Wissenschaftszentrum Berlin
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Eastern Germany's Autoindustry: In a sandwich position?

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WZB Workshop

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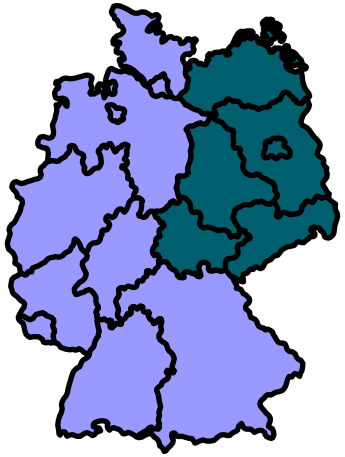
thesis: sandwich position (2002)

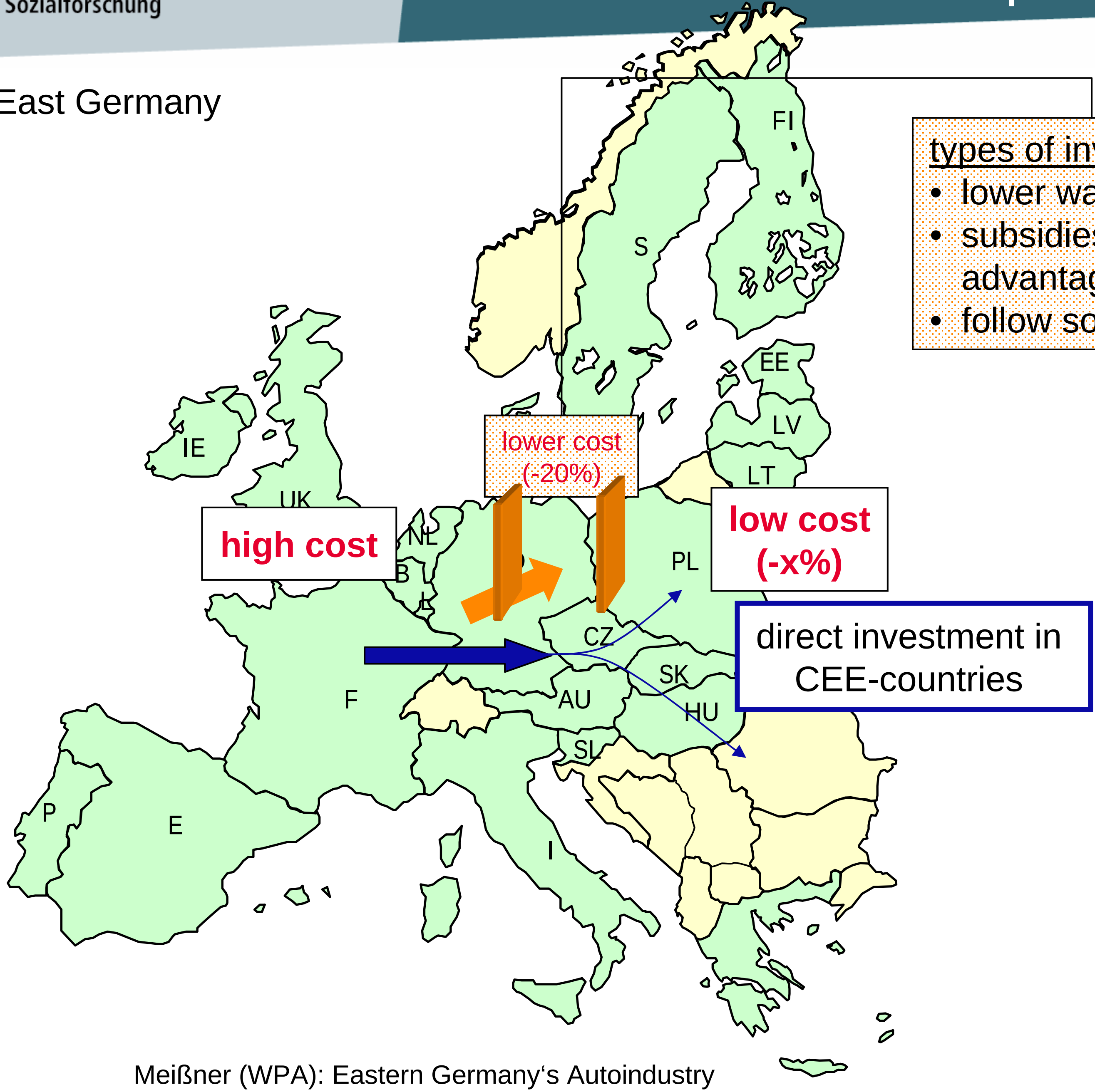
- With the opening up of Central Eastern Europe the East German economy‘s situation became even more precarious: situated between the lower-cost sites in CEE and the established German industry in the South and the West (*sandwich position*)
- The VDA (association of the german automobile industry) stated in Leipzig in 2002 (thesis of a sandwich position): The „New Länder“ have advantages in flexible labour, subsidies and taxes - this could help against the process of relocation towards Eastern Europe, but local advantages have to be strengthened.

- How did the automotive industry develop after the reunification, what are the chances, what are the risks?

sandwich position

East Germany





<u>types of investments</u>
- lower wages
- subsidies and tax advantages
- follow sourcing

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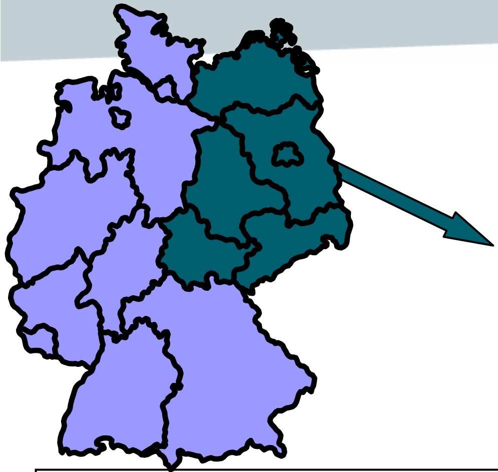
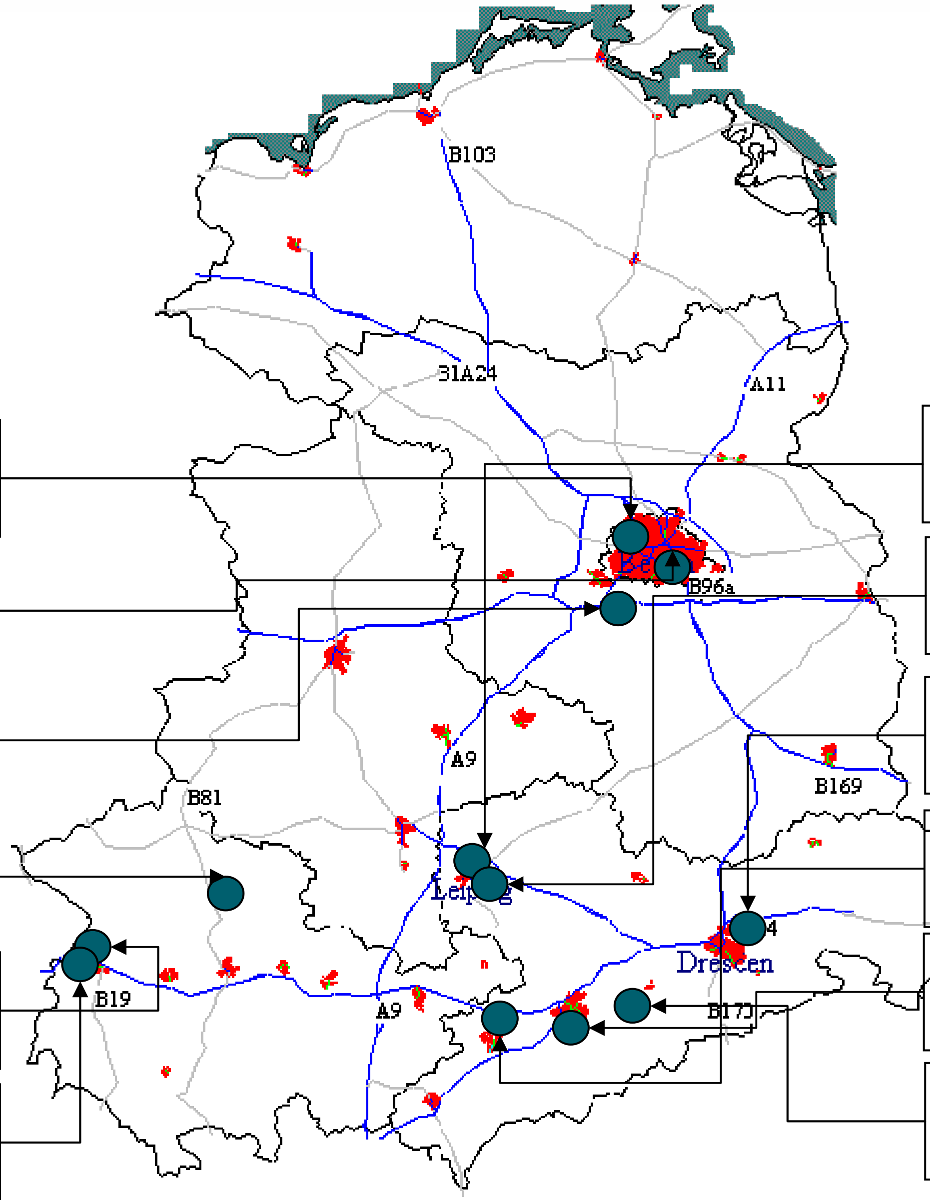
OEM plants in East Germany





BMW Berlin
motorcycles, parts

Daimler Berlin
engines for car and trucks

Daimler Ludwigsfelde
vans

Daimler / Mitsubishi Kölleda
engines for cars

Opel Eisenach
Corsa / Astra

BMW Eisenach
toolíng, pressing parts

Porsche Leipzig
Cayenne

BMW Leipzig
BMW 3er, 1er

Volkswagen Dresden
Phaeton, (Bentley)

Volkswagen Mosel
Golf, Passat

Volkswagen Chemnitz
engines for cars

Volkswagen Stollberg
diesel injection systems

Meißner (WPA): Eastern Germany‘s Autoindustry

sandwich position?

- The automotive industry in East Germany is in a geografical position between LCC in East Europe and the production centres of West Europe

- The industry is characterised by mostly small or medium sized production facilities with marginal capacities in R&D

- The assembly plants of the OEMs and the suppliers are part of regional, national and international production networks

- The East German automotive industry is an extension of the West German automotive industry to the East - characterised by the rebuilding of the industry of East Germany after the reunification - and a specific development after the year 2000

timeline autoindustry Eastern Germany

(1) Initial phase at the beginning of the 1990‘s with investments of Volkswagen, Opel, Daimler (and BMW)

(2) Second stage at the beginning of the new millenium with investments of VW, BMW, Porsche and Daimler

(3) Third stage in the second half of the first decade of the new millenium with the enlargement of existing assembly capacities (Porsche)

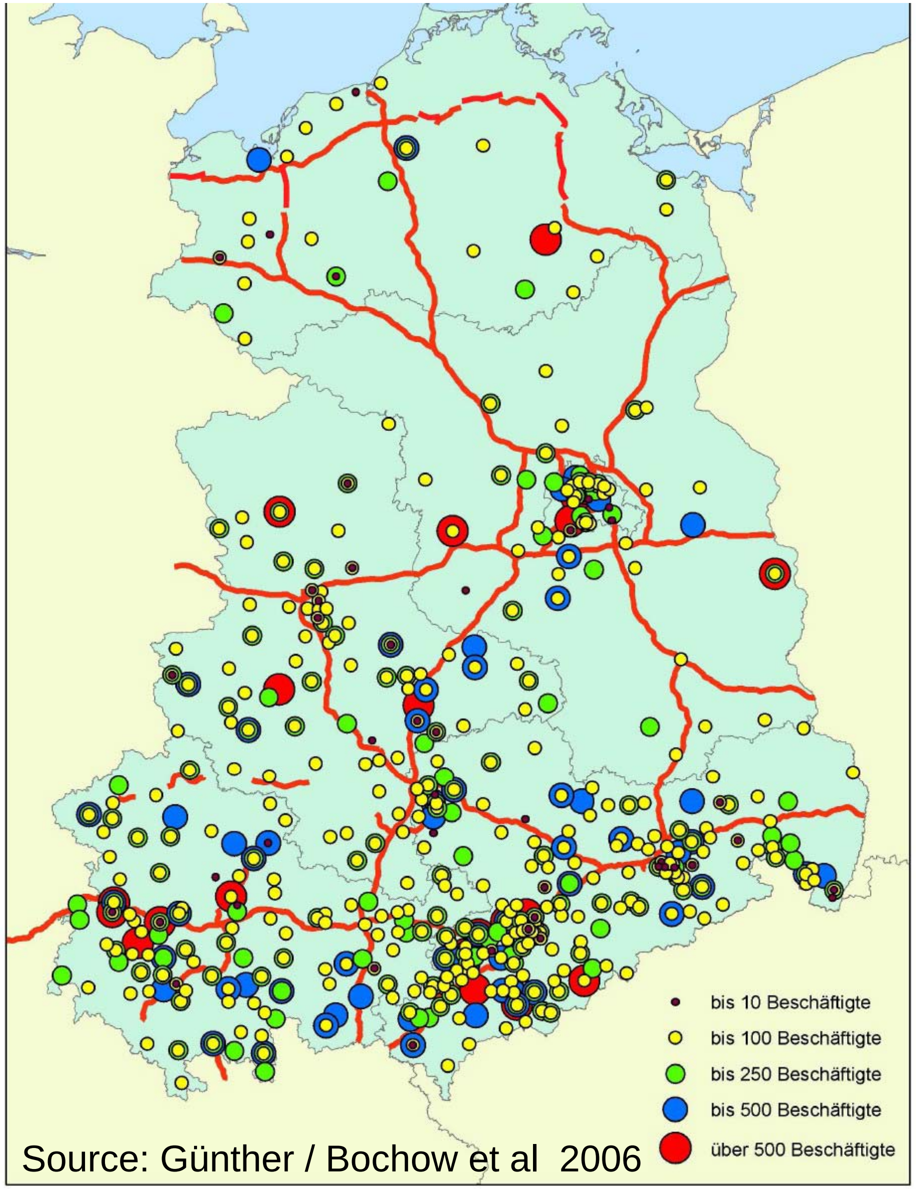
❶	❷	❸
VW Mosel I and II (1990 / 1992) VW Chemnitz (1990) Opel Eisenach (1991) Daimler Ludwigsfelde (1991) BMW Eisenach (1992)	VW Dresden (2002) VW Stollberg (2004) Porsche Leipzig (2002) Daimler /Mitsubishi Kölleda (2003) BMW Leipzig (2004)	Porsche Leipzig / enlargement (2007) (investment 150 mill Euros / additional 600 jobs / SOP 2009)

1990 **1995** **2000** **2005**

locations of suppliers (2005)

	Company / location of bigger suppliers in Saxony (2006)	empl.
1	Siemens VDO, Limbach-Oberfrohna	1 003
2	GKN Gelenkwellenwerk, Mosel	1 000
3	BMG Baugruppen- und Modulfertigung, Glauchau (Schnellecke)	870
4	Flender Guss, Wittgensdorf	730
5	KUKA Werkzeugbau, Schwarzenberg	700
6	Federnwerke, Marienberg (Scherdel-Gruppe)	620
7	FES Fahrzeug-Entwicklung, Zwickau	580
8	Behr, Kirchberg	553
9	NARVA Speziallampen, Plauen	500

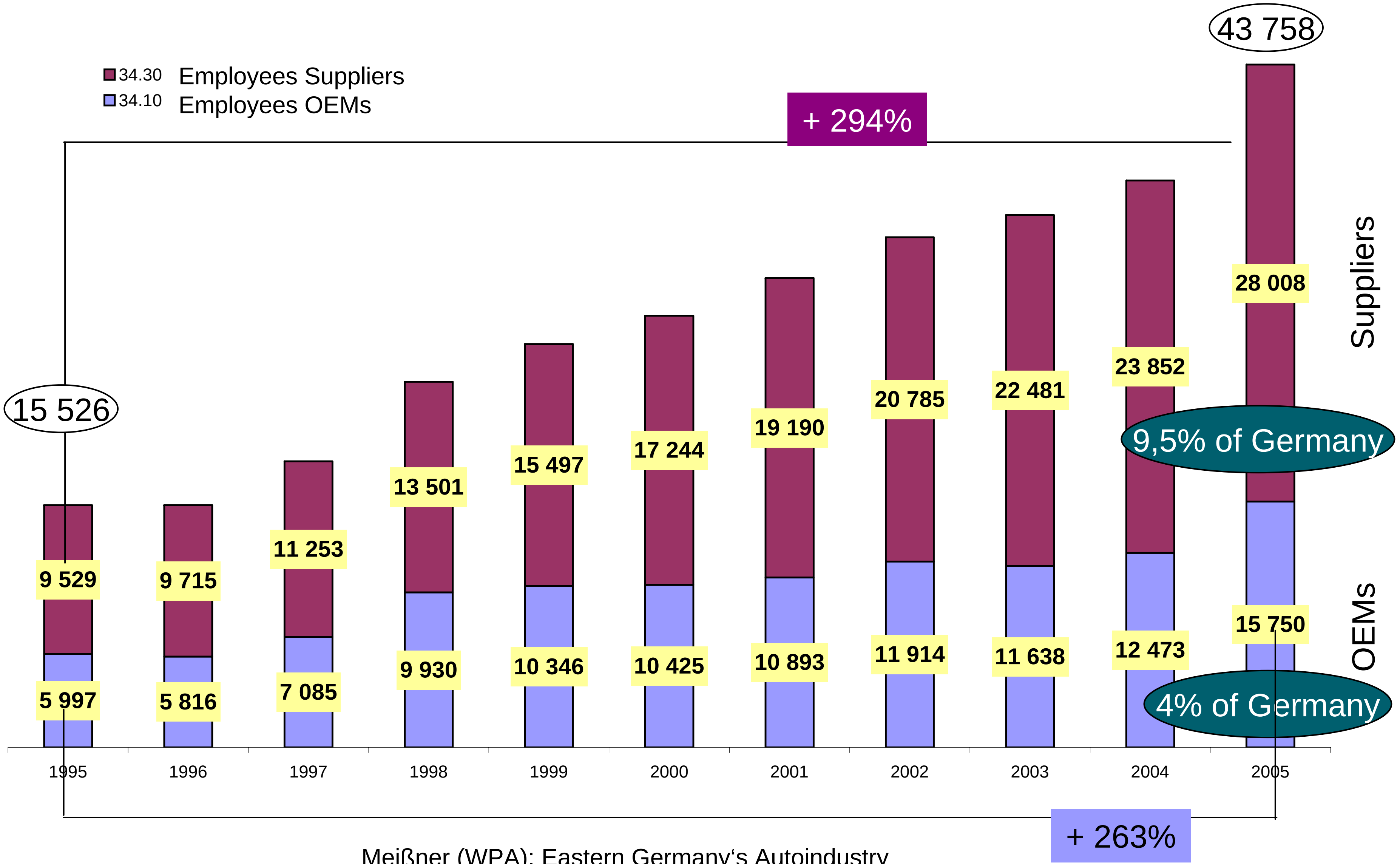
mostly small production locations



Source: Günther / Bochow et al 2006

workforce development

Source: StatBA /official statistics



automotive employment New Länder

A study for the VDA provides a more realistic view of the automotive employment in East Germany (based on company data):
not only 44 000 but 132 500 people are employed in the automotive sector of East Germany

Year 2005	employees supplier industry	employees OEMs	total
Berlin	8 624	3 200	11 824
Brandenburg	8 228	1 500	9 728
Mecklenburg-W.-Pomerania	2 485		2 485
Saxony	45 246	13 270	58 516
Saxony-Anhalt	15 578		15 578
Thuringia	31 740	2 630	34 370
total	**111 901**	**20 600**	**132 501**

Source: Günther / Bochow et al 2006

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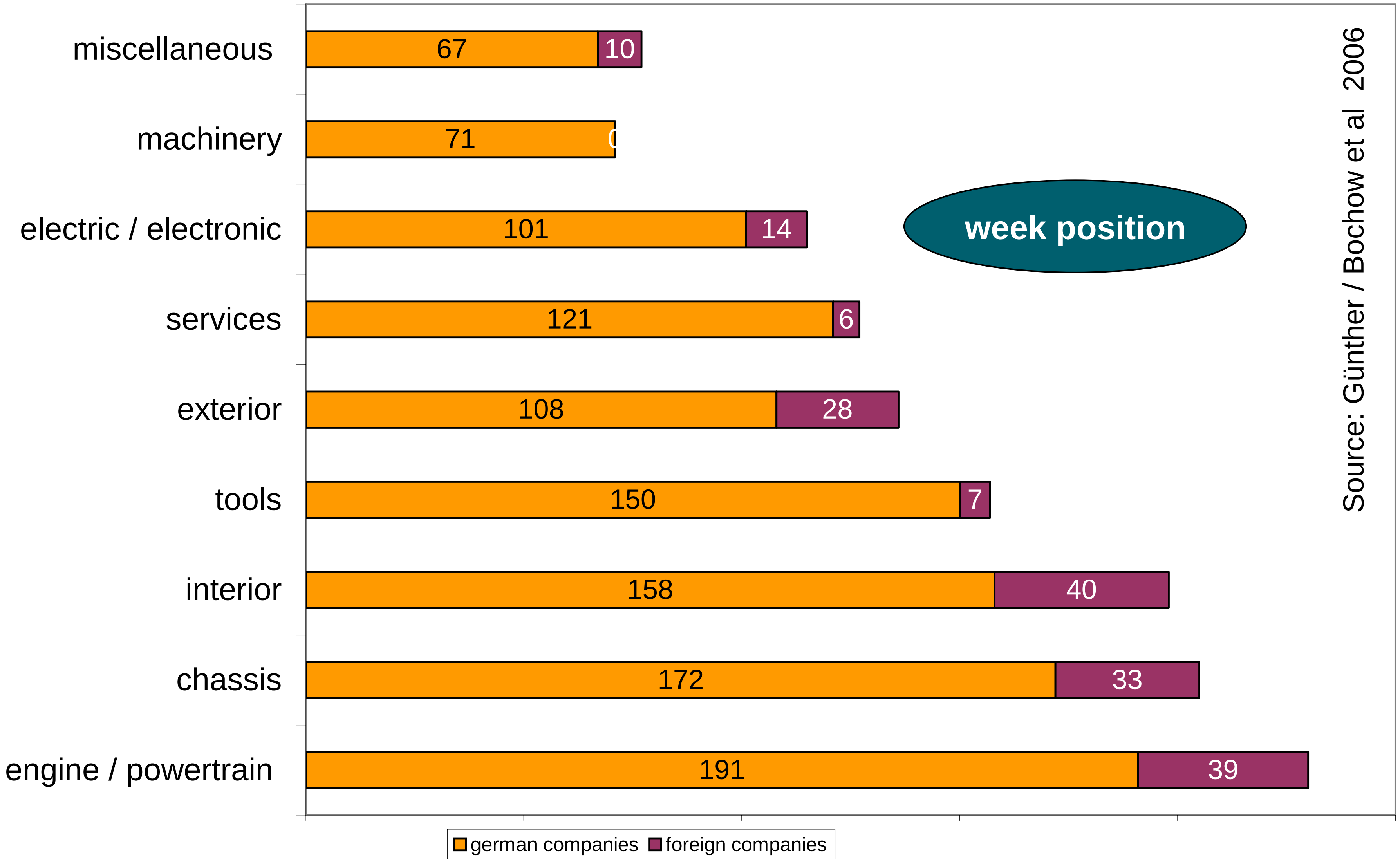
supplier structure East Germany



R&D expenditure New Länder

in mill. Euros	1991	1993	1995	1997	1999	2001	2003	change 1995/ 2003
Germany	26 246	25 933	26 814	28 908	33 623	36 331	38 029	141,8
West-Germany	24 555	23 984	24 570	26 164	30 616	32 744	34 810	141,7
East-Germany (1)	1 691	1 949	2 245	2 744	3 007	3 588	3 219	143,4
New Länder (2)	865	926	1 258	1 550	1 597	1 823	1 644	130,7
share New Länder	3,3%	3,6%	4,7%	5,4%	4,7%	5,0%	4,3%	

(1) East-Germany includes Berlin (East and West)
(2) New Länder = East-Germany without Berlin (East and West)

only few research and development capacities are located in the New Länder - the share is continuously under 5% of the total expenditure in R&D of Germany‘s automotive industry

at least 2 000 people in R&D in the automotive sector in the New Länder

Thyssen-Krupp - new plant Chemnitz

- in the beginning of 2007 Thyssen invested 49 mill Euros for a new facility in Chemnitz with more than 100 employees
- Chemnitz is a production site for camshafts
- further planning: **development** and production of variable valves

Thyssen-Krupp baut Werk in Chemnitz

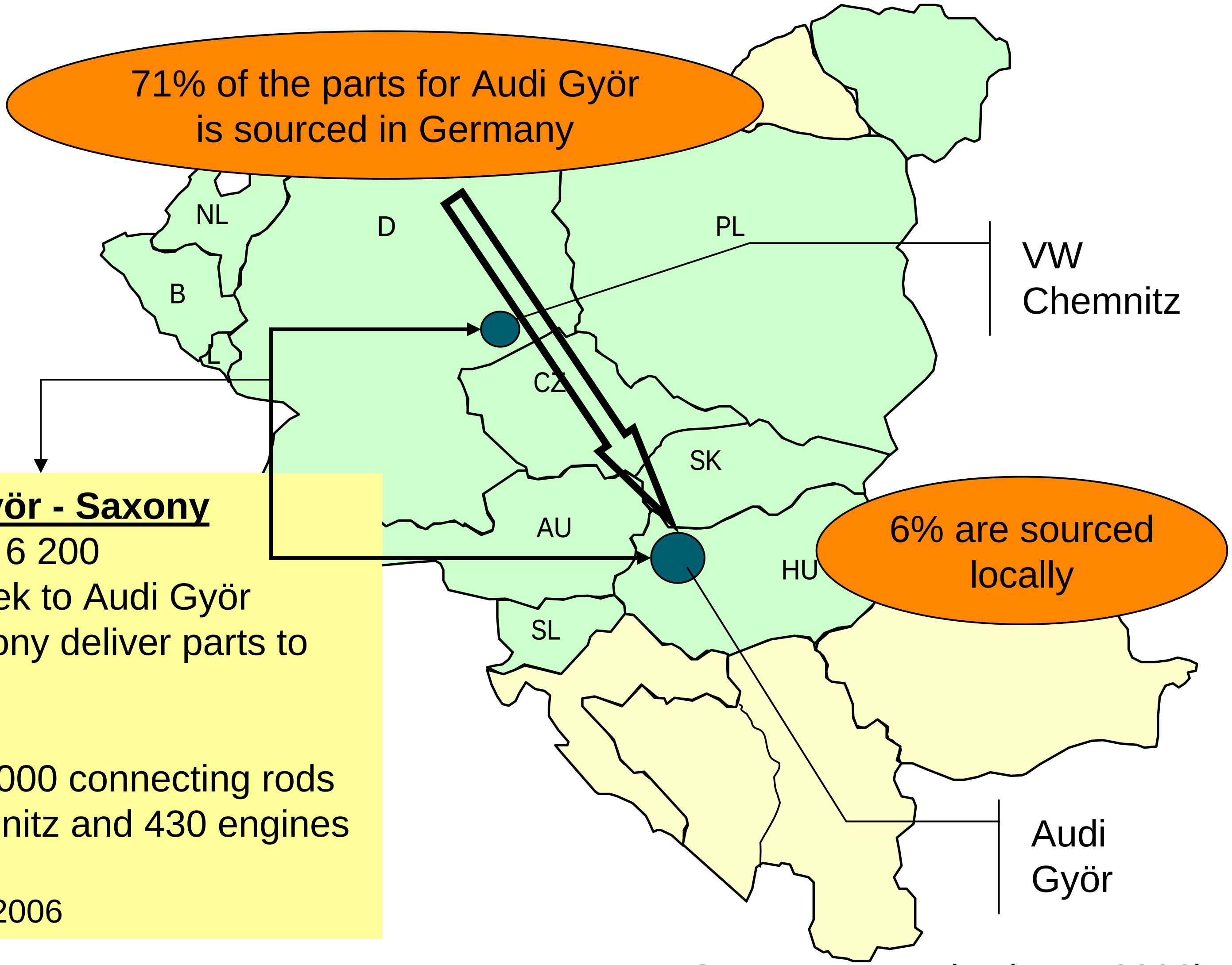
Seit Dezember baut der Automobilzulieferer Thyssen-Krupp Presta Chemnitz AG mit einem Investitionsvolumen von 49 Millionen Euro ein neues Werk an der Heinrich-Lorenz-Straße. Das im Fürstentum Liechtenstein ansässige Unternehmen wird in der ersten Ausbaustufe 108 Mitarbeiter beschäftigen. Bereits im April 2007 soll die Produktion von Nockenwellen anlaufen. Außerdem soll der Standort Chemnitz eine tragende Rolle bei der Entwicklung des variablen Ventiltriebs und der nachfolgenden Fertigung der Serienteile spielen.

Nach Angaben des Unternehmens waren die unmittelbare Nähe zum Motorenwerk der Volkswagen Sachsen GmbH und die enge Zusammenarbeit mit dem Fraunhofer-Institut für Werkzeugmaschinen und Umformtechnik mitentscheidend für die Standortwahl.

www.thyssenkrupp.de

CWE Chemnitz - Newsletter 1/2007

production network Audi Györ



production network Györ - Saxony

- VW Chemnitz delivers 6 200 balance shafts per week to Audi Györ
- 30 suppliers from Saxony deliver parts to Audi Györ

- Audi Györ delivers 10 000 connecting rods per week to VW Chemnitz and 430 engines per day

Source: Autoland Sachsen 2006

Source: A. Lerche (AHM 2006)

- Dräxlmeier
  - plant Zwickau (delivering of wire harnesses to VW Mosel) since 1990
  - shifting production to Poland 2005 (Jelenia Gora employes in the meantime 1 450 people)
- Takata
  - building up european activities with the acquisition of Petri (2000)
  - investment in the facilities in Elterlein, Freiberg and Döbeln /Saxony (today mainly engineering)
  - shifting 75% of the production of airbags to Romania

- A few examples of relocation in the automotive industry in East Germany
- Dynamic growth of employment
- Using CEE-countries as market (some examples)

opportunities and risks

- Opportunities
  - to meet requirements of a flexible and <u>synchronised</u> production (see production network of Porsche Cayenne / Panamera)
  - to strengthen the activities in research and development (see example Thyssen-Krupp Presta, Chemnitz)
  - to invest in product, process and service innovation
  - to cooperate within regional clusters

- Risks
  - establishment of LRS (long-range-supply-in-line-sequence)
  - LCC-sourcing by prescribed quotas
  - concentration on production and cost competition