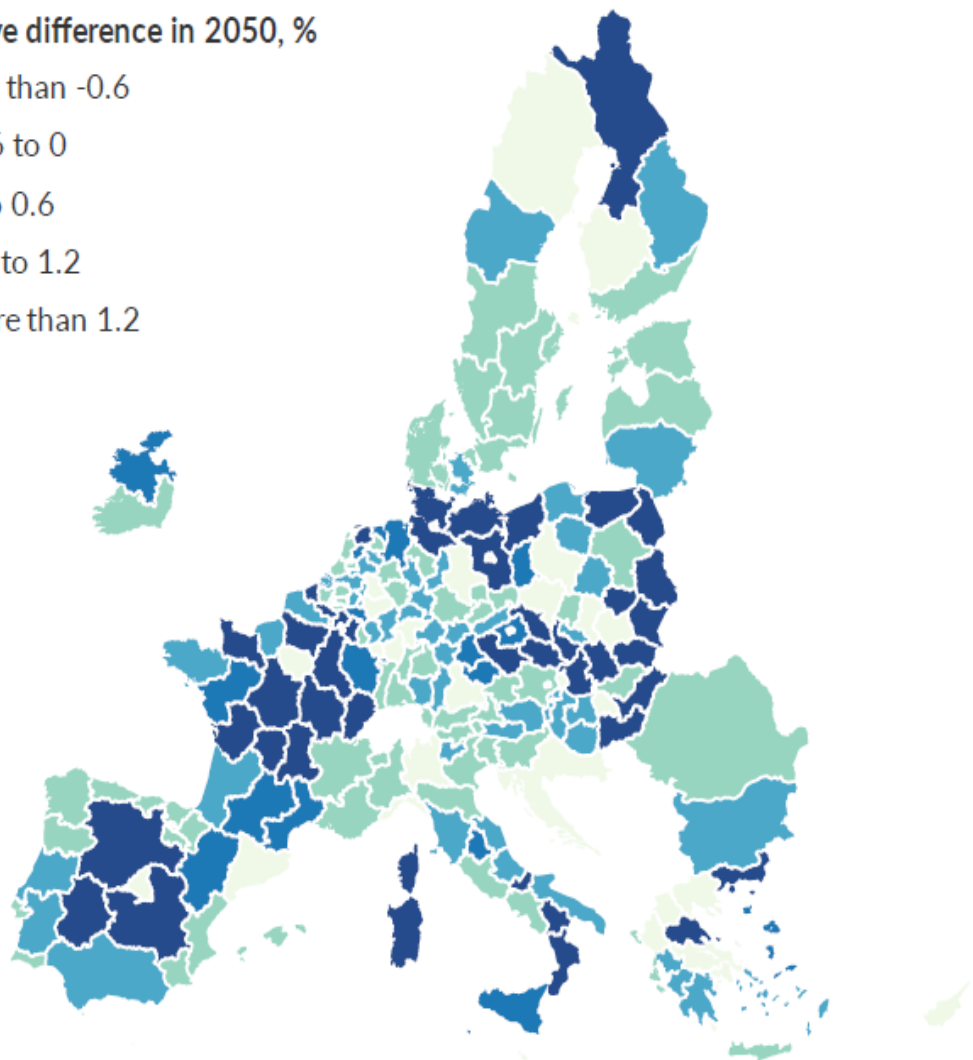
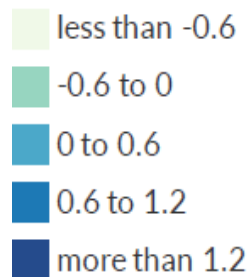
The 'Just transition' could become one of the most important forces driving the economy. According to a study by CREA (2024), in 2023 clean energy accounted for 9.0% of China's GDP. Without its contribution, the GDP would have risen by just 3.0%, instead of the 5.2% actually recorded.

Similarly, Többen et al (2023) estimate that Southern EU could benefit by investing in renewable resources: given the natural capacities of individual regions, the investments needed for production, and the effects of changing relative prices, shutting down fossil fuels production and replacing them with renewable energy could increase employment.

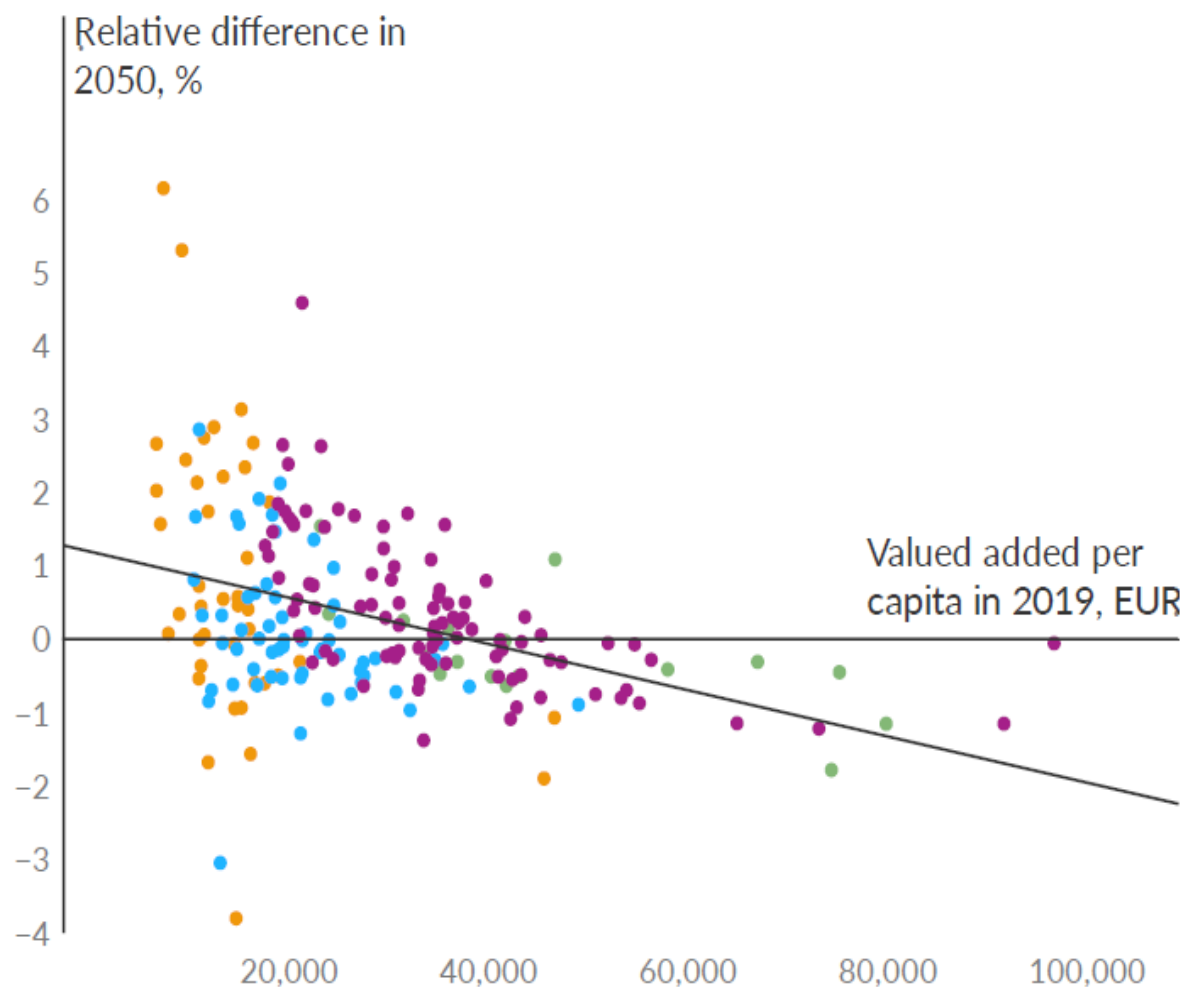
International geopolitical changes could make this scenario the only viable one.

# Figure 6: Lagging regions to catch up in economic prosperity in the renewable energy transition

Relative difference in 2050, %



● East ● West ● North ● South



The left-hand panel displays the relative difference (in %) on employment when closing the gap in the renewable energy transition by 2050, i.e. the percentage difference between the baseline scenario of implemented policy measures and the decarbonisation scenario. Values bigger than zero indicate that the renewable energy transition creates new employment in