

DIETER LÄPPLE
HafenCity University Hamburg
Institute for Urban and Regional Economics

Le système métropolitaine allemand

IHEDATE

Séminaire 2:

Grandes évolutions du territoire en France et en Europe

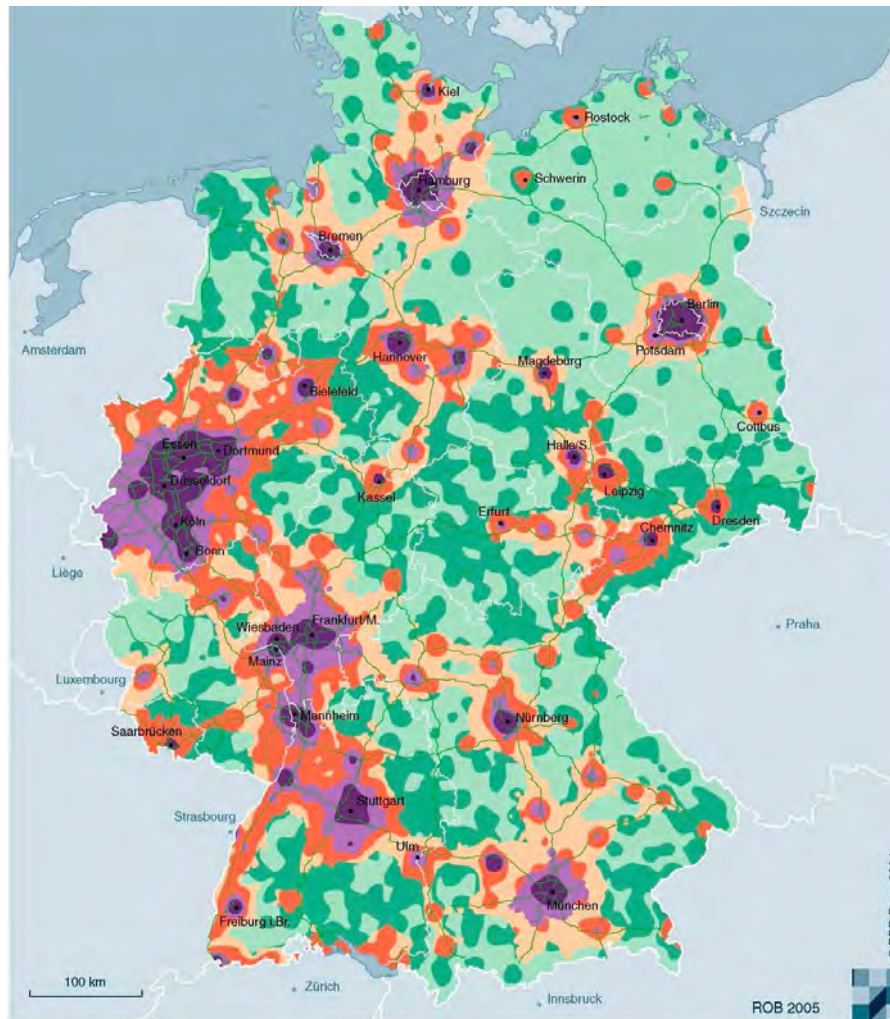
Paris, 8 février 2008

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DIETER LÄPPLE „Le système métropolitain allemand“

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Une structure territoriale polycentrique et un système urbaine polycentrique en Allemagne



Quelle: BBR (2005): Raumordnungsbericht 2005. Berichte Bd. 21, Bonn, Seite 20

The 21st century – the "century of the city"?

Over the last 50 years, the world has witnessed an unprecedented growth of its urban population.

The urban population reached

- one billion in 1960,
- two billion in 1985 and
- three billion in 2002.

Today, more than 50 % of approx. 6,5 billion people are living in urban areas.

According to an estimation of the UN Center for Human Settlement, in 2025 approx. 2/3 of the world's population will be urban dwellers.

Decline and crisis stories prevailed in the discourses on cities in Germany

For some decades, German cities had to face a cumulation of problems difficult to deal with:

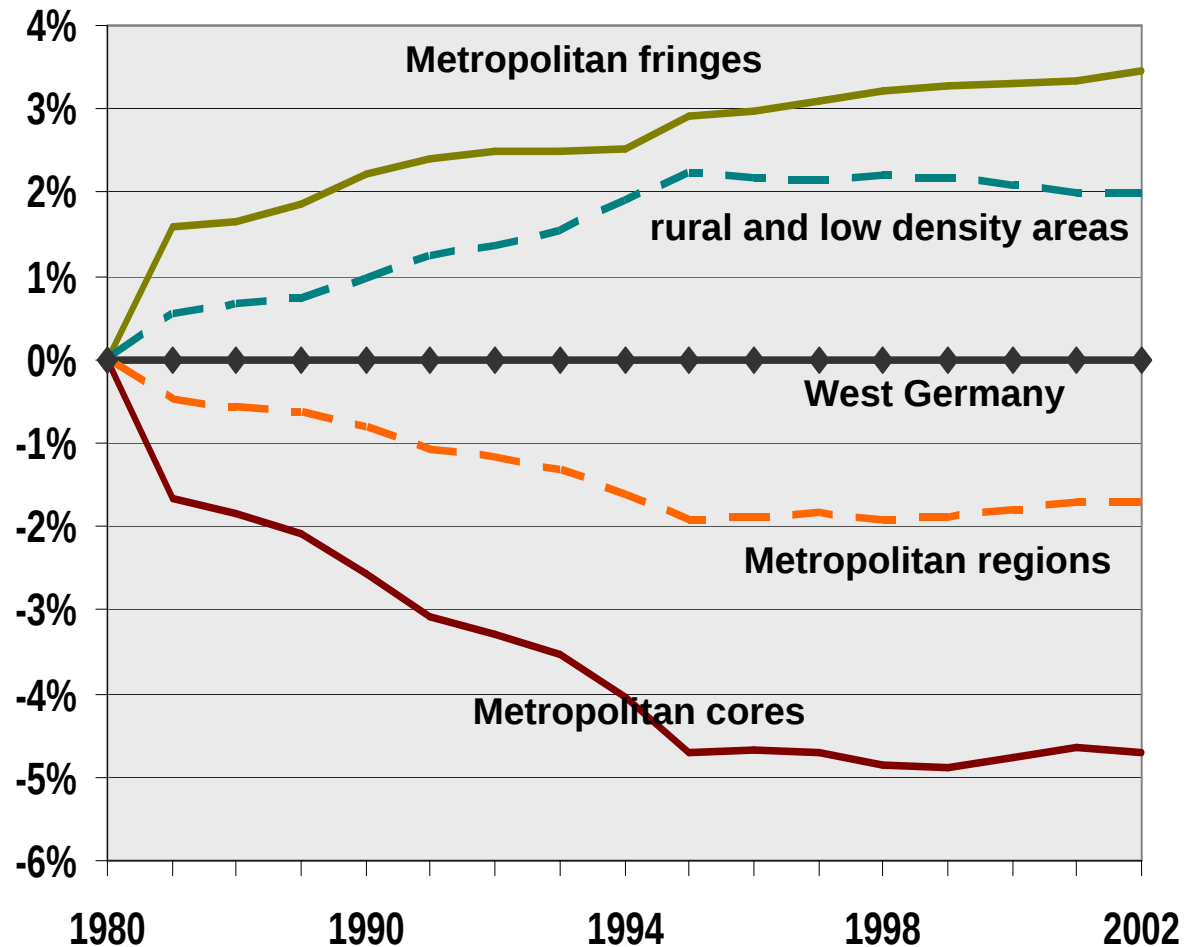
- **outward migration of urban dwellers and job opportunities**
- **persistent mass unemployment**
- **erosion of their financial basis**

and after the German unification especially East German cities were faced with

- **dramatic forms of urban shrinkage (rétrécissement urbain)**

"Medium-term" Settlement Structure Development (employed population)

- Trend of **Suburbanization** as well as
- Trend of **Disurbanization**



**Development
of employment
per area type
from 1980 to 2002**

Changes in relation
to the old federal
territory

1980 = 100

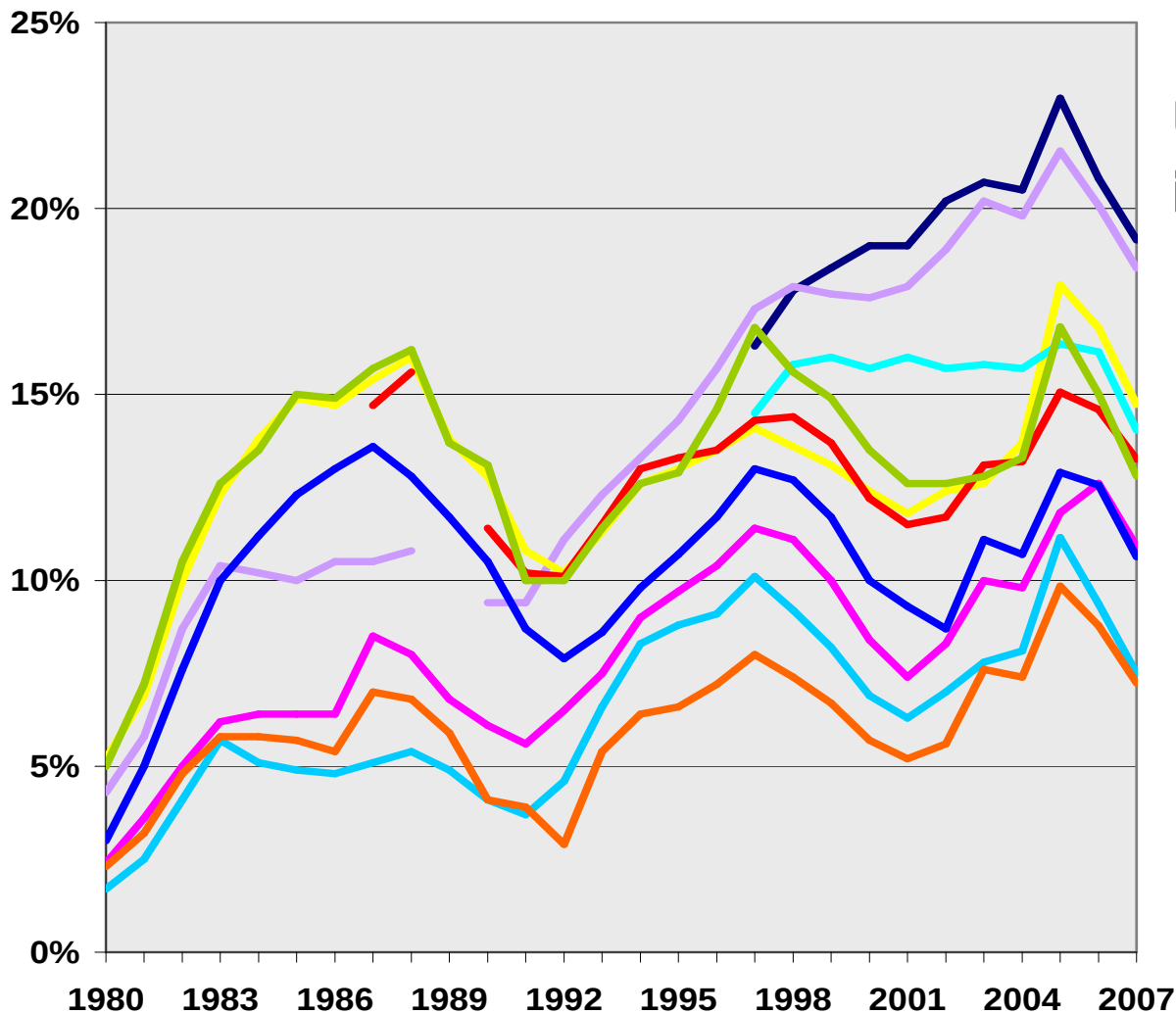
Source: IAB 2003, own calculations,
TUHH Urban and regional Economy / S. Kröger



Suburbia, Urban Outskirts or the "Urban Sprawl" –

As a result of the wish
of the vast majority, for
an affordable dwelling
in a green area

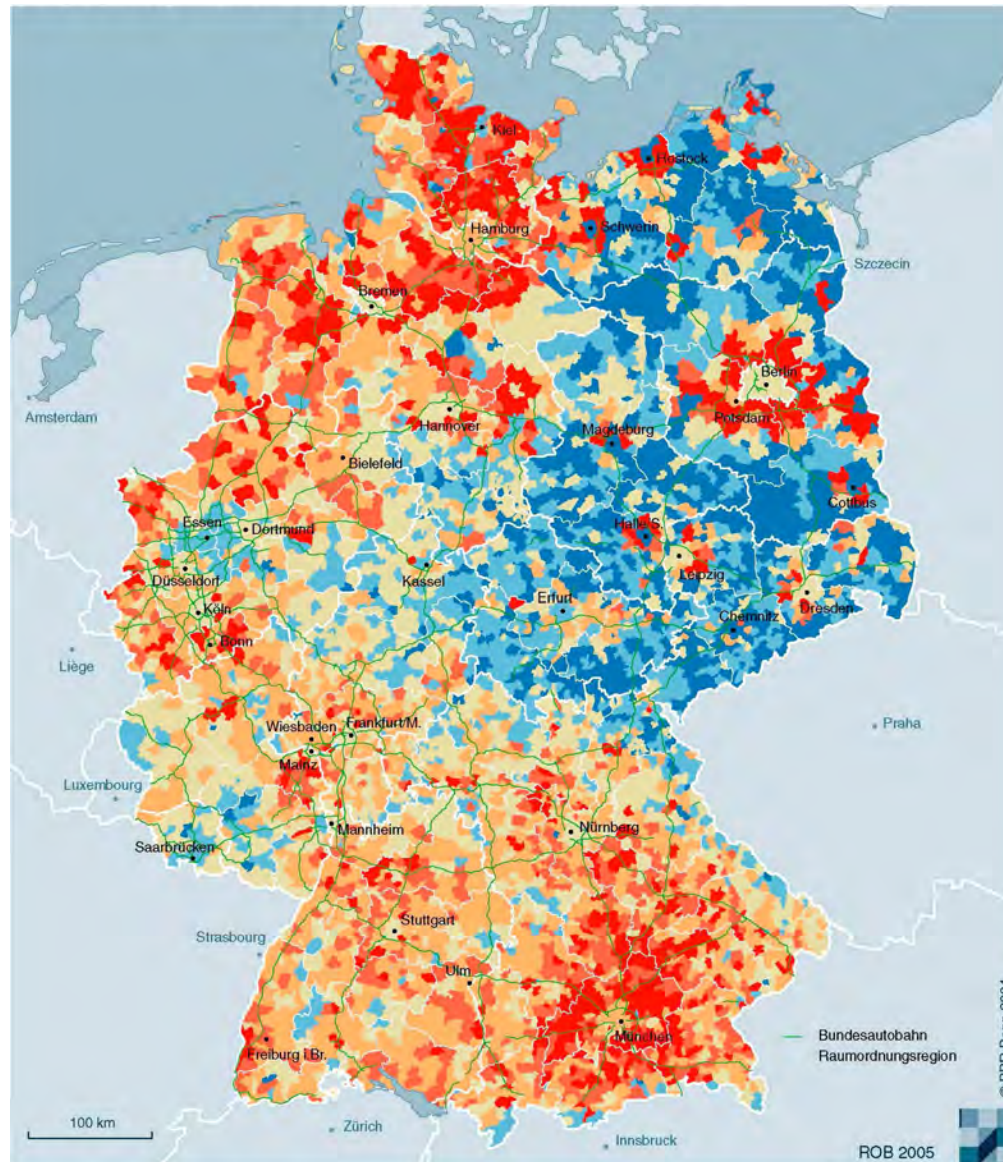
People are slipping away
from the constraints of the
proximity of urban living.



Unemployment rates in German Cities 1980 - 2007

- Leipzig
- Berlin
- Essen
- Dresden
- Cologne
- Bremen
- Frankfurt/M.
- Hamburg
- Stuttgart
- Munich

Current population development 1997 - 2003



Quelle: BBR (2005): Raumordnungsbericht 2005.

Side by side growing and shrinking population:

In approx. **3000 municipalities** the population rate **grew** by 3,2 % over the last 6 years, whilst simultaneously **falling** by 3 % in approx. **1760 municipalities**.

Growing and shrinking municipalities are often located closely to one another.

Bevölkerungsentwicklung 1997 bis 2003 in %



„Shrinking Cities“ – rétrécissement urbain

*“Residents moved away,
buildings and infrastructure remained.”*

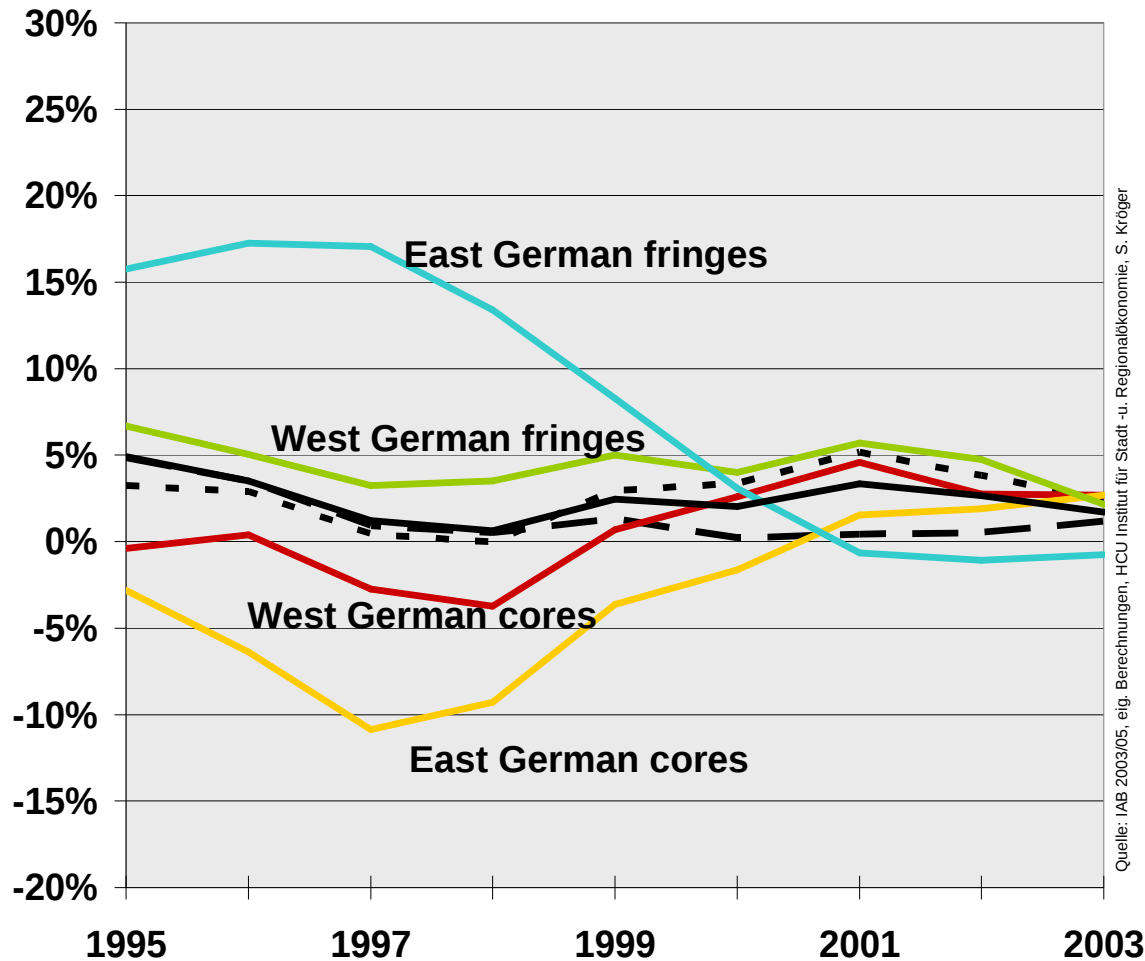


(Foto: Benno Brandstetter)

À l'année 2000 un million
des logements inoccupés
à l'Allemagne de l'Est

*Démolition des
logements inoccupés
à Dresde.*

Tendencies toward a Reurbanisation – Population Development

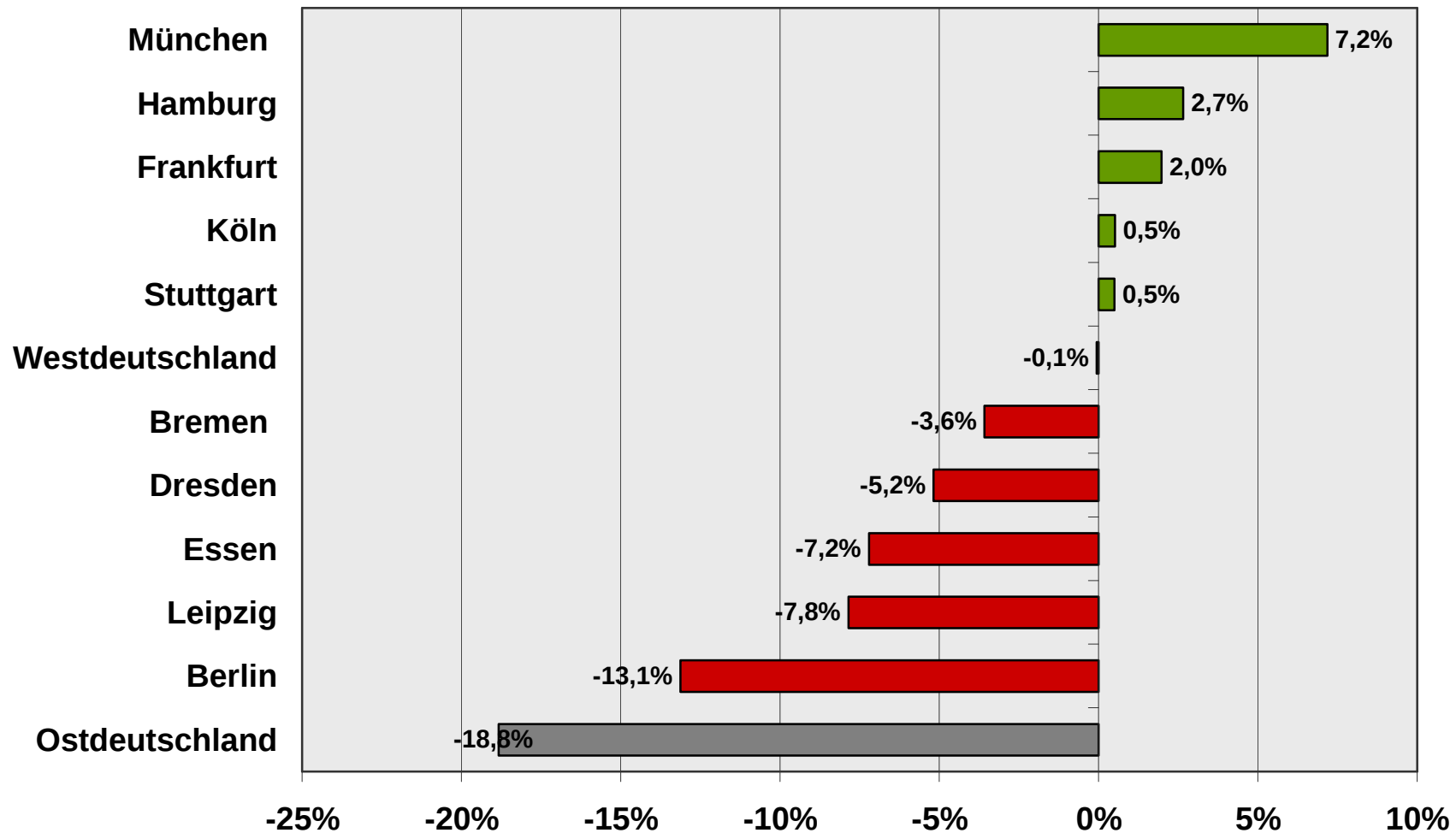


**Total migration balance
per 1000 inhabitants in
German cores und
outskirts 1995 – 2003**

- - Stadtreg. West
 - - Stadtreg. Ost
 — BRD

Reurbanization and polarization of the German urban system (West Germany without Hannover)

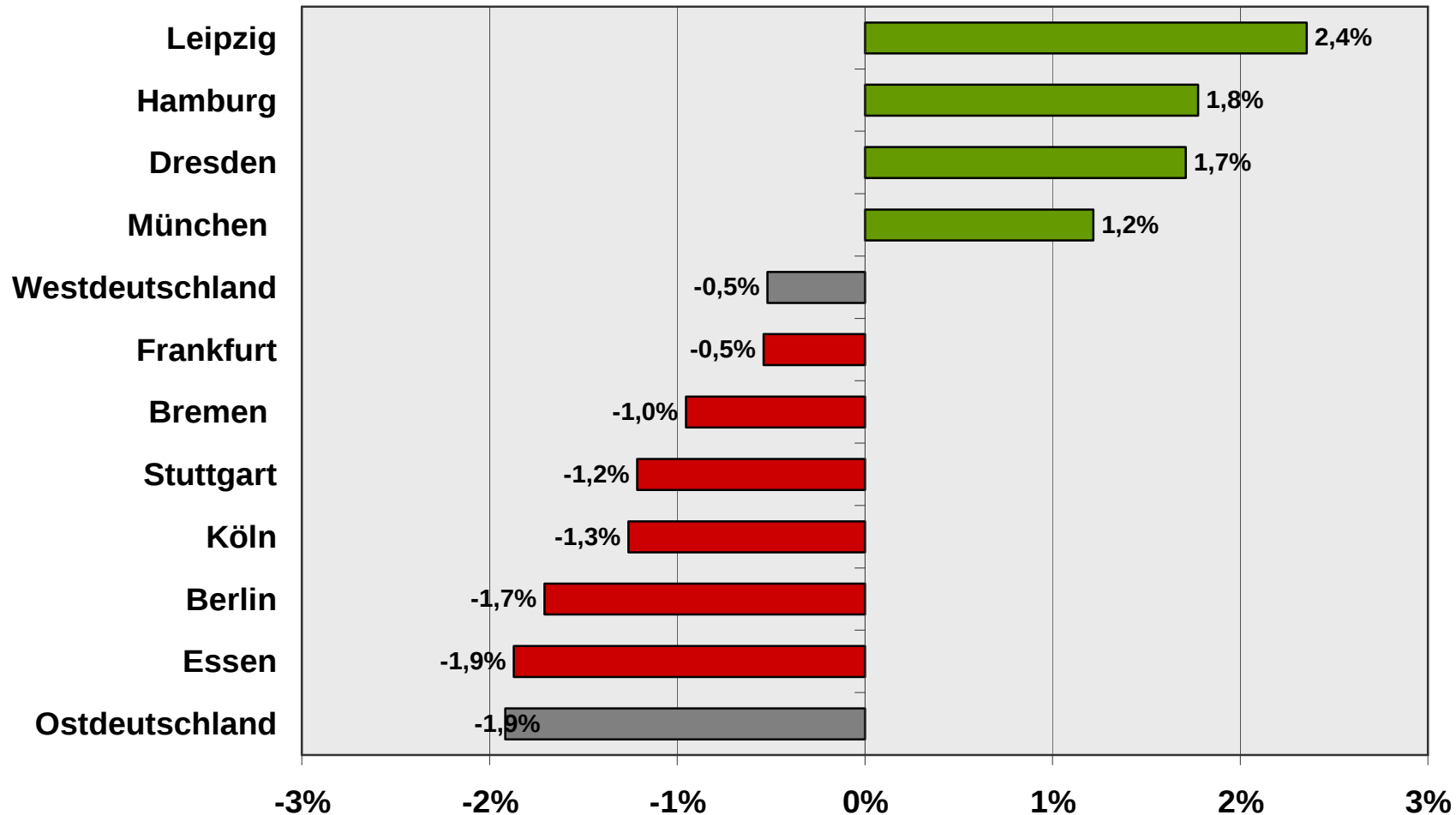
Changes in the employment figures in German cities 1997 – 2006



Quelle: IAB 2005, Bundesagentur für Arbeit 2007, eigene Berechnungen, HCU Stadt- und Regionalökonomie, S. Kröger

Reurbanization and polarization of the German urban system (West Germany without Hannover)

Changes in the employment figures in German cities 2004 – 2006

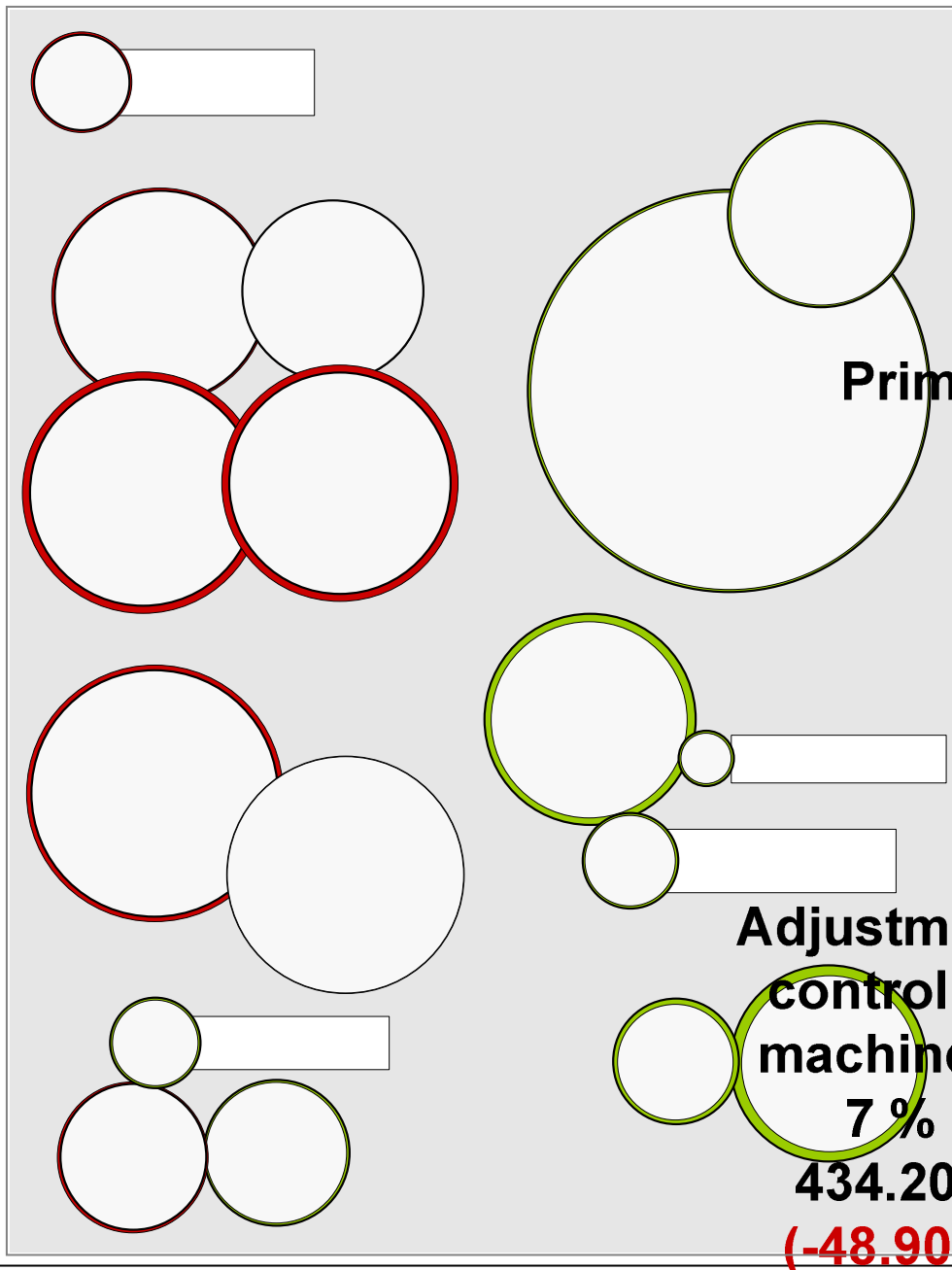


Quelle: IAB 2005, Bundesagentur für Arbeit 2007, eigene Berechnungen, HCU Stadt- und Regionalökonomie, S. Kröger

Cities are confronted with a dramatic change from an industry to a knowledge based economy.



Hope for an urban renaissance ?



Primary production

1 % / 91.100

In-/ decrease 1980-1987

(-7.500)

green circles: increase in employment;

red circles: decrease in employment.

Adjustment/
control of
machinery

7 %

434.200

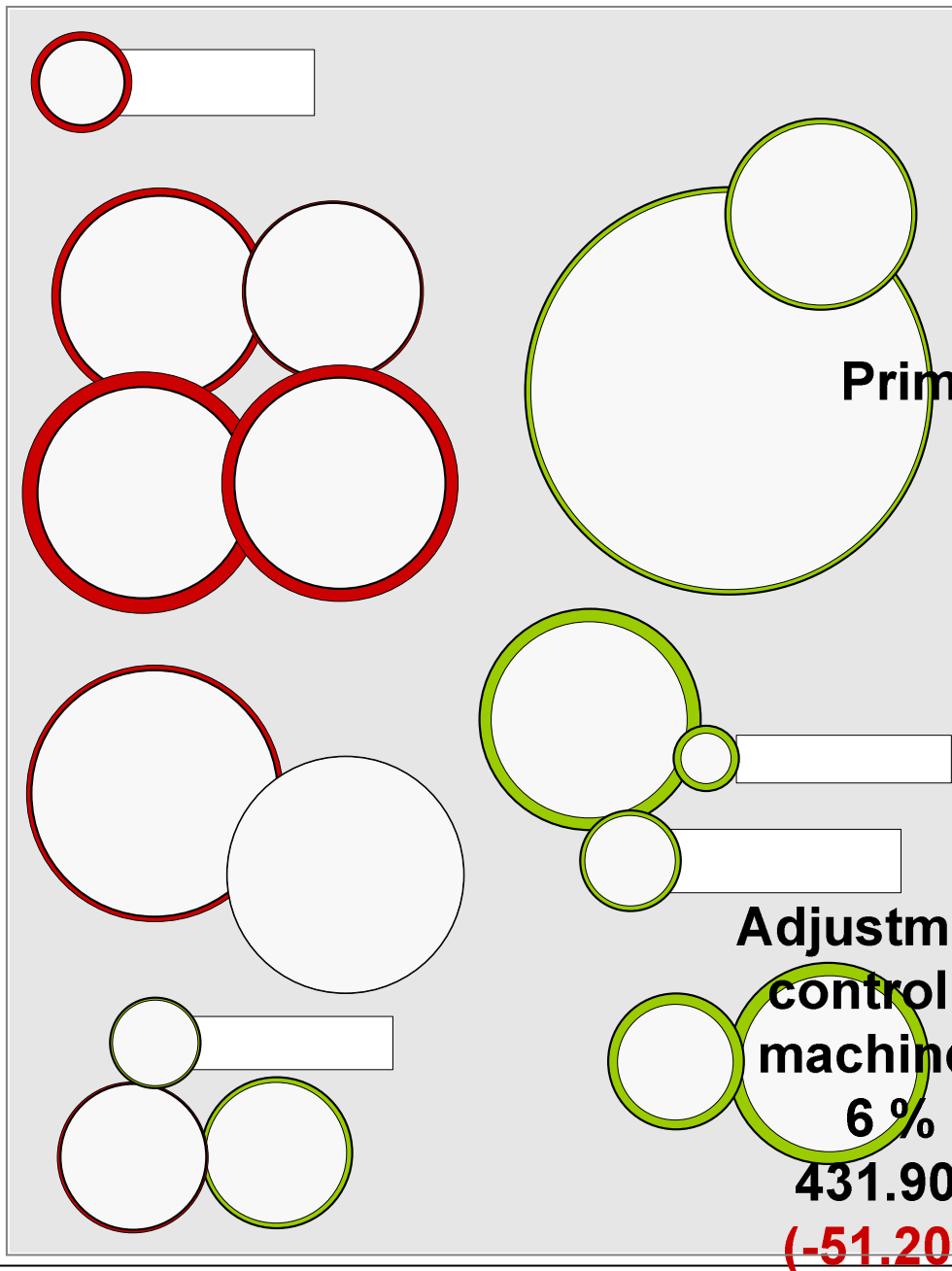
(-48.900)

Repairing

5 %

334.300

(-10.100)



Primary production

1 % / 78.600

In-/ decrease 1980-1992

(-20.000)

green circles: increase in employment;

red circles: decrease in employment.

Adjustment/
control of
machinery

6 %

431.900

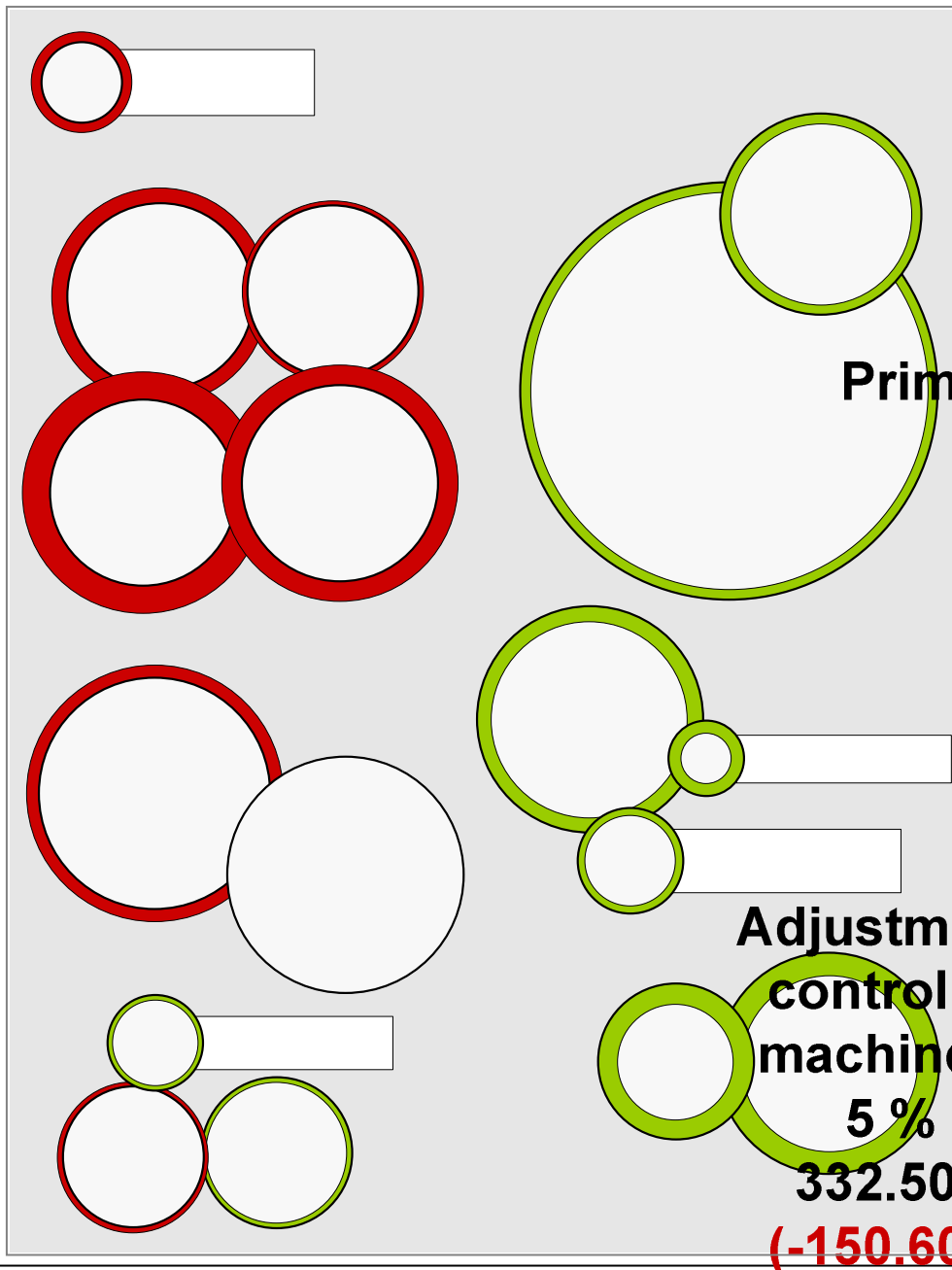
(-51.200)

Repairing

5 %

337.700

(-6.600)



Primary production

1 % / 66.200

In-/ decrease 1980-1997

(-32.400)

green circles: increase in employment;

red circles: decrease in employment.

Adjustment/
control of
machinery

5 %

332.500

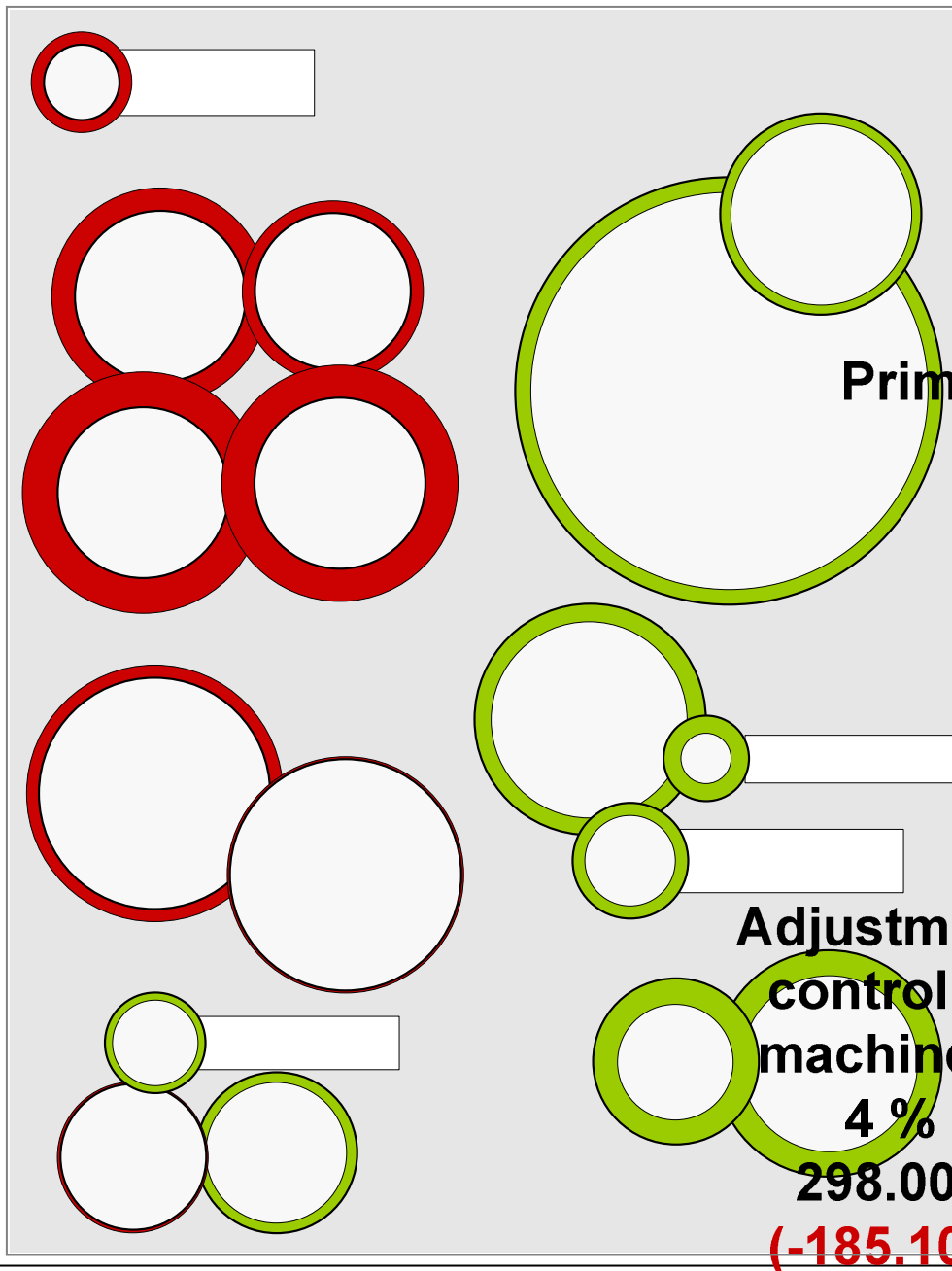
(-150.600)

Repairing

4 %

282.200

(-62.100)



Employment by
occupational
clusters in

**West German
metropolitan cores**

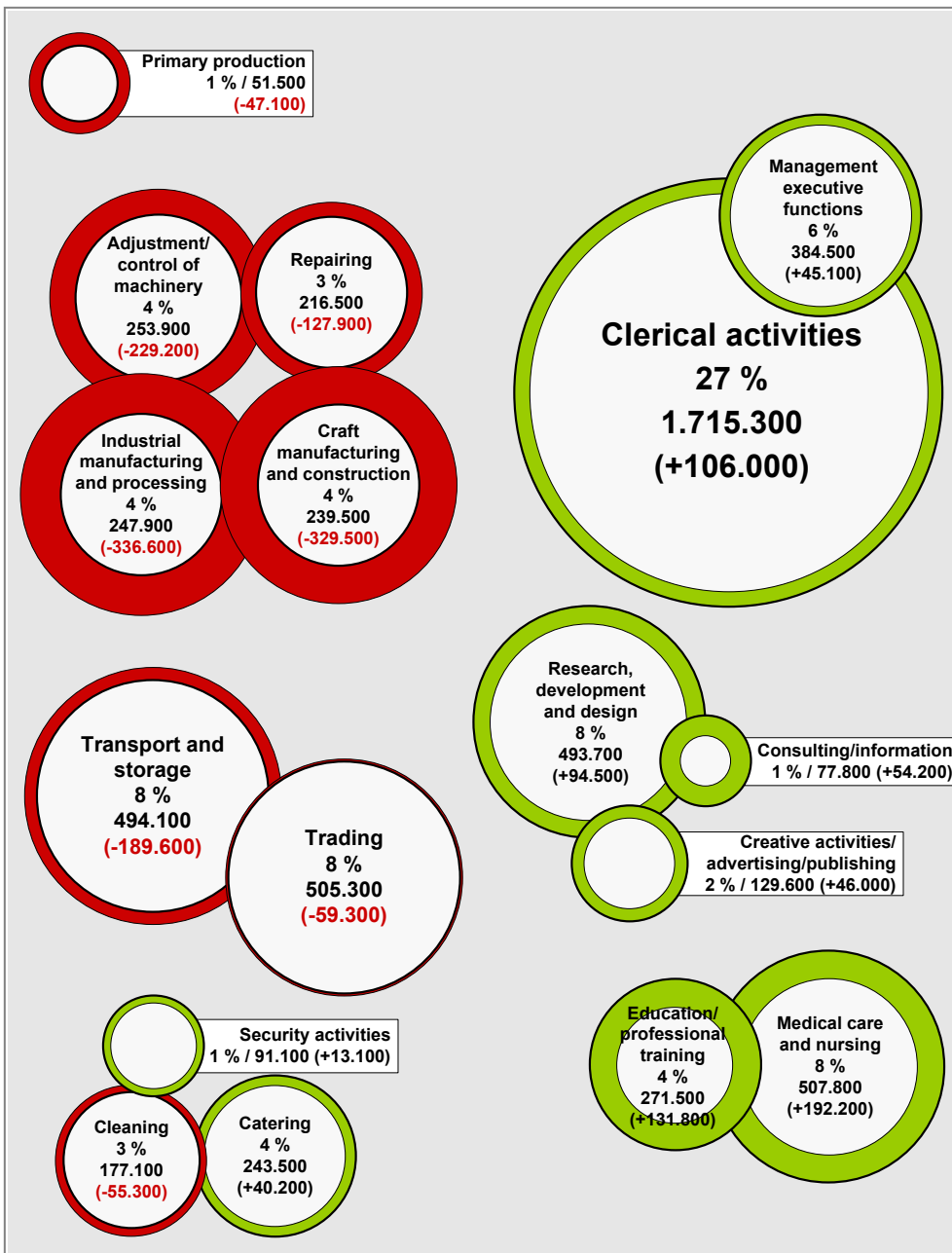
1 % / 58.200

In-/ decrease 1980-2002

(-40.400)

green circles: increase in employment;

red circles: decrease in employment.

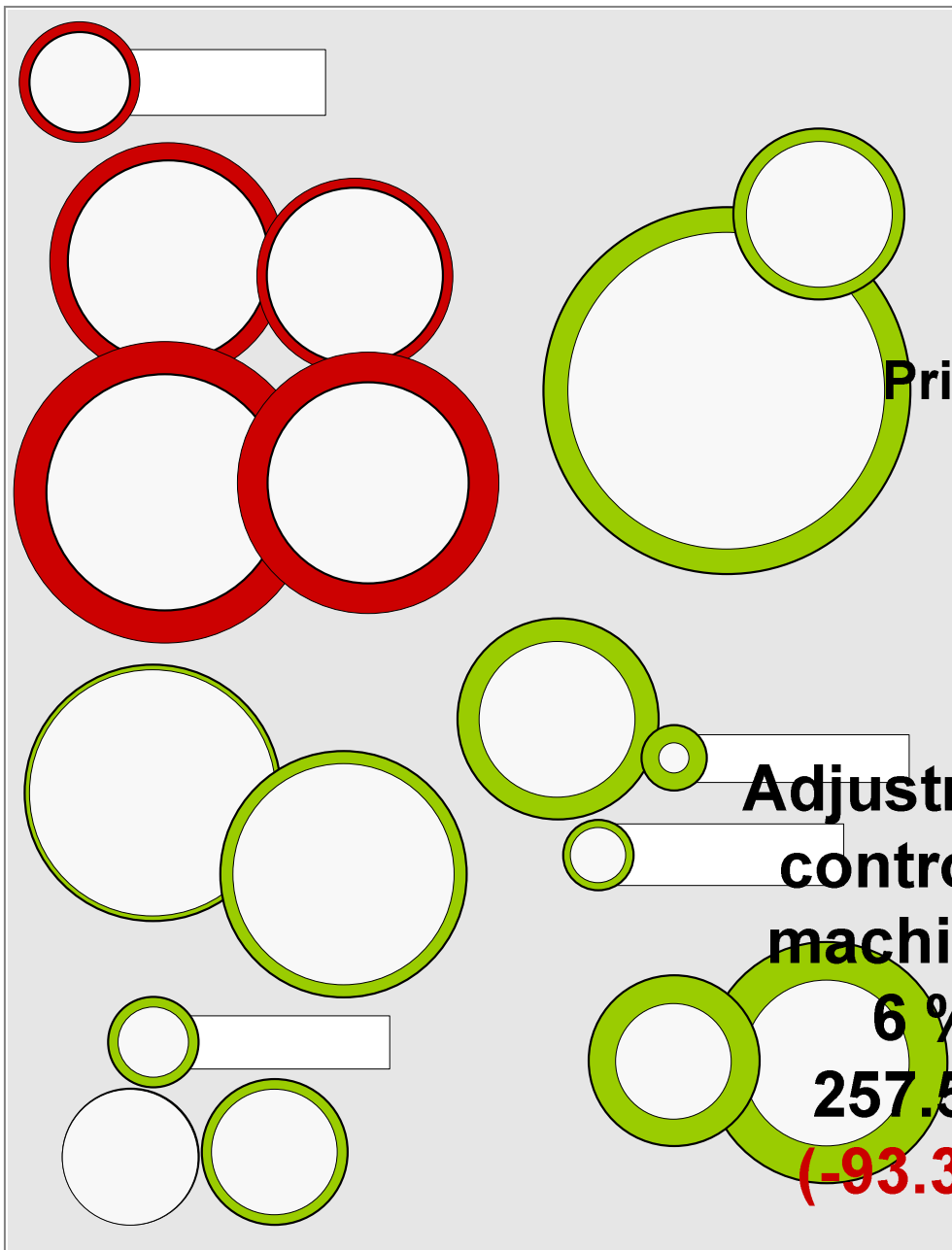


Employment by occupational clusters in **West German metropolitan cores**

In-/ decrease 1980-2006

green circles: increase in employment;
red circles: decrease in employment.

Source: IAB 2003/05, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, S. Kröger



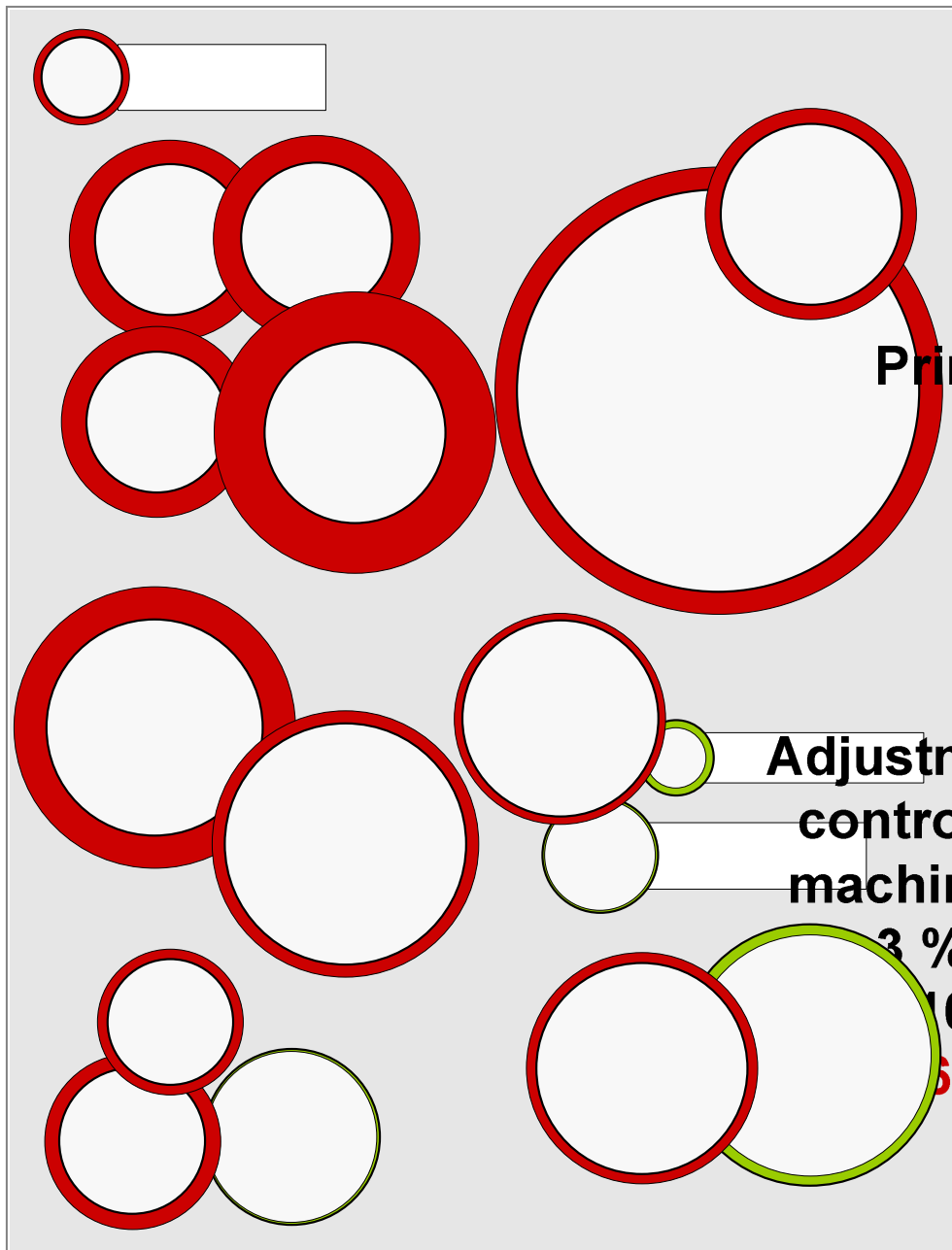
Employment by occupational clusters in
West German metropolitan fringes
Primary Production
2 % / 66.500
(-26.300)
 In-/ decrease 1980-2006

green circles: increase in employment;
red circles: decrease in employment.

**Adjustment/
control of
machinery**

Repairing
5 %
202.900
(-44.600)

Source: IHD, 2003/05, Institut für Stadt- und Regionalökonomie, S. Kröger



Employment by occupational clusters in

East German metropolitan cores

Primary production
1 % 19.300
employees 2006
(-8.700)

In-/ decrease 1993-2006

green circles: increase in employment;
red circles: decrease in employment.

Adjustment/ control of machinery

3 %
67.600
(-54.500)

Repairing
4 %
67.600
(-54.500)

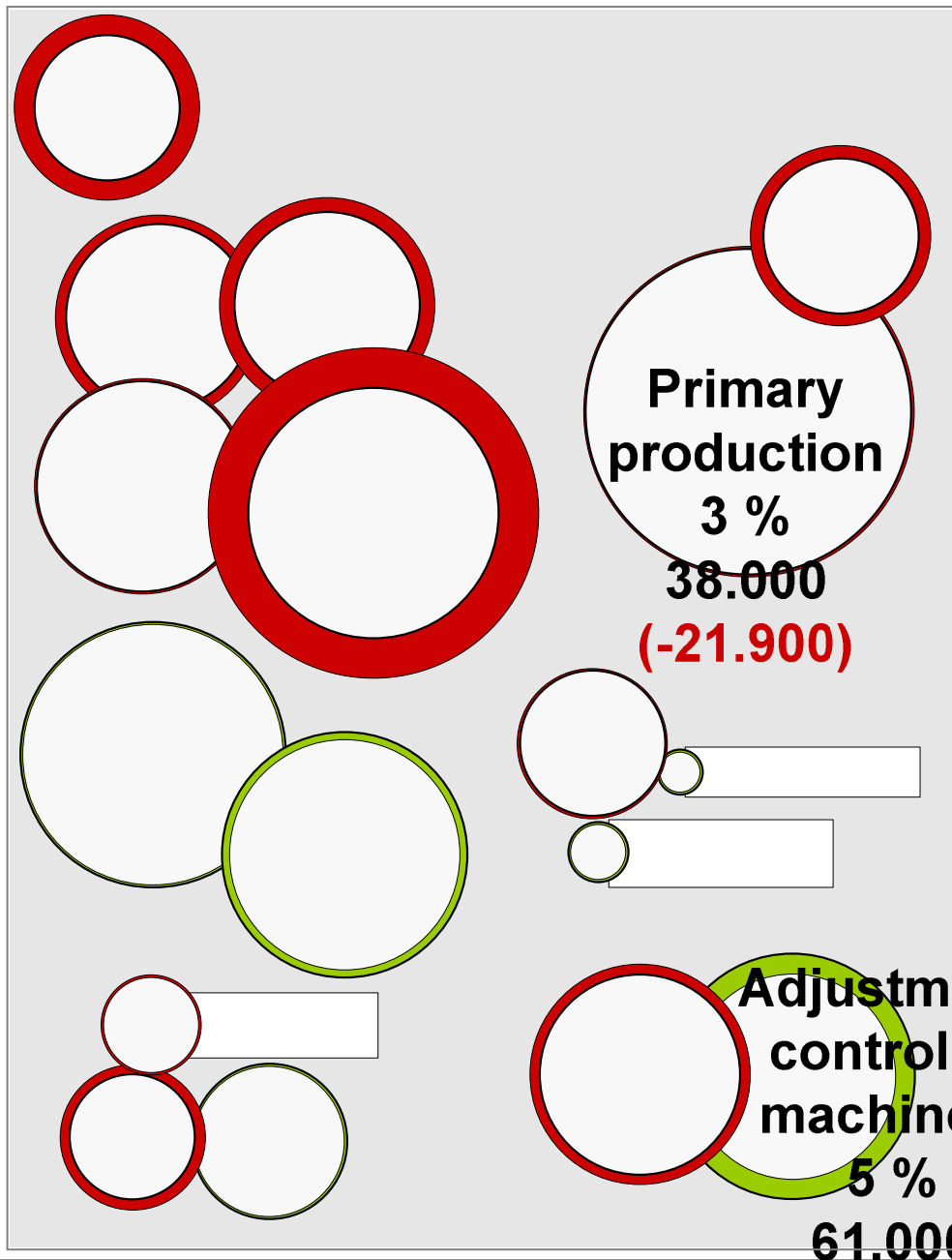
Source: IAB 2003/05, own calculations, HCU Institut für Sozial- u. Regionalökonomie, S. Kröger

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Industrial
manufacturing
and processing

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Craft
manufacturing
and construction



Employment by occupational clusters in East German metropolitan fringes employees 2006

In-/ decrease 1993-2006

green circles: increase in employment;
red circles: decrease in employment.

Repairing
6 %
61.600
(-19.900)

Source: IAB 2006, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, S. Kröger

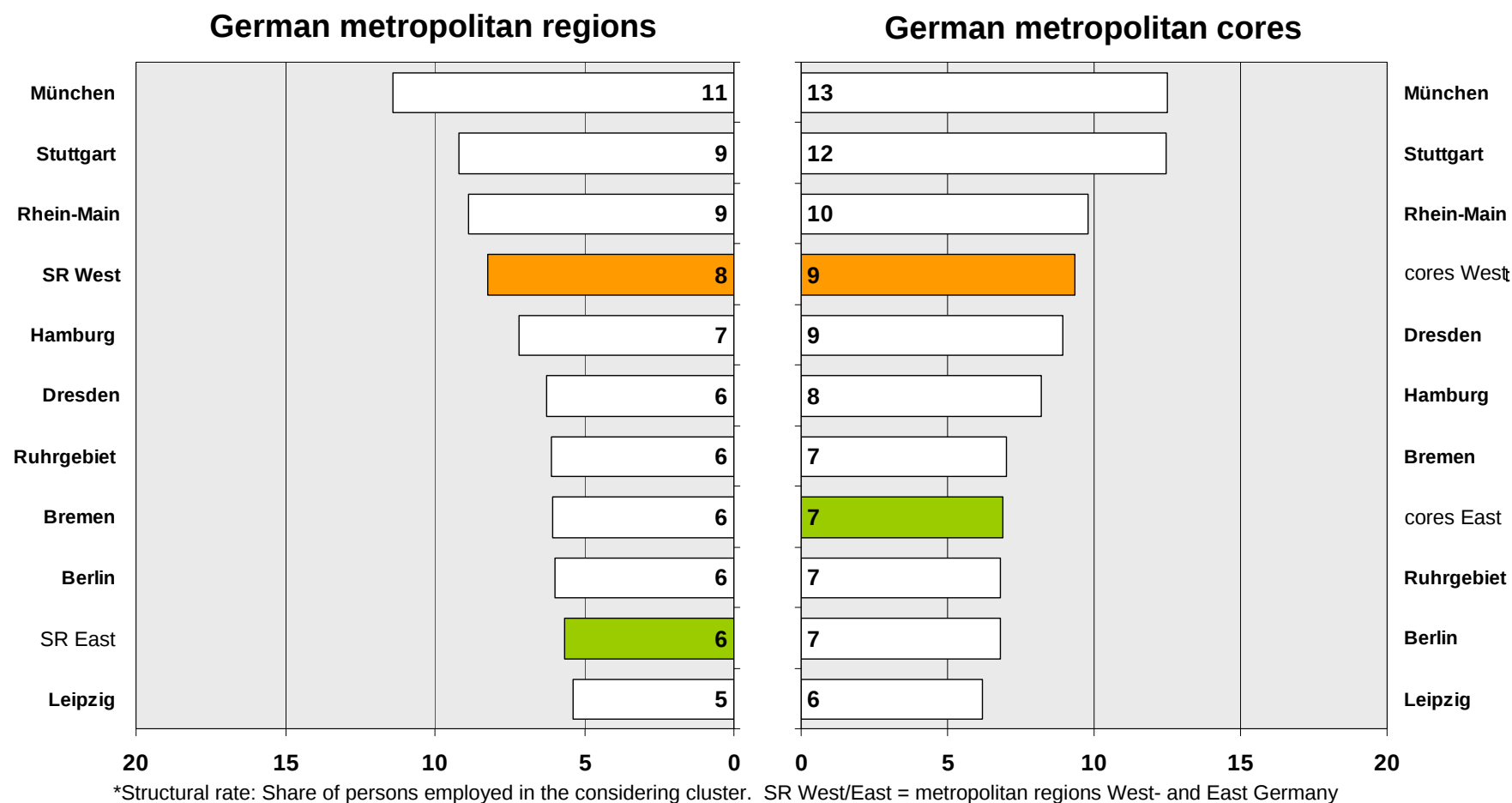
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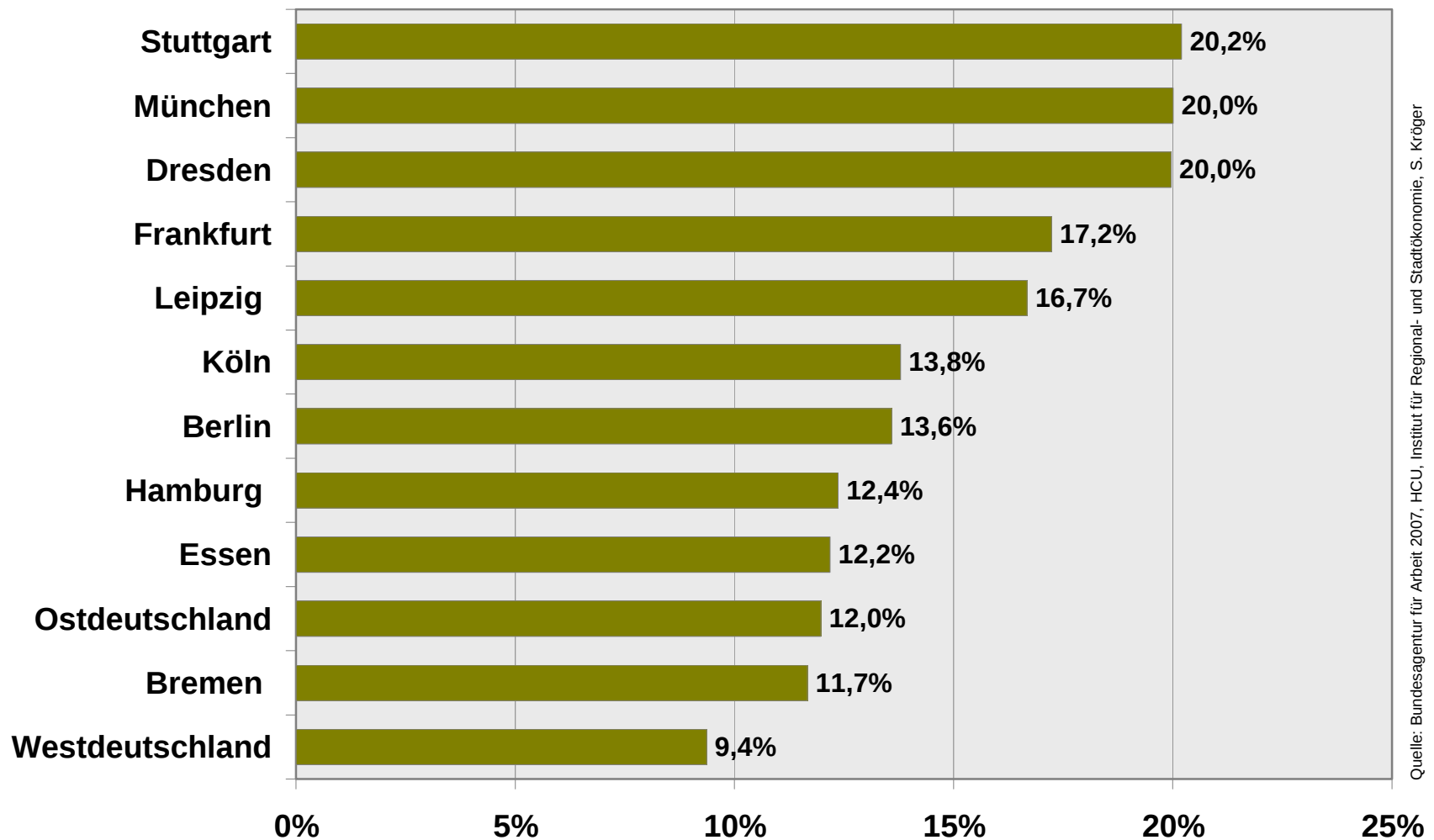
Share of knowledge-based services of total occupation

structure rate* 2004 (in percent)

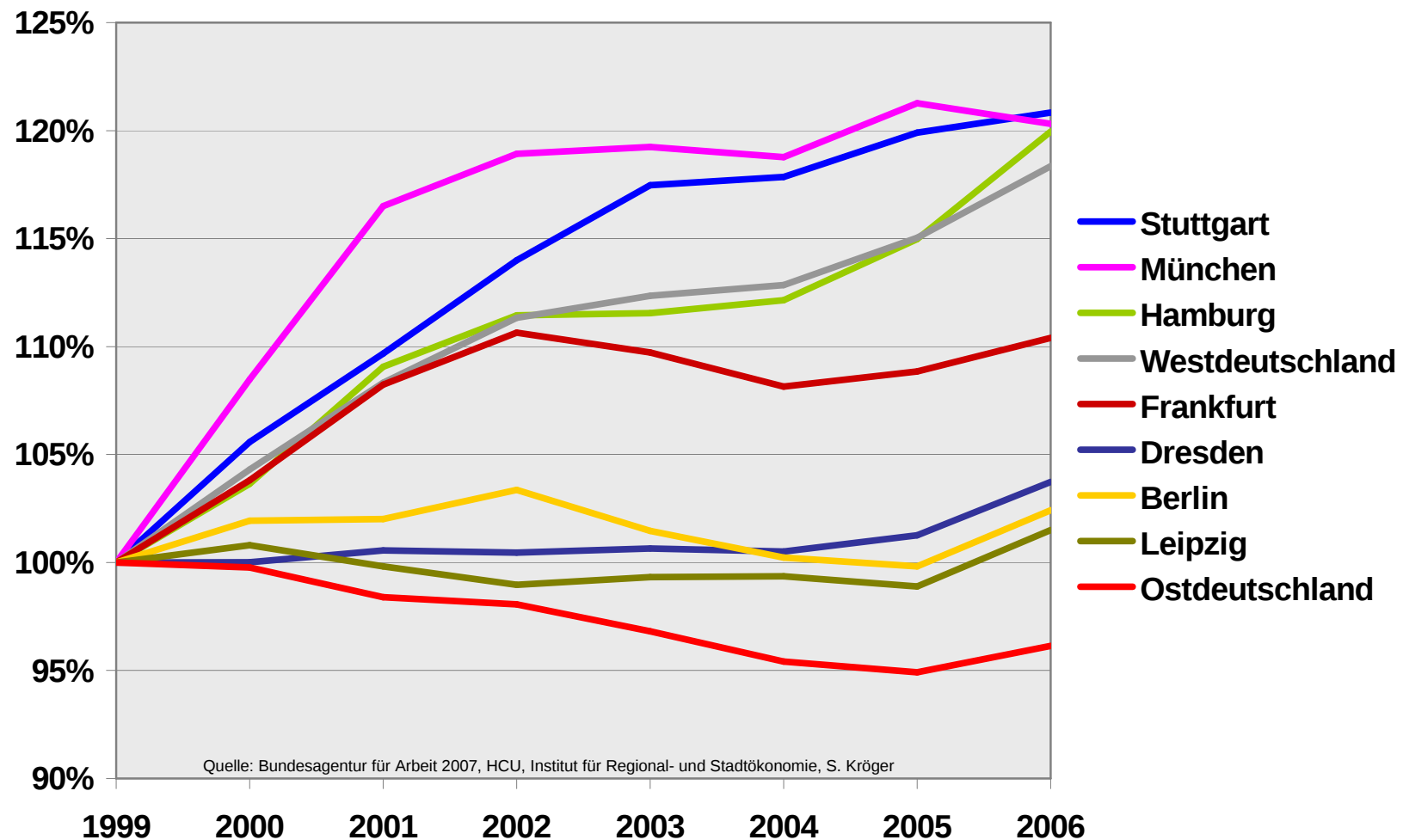


Source: IAB 2003/05, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, S. Kröger

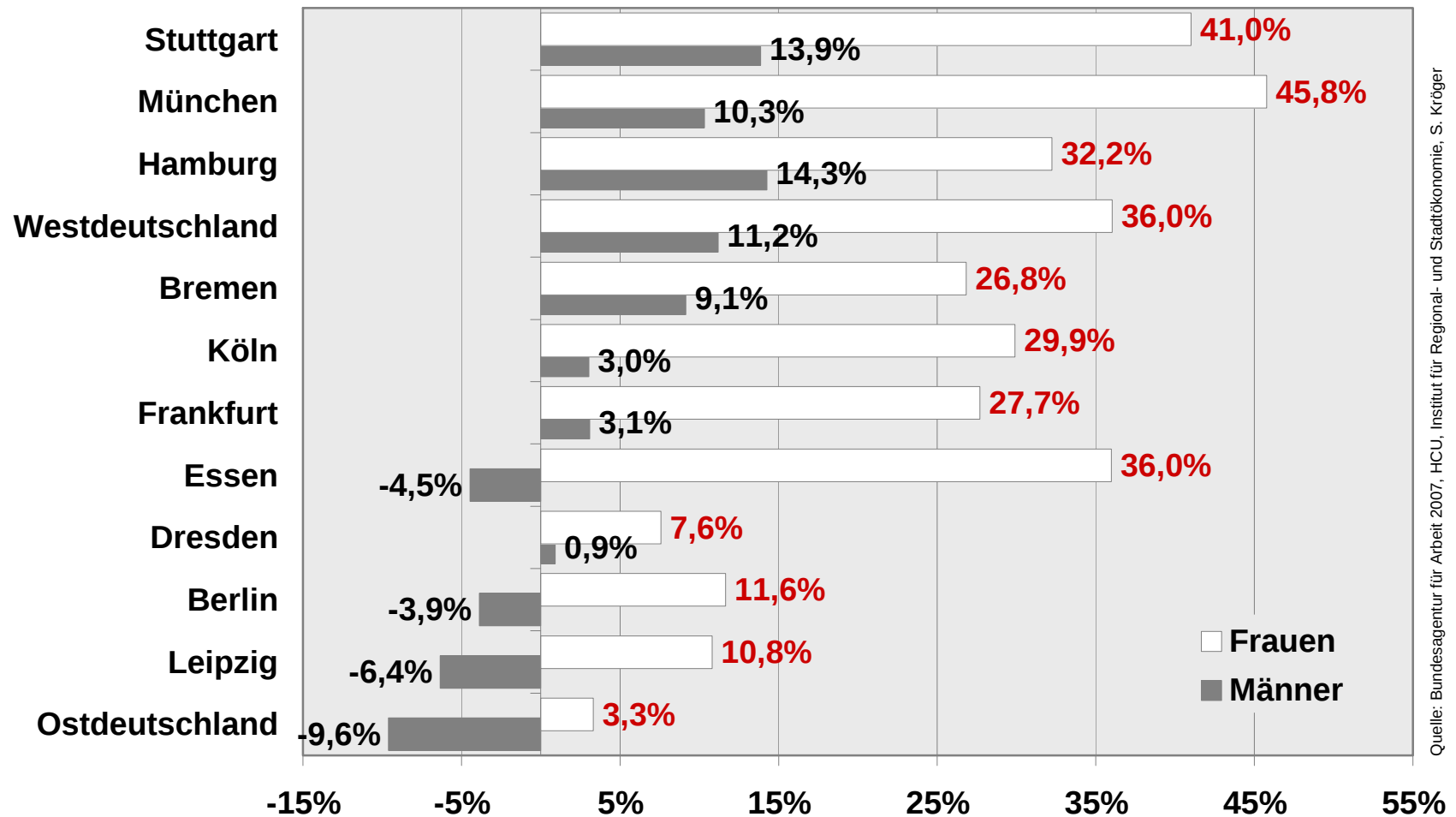
Anteil der Akademiker/Akademikerinnen an den sozialversicherungspflichtig Beschäftigten in deutschen Städten im Jahr 2006



Changement de l'emplois salarie avec une formation academique dans des villes allemandes entre 1999 - 2006



Changement de l'emplois salarie avec une formation académique par sexe dans des villes allemandes entre 1999 - 2006



Labour – the decisive production factor in a knowledge economy

→ "Skills matter"

With the transition to a knowledge economy intellectual labour and creativity are becoming the key localization factor.

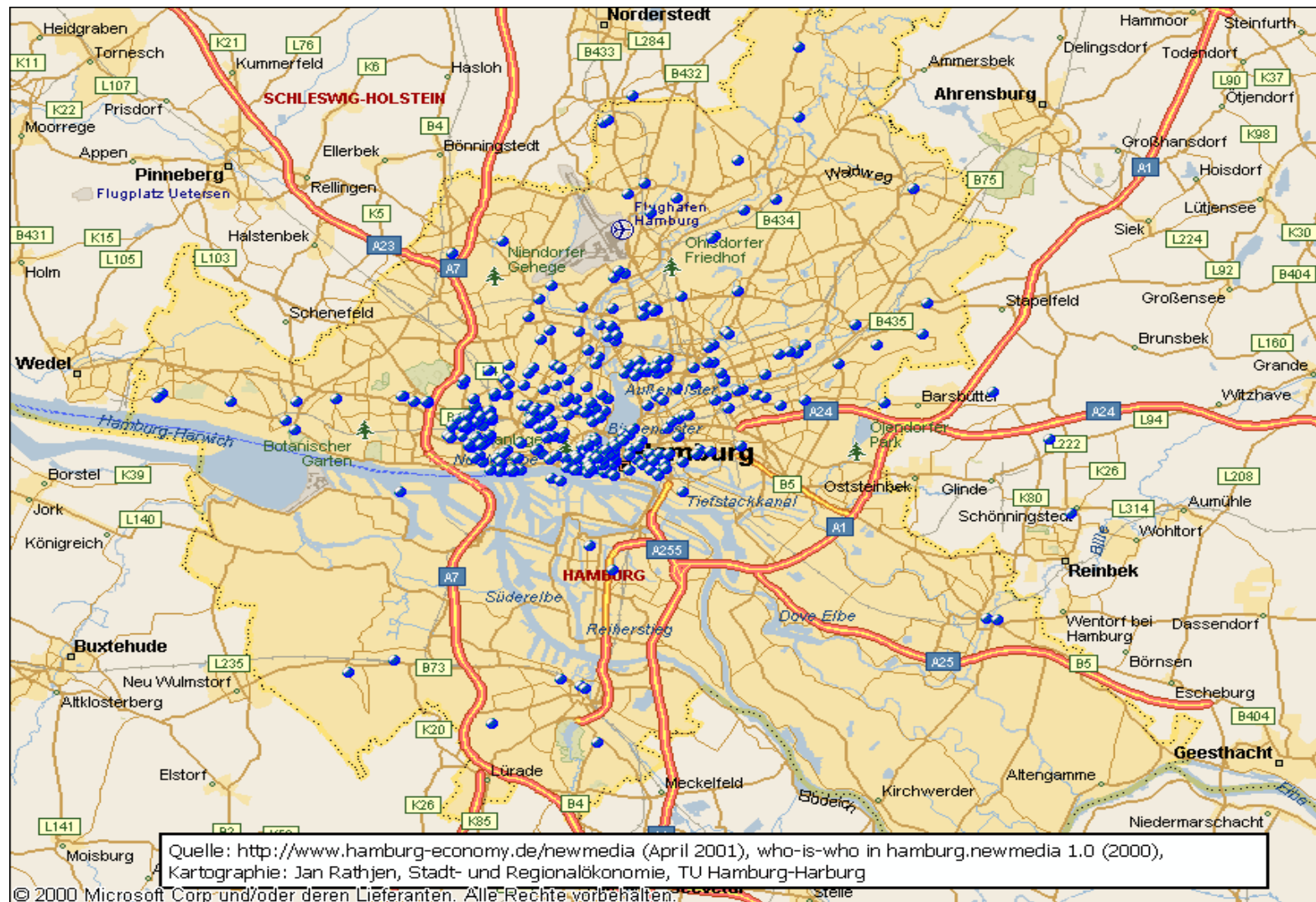
Urban labour markets increasingly function as “**urban magnets**”:

Firms look at the availability of qualified labour force in their choice of location and

qualified labour force will look for places with a high variety of employment possibilities and urban living conditions.

This will activate in metropolitan regions a ***cumulating dynamic between labour demand and labour offer***.

The urban location pattern of the multi media and internet related service firms in the inner-city sites of Hamburg



Places of the Creative Economy

Hamburg Ottensen – Borselhof



Hamburg Bahrenfeld – altes Gaswerk



Hamburg Altona – Phoenixhof



Hamburg Zeisehallen



Urban creative environment attracts talent – or:

Greetings from Richard Florida:

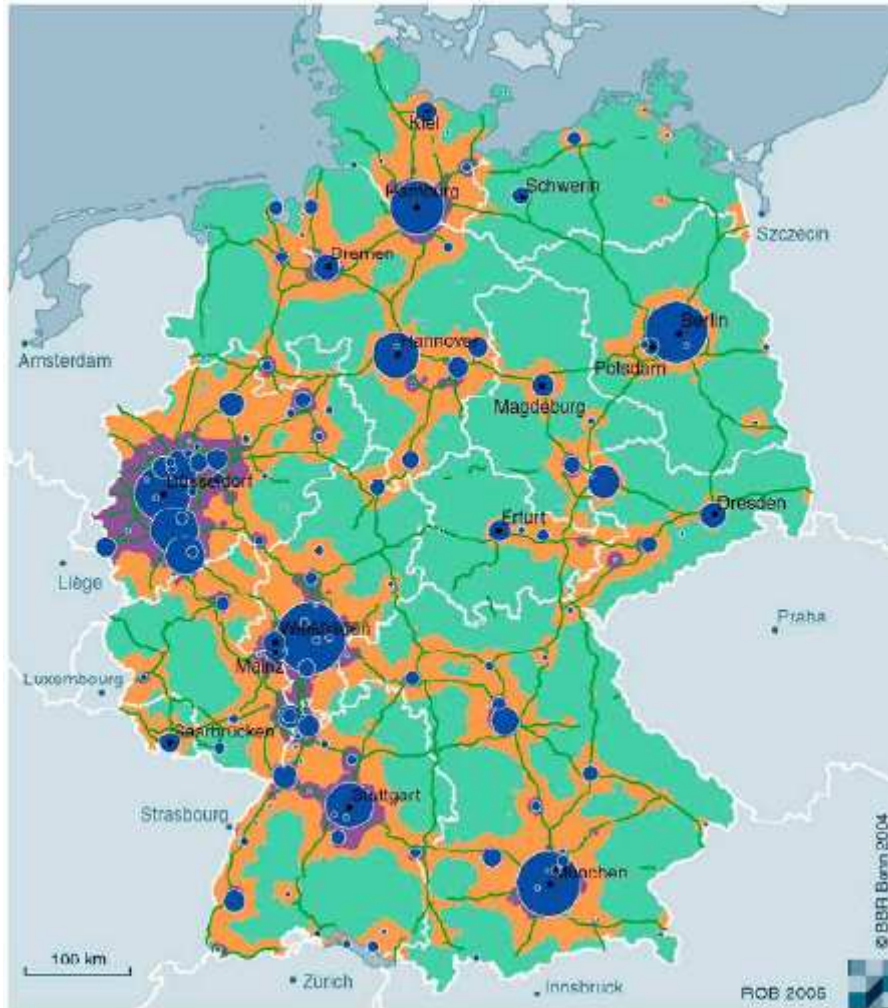
city creates jobs –



Or

Consumption, entertainment, amenities

Spatial distribution of metropolitan functions – Network of metropolitan regions in place of a Global City

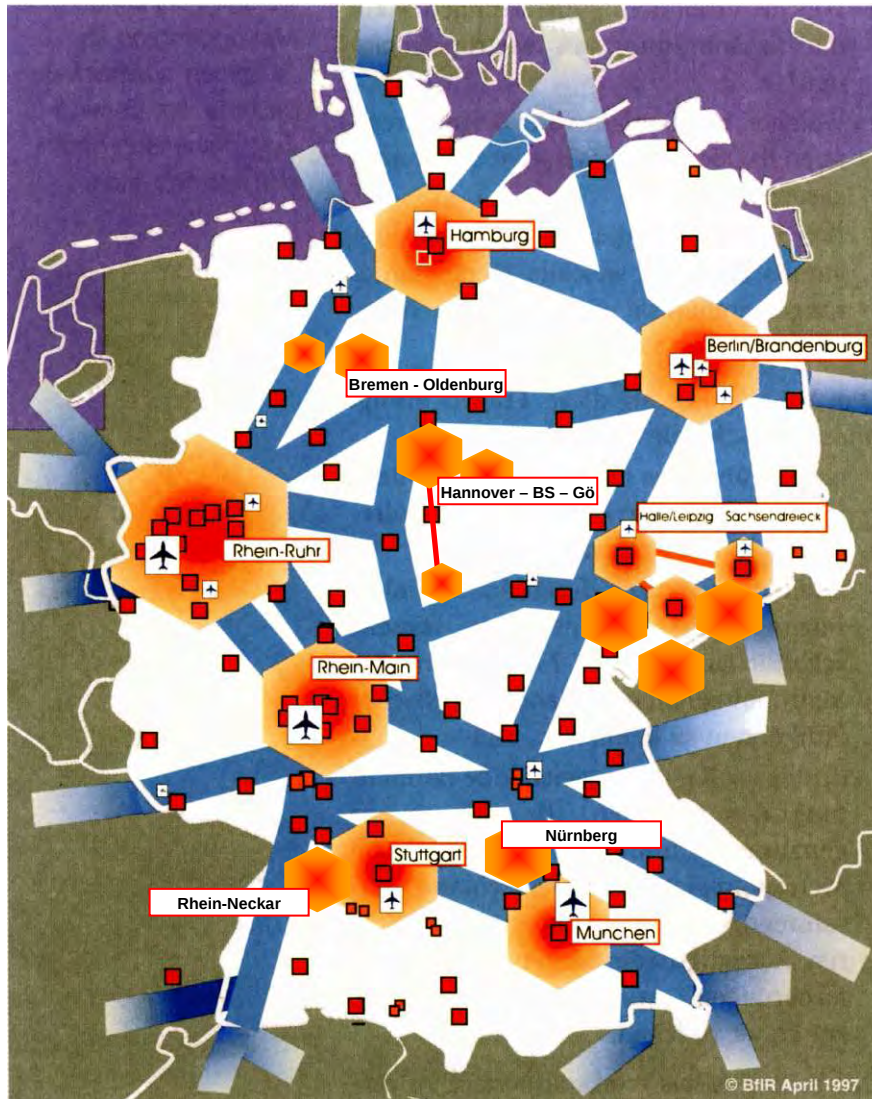


In Germany the polycentric urban system forms the historical basis for the development and profiling of metropolitan functions.

The metropolitan functions of diverse metropolises are interlinked in a spatial nexus.

Quelle: BBR (2005) Raumordnungsbericht 2005. Berichte Bd. 21, Bonn, Seite 185

Network of German Metropolitan Regions



Polycentric distribution of metropolitan functions:

- Decision and control,
- Innovation and competition ,
- Gateway

„European Metropolitan Regions“ – following a resolution of the conference of the German ministers for spatial planning – in a first step:
Berlin/ Brandenburg, Hamburg, Munich, Rhine-Main, Rhine-Ruhr and Stuttgart, as well as the potential metropolitan region, the so called **Sachsendreieck: Halle/ Leipzig, Dresden and Chemnitz**; this list was complemented by **Hannover-Braunschweig-Göttingen, Bremen-Oldenburg, Rhine-Neckar & Nuremberg**.

„Export World champion“ Germany without a „global city“?

Question:

How can we explain the contradiction between

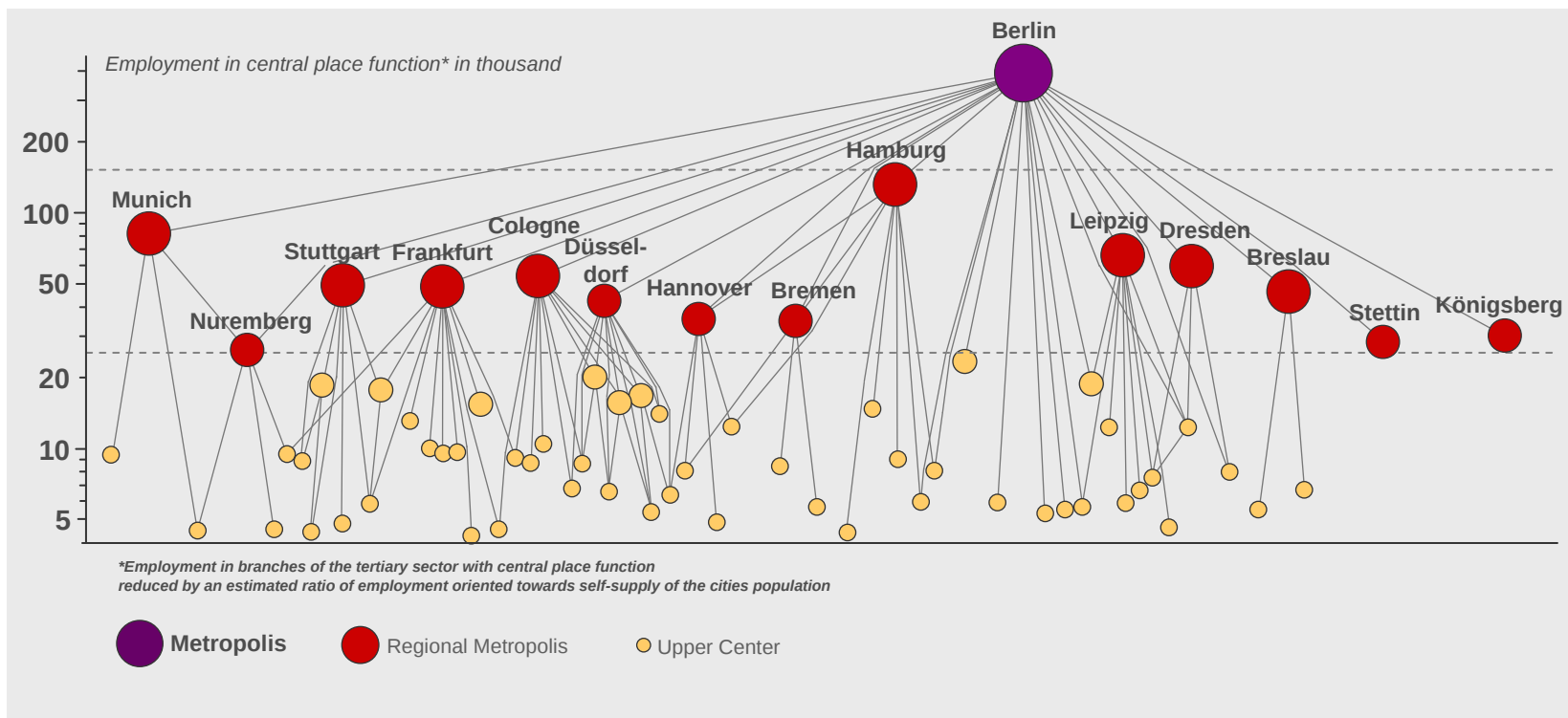
- the **key position** of **Germany** in the *global economy* and
- the *‘secondary importance’ of the German cities in the global networks of cities?*

Is the German network of metropolises only a special deficient case in the hierarchy of the global network of cities

or

is it likely that the „Rheinish Capitalism“ has not only formed an alternative model of production, but also an alternative and effective model of urbanization?

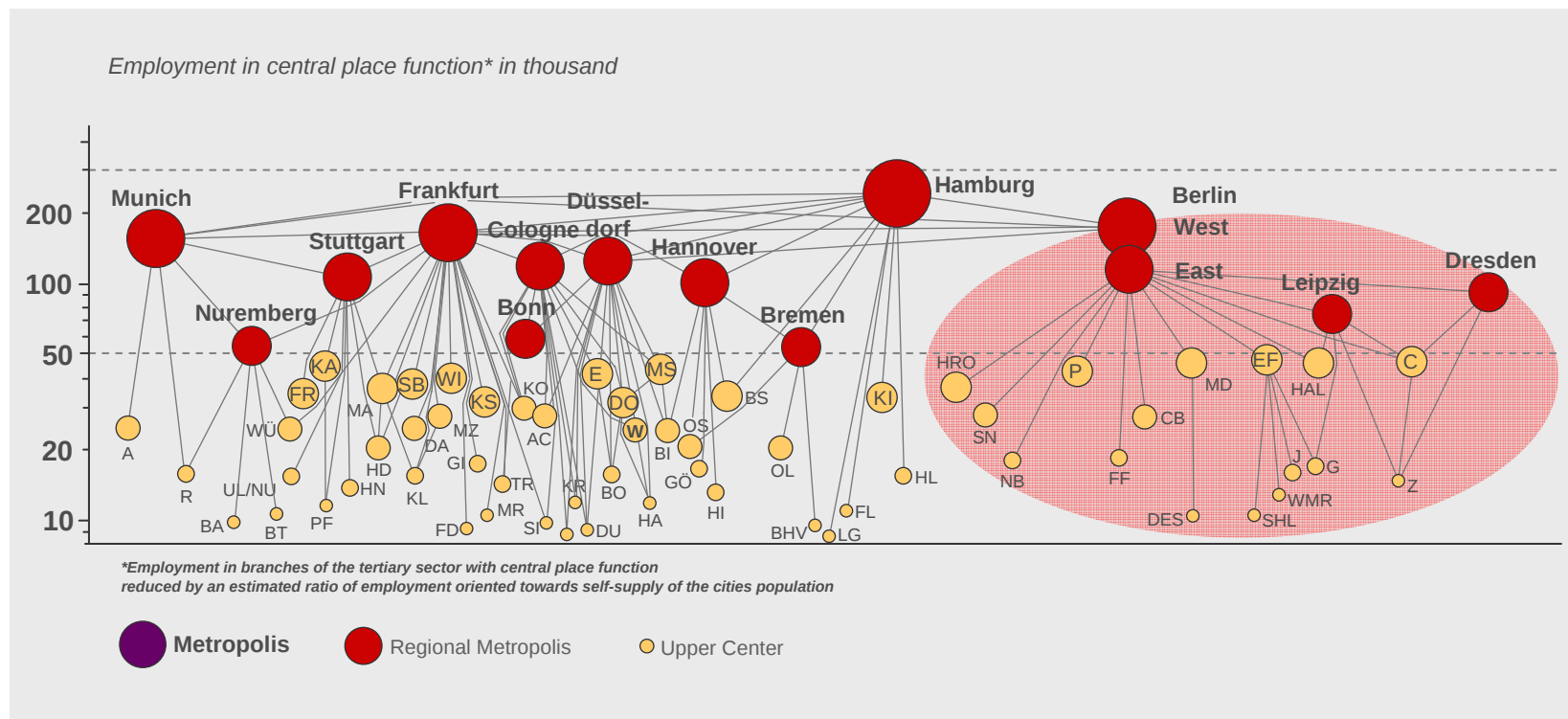
Hierarchy profile of the urban system 1939



Schema following Blotevogel 2002

Hierarchy profile of the urban system 1970

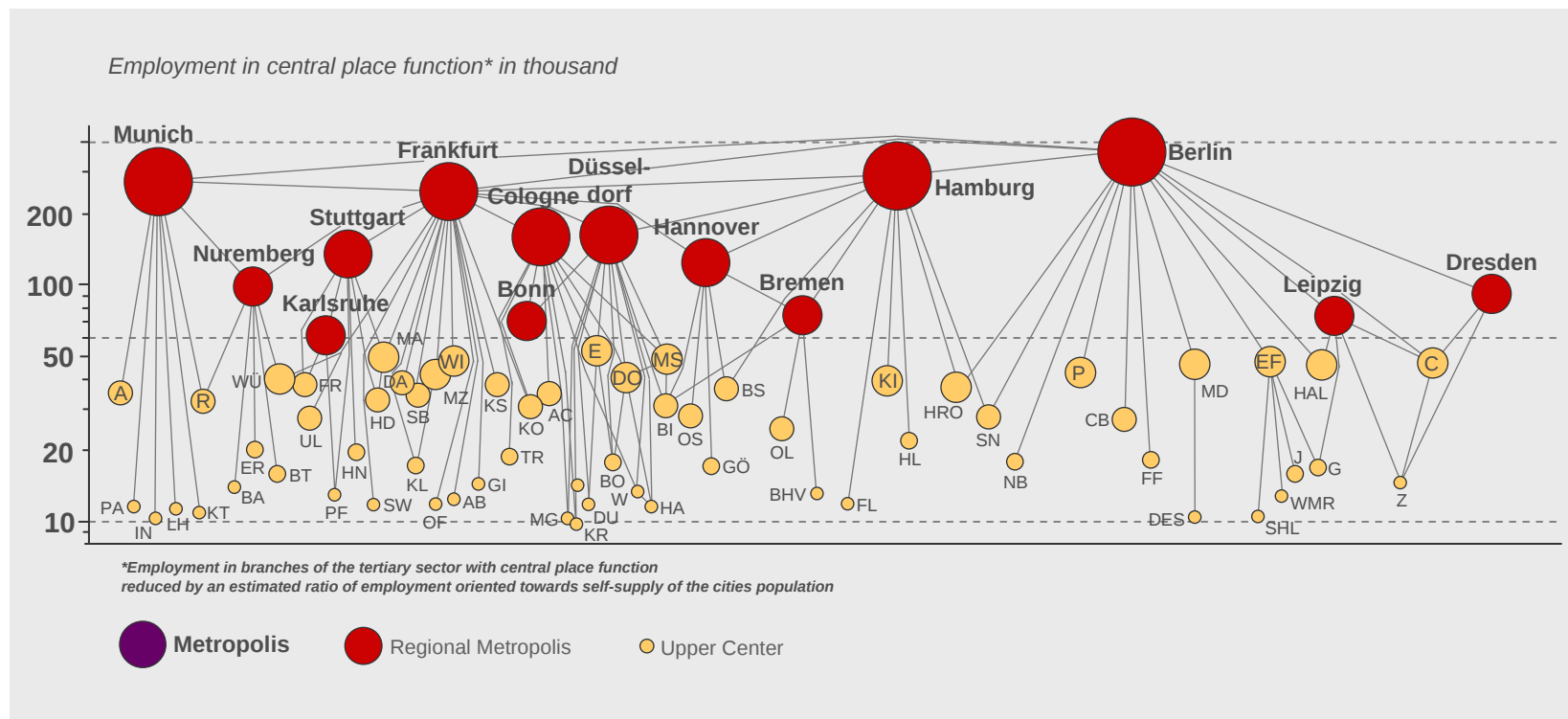
Division of Germany in West (left) and East Germany (right)



Schema following Blotevogel 2002

Hierarchy profile of the urban system 1995

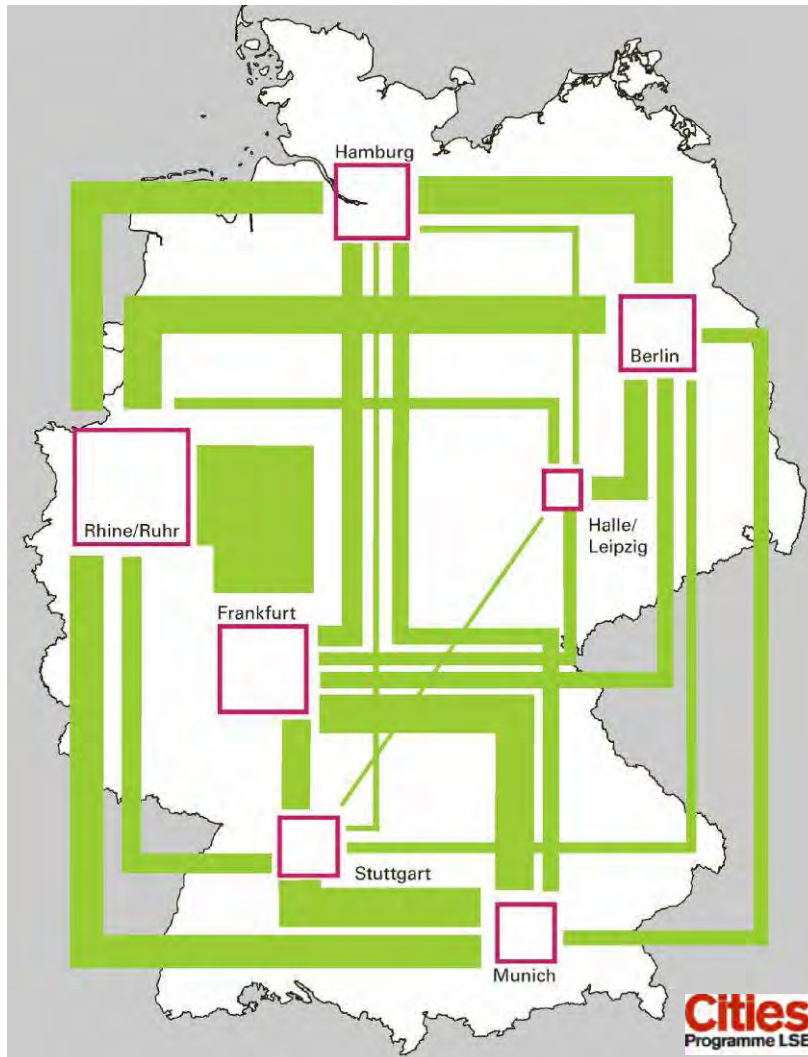
after the German reunification



Schema following Blotevogel 2002

German traffic flows business purpose

by rail, car and plane



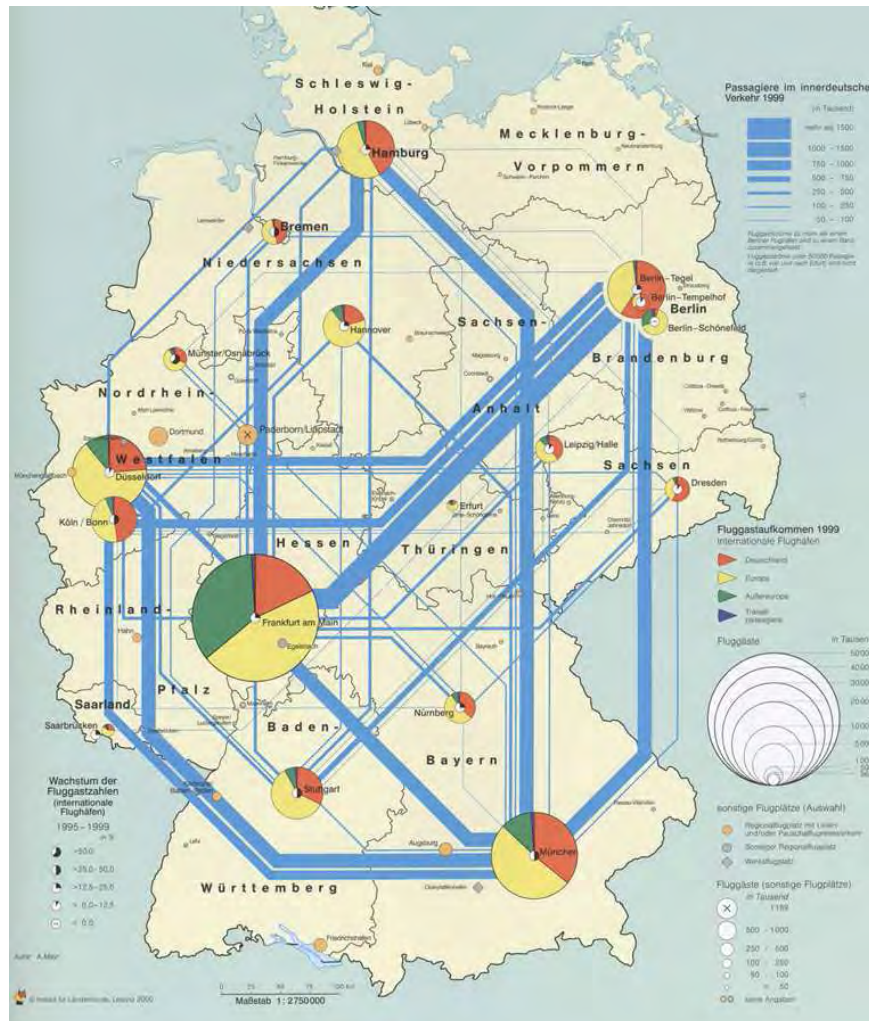
Quelle: LSE, BVWP, Verflechtungsmatrizen 1997

Strong spatial-functional interconnection between the Metropolitan Regions –

The example of business trips

Source: LSE, BVWP, Verflechtungsmatrizen 1997

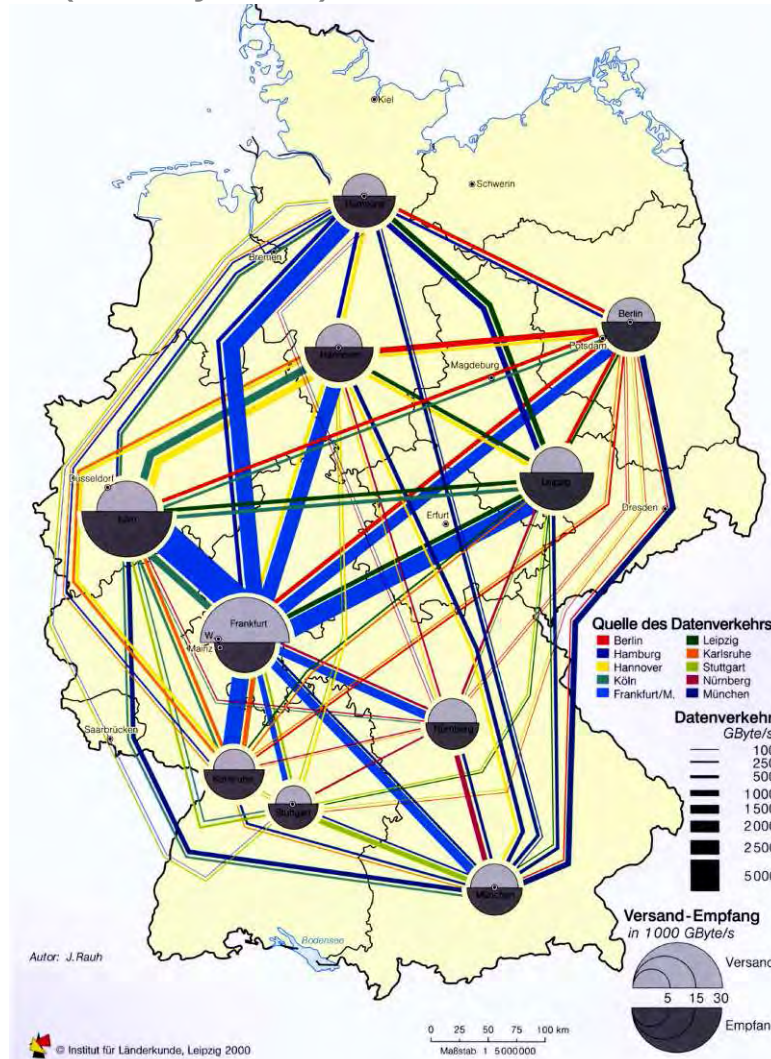
Traffic interconnection between the German Metropolitan Regions – air traffic



Volume of air traffic passengers and intra German air traffic flows 1999

Source: Institut für Länderkunde Leipzig 2000

Data traffic in the broad-band science network **WiN** (in GBytes/s)



Science broad-band network:

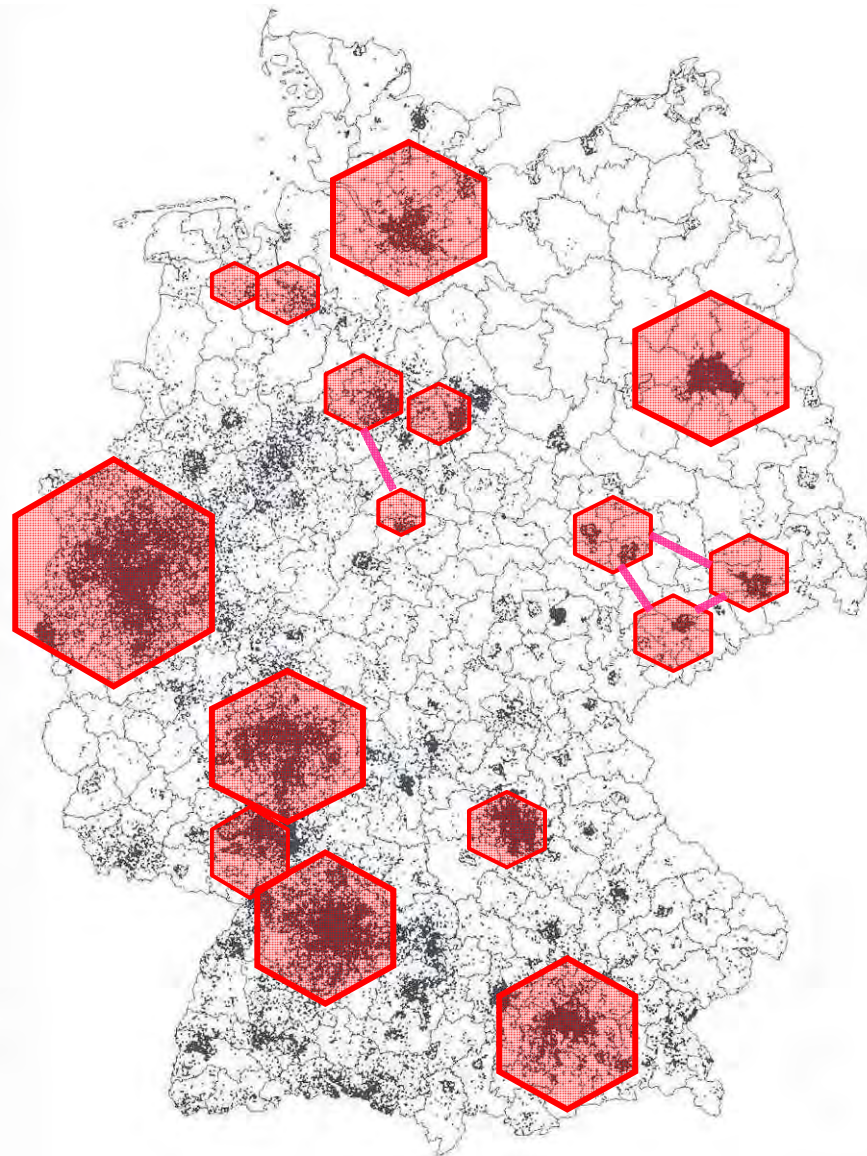
Frankfurt – intersection node for connections to the European science network and point of interchange with commercial German providers.

Cologne – intersection node for connections to the USA

Source: Rauh 2004

Source: Nationalatlas BR Deutschland, Bd.9 Verkehr und Kommunikation, S. 57

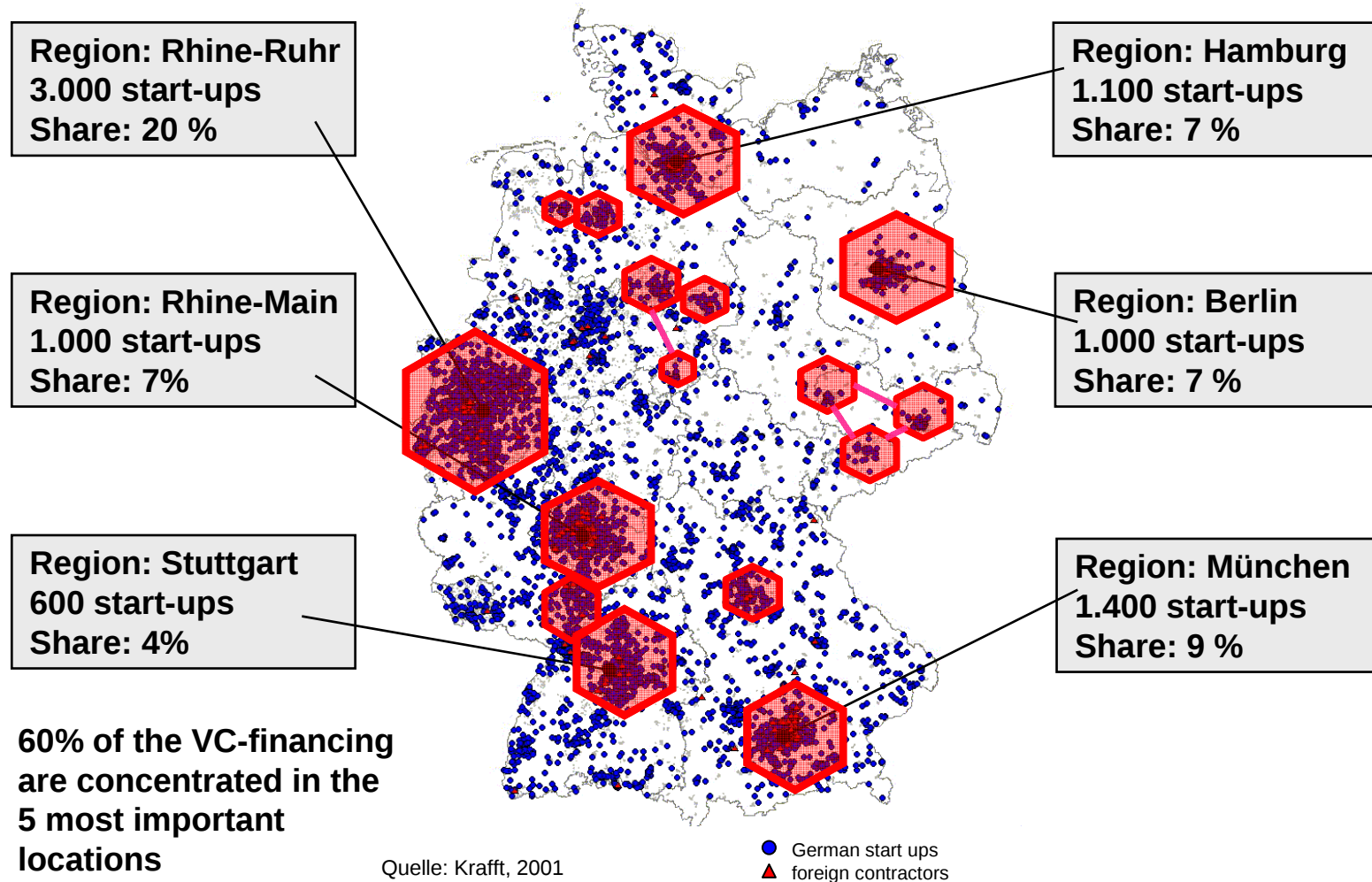
Patent applications at the location of the inventor (1992 – 94)



Spatial distribution and concentration of the knowledge economy and their correspondence with the spatial configuration of the metropolitan system.

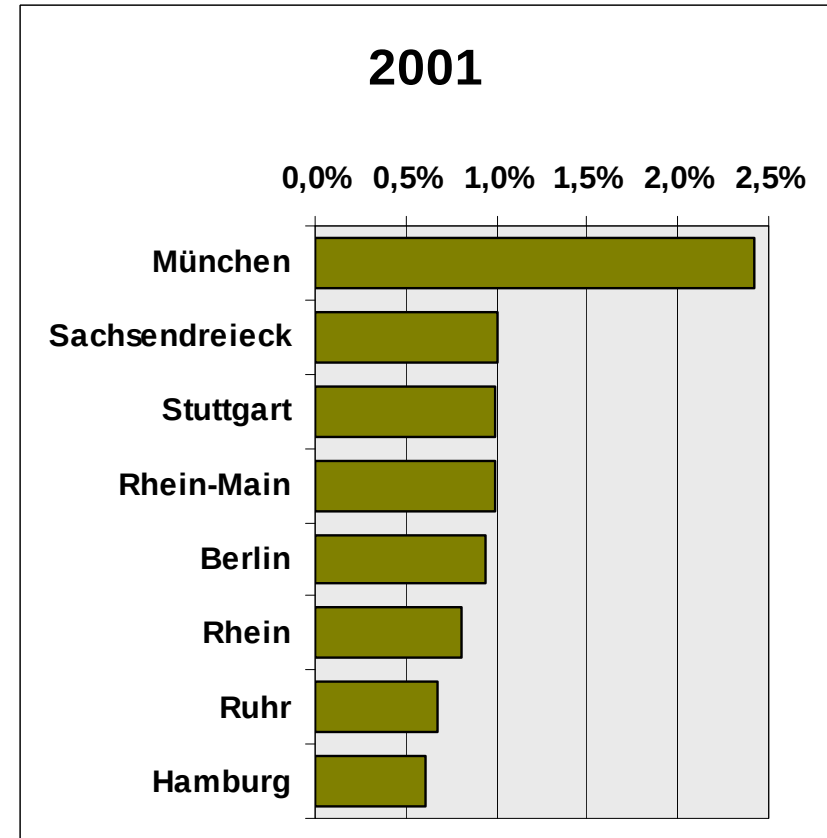
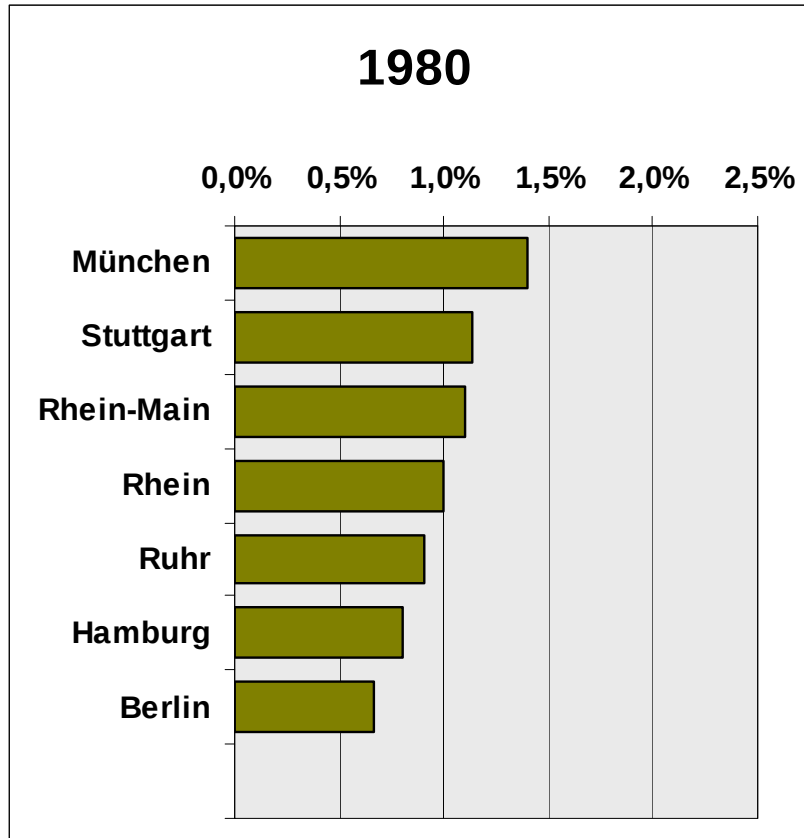
Quelle: Greif, Siegfried: Patentgeographie. In: RuR 2-3/2001, S.144

The national location pattern of the Internet/-E-Commerce Start-ups in Germany



Ranking of location quotients among West German metropolitan regions

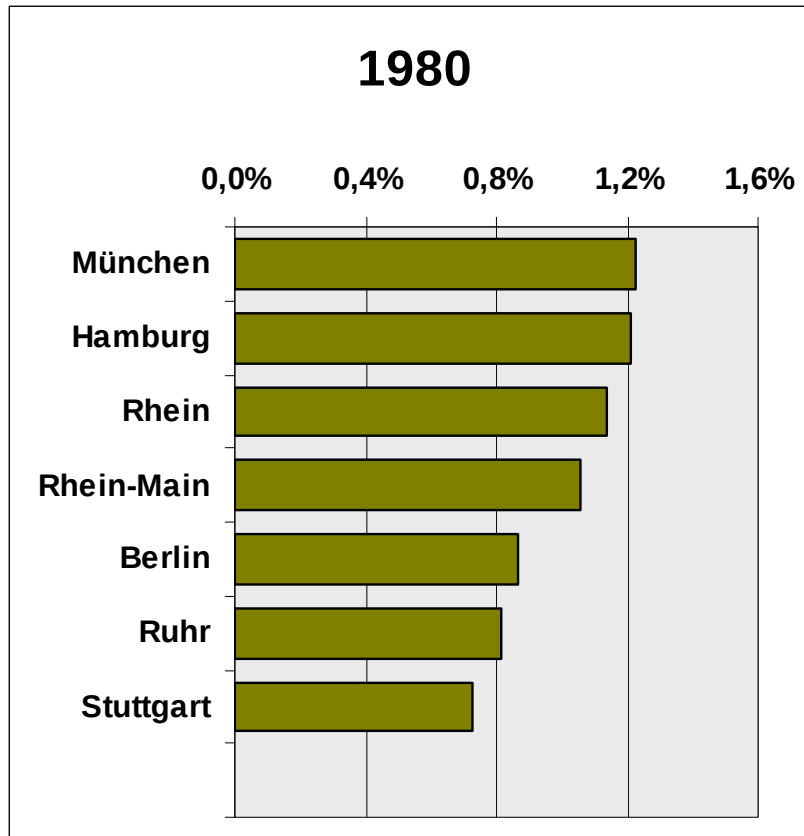
Engineering & Architecture (WZ73: 800)



Quelle: IAB 2003/05, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, A. Kaiser

Ranking of location quotients among West German metropolitan regions

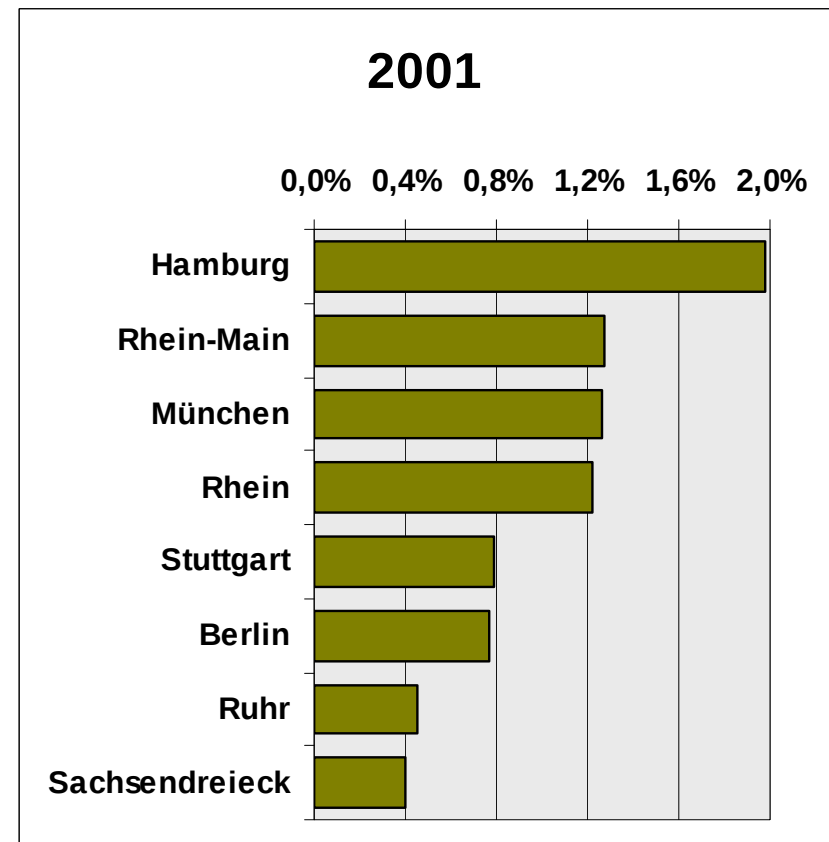
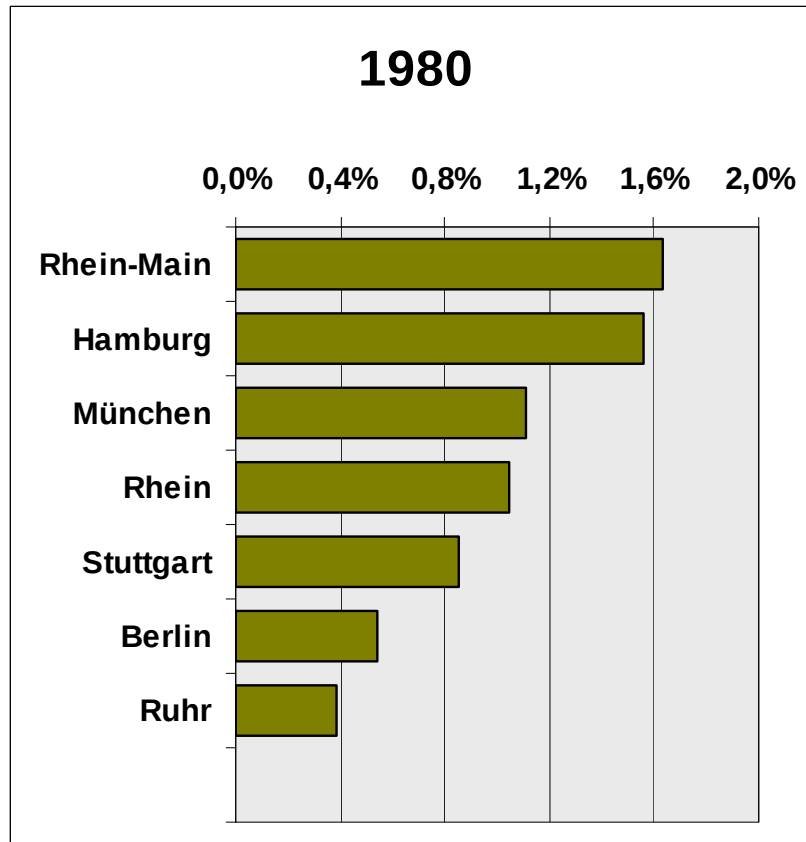
Consulting and accountancy (WZ73: 791)



Quelle: IAB 2003/05, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, A. Kaiser

Ranking of location quotients among West German metropolitan regions

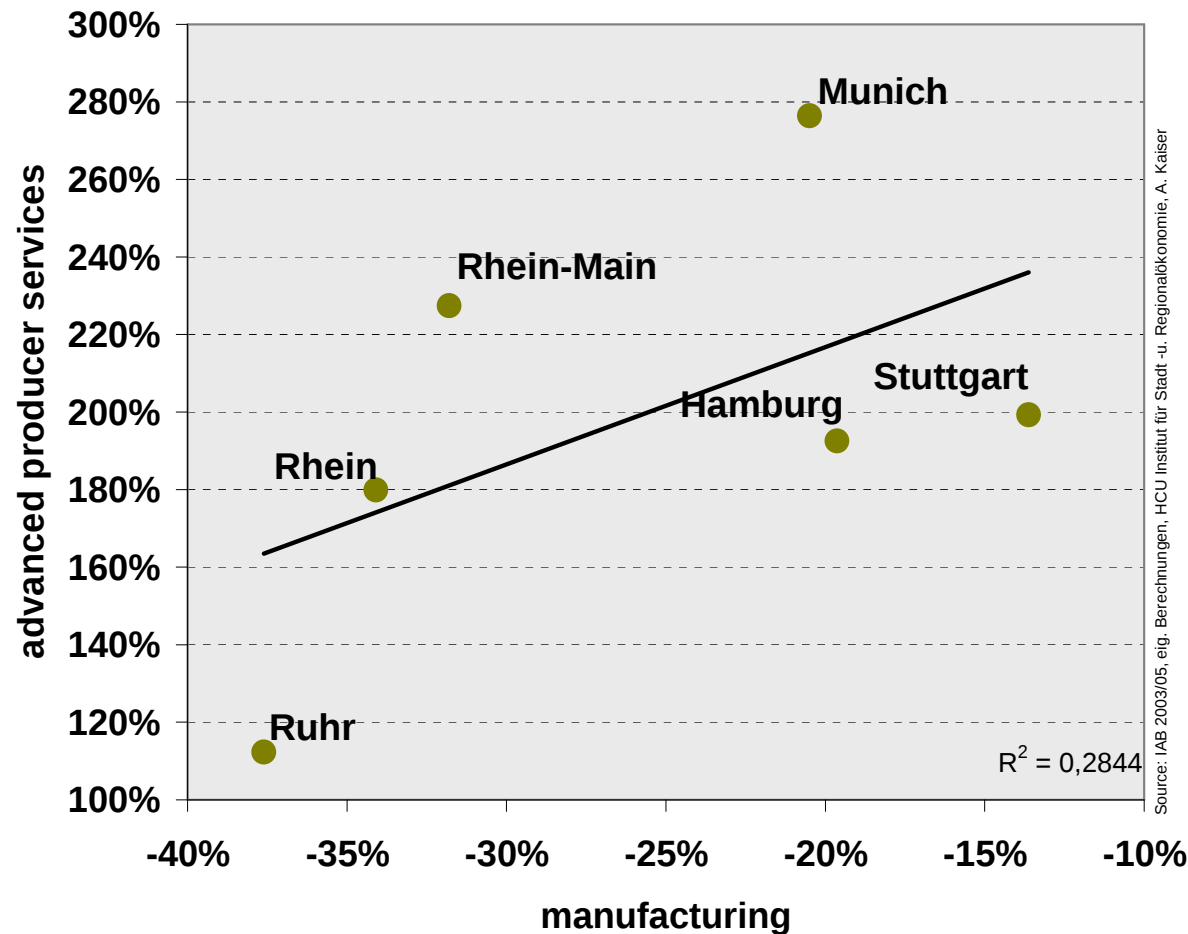
Advertising (WZ73: 820)



Quelle: IAB 2003/05, eig. Berechnungen, HCU Institut für Stadt- u. Regionalökonomie, A. Kaiser

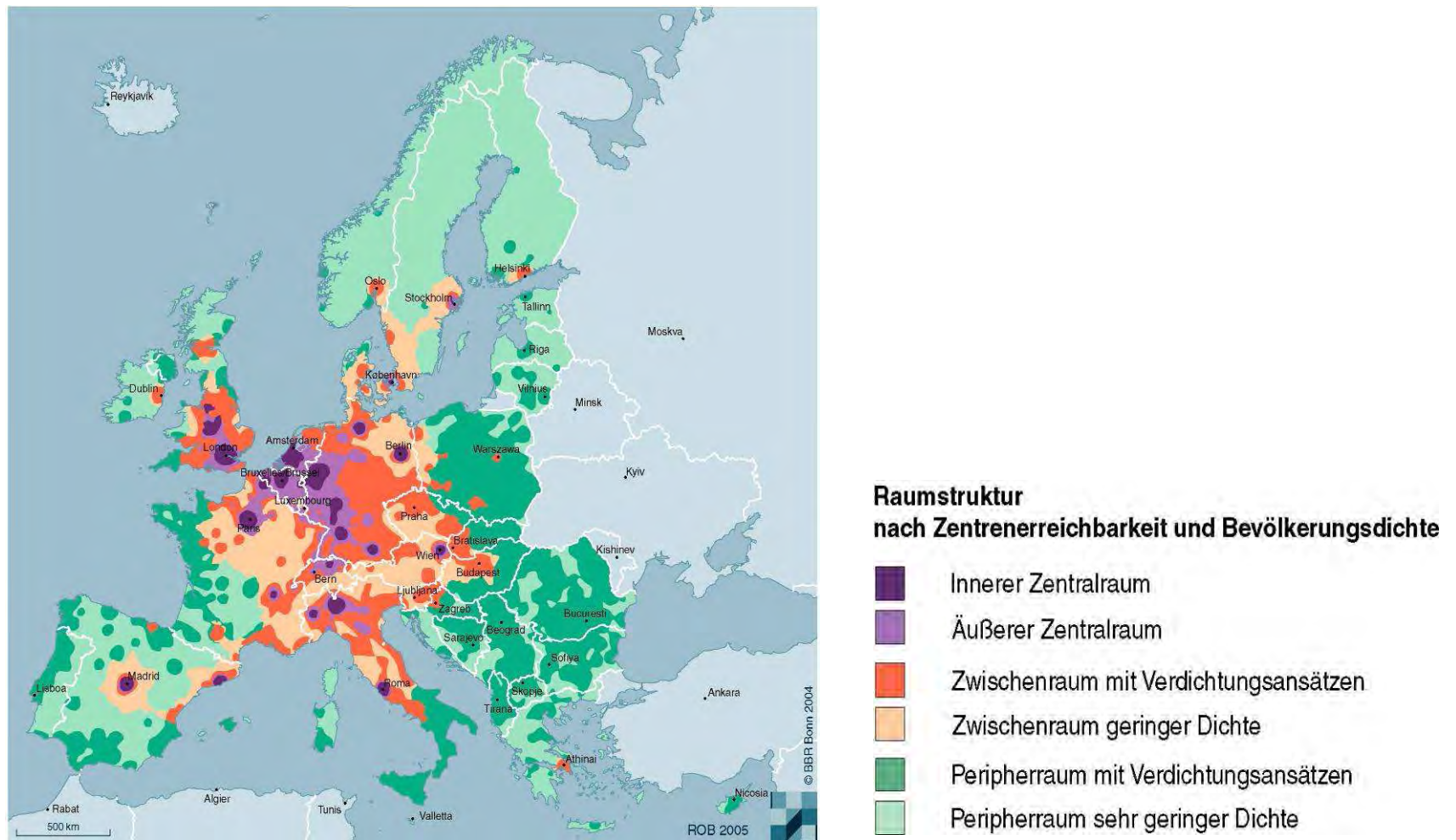
Employment in Advanced Producer Services and Manufacturing in Metropolitan Regions

Regional Growth Rates 1980 - 2001 in %



Regional „service-manufacturing link“ -
Correlation between the regional growth of advanced producer services and manufacturing

German network of cities and metropolises – part of the European spatial network



Quelle: BBR (2005) Raumordnungsbericht 2005. Berichte Bd. 21, Bonn, Seite 23

The German Metropolitan System:

Integrated into global, European, national und regional networks („multi-tiered networks“)

