Structural Change Through Cluster Policy
A Reappraisal of the dortmund project After 10 Years

With a population of ~580,000, Dortmund is Germany’s 8th largest city
Decline of the “Dortmund Trinity”

Image in the late 1990s
- Highly unionized
- Not future-oriented
- Persistently negative
- Internationally little known
(Küpper 2005, p. 627)

Early Responses to Structural Decline

- Structural decline fostered coalition-building among local stakeholders (“Dortmund consensus”)
  - City government
  - Chamber of commerce representing companies
  - Trade unions
  - Universities

The University of Dortmund was founded in 1968.
Early Responses to Structural Decline

280 high-tech manufacturing and knowledge intensive business firms with > 8,500 employees

Incubator as nucleus: Technologiezentrum Dortmund (TZDO), *1985

Clusters, Cluster Initiatives and Cluster Policy

- **Cluster** = geographical concentration of
  - interconnected **companies**
  - specialized **suppliers**
  - **service providers**
  - firms in **related industries**
  - **associated institutions** (e.g. universities, standard agencies, trade associations)

  in particular fields that **compete** but also **cooperate** (Porter 1998, p. 197 f.)

- **(Regional) Cluster Policy** = all efforts of **government** to develop and support clusters (in a particular region) (Hospers/Beugelsdijk 2002, p. 382)
  - Industrial, structural, technology or innovation policy promoting regional specialisation
  - Public efforts to develop concentrations of industry or network structures into clusters, or to promote existing clusters (cf. Bruch-Krumbein/Hochmuth 2000, p. 69 f.)
Explicit Cluster Policy: The dortmund-project

- 1997: Steelmaker ThyssenKrupp announced **closure** of its **steel mill** and faced pressure to create alternative employment
  - funded **cluster concept** by McKinsey & Co.

- 2000: **dortmund-project** started with a vision to create 70,000 jobs within 10 years through **focus industries**
  - Software development and electronic commerce
  - Microsystems technology
  - Logistics
  - Later: Biomedical industry added

- **Activities**
  - Industries
  - human capital
  - site development & revitalization
  - **strategic urban planning** (Ziesemer 2004)

Clusters for Urban Revitalization: Sites

- **Stadtkrone Ost**
  - 70 hectares, premium office and residential space
  - Focus on IT and electronic business

- **Dortmunder Hafen (inland port)**
  - 135 hectares = Europe’s largest canal port
  - Premium business space for logistics, electronic business and leisure industries with up to 5,000 employees

Stadt Dortmund 2006, S. 7
Structural Change Through Cluster Policies – A Reappraisal of the dortmund project after 10 Years
Bochum | July 12th, 2011
Institute of Geography
Matthias Kiese
Urban and Regional Economics

Phoenix West: Cluster Policy for Urban Revitalization

- New 100 hectare **technology park** on former steel mill site
- € 50 m MST.factory provides **start-up infrastructure** with cleanrooms

Photos: dortmund-project 2007, S. 26; Kiese et al. 2007

Intermediate evaluation: Until 2004, employment in the three focus industries grew by 6,640 including knock-on effects (Dr. Heuser AG 2005, p. 12)
- Original job growth target based on overly optimistic assumptions
- New economy euphoria ⇒ overestimation of potential attraction of new firms and growth of start-ups (cf. Dufour-Bourru 2011)

Performance of Focus Industries

<table>
<thead>
<tr>
<th>Firms</th>
<th>Employment</th>
<th>Emp./Firm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Logistics</td>
<td>900</td>
<td>4.9%</td>
</tr>
<tr>
<td>IT</td>
<td>840</td>
<td>3.5%</td>
</tr>
<tr>
<td>MST</td>
<td>45</td>
<td>9.4%</td>
</tr>
<tr>
<td>Biotech</td>
<td>24</td>
<td>34.6%</td>
</tr>
<tr>
<td>Total</td>
<td>1,809</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

Data: Stadt Dortmund 2011, p. 12-19; own calculations
CAGR = compound annual growth rate
Start-up Contests “start2grow”

- 28 contests between 2001 and 2010
- 700 start-ups with 3,825 jobs as of 31 Dec, 2010
- 552 were still active in 2010 ⇒ survival rate = 79%
- 43% of these firms with 37% of the jobs have been founded in Dortmund, yielding 1,413 jobs to Dortmund

Start-up Contests Improved Entrepreneurial Climate

1) Newly formed firms, relocations and affiliates per 10,000 inhabitants

Stadt Dortmund 2011, p. 47

Stadt Dortmund 2009, p. 5
Expanding Business Sector, but Population Continues to Shrink

Member Firms
Chamber of Crafts
Chamber of Industry and Commerce

Resident Population

Employment Recovery, but Unemployment Still High

Number of jobs covered by social insurance

Unemployment Rate

Stadt Dortmund 2011, p. 8 f.
Structural Change Through Cluster Policies – A Reappraisal of the dortmund project after 10 Years
Bochum | July 12th, 2011
Structural Change Through Cluster Policies – A Reappraisal of the Dortmund Project after 10 Years

Institute of Geography
Matthias Kiese
Urban and Regional Economics

GDP Level and Growth: Benchmarking Dortmund

Dortmund and neighboring Unna still lag behind Germany’s leading centers, but they managed to catch up over the past decade.

GDP per capita: CAGR, 2000-2008

Dortmund-project: Assessment

Achievements

- **Employment** in focus industries increased by 6,640 until 2004
- **Catalyst** in long-term and radical structural change, building on previous achievements (University, technology park, consensus)
- **Marketing** efforts helped raise Dortmund’s profile
- **LED professionalization** (esp. strategy & specialist know-how in incubators and start-up contests) ⇒ attraction of EU and NRW funding, e.g. MST.factory
  ⇒ **Organizational capacity**↑
  ⇒ Inspiration for other regions and NRW government

1) cf. van den Berg et al. (1997)
References (1/2)


References (2/2)


