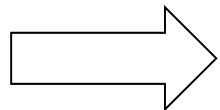
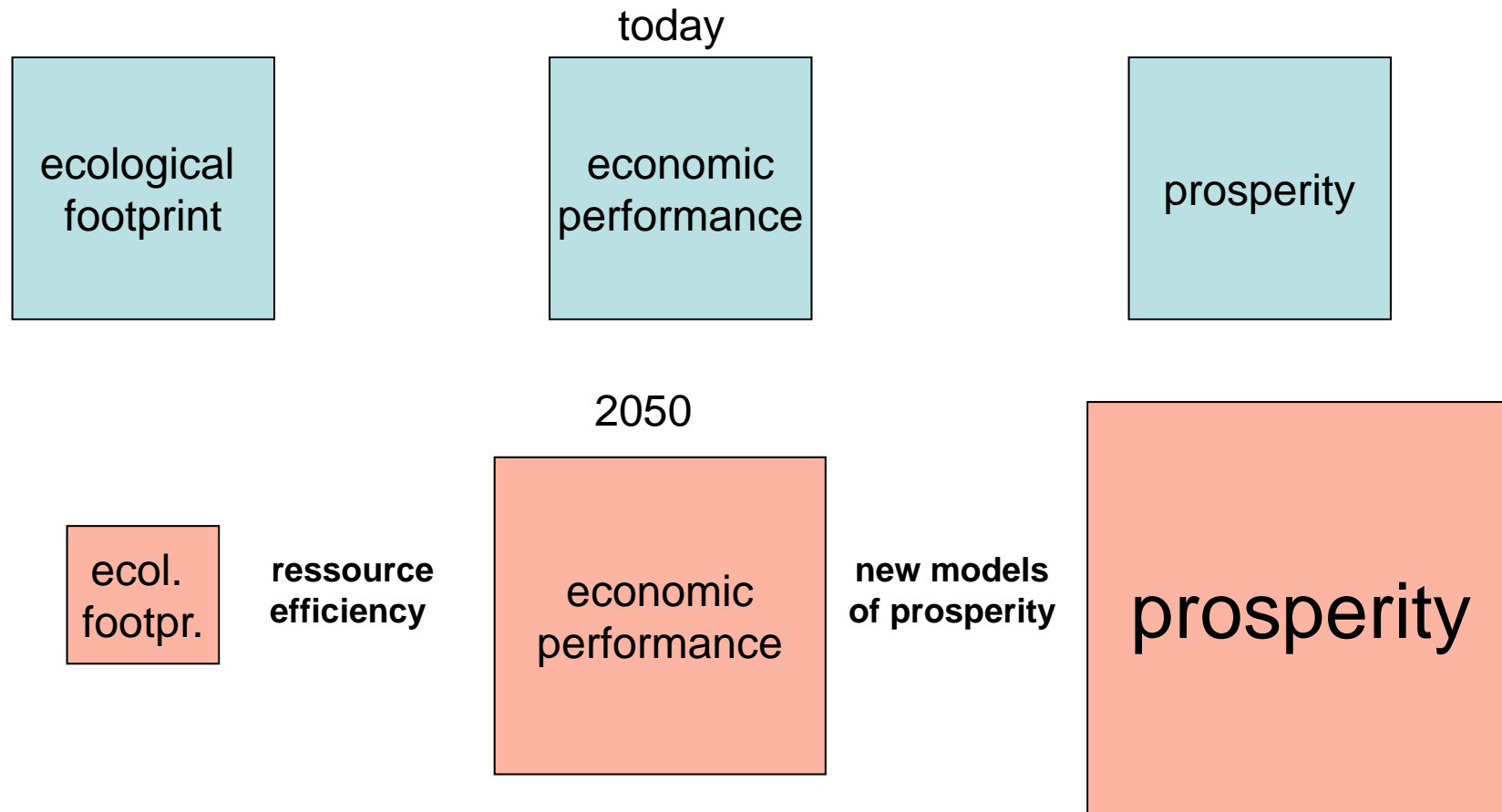


Panel on fair labour markets & sustainable industrial policy

Jakob von Weizsäcker

Ressource efficiency and new models of prosperity



Efficiency and sufficiency as complements not substitutes

Better production vs better allocation

Production

- Real economy
- Engineering
- Regulation
- Energiewende

Allocation

- Financial economy
- Economics
- Markets
- Global emission trading

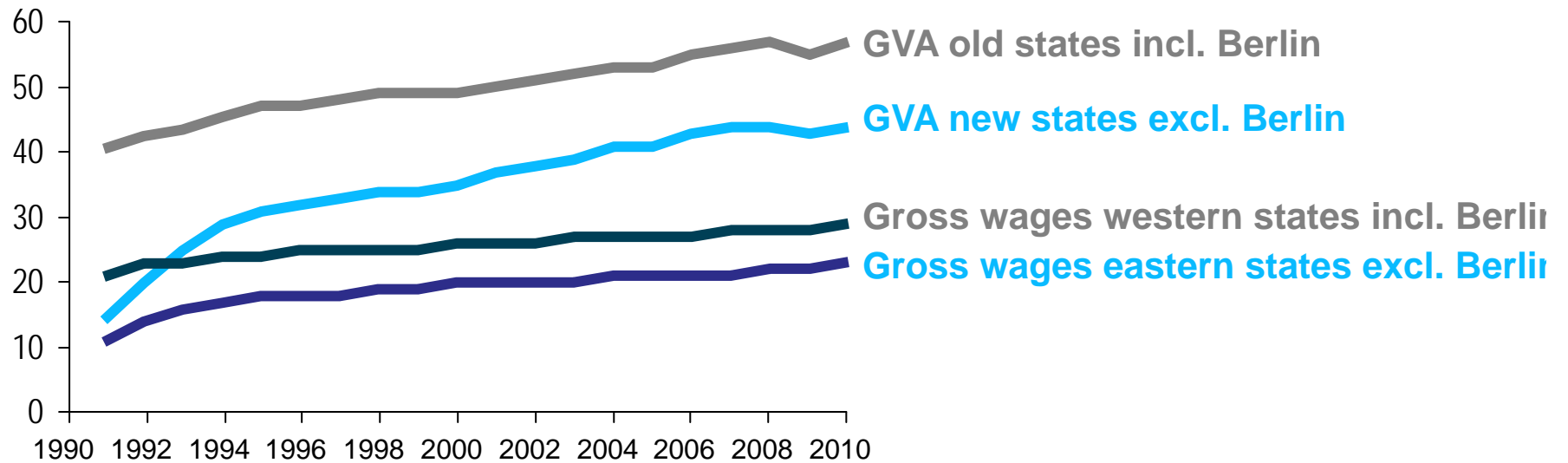


Emerging transatlantic consensus:

Financial markets and financial market innovation will not and must not be the main driver of future societal transformation

Politics without financial markets as scapegoats?

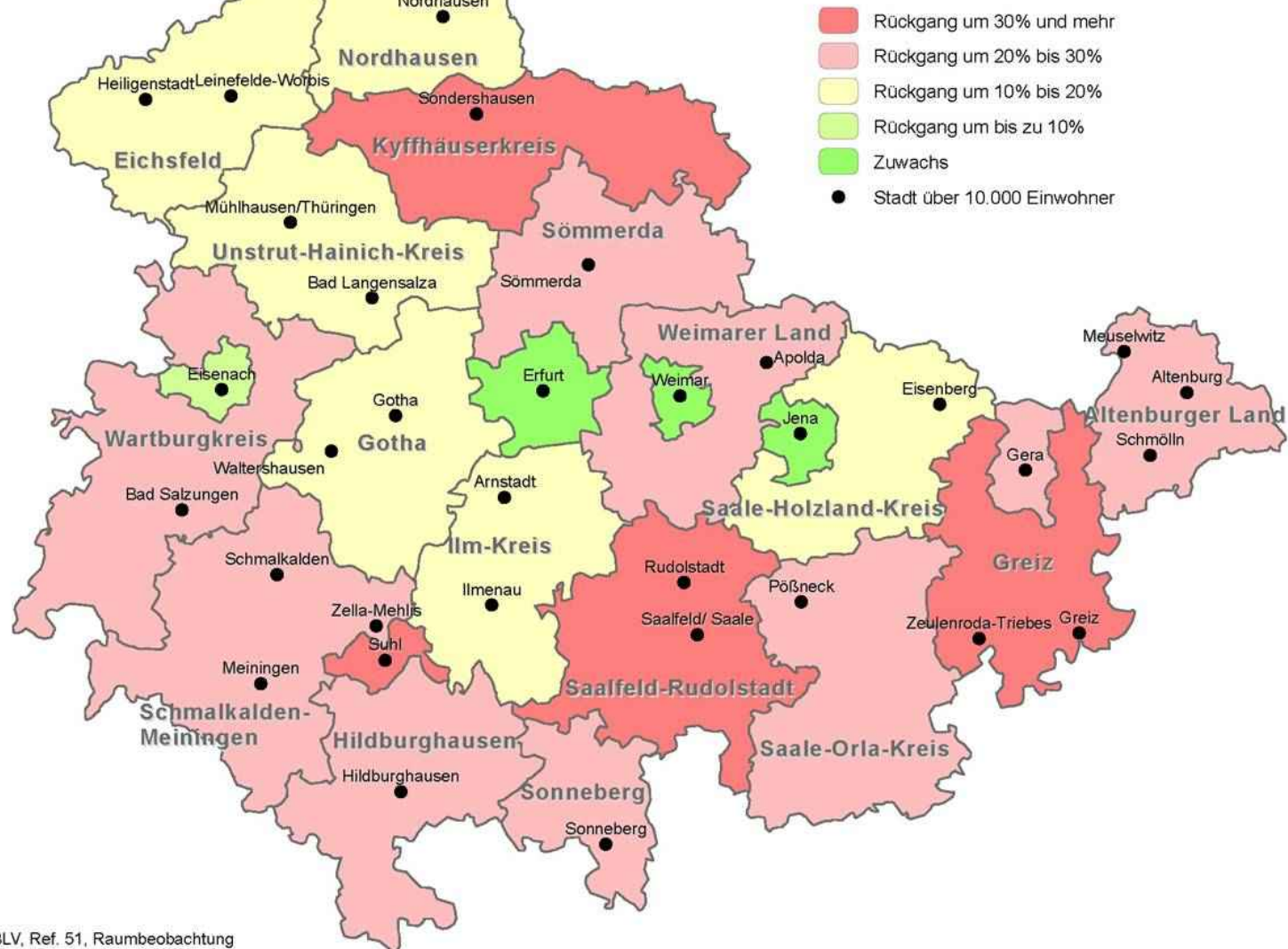
Gross value added per employee and gross wages (in nominal 1000s of EUR)



1) Labour productivity in terms of gross value added (GVA) per employee

Source: Roland Berger, Statistische Ämter der Länder: VGR der Länder 2011

Entwicklung der Bevölkerung der Landkreise und Kreisfreien Städte
Thüringens 2009 bis 2030 nach der 12. kBV (Variante 1)



Real life industrial policy: example of Thuringia

	development of GVA until 2020, mill. Euro	change in percent compared to 2008	employment in total, until 2020	change in percent compared to 2008
Automotive Industry	+ 720 - 810	+ 80 - 90%	+ 10.500 - 12.400	+ 51 - 60%
Biotechnology	+ 140 - 150	+ 140 - 150%	+ 1.600 - 1.800	+ 100 - 113%
Medical Technology	+ 270 - 300	+ 123 - 136%	+ 3.800 - 4.300	+ 83 - 93%
Energy / energy storage	+ 470 - 530	+ 104 - 118%	+ 7.100 - 8.100	+ 73 - 84%
Mechanical engineering	+ 220 - 300	+ 20 - 27%	+ 1.500 - 3.000	+ 6 - 13%
Plastics and ceramics	+ 520 - 610	+ 55 - 64%	+ 6.100 - 7.700	+ 30 - 38%
Micro- nanotechnology	+ 90 - 100	+ 69 - 77%	+ 1.000 - 2.400	+ 34 - 55%
Automation technology	+ 180 - 210	+ 72 - 84%	+ 2.100 - 1.300	+ 48 - 45%
Optical industry	+ 270 - 290	+ 135 - 145%	+ 1.900 - 2.600	+ 46 - 63%
TOTAL	2.880 - 3.300	+67 - 77%	+ 35.600 - 43.600	+ 39 - 48%

Real life industrial policy: example of Thuringia

	development of GVA until 2020, mill. Euro	change in percent compared to 2008	employment in total, until 2020	change in percent compared to 2008
Greentech	+ 820 - 930	+ 82 - 93%	+ 9.400 - 11.000	+ 52 - 61%
Robotics	+ 8 - 9	+ 73 - 82%	+ 100 - 120	+ 43 - 52%
Creative industry / edutainment	+ 120 - 130	+ 200 - 217%	+ 1.500 - 1.600	+ 167 - 178%
TOTAL	+ 950 - 1.070	+ 89 - 100%	+ 11.000 - 12.700	+ 57 - 66%

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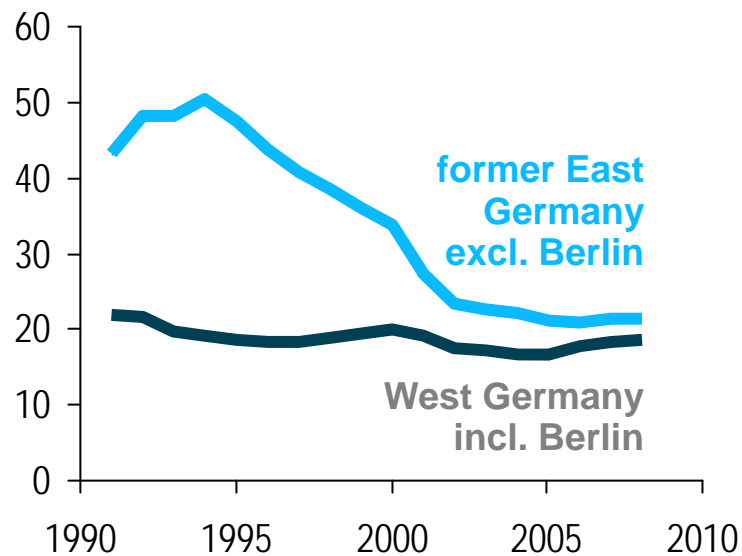
Email: jvw@tmwat.thueringen.de

- Resource efficiency and new models of prosperity
- Thuringia today: enormous progress but
 - Productivity gap
 - Demographics
 - Fiscal squeeze
 - Lifestyle challenge
- Industrial policy: 2020 Trend Atlas
- Outlook: Thuringia 2030

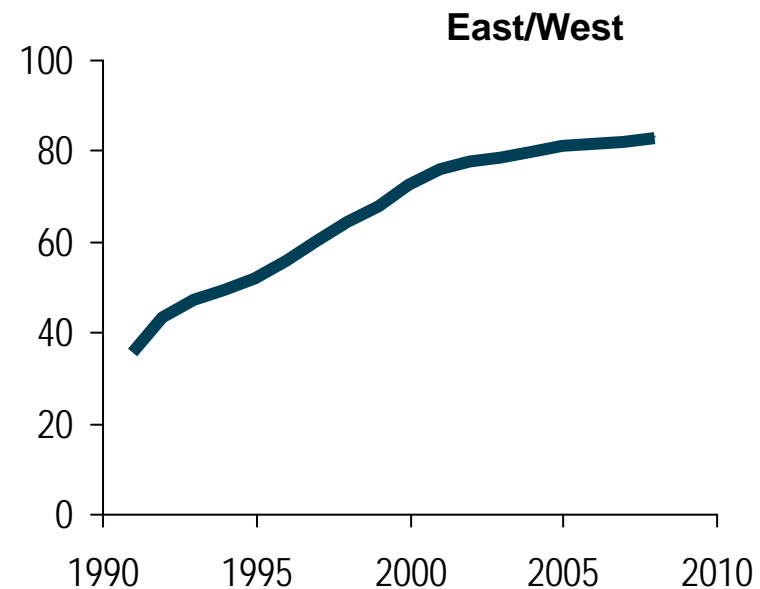
East/West economic performance in a nutshell:

- rapid catching up during 1990s
- hardly any convergence since, with roughly 20 percent gap remaining.

Investment in percent of GDP



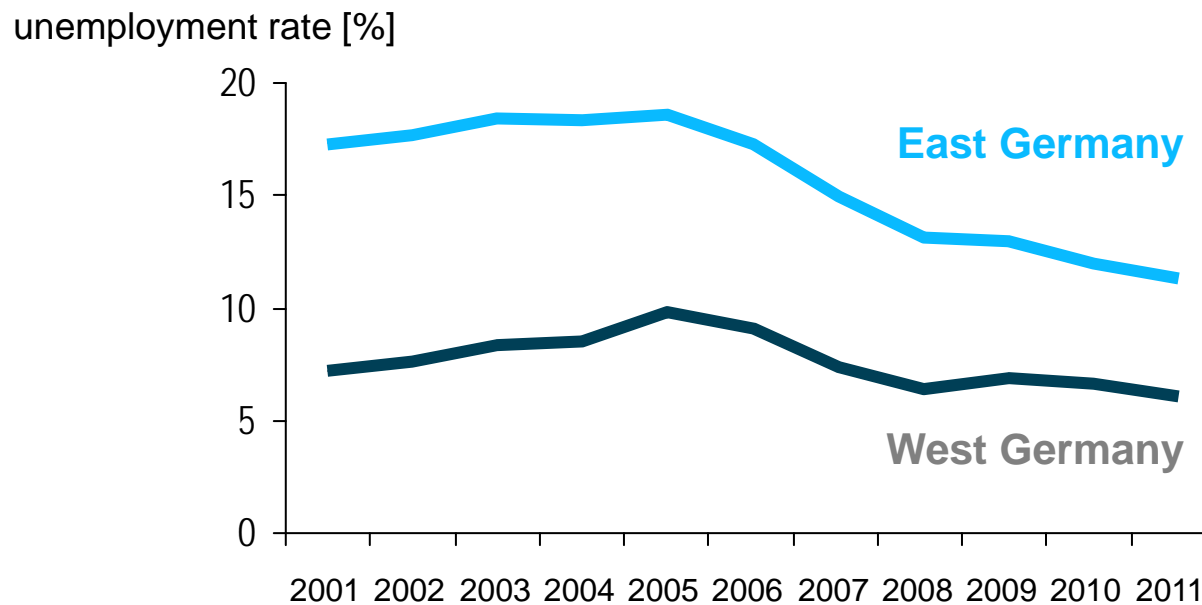
Capital intensity²⁾ [West=100]



1) Investment as part of GDP 2) Capital/Labour ratio in former East Germany (excl. Berlin) relative to West Germany (incl. Berlin)

Quelle: Roland Berger, Arbeitskreis VGR der Länder

Good news: rapid decline in unemployment
Ambivalent: demographics are a significant driver – looming „skill shortage“



Quelle: Roland Berger, Statistik der Bundesagentur für Arbeit, Arbeitslosigkeit im Zeitverlauf

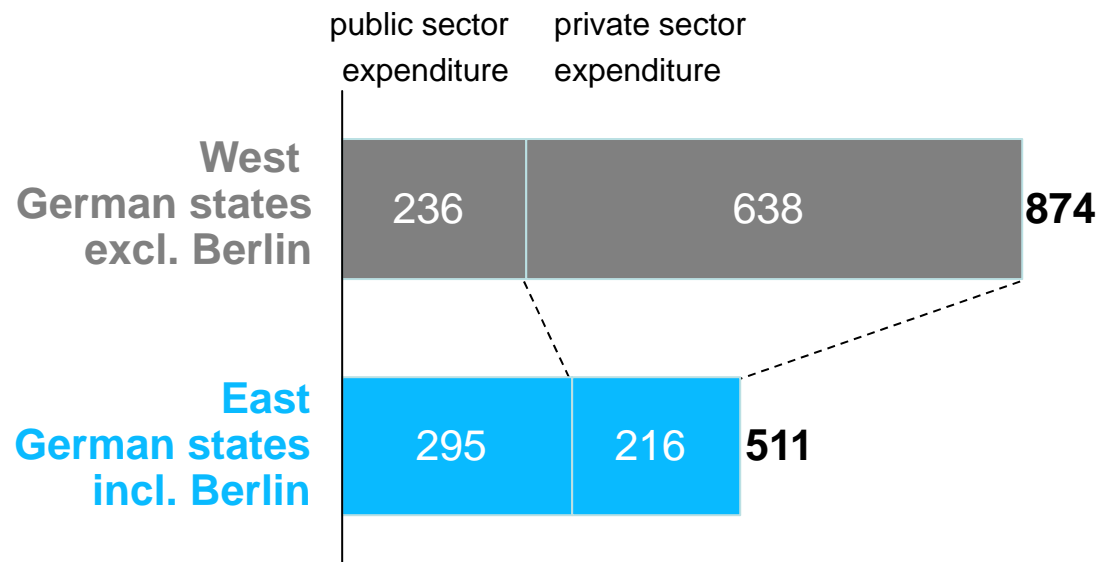
Productivity gap at company level

- Company size effect
- Capital gap (!?!)
- Research and development gap
- Trade/globalisation gap
- Agglomeration/headquarter gap

- Compounded by skilled labour gap in the future?

Private sector Research & Development spending in eastern Germany far behind western Germany

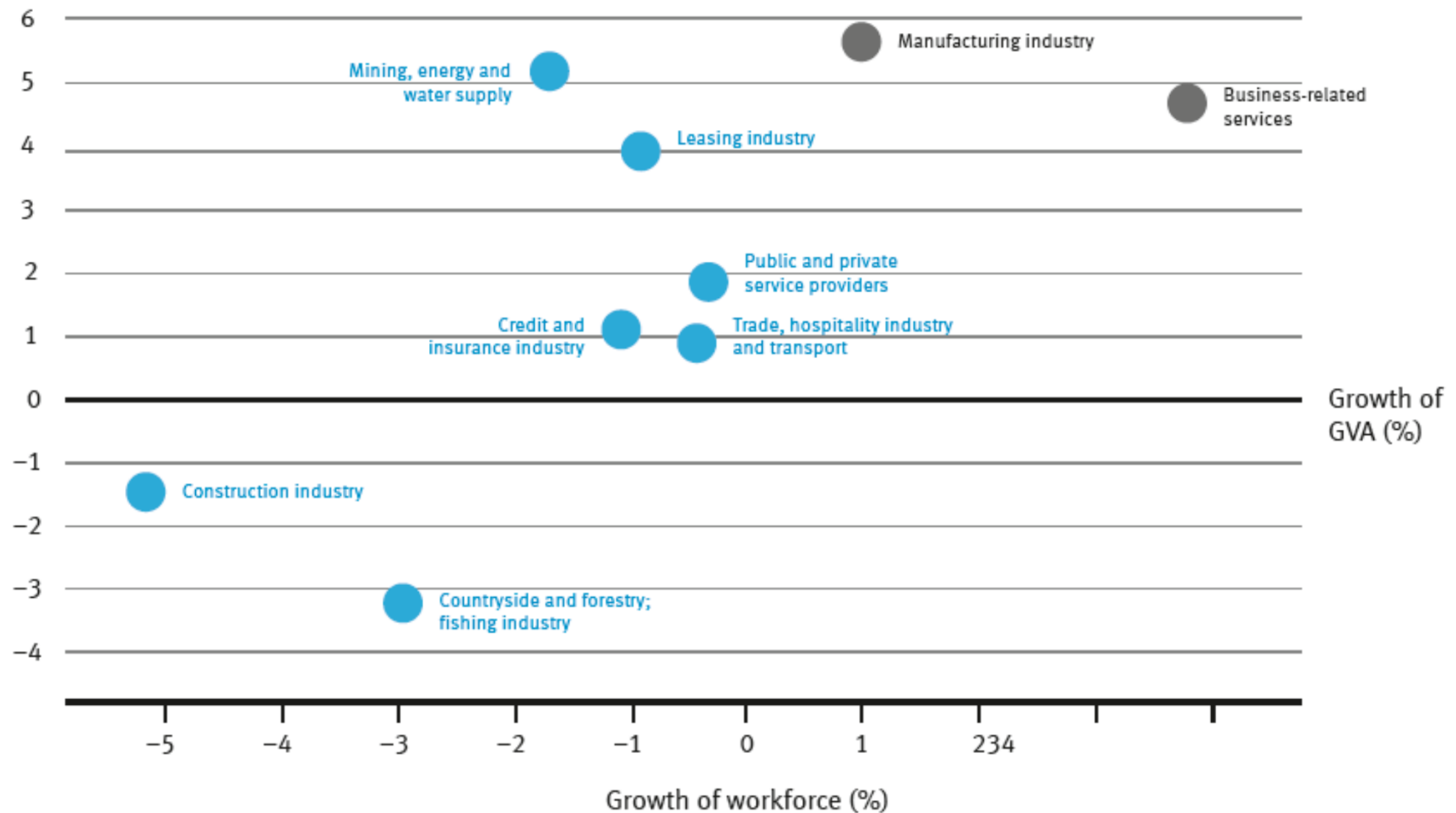
Research & Development expenditure per capita 2009 [EUR]



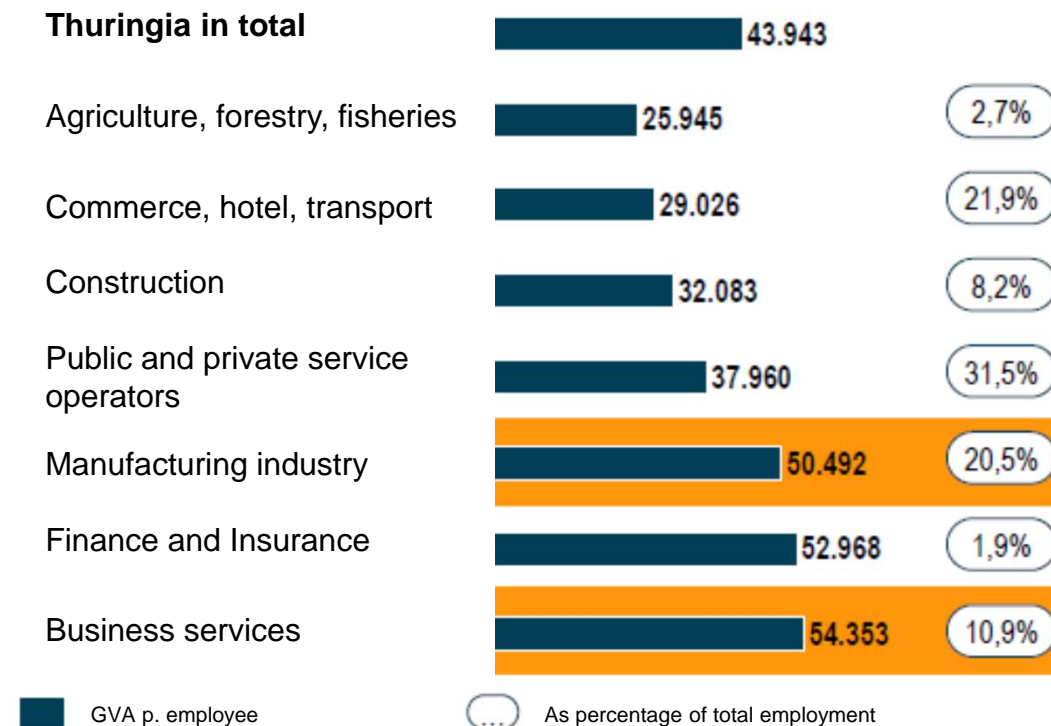
in East Germany public sector more important as a driver of innovation system than private sector

additionally, research has shown that, as measured per Euro of input on R&D, in eastern Germany there are less successful innovation results


Manufacturing momentum in Thuringia (CAGR for select sectors in 2000-2008)



GVA per employee in different economic sectors in Thuringia



Recommendations for action to create economic growth and employment in Thuringia (I)

- | | | | | |
|----------|--|--|---|----------|
| 1 | Focus on sectors with significant growth potential |   | Supporting business creation and start-up initiatives | 5 |
| 2 | Transformative tools for economic development. |   | Promoting activity in foreign markets | 6 |
| 3 | Increasing the size of businesses |   | Enhanced R&D funding | 7 |
| 4 | Promoting business cooperation networks |   | Expanding science and research | 8 |

Recommendations for action to create economic growth and employment in Thuringia (II)

9 Reducing time to market for innovations



Strengthening the *Thüringer Aufbaubank*

13

10 Ensuring efficient infrastructure networks



Ensuring skilled labour supply

14

11 Promoting and intensifying investment



Modernising public administration

15

12 Priority for industry and business services



Improving cluster management, consolidating regional networks

16

Fair labour markets and sustainable industrial policy

- Transformation of existing jobs and production networks
- Coordination of