

The renewal of regional capabilities in the enlarged Europe. Experiences in Germany and Poland

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1. Regional capabilities. Some conceptual clarifications

- *Regional innovation systems*: “regional clusters surrounded by `supporting` organisations.” (Asheim/Isaksen 2002)
- *Innovative capabilities*: Set of rules, expectations, routines, and practices that facilitate the production of a marketable product or service, the development of a new or improved manufacturing or distribution process, or a new type of social service
- *Regional capabilities*: The capability to provide collective competition goods and to stimulate and stabilize communication and cooperation between regional companies, schools, universities, technology transfer, research and development facilities and political and administrative actors
- The capabilities of a region consist in
 - The *organizational* capabilities of the regional companies
 - its institutionally stabilized regional patterns of competition and cooperation (*networks*)
 - its regional *institutions* providing collective resources which can be used in organisation in order to advance organisational, technical and social innovations



The renewal of regional capabilities

The renewal of regional capabilities depends on two conditions:

1. The regional provision of collective competition goods (subsidies, qualified employees, R&D facilities, technology transfer, access to advanced suppliers and services ...)
2. A “learning” institutional environment facilitating the simultaneous “reinvention” of organisational and regional capabilities: Complementary to the restructuring of the regional firms, the region, its boundaries, its identities, its governance structures, its “local collective competition goods” (Le Galès/Voelzkow 2001) and its political and associational actors have to be “re-invented” in order to face the uncertainties of an international competition on costs and innovation. The simultaneous and reciprocal “reinvention” of regional firms and governance structures is only possible in an experimental, discursive way which has been described by Sabel (1996) as “experimental regionalism”



The first dimension of local collective competition goods (LCCG): Provision of relevant input factors

- to equip a section of the workforce with **new skills**
- to access **research and development**
- to improve a product or product range
- to procure orders
- to acquire information on marketing in new foreign markets ,
- to acquire information on marketing in new markets in this country
- actually to establish **marketing arrangements** in new foreign markets
- to acquire information on changes in product costs and demand
- to acquire information on new developments in production methods or work organization
- to get **help with new technology**
- to **research a patent**
- to articulate a policy concern to central government
- to articulate a policy concern to local government
- to **acquire expensive new equipment or technology**
- to **ensure quality and standards** fulfilment of the firm's product
- to gain **access to expensive services** (e.g. quality testing)
- to find new employees of satisfactory quality to resolve a labour dispute
- to get **help with management problems**
- to raise **capital**
- to get legal **advice**

Source: Le Galès, Patrick, and Helmut Voelzkow, 2001: Introduction. In: Colin Crouch, Patrick Le Galès, Carlo Trigilia, and Helmut Voelzkow, 2001: Local Production Systems in Europe. Oxford: Oxford University Press, 1-24.



The second dimension of LCCG: Learning and trust-based relations

- Creation and better use of „first order“ collective competition goods (educational institutions, common R&D activities, technology transfer institutes) by a cluster integration of public agencies and companies

Means and strategies

- Dialogue on strategic regional issues
- Information on new markets, scientific and technological opportunities, new competitors, products
- Collaborative R&D and training in order to develop new products or processes
- Identification of technological, qualification or scientific bottlenecks in existing networks
- Creation of specific R&D and training facilities
- Inter-firm networking; brokers which bring firms and other stakeholders together
- Informal contacts through “industrial circles”
- Financial support for collaborative research, training, product development and technical services.
- Financial and other support for networks and inter-firm co-operation
- Contacts between various partners to develop new technologies, products or services



Regional experimentalism – a way of creating learning regional institutions

- Classic forms of regional support: Public provision of collective competition goods or “real services”. What type of public goods are required?
 - “The aim of regional experimentalism is to create an organization capable of re-evaluating and revising its substantive purposes ... experimentalist institutions will find out and adjust means and ends accordingly” (Sabel 1996)
- ⇒ A new, processual type of regional governance: “Learning” regional institutions which create the conditions for a creative interpretation of new situations and opportunities
- ⇒ “Pragmatistic collaboration” in which “each collaborator can continuously monitor the performance of the (relevant) others, while learning from them and acquiring skills” (Helper et al., 2000: 445)



Population, labour market und innovation in the four Polish and German regions analysed

	Poland	Malo- pols- kie	Dolno- slaskie	Ger- many	Central Fran- conia	Leipzig
GDP per capita (in % of EU-25)	45,6	39,5	47,4	108,7	122,9	76,0
Unemployment rate (%)	19,0	17,3	24,9	10,3	8,1	19,3
R&D expenditure (% GDP)	0,6	0,9	0,4	2,5	3,2	2,1
Employment with tertiary education	21,2	20,9	23,3	28,5	26,8	39,5
Patent applications to the EPO, per million inhabitants (2003)	1,9	1,9	2,9	156,0	249,7	25,9
High and medium high tech manufacturing (% empl.)	4,9	4,0	6,1	11,2	15,2	6,0
Knowledge-intensive services (% employment)	24,3	23,0	26,7	33,4	32,4	37,4



2. The creation of Polish regions as economic actors

- 1990: First free local elections => regional „self-government“
- Crucial role of the EU *conditionality* (chapter 21)
- 1998/99: Law on the voivodship self-government units; creation of *16 voivodships* (instead of 49); unclear division of labour between the democratically legitimated Marshal Office (Urząd Marszałkowski) and the Voivod (Wojewoda), the representative of the Prime Minister
- 2000: National Strategy for Regional Development (NSRD) 2001-2006 => Regional contracts; limited resources
- 2005: National Strategy for Regional Development 2007-2013 => Regional Operational Programme (ROP) => further decentralization and regionalization of economic policies



A typology of Polish regions

- Production sites (e.g. Slaskie, Wielkopolskie);
- Regions as sites of increasing returns (e.g. Pomorskie)
- Regions as hubs of knowledge (e.g. Greater Warszawa);
- Regions with mainly low productive sectors with limited exports (e.g. Lubelskie, Warminko-Mazurskie)



The centrally coordinated decentralization of economic policies

Crucial national protagonists of the regionalisation strategy

- Ministry of Economic Affairs and Labour
- Polish Information and Foreign Investment Agency (PAIZ)
- Polish Agency for Enterprise Development (PAED)
- Industrial Development Agency (ARP)

The regional provision of LCCG

- Regional Development Agencies (at least 34 regional development agencies; for example Wrocław WARR)
- 14 Special Economic Zones
- 31 Industrial and Technology Parks
- 15 Investor Assistance Centres



14 special economic zones (SEZ) – an instrument for attracting foreign investments



Major advantage:
income tax exemptions

„entrepreneurs who have obtained the permit to conduct activities in SEZs have been eligible for income tax exemption, which is regarded as a form of public aid“ (<http://paiz.gov.pl/>)

„Foreign investors prefer highly urbanised regions, with well-developed infrastructure, skilled workforce and easy access to office and production facilities. Nearly 60% of foreign capital which reached Poland by the end of 2002 was located in Mazowieckie Voivodship, over 8% in each Wielkopolskie and Małopolskie and 6.6% in Łskie. (Bottom ranks are filled by voivodships: Lubelskie and Podlaskie). Special economic zones (*Specjalna Strefa Ekonomiczna SSE*) were designed as a special instrument for attracting foreign investors was designed. Foreign capital invested in these areas constitutes 77.6% of the total capital invested.“ (ministry of economy and labour, 2005)



31 Industrial and Technology Parks



Scope: Support of small and medium-sized companies

Features:

- Managing entity
- Legal and financial services for small enterprises
- Mostly: Rent or lease of real estate
- Support for production undertakings

In the case of technology parks also:

- Association with a science and research unit
- Advanced technologies

<http://www.paiz.gov.pl>



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Lower Silesia (Wrocław) and Małopolskie (Cracow)

- **Main economic sectors:** electro-mechanical, electronic, automotive, energy generating, construction, chemical, food processing, mining (copper, coal), textiles=>Well-developed, multi-sector economy
- 5,247 regional companies with foreign capital. Biggest **foreign investors** (more than \$ 1 mln): Faurecia, Toyota, Cussons, Grossman, Takata Petri, Allied Irish Bank - Bank Zachodni, CC HBC (Coca-Cola Hellenic Bottling Company), Alstom T&D Protection Control, Credit Agricole – Lukas Bank, PepsiCo, Volkswagen, Volvo, Deutsche Bank .
- Location in the pan-European **transport** corridor, proximity of the Czech Republic and Germany, as well as Prague, Berlin and Warsaw
- **Large educational, scientific, research and cultural potential** (Wrocław is the third largest scientific-academic centre in Poland)
- **Largest universities:** Wrocław University (43,000 students), Wrocław University of Technology (32,000 students), Wrocław University of Economics (17,000 students), Academy of Agriculture in Wrocław (10,000 students)
- Large pool of highly qualified staff
- Unemployment rate in the Voivodship (8/2005): 21.1 %
- **Advantages:** Krakow's role as metropolitan centre of culture, finance, business services, transport junction;
- Strong science and research potential;
- Presence of high-tech industries in the region
- **Main sectors:** IT, banking, food processing, spirits, tobacco, chemical, coal, steel
- Large supply of well-educated, young manpower;
- Well-developed banking system;
- Well-developed network of business support institutions
- Biggest foreign investors (over \$1 million): HVB, Kronospan, Saint-Gobain, Philip Morris, Electricite de France internationale, IPC, Air Liquide, Pliva, Delphi Automotive Systems, Fleury Michon, Carlsberg
- Unemployment rate (8/2005): 14.0%



Three Special Economic Zones and the Wrocław Technology Park

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Regional policies in Lower Silesia and Lesser Poland

1. The major focus: The attraction of foreign direct investors
 - Advantages: numerous and qualified workers; public subsidies, good traffic connections (motorways to Germany and the Czech Republic)
 - Limited local research and development capacities in production facilities
2. Technology transfer and new businesses
 - „Lower Silesian scientific Technology Incubator“
 - No systematic cooperation between universities and enterprises. But: Wroclaw Centre for Technology Transfer (WCTT)
3. Barriers to a regional cluster policy
 1. Sectoral and economic heterogeneity within the regions
 2. No consensus on a common developmental vision
 3. Limited involvement of regional actors in the definition of regional development projects
 4. But: Regional institutions for a cluster policy
 5. But: In principle good prerequisites for knowledge-based production processes (renown universities, huge student population, logistics, software and financial services in the region)



3. Leipzig and Nuremberg - on the Way to Regional Nodes in Global Networks

- Leipzig between Boomtown and Mezzogiorno: The Reconstruction of a Destroyed Region
 - Public companies and subventions: Their crucial role after the reunification: construction, education, health, administration, energy, water, broadcasting
 - Reconstruction of an industrial sector by newly created plants of external companies: German Railways, Quelle, Siemens, Allianz, Porsche, BMW, DHL ...
 - Research institutes, highly qualified employees, advanced traffic and IT infrastructure

⇒ The crucial question for the region and the regional cluster policies is if these potentials can be used as the cornerstones of a knowledge-based economy
- Nuremberg: From an Industrial Region to a Technology-based Service Region
 - Crucial role of big companies (Siemens: 33,000 employees in the region)
 - Quick deindustrialization (Grundig, Triumph Adler, ADtranz, Cebal, ABB/ALSTOM) and development of the service sector (creation of 170,000 jobs in the service sector, while 100,000 industrial jobs have been lost in the last three decades)
 - Knowledge-based economic structure: High patent ratio; high share of advanced technologies



	Central Franconia	Leipzig
Political, economic and cultural identity	Yes, as Nuremberg-Erlangen region	Yes, as city of Leipzig
Major economic clusters	Medicine-pharmaceutics-health, energy and environment, transport and logistics, communications and multimedia	Emerging clusters: Automotive industry, Media/communications technology/IT
Entrepreneurial structure of the region	One very large companies (Siemens), a lot of endogenous SME firms and foreign-owned firms	Nearly no large plants or firms, emergent SME structure
Sectoral structure	Electrical and mechanical engineering; Advanced technology manufacturing	Public services, emerging automotive sector
Export intensity of the industry	42 % (2002)	26 % (2002)
R&D infrastructure	Patent- and research-intensive firms and institutes	Nearly no private R&D activities
Industrial relations	Established patterns of collective negotiations; peripheral role of trade unions in the industrial restructuring	Company-centred patterns of negotiations; nearly no role of trade unions in the industrial restructuring
Public welfare	Relatively uniform, nation-wide provision of public services	Relatively uniform, nation-wide provision of public services
Labour market (Unemployment rate 2002, employment rate 2001)	8.8 %, 69.3	20.2 %, 61.7
Qualification	Huge share of low-skilled employees	Huge share of high-skilled employees
Major challenge	Updating traditional capabilities; restructuring of a mature industrial region; overcoming lock-in-effects	Recreation of organizational and regional capabilities basis nearly from scratch
Recent achievements	Gradual development of production-related services; closure of traditional plants	New plants of leading German firms (Quelle, Siemens, Porsche, BMW)



Between lighthouses and networking: Four different levels of cluster policies at Leipzig

1. At the local level: Clusters reflect mainly „future perspectives”
 1. Automotive and automotive supply industry (Porsche, BMW ...)
 2. Media, IT and communications economy (MDR ...)
 3. Health/ biotechnology/ medical technology/ life science
 4. Energy and environmental technology
 5. Cross-sectional Technologies and Services (Quelle, airport, fair ...)
 2. Cluster policies of the Federal State of Saxony
 3. Cluster policy of the Foundation “Innovation and Work Saxony”
 1. Stronger integration of the the regional companies and actors
 2. Stronger orientation towards the strengthening of the capabilities of regional mid-cap companies rather than attracting production plants and founding new, technology-oriented businesses
 3. Stronger emphasis on Leipzig's industrial basis rather than its role as a service and trading centre
 4. Central German Regional Marketing Initiative (7 clusters, especially automotive and chemical industry)
- ⇒ Conflicts between the four cluster policies; risk of regional selfishness, specific political interests and vanities



Development vision of the Nuremberg economic region (1998)

- Aim: A better cooperation between economy, science and politics and a focusing of the Bavarian innovation policy on the regional strengths
- Actors: Unions, regional Chamber of Industry and Commerce (IHK), regional cities and rural districts, the federal state of Bavaria
- Definition of core competences
 1. Medical Technology and Pharma
 2. Communication and Multimedia
 3. Energy and Environment
 4. Transport and Logistics
 5. New Materials and Process Technology
- The selection of the five competence fields was a compromise between actors interested in the path-dependent development of existing industries (especially the unions) and public actors interested in investments in new technologies



The prerequisites of a successful regional policy

- Careful selection of regional strengths (consensus, but not too many „bad“ compromises“
- A competence initiative for each regional cluster (with an own office and representation)
- Innovation- und technology centres (attached to the competence initiatives)
- No diffuse networking, but specialized project teams
- Effective use of public money (70 projects; DM 750 million): Investment in the five competence fields
- Currently no close cooperation between the regional industry and universities



4. The crucial questions for a discursive renewal of regional capabilities

1. What is the relevant region? Redefinition of the region and its boundaries => Relative coherence of institutional regions and socio-economically coherent territorial units
2. Creation of a regional “steering group” (or coordination platform) which embraced also unions, employers and business associations
3. Common and consensually developed vision integrating the various interests, experiences, visions, time-horizons, and success criteria of economic, scientific, and political actors into a common regional project => Effective use of public money
4. New institutional infrastructure (competence centres, business incubators and technology transfer centres, network brokers ...)
5. A central authority able to monitor the institutional changes at the regional level and to assist the regions to continually revise their strategies

Germany	Poland
Yes (CF); No (L)	No
Yes (CF); no (L)	No
Yes (CF); no (L)	No (first steps)
Yes	In some aspects
No	Yes



Regional policies between stabile regional orders and the discursive renewal of regional capabilities

	Support of regional firms and networks by a set of stable regional institutions	Discursive, experimental construction of regional capabilities
Strategic dimension	Provision of a stable set of local, mostly public competition goods	Procedural, experimental definition of required collective goods
Normative dimension	Stable, public, associational or trust-based norms facilitating credible interorganisational commitments	Discursive, negotiated development of rules; important role of experimental learning
Cognitive dimension	Institutional support for interorganisational, networked forms of learning based on tacit, non-codified knowledge (focus: learning organisations)	Continuous evaluation of the performance of regional arrangements supporting interorganisational learning (focus: learning organisations <i>and</i> institutions)
Regional identities	Regions defined by clear political and administrative boundaries	Regions sometimes have to redefine their boundaries also taking into account interorganisational networks and regional value chains
Crucial actors	Existing public agencies and intermediary associations (to a large extent shaped or created by national institutions and decisions)	Construction of a collective regional “steering committee” involving political, administrative, economic and (sometimes) scientific actors
Regional strategies	Often reflect national institutions and strategies	Consensual decision on the selective support of regional strengths by network policies and the provision of collective goods



The two dimensions of local collective competition goods

