

# Automobiles and the fate of nations

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# The evolution of EU automotive GVCs

- **Germany:** strongly reduced domestic participation in its own GVC, shifting production – especially to Eastern Europe. These countries supply specialised modules built assembling less specialised parts coming from countries at the periphery of the EU (e.g. Turkey)
- **Spain:** shifted part of its first-tier purchases from western EU to eastern EU countries and Portugal, without relevant structural changes
- **France and Belgium:** mainly assembling components coming from abroad, with Eastern Europe increasingly specialising in first-tier supplies
- **UK:** shifted part of its supplies to extra EU countries
- **Czech Republic:** shifted its purchases of relatively low labour intensive intermediates from Germany to Korea and other Eastern Europe countries, and that of labour intensive stages to Turkey and Poland
- **Hungary:** moved towards the specialisation in the assembly of imported components
- **Slovakia:** also shifted purchases from Germany to Austria and to labour intensive countries in Eastern Europe, with a further shift to India for basic industry, Turkey for labour intensive automotive components, and China for machinery modules

# The evolution of EU automotive GVCs

- Eastern EU countries specialised in the production and provision of first-tier, low labour intensive automotive components, with a parallel despecialisation in almost all basic industries (basic metals, chemicals, fabricated metals, rubber plastic, etc).
- Turkey became relevant in the production of relatively labour intensive components. In its turn, the country reduced the relevance of its supplies of less specialised intermediates such as Textiles and Rubber Plastic in favour of India
- The production chain seems to run as follows: India supplies Turkey with low-quality intermediates; Turkey uses these intermediates to produce labour intensive components which then sells to eastern EU countries, which in their turn supply Germany
- Geographical proximity becomes important within just-in-time and just-in-sequence business models, and the development of this GVC exactly deployed following this logic

- In the EU, about 2,5 million people are **directly** employed in the production of motorvehicles
- Full electric cars require totally different parts and components than traditional cars
- Hybrid models combine the components needed for both traditional and electric vehicles
- **Manufacturers investment plans:**
  - **batteries:** announcements of plants in Europe – mainly in Germany, Hungary, Poland. No investments in Spain and Italy
  - **vehicles:** about the 45% is going to be directed to China
- **EU public policies:**
  - regulations of vehicles' emissions
  - public procurement
  - purchase incentives and tax benefits
  - provision of charging infrastructure
  - batteries for electric vehicles as one of the strategic value chains to be supported

# Industrial policy challenges

- Will public procurement create employment in the EU?
- Purchase incentives: will them be enough?
- Energy production
- Supply chains: exogenous events can disrupt them
- Sustainable mobility: public transport, vehicle sharing, smart working
- Change in the structure of final demand
- Hybrid models: comply with environmental regulations **while** preserving employment
- The EU should dismantle the model of productive specialisation and implement a project of de-specialisation via planning and direct participation into investments and productive activity
- Recovery Plans: are EU countries taking advantage of the momentum to strengthen automotive GVCs?

# The German Government's Plan

<b>Measure</b>	<b>Financial commitment</b>
Environmental bonus for the transformation of the vehicle fleet	2200 millions
Replacement of the fleets of social services agencies	200 millions
Investment bonuses for manufacturers and suppliers (technologies, processes, plants)	2000 millions
Expansion of charging infrastructure	2000 millions
Modernization of the bus and truck fleet	1200 millions
National hydrogen strategy (*)	9000 millions
<b>Total</b>	<b>5600 millions</b>

(\*) not counted in the total as only partially related to the transport sector

# The Spanish Government's Plan

<b>Measure</b>	<b>Financial commitment</b>
Renewal of the vehicle fleet (+ recharging infrastructure and new forms of mobility)	550 millions
Investments for the competitiveness and sustainability of the sector	2690 millions
Research, Development, Innovation	415 millions
Taxation to support the competitiveness of the sector	Not quantified
Training	95 millions
<b>Total</b>	<b>3750 millions</b>

# The French Government's Plan

Measure	Financial commitment
Electric vehicle purchase bonus (BEV and PHEV)	535 millions
Conversion premium (scrapping)	800 millions
Realization of charging points	100 millions (additional)
Support to companies in the supply chain (investment fund for the supply sector for growth, innovation, diversification and consolidation projects)	600 millions
Investment fund (for processes modernization)	200 millions
Support for development and innovation (projects for the development and industrialization of strategic components of the value chain of the vehicle of the future "made in France")	150 millions
Production of batteries for electric vehicles	850 millions
Training of workers	500 millions
<b>Total</b>	<b>3735 millions</b>

# FCA - PSA merger

- Announcement of the use of PSA's CMP platform for B segment vehicles (5 models)
- Where will these 5 models be produced? Italy or Poland?
- Heavy consequences on the supply chain: the components could affect not only the floorpan, but also other parts of the car (hence the major savings from the merger?)
- Risk of displacement for Italy: not only has the production of vehicles collapsed, but now the components are at risk too