

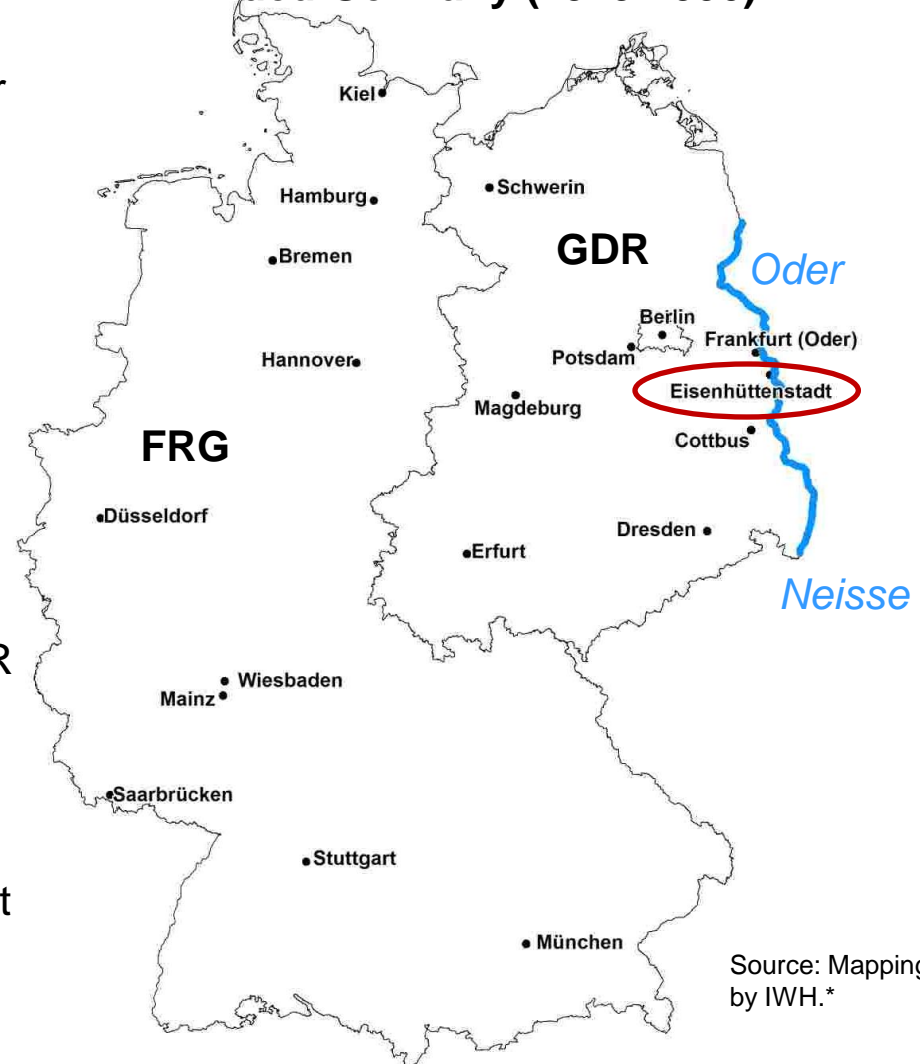
East Germany's Economy on the Path from Transition to European Integration: Achievements, Shortcomings and Challenges

Mirko Titze (in cooperation with Gerhard Heimpold)

➔ Personal background:

- Born 1974 in Eisenhüttenstadt (former GDR) (see the map)
- Attendance of a school in the hometown named after Juri Gagarin
- Aged 14 when the “Iron Curtain” fell down
- Eisenhüttenstadt is closely linked with the metallurgical plant located there
- This town/plant is an example for the establishment of industries in the GDR as a consequence of the German division after World War 2 and the beginning of the Cold War period
- After German unification it was difficult to maintain these industrial cores

Divided Germany (1949-1990)



Source: Mapping by IWH.*

* The authors thank Mr. Michael Barkholz, Dept. Formal Methods and Databases, IWH, for producing the maps included in this presentation.

Main street and the plant



Town hall (built in the 50ies)



Source: Eisenhüttenstadt's official website (www.eisenhuettenstadt.de)

Theater (built in the 50ies)



Apartments (built in the 50ies)



Source: Eisenhüttenstadt's official website (www.eisenhuettenstadt.de)

Introduction

- ➔ Some short facts about Eisenhüttenstadt (see EKO Stahl GmbH [ed.] 2000):
- German metallurgical capacities before World War 2 = located in the western part (Ruhr area)
 - German division and hindered trade = establishment of metallurgical capacities in the GDR
 - It was a military strategic decision to establish such plant at the Oder-Neisse border = this location represented the longest distance to the iron curtain
 - “Official” motivation for the location’s decision: locational advantages in terms of transportation costs: crude and lime from Poland and ore from the Soviet Union
 - 1951: start up for the construction of an iron and steel plant = technical experts from the USSR supported the built up of the plant
 - 1951: foundation of the residential town = “first socialist town” in Germany
 - Permanent development of the plant to a large-scaled trust “Kombinat”
 - Economic disadvantage in the late 1980ies: technological gap = technological capacities of an integrated steel manufacturer have not been completed. There was a lack of production capacities for hot-rolled strips. This required high transportation (railway) capacities: Steel was transported to hot strip mills in the FRG or the Soviet Union, after hot rolling back to Eisenhüttenstadt.

Introduction

- ➔ What has happened after 1990 (see for example EKO Stahl GmbH [ed.] 2000):
- Modernization of production capacities (capital stock)
 - Maintaining (of a reduced number) of jobs at production location Eisenhüttenstadt
 - Successful privatisation = today part of a multinational enterprise → ArcelorMittal
 - Reduction of employment to 2 413 (plus 3000 in connected industries) employees in 2010 (1989: 11 934)
 - High productivity = the plant is highly competitive at world market
 - EU enlargement lead to home market effects = EKO as entry to the CEE markets
- ➔ Some shortcomings still occur:
- The headquarter in Luxembourg coordinates main functions
 - Production site Eisenhüttenstadt: rather production related R&D (e. g. quality management) than R&D in the broadest sense
 - The regional network has emerged relatively weak = the plant receives intermediates supraregionally and it supplies its products supraregionally
 - Production related services in regional connected industries

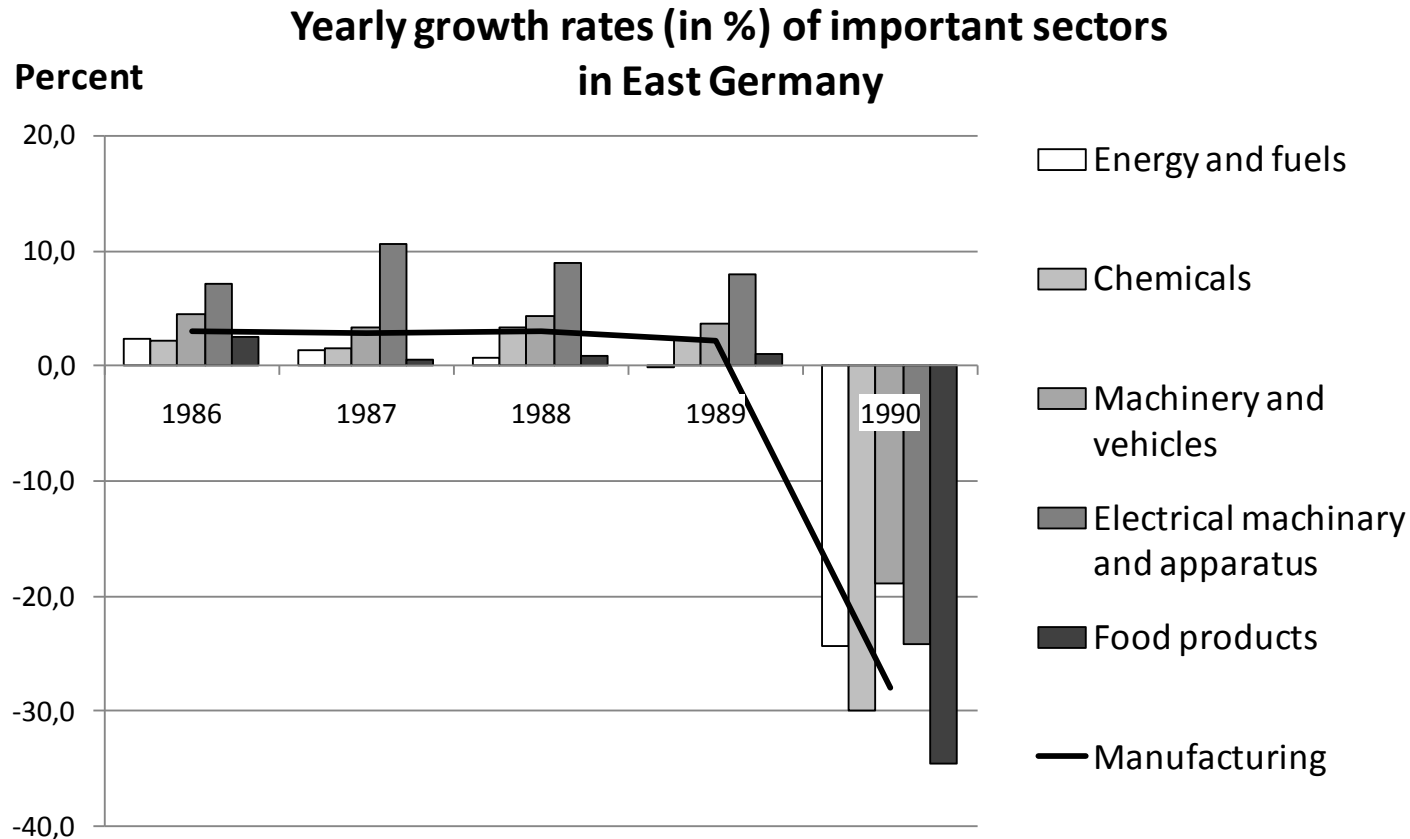
Introduction

- ➔ Case of German Unification is not only a case of economic integration; it is a case of transformation from a centrally planned economy to a market economy, too.

- ➔ Initial situation in East Germany at the beginning of the 1990ies (Deutscher Bundestag 1998; Sächsisches Staatsministerium für Wirtschaft und Arbeit 1993, pp. 32-45):
 - enterprise sector and public infrastructure: obsolete capital stock;
 - over-dimensioned (overstaffed) manufacturing sector while service sector is underrepresented;
 - business “landscape” characterized by inefficient large-scale trusts (“Kombinate”) while SME were rare.

- ➔ The division into East and West Germany has led to an economic structure in the GDR including numerous distortions which hardly were competitive when the wall came down (Boltho, Carlin & Scaramozzino 1999)

➔ The structural break after the unification:



Source: DIW Berlin, IfW (1991): Gesamtwirtschaftliche und unternehmerische Anpassungsprozesse in Ostdeutschland. Erster Bericht, in: Kiel Discussion Papers 168, March, p. 4 (Primary Sources: Statistical Office of the GDR and Federal Statistical Office, FRG).

Introduction

➔ Steps of transition

- 1) Monetary union (1st of July 1990)
- 2) Formal unification (3rd of October 1990)
- 3) Implementation of the West German legal framework
 - (Re)establishment of 5 „new“ federal states
 - Delegation of responsibilities to the regional level = principle of subsidiarity (more responsibilities on the federal state level and the municipality level)
 - Privatisation of state owned enterprises
- 4) Implementation of the West German social system (including the health system)
- 5) Comprehensive programmes for the renewal of public infrastructure
- 6) Comprehensive programmes for the stabilisation of the business sector = ensuring the competitiveness of East German enterprises
 - Support of investment = investment grants, tax revenues, loans
 - Support of private R&D activities = grants
 - Support for start ups
 - Other support schemes

➔ To ensure equivalent living conditions transfer payments from West to East Germany within the period from 1991 to 2005 in an amount of more than 1 000 Billions of Euro were conducted = mostly for the social insurance system (Blum et al. 2009)

Achievements

➡ What has been achieved?

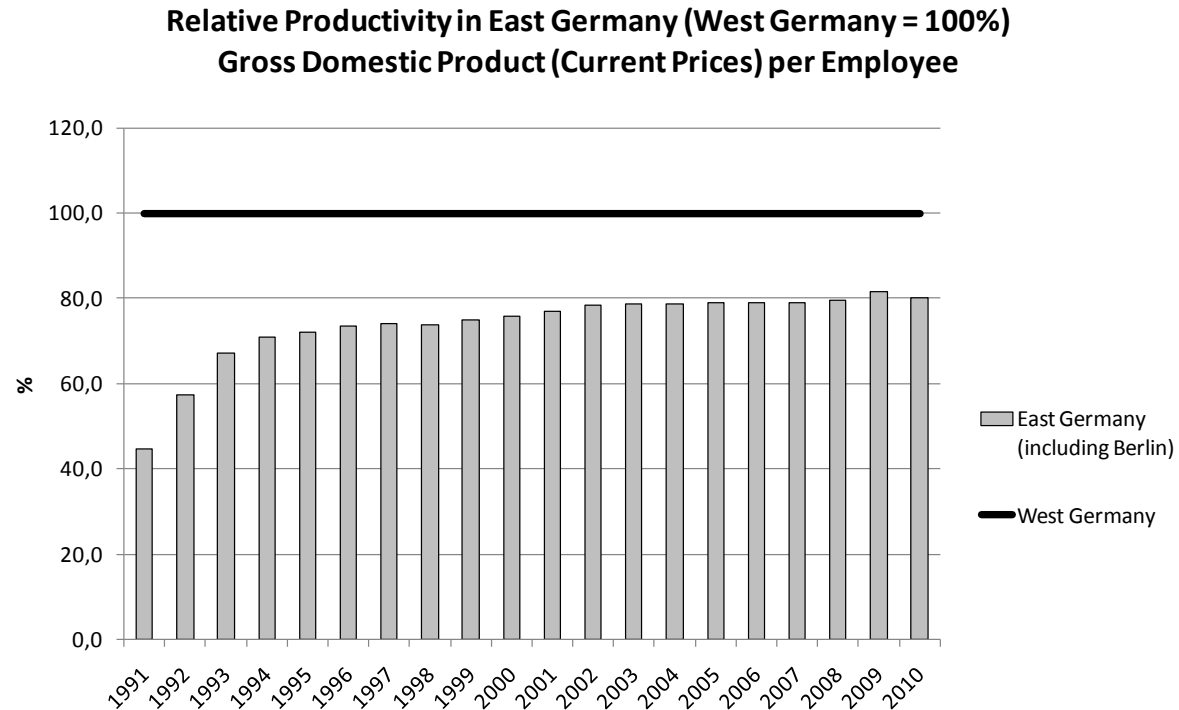
Economic and social development in East Germany shows numerous positive changes:

- modernized infrastructure
 - large investment in the public research and education sector,
 - improvement of roads/highways and railroad tracks,
 - high standard in the health care system,
 - development of the urban wastewater treatment system,
- the modernization of the firms' capital stock
- Signs of re-industrialisation → manufacturing industries have been “motors” of economic development since the mid 90ies
- the protection of the environment.

➡ To sum up, living conditions in East Germany have improved substantially since 1990.

➡ Nevertheless, some shortcomings still occur ...

➔ East-Germany was not capable to catch up to West-Germany:



Source: Regional Accounts VGRdL2011, calculation by IWH.

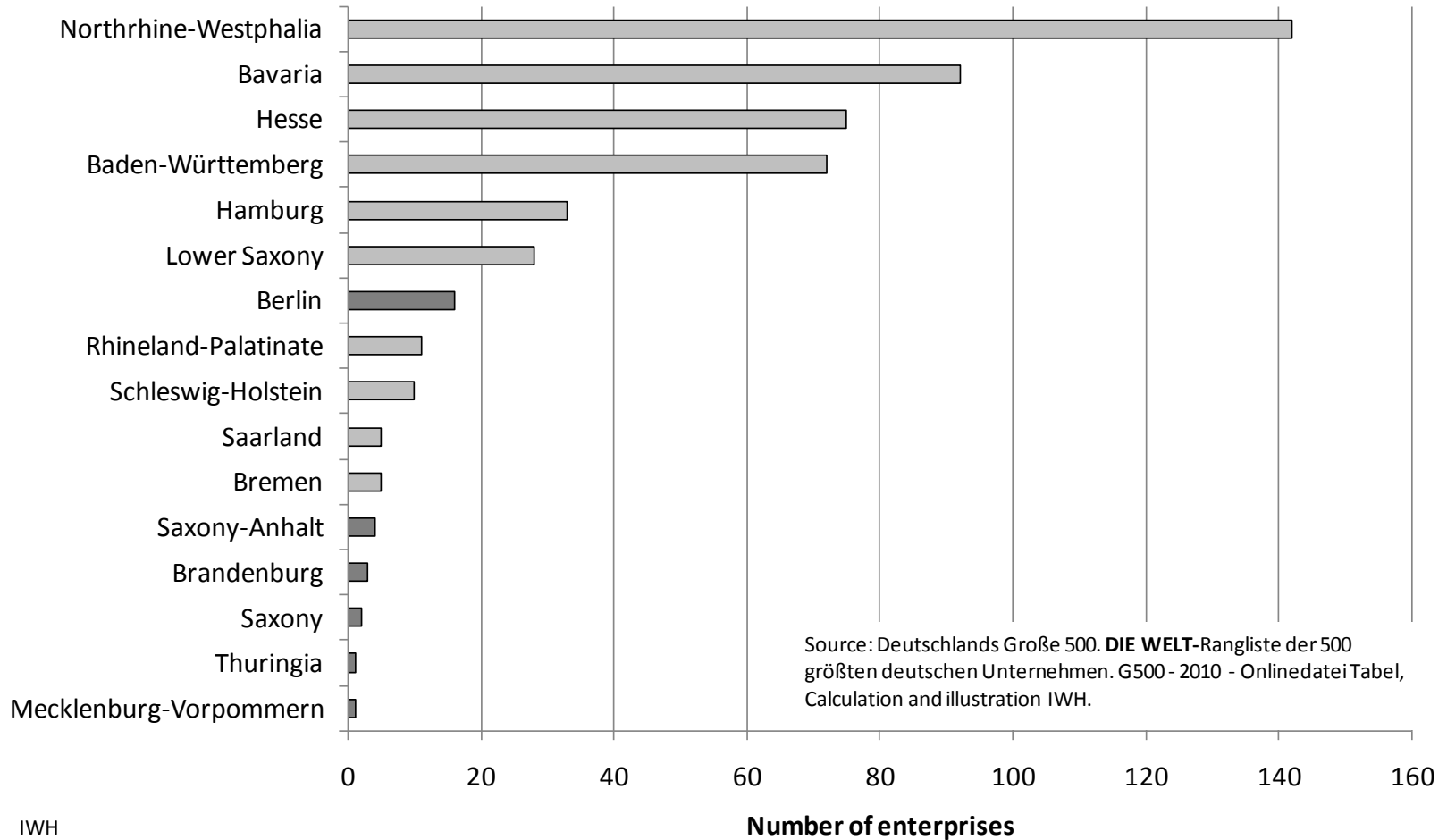
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➔ Why East Germany as a whole was not capable to catch up to West-Germany, although transition has been finished?

➔ Obviously, the effects of investment in physical capital are exhausted = capital investment shows decreasing marginal effects

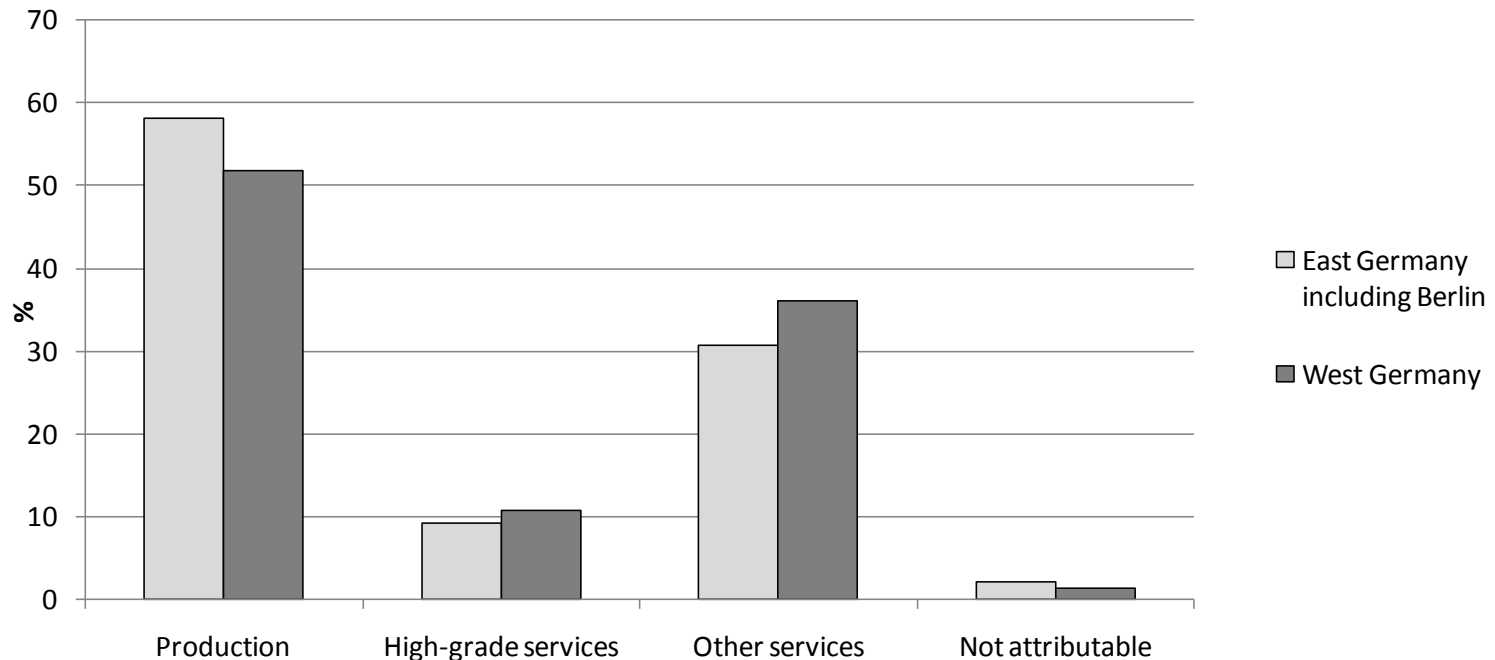
➔ Lack of headquarters (Blum 2007)

Locations of the 500 largest enterprises in Germany



➔ Lack of headquarters (Blum 2007) → Above average specialisation in production activities while high-grade and other services are under-represented

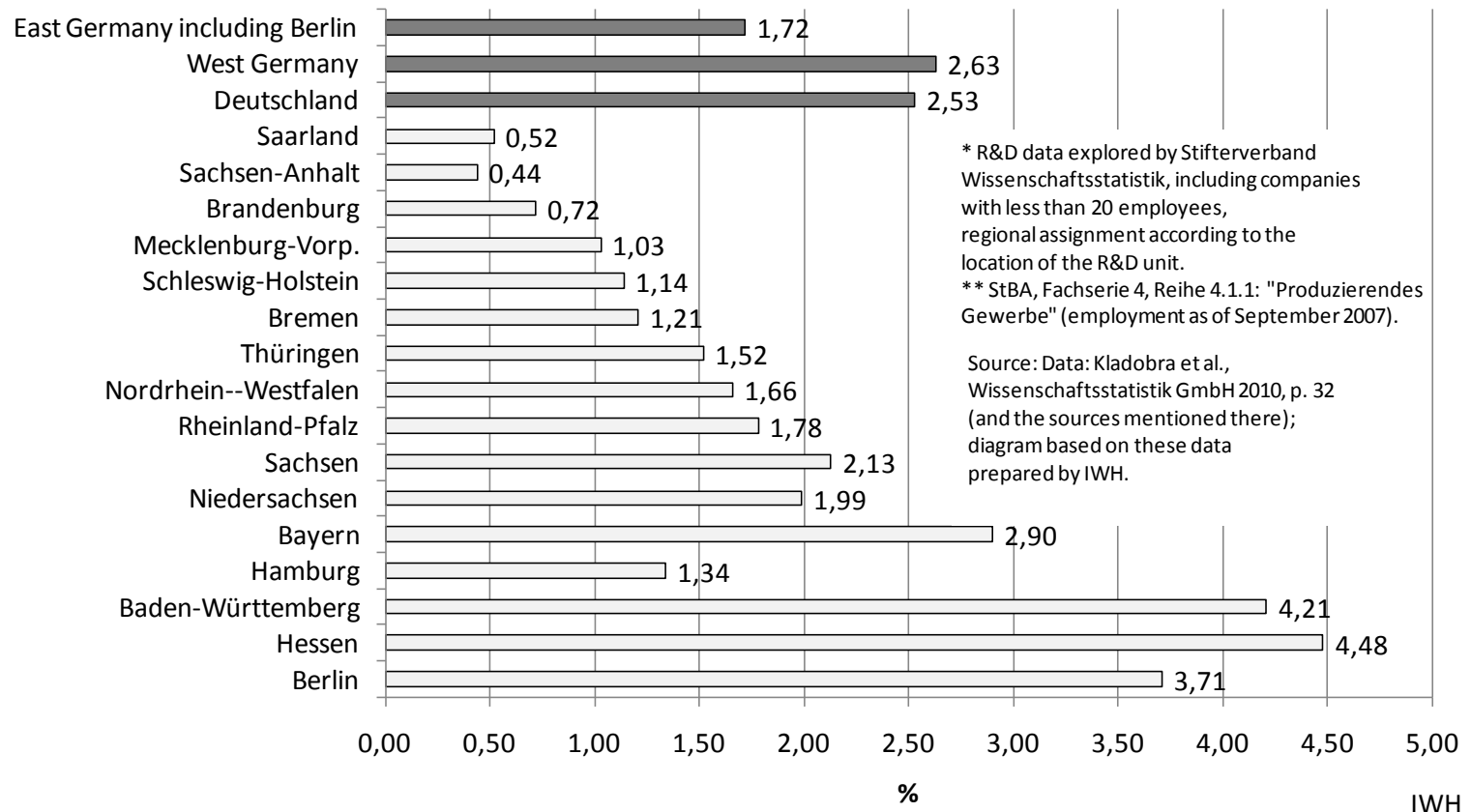
Functional Structure of the Manufacturing Sector in East Germany and West Germany, Share of Occupation Groups (total employment in the manufacturing sector = 100%)



Sources: Heimpold 2009, p. 431, calculated by using statistics of the Federal Employment Agency (as of 30/06/2008) and mainly based on a classification by Bade 1987, especially pp. 194-196.

➔ Weak R&D activities in the business sector → Innovations will be seen as the most important driver for long term growth

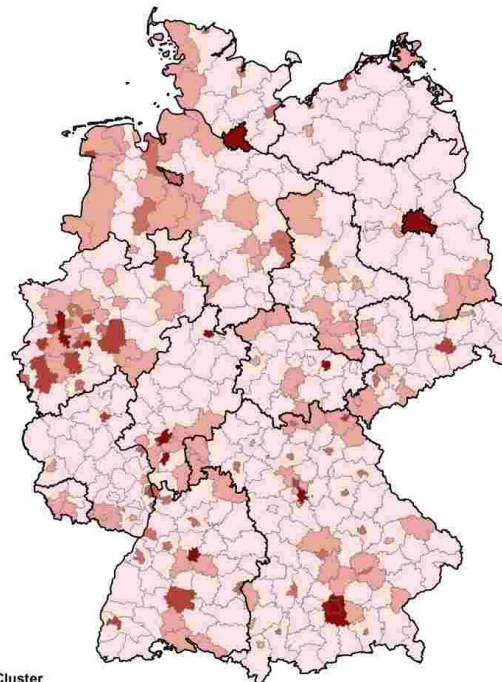
Proportion of R&D expenditures (Turnover total = 100%) by German Laender, Mining and Manufacturing Sector, 2007



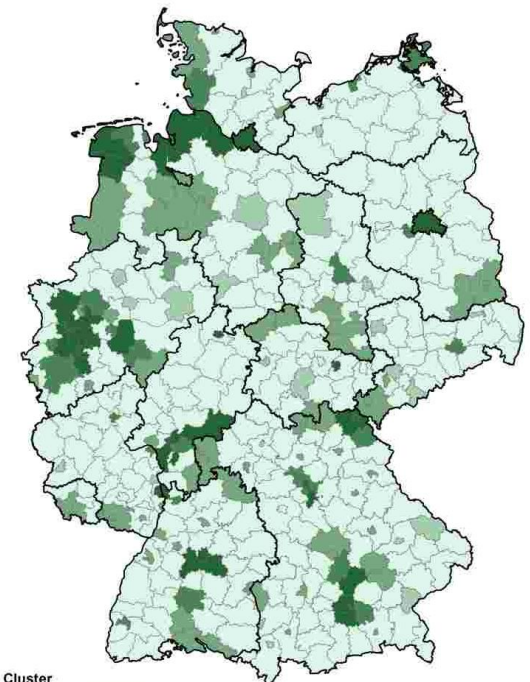
- ➔ Modern growth theory highlights the role of agglomeration economies for regional development (for example Marshall 1920, Jacobs 1970, Porter 1990 and 1991).
- ➔ Disrupted networks (Albach 1993), in the mid 90ies: lack of networking (DIW/IfW/IWH 1998, p. 27, Hornschild 1995, p. 25) = Absence of regional concentrated industrial linkages → Inter-industry linkages promote the emergence of industrial clusters

➔ Potential regional and interregional production networks in Germany (2003)

Potential regional networks



Potential inter-regional networks



Class	Description
1	Regions with no concentrated economic activity
2	Regions with one industrial cluster
3	Regions with more than one industrial cluster
4	Regions with one sectoral interdependency of industrial clusters
5	Regions with more than one sectoral interdependency of industrial clusters

Sources: Statistical data of the Federal Employment Agency and StBA 2008, own calculation and illustration by IWH according to Titze et al. 2011.

- Fostering the emergence of industrial clusters
- Support of firms which are a key player in industrial clusters
- Emergence of firms which provide central functions = high-grade services (R&D, controlling)
- Ensuring a stable economic growth with a shrinking and aging population - the net migration rate from East to West Germany since 1989 has been in an amount of about 2 Mio. people (Blum et al. 2010, p. 68).

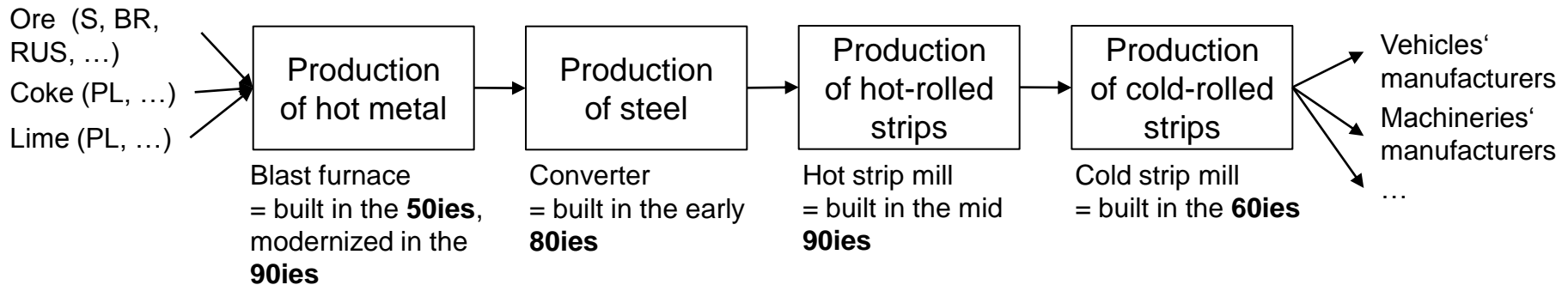
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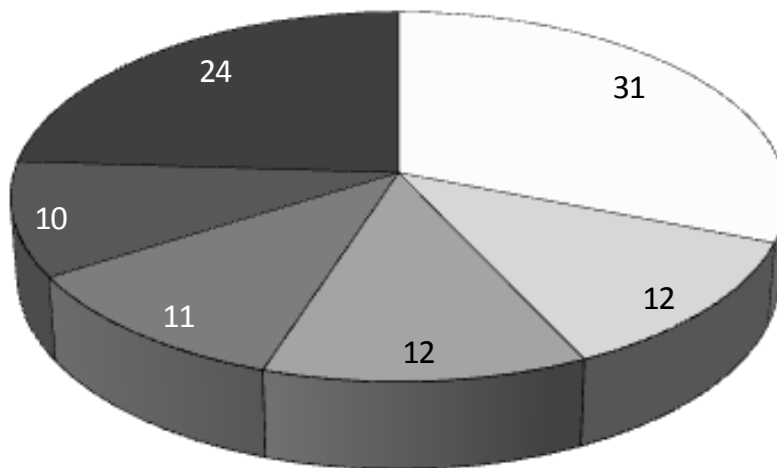
Backup slides

➔ The technological process of an integrated metallurgical plant



Source: Own illustration.

Sub-branches' share on the East German manufacturing sector (in %) in 1990



□ Machinery and vehicles

□ Chemicals

■ Food products

■ Energy and fuels

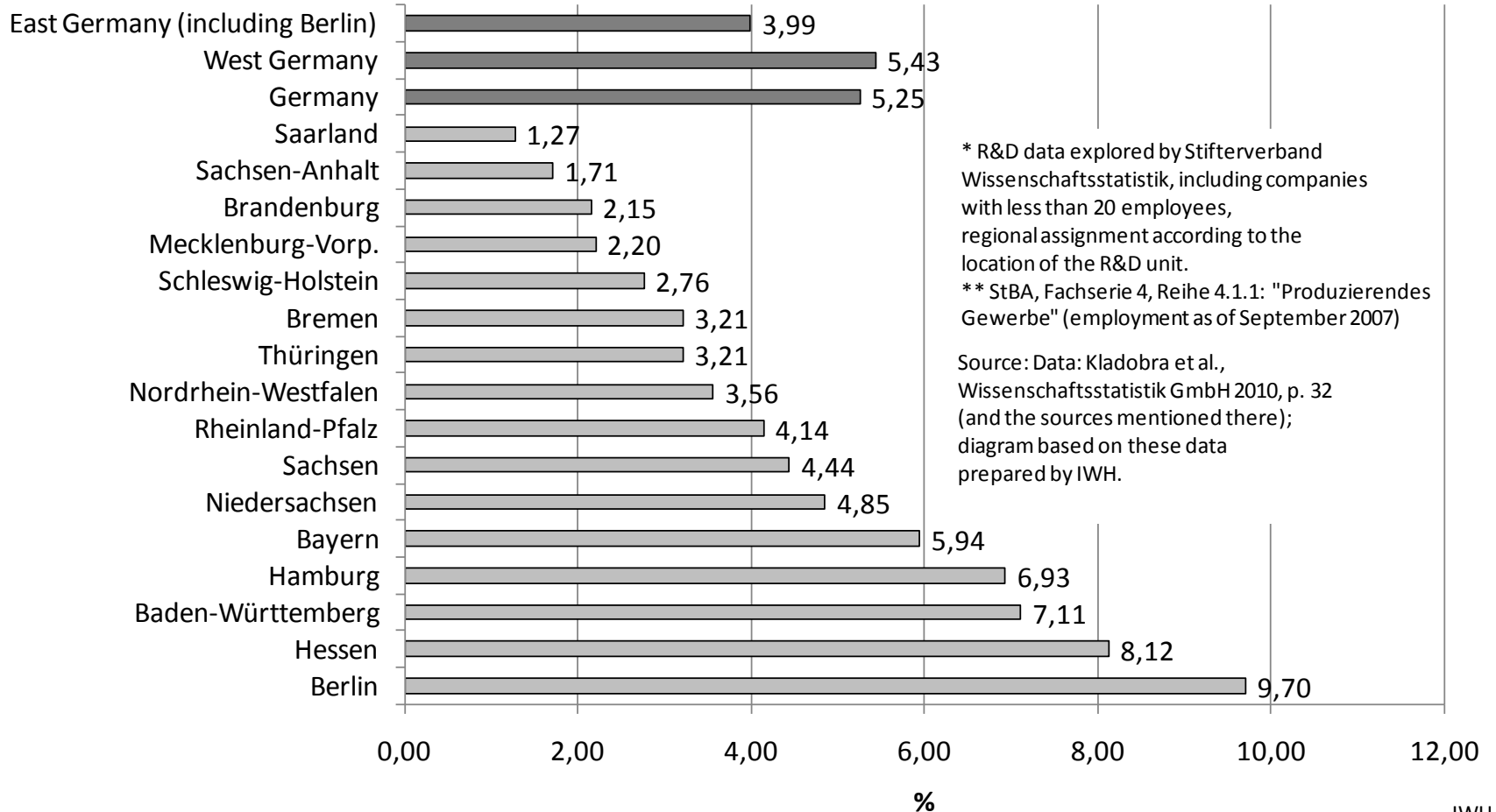
■ Electrical machinery and apparatus

■ Other*

* Light industry, Metals, Construction, Textiles, Water

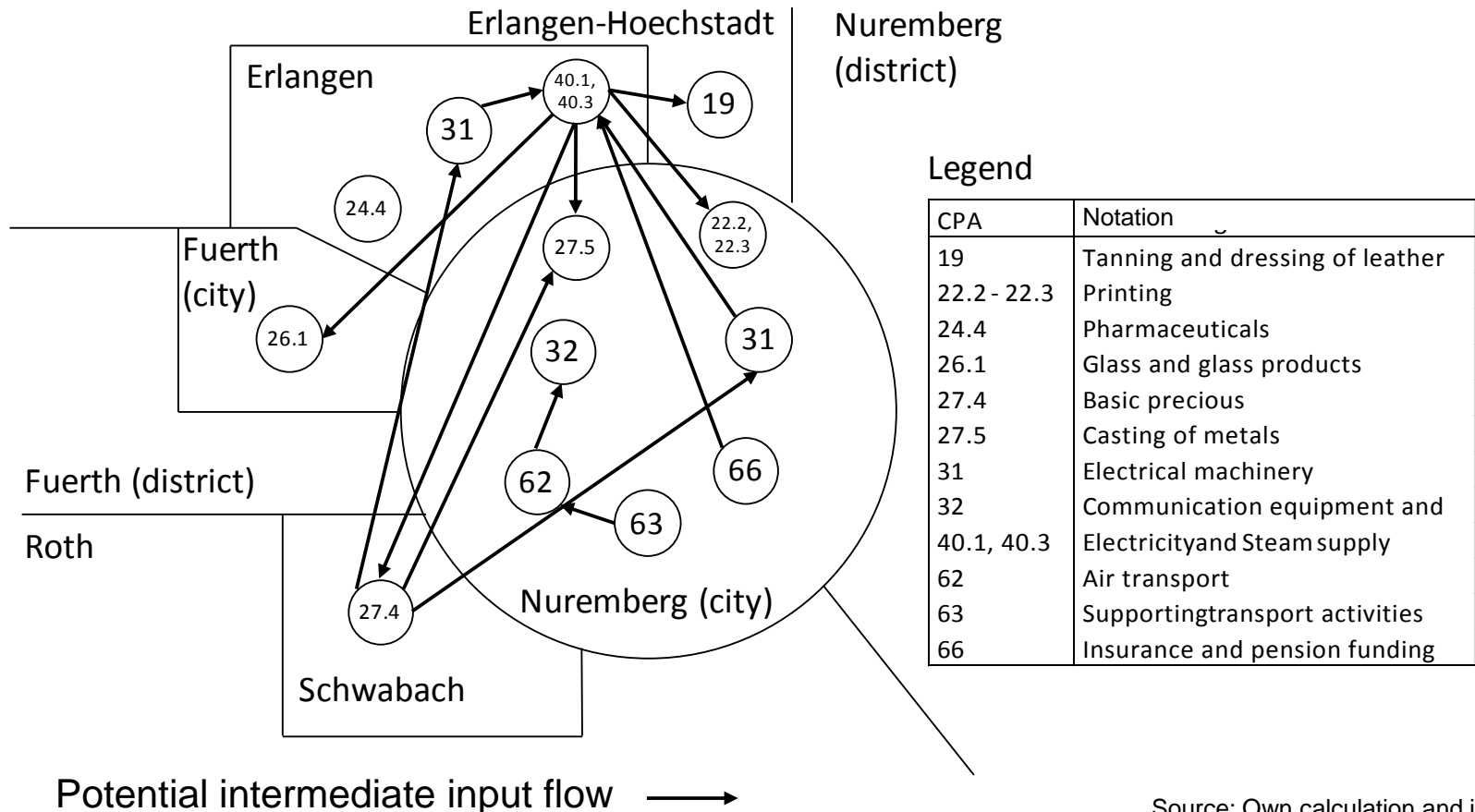
Source: DIW Berlin, IfW (1991): Gesamtwirtschaftliche und unternehmerische Anpassungsprozesse in Ostdeutschland. Erster Bericht, in: Kiel Discussion Papers 168, March, p. 4 (Primary Sources: Statistical Office of the GDR and Federal Statistical Office, FRG).

Proportion of R&D staff* (number of employees** total = 100%) by German Laender, Mining and Manufacturing Sector, 2007



Shortcomings

- ➔ Modern growth theory highlights the role of agglomeration economies for regional development (for example Marshall 1920, Jacobs 1970, Porter 1990 and 1991).
- ➔ The character of potential production networks – the example of Nuremberg (2003)



Source: Own calculation and illustration.