# Regional and local dynamics of the automotive industry in Poland: determinants and prospects

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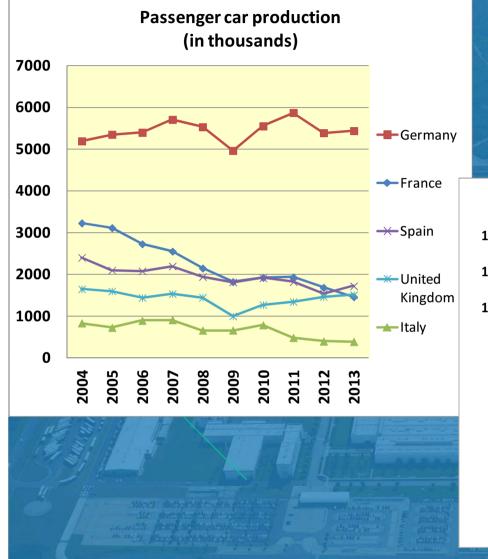
The development prospects of industrial cities in Central Europe Györ, 21-22 May, 2014

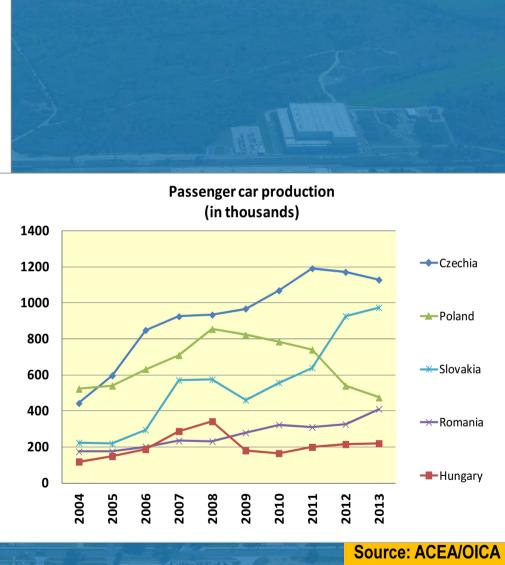
# The background: the expansion of the automotive sector in Central Europe since 1990





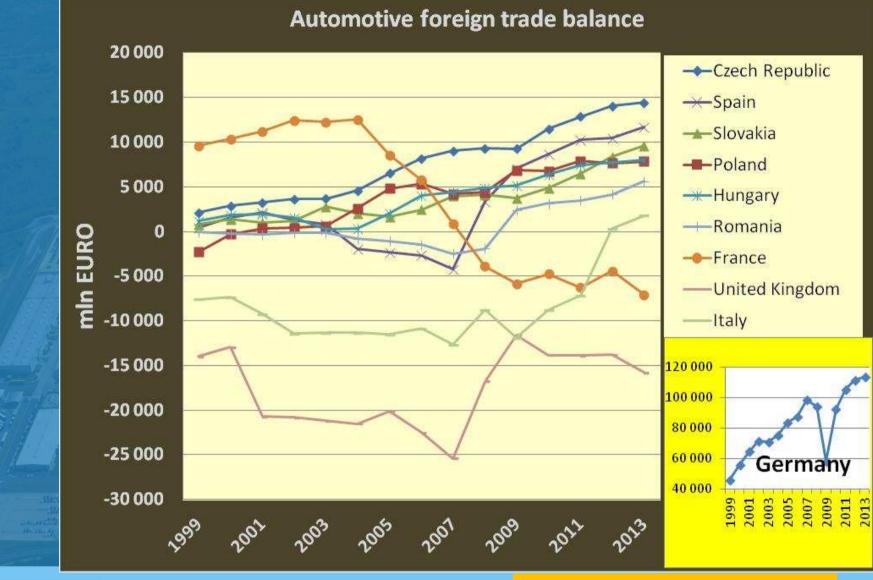
#### The dynamics of automotive production 2004-2013







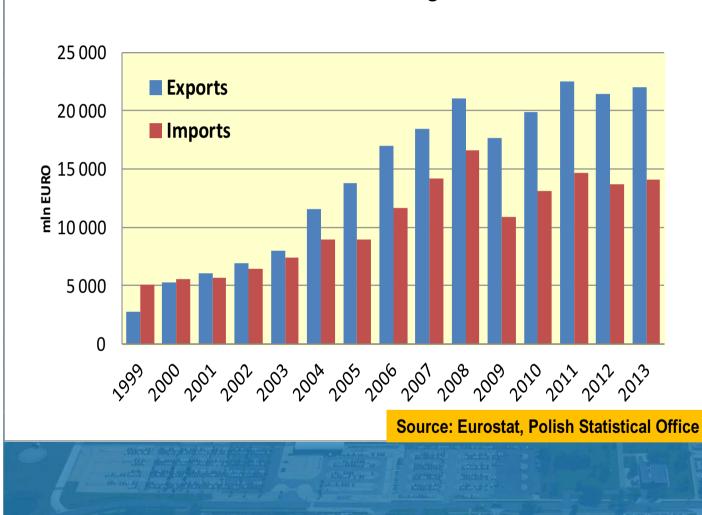
#### The dynamics of automotive exports 1999-2013



Source: Eurostat, Polish Statistical Office



#### The dynamics of automotive exports 1999-2013



Jagiellonian University Krakow Polish automotive foreign trade

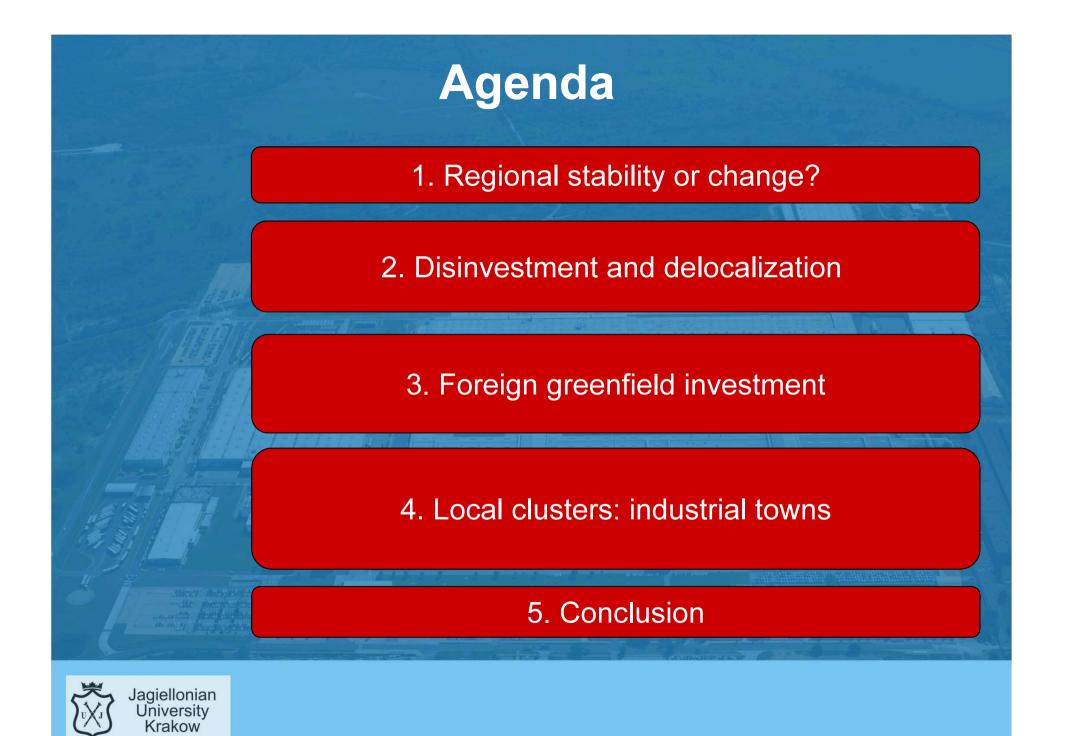
exports > imports 2007: 4.2 billion euro 2011: 7.9 billion euro 2013: 7.9 billion euro



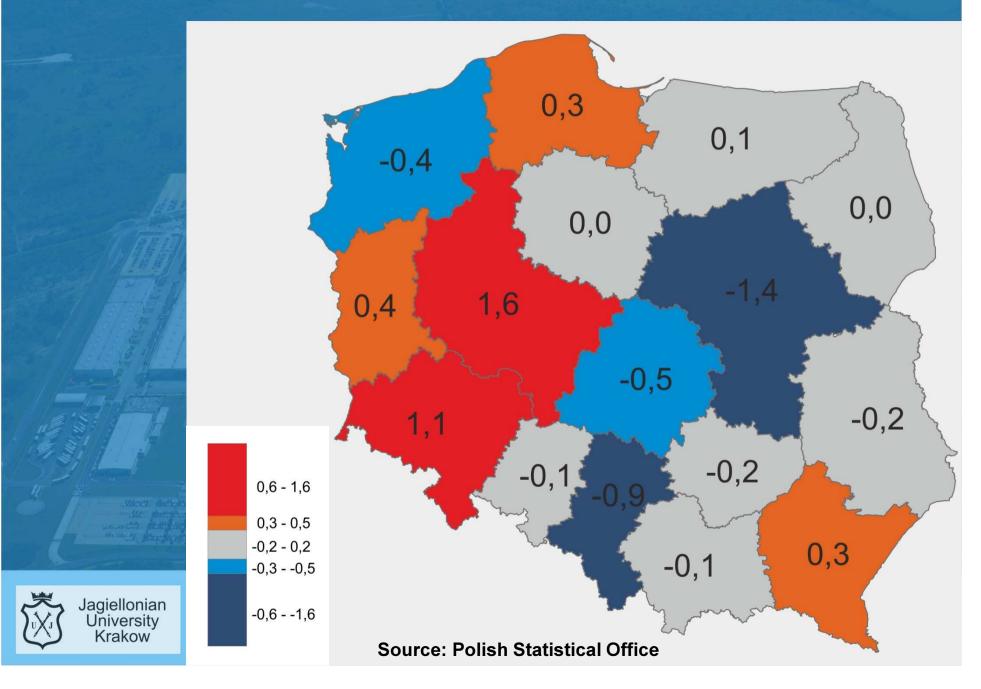
1. To what extent has the dynamic growth of the automotive sector changed the geographical distribution of production?

# 2. What are the factors behind the regional and local changes?





## Shift-share in total manufacturing employment 1998-2012



#### **Employment in automotive industry 1998**

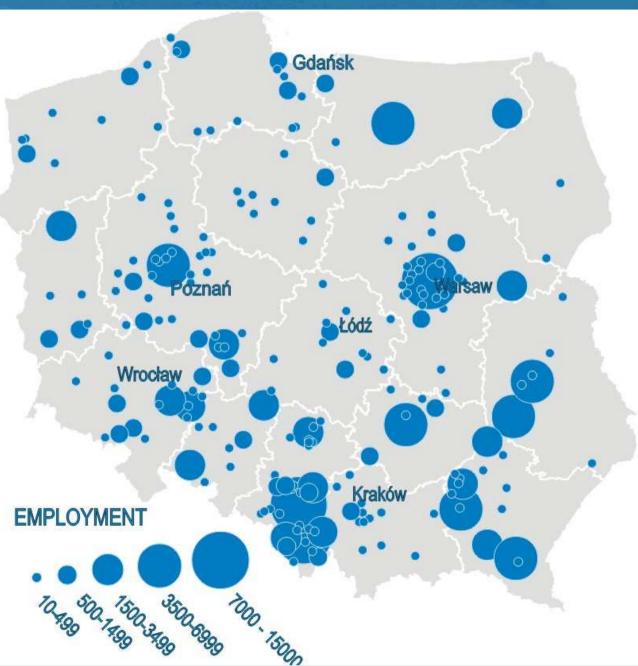
Warsaw as a traditional core of the sector

Upper Silesia & Bielsko-Biała from the 1970s

south-eastern Poland: military-oriented industry since 1930s

Total employment: 146,000





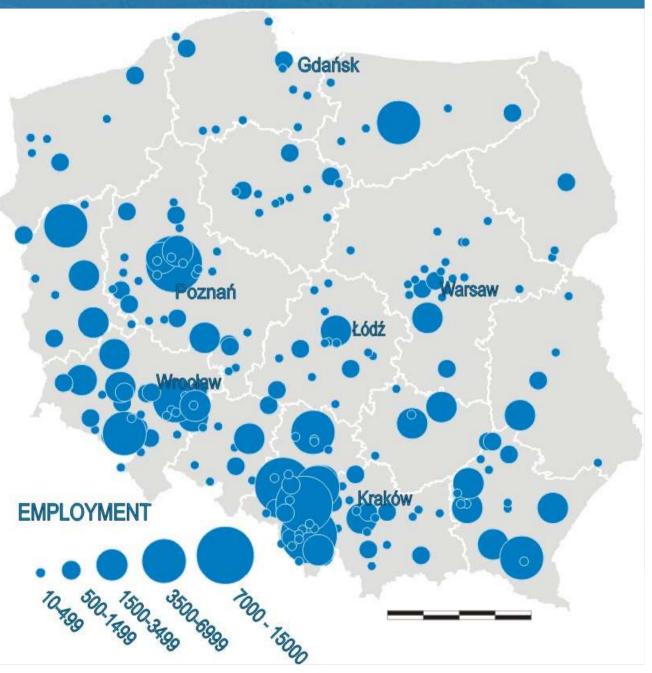
#### **Employment in automotive industry 2012**

Śląskie region as the core of the sector (Upper Silesia & Bielsko-Biała & Częstochowa)

Lower Silesia (Wrocław region)

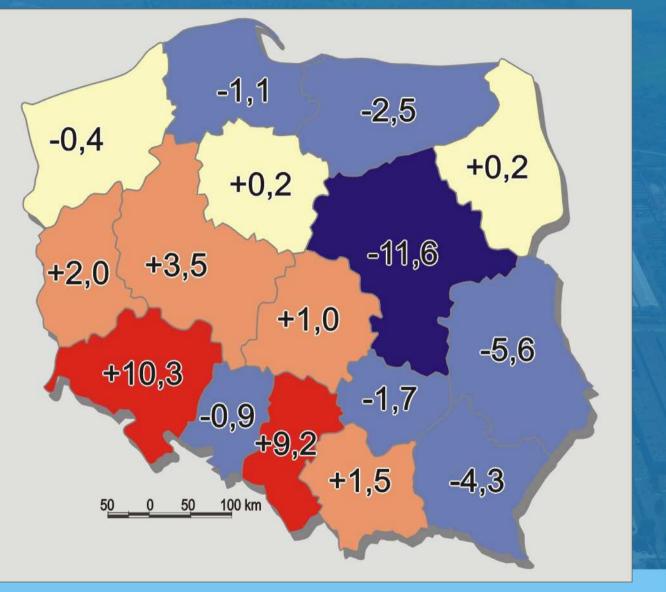
Wielkopolska (Poznań region)

Total employment: 210,000



#### Shift-share in automotive industry employment 1998-2012

Radical shift from Warsaw and south-east to the west especially south-west

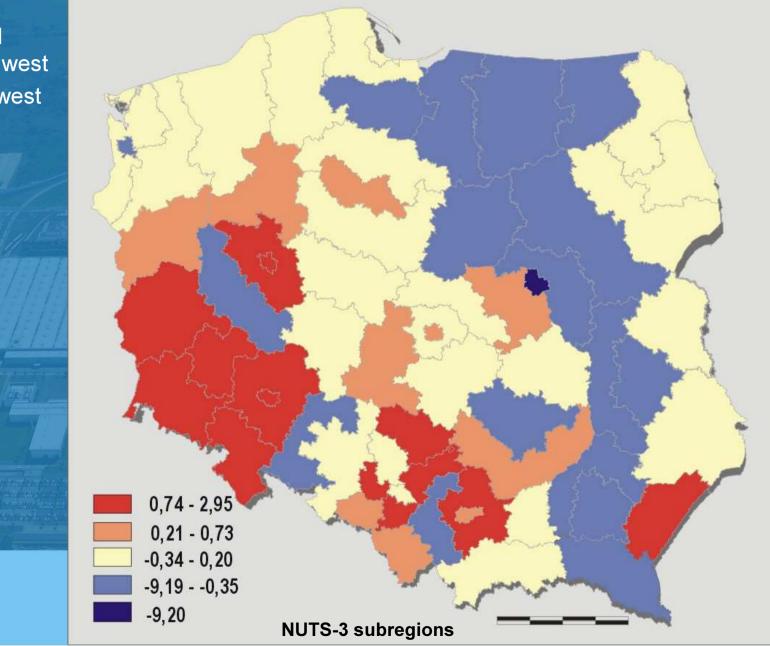


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NUTS-2 regions (voivodeships)

### Shift-share in automotive industry employment 1998-2012

Radical shift from Warsaw and south-east to the west especially south-west



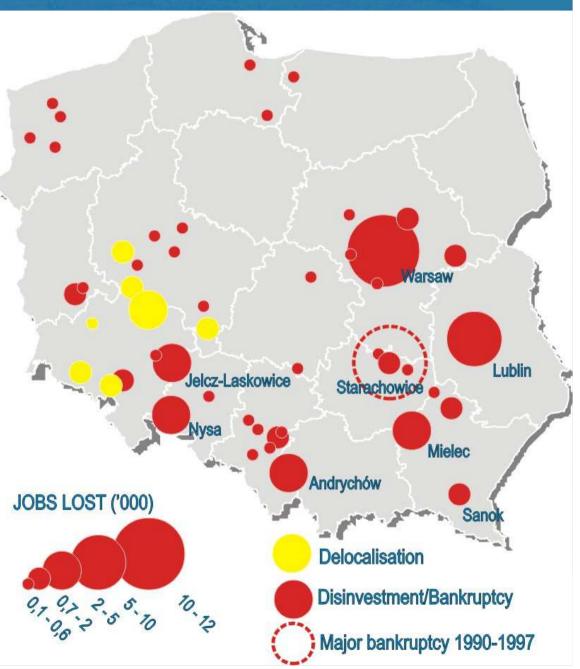
#### Bankruptcies, disinvestment and delocalisation

1998-2012 approximately 51,000 jobs lost including 8,000 due to delocalisation

93,000 new jobs created in greenfield plants at the same time

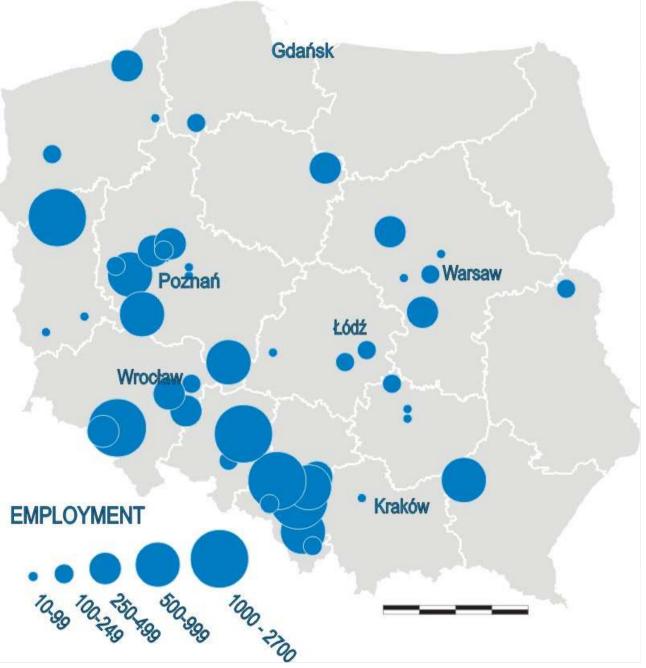






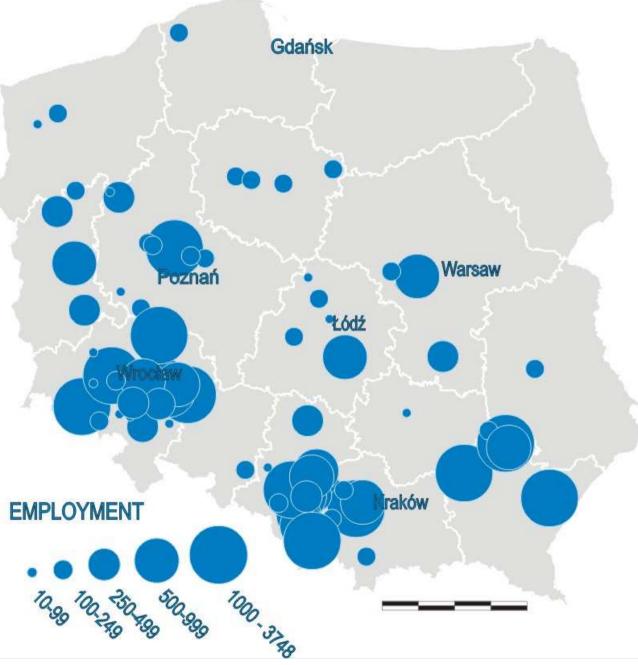
### New plants in the automotive sector 1989-1998



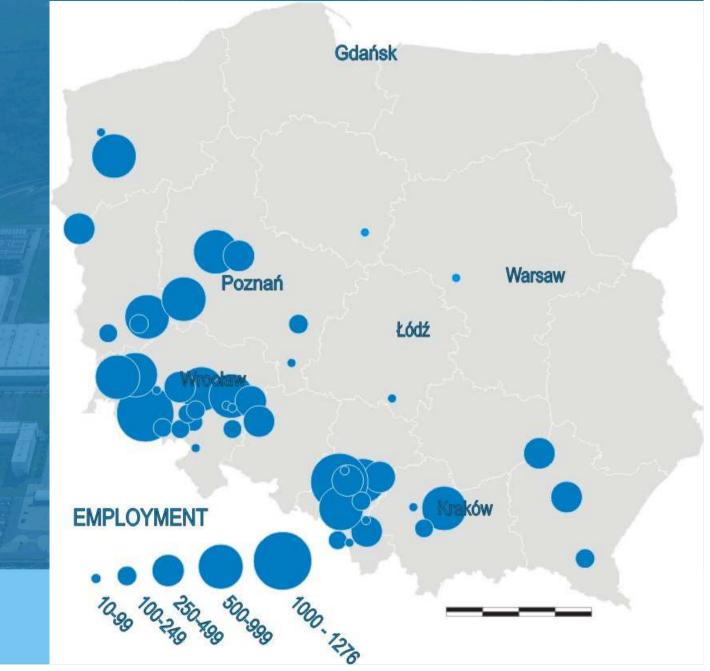


## New plants in the automotive sector 1999-2006





## New plants in the automotive sector 2007-2013



## New plants in the automotive sector 1989-2013

301 greenfield automotive plants built in Poland

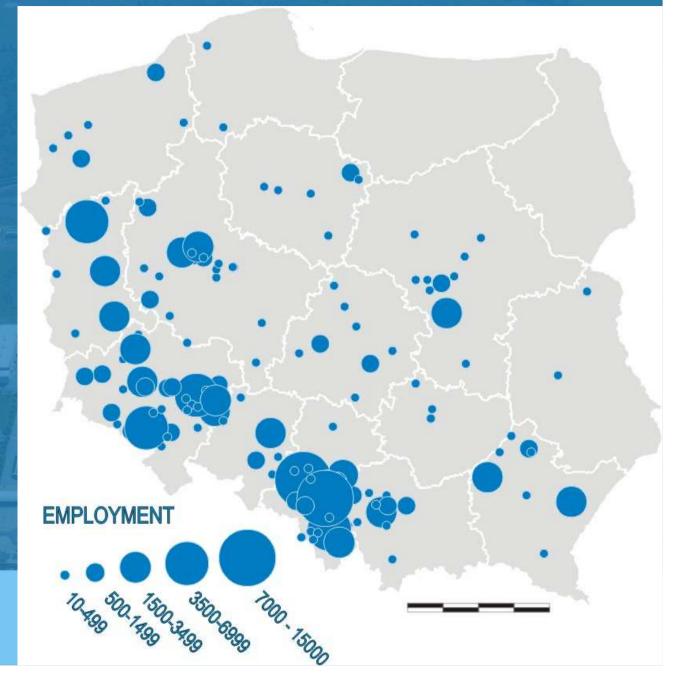
South-western Poland + Upper Silesia + Lower Silesia

Western Poland + Poznań region + German borderland

Some investment in south-eastern Poland

Very little investment in the Warsaw region





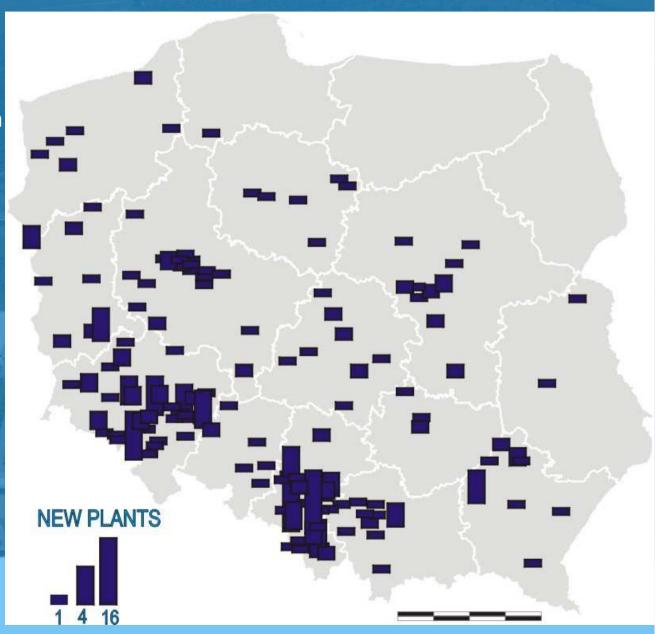
#### Number of new plants in the automotive sector 1989-2013

Reinvestment and industrial upgrading in many plants

New investors often locate in the towns which were chosen earlier by other firms

- + proximity to Germany and Czechia
- + motorway A4 as the first road connection with Western Europe
- + towns and regions with industrial traditions (skills)
- + advantages of special economic zones (infrastructure and tax exemptions)





#### The case study: Faurecia

**FAURECIA:** 7<sup>th</sup> World largest OEM parts supplier (2012) 320 plants in 34 countries and 30 research and development centers with 94,000 employees total revenues of 17,4 bln EUR

**FAURECIA IN POLAND**: 11 plants in 5 towns, R&D and SSCenter representing four Faurecia's business groups: Automotive Seating, Emissions Control Technologies, Interior Systems, Automotive Exteriors. Employment: 5,300 (18% of Faurecia's European employment)





#### The case study: Faurecia

Launch of operations: 'follow-customer' rather than a cost-cutting strategy. The first site in 1998: Grójec near Warsaw, production of seats frames, proximity to the capital city and Daewoo assembly plant (potential customer) availability of local technical skills

Expansion in 2001-2006 in W and SW Poland: Gorzów, Legnica, Wałbrzych, good road accessibility and proximity to main customers in Western Europe, availability of labour, including technicians, also tax exemptions in SEZ

Continuous production upgrading and some non-production functions: R&D and Financial Shared Service Center in Grójec

Substantial reinvestment 2012-2013: 2<sup>nd</sup> plant in Gorzów, 2<sup>nd</sup> plant in Legnica Expansion of four Wałbrzych plants is under way R&D centre also expanded in 2012 (+50 engineers)

#### Industrial towns: the case of Bielsko-Biała

19<sup>th</sup> century: textile centre

textile machinery

1966: fire-engine produced in BB adopted for Syrena

1972: relocation of Syrena assembly from Warsaw to BB

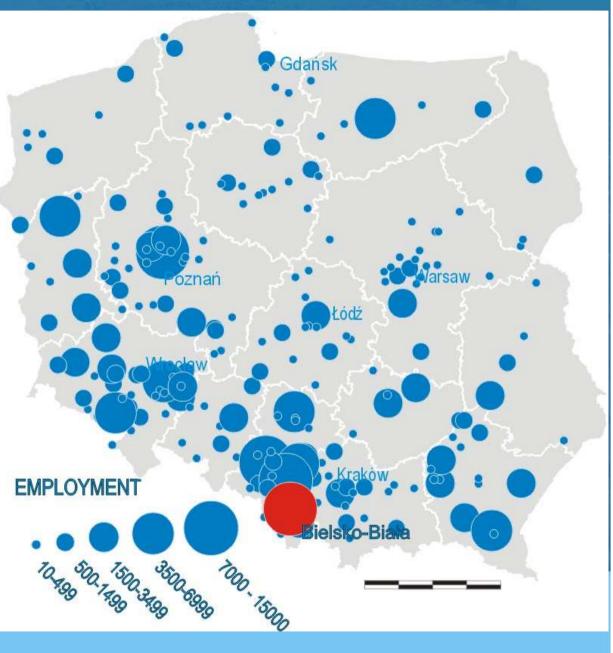
1973: engine production and exports for Fiat 126

1992: acquisition by Fiat

2000: termination of Fiat 126 assembly; expansion of engine production

Now: 20 plants (9,550 employees e.g. Eaton, TRW, Magneti Marelli and Polish R&D





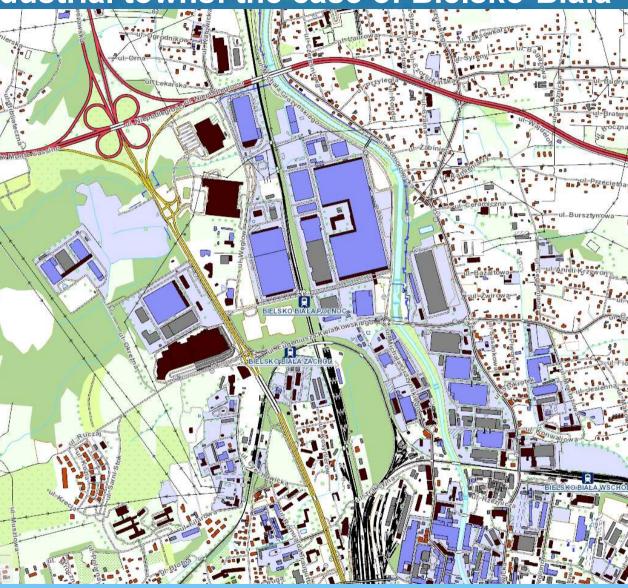
## Industrial towns: the case of Bielsko-Biała

evolutionary development based on earlier capabilities in machinery and metal manufacturing

follow-up investment of the suppliers of engine parts

non-production functions and local engineering firms







#### Industrial towns: the case of Gliwice

#### 1796: iron works

19<sup>th</sup> century: diversified industrial centre in the western part of Upper Silesia

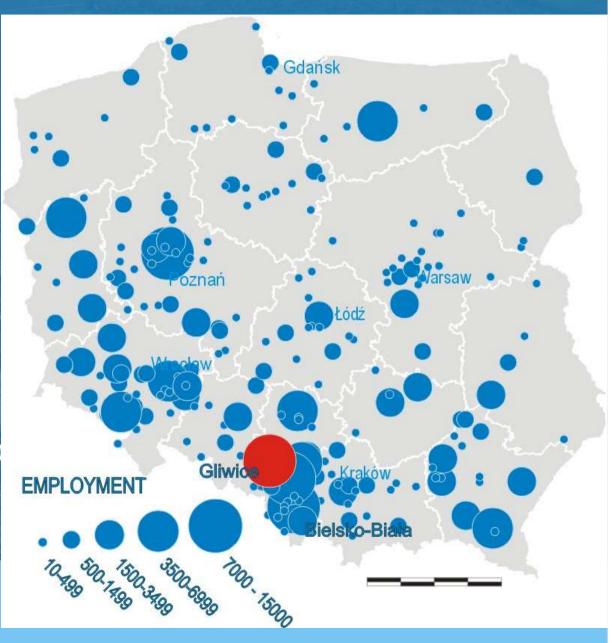
prior to 1945: headquarters of major industrial companies in German Upper Silesia and strong service sector

1945: large technical university and state-owned R&D centres

1996: GM decision on new assembly plant in Gliwice

Now: 14 plants (8,480 employees) e.g. GM, TRW, Nexteer, Delphi, NGK, Tenneco and R&D of some component producers





#### Industrial towns: the case of Gliwice

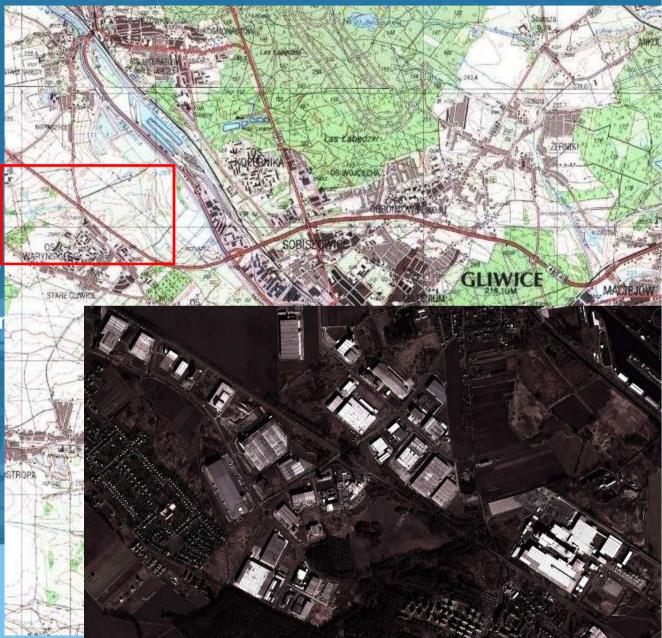
#### no automotive tradition

#### path-breaking GM decision

- strong competences in machinery and metal industries
- attitude and activity of local government
- special economic zone
- accessibility (A4 motorway)

# imitation locational behaviour of export-oriented suppliers





#### Industrial towns: the case of Wałbrzych

Location in the Sudeten Mts.

19<sup>th</sup> century: coal mining and coke production; textile industry in the region

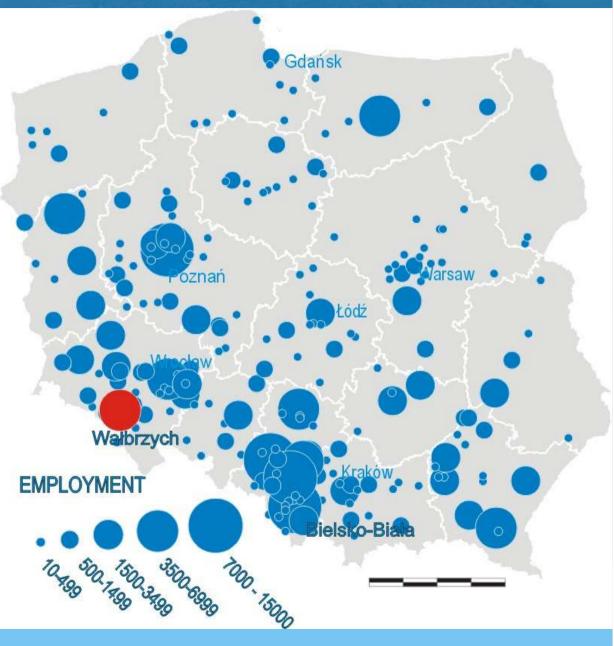
environmental disaster

the closure of coal mines and textile factories; high unemployment

1998: first greenfield plants of labour-intensive components

1999: Toyota gear-box plant; engine factory later

Now: 12 plants (5,900 employees e.g. Faurecia, NSK, Mando; no non-production competences





#### Industrial towns: the case of Wałbrzych

no automotive tradition

path-breaking Toyota decision

large pool of relativelycheap labourgeneral industrial traditions

- special economic zone

good accessibility to Germany and Czechia

typical export platform with no non-production functions and lack of domestic firms





The time of dynamic growth of automotive industry in the post-socialist era was a period of a major shift in the geographical distribution of production

Conclusion

The radical change in the geography of automotive industry stemmed from:
a) massive greenfield investment in south-western and western regions
b) the bankruptcy of former state-owned monopolistic manufacturers
of buses and heavy vehicles and some foreign investors, esp. Daewoo

The old Upper Silesian Industrial Region together with neighbouring Bielsko-Biała, Częstochowa & Kraków regions have developed as the core of the automotive sector in the country with two car plants, diversified supplier base and relatively strong non-production functions including R&D

## Conclusion

The formation of the core automotive region can be seen as a path-dependent process, the seeds of which were sown by locational decisions related to the Fiat-licensed car in the 1970s; the location of General Motors in 1996 triggered a massive foreign investment in the region

Lower Silesia (Wroclaw – Legnica region) is a major winner of the expansion of automotive component sector in the corridor of A4 motorway in proximity to Germany and Czechia

Good accessibility, industrial traditions (skills), infrastructure and special economic zone incentives are important factors behind the location of the majority of new plants in south-western Poland

There is clear imitation behaviour in locational choices of foreign investors

The future prospects of industrial towns dependent on automotive industry will be shaped by:

- a) the general trends in the West European core as the main market
- b) diversification of the local industry
- c) specialization in less/more advanced products and services

