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Regions and Innovation Policy: Lessons from OECD countries

Claire Nauwelaers

WHY WORRY ABOUT INNOVATION AND REGIONS?

- ➤ Innovation has received increased priority to address not only productivity gaps, but also societal challenges in the move towards smart, sustainable and inclusive societies
- ➤ Regions are called as innovation catalysers in their countries. Two moves: attention to territories in national innovation policies; more stress on innovation in regional development policies
- The adoption of a broader concept of innovation gives a chance to regions that are not at the technology frontier



How to organise complementarity/synergies between policies at various levels of government?



How effective are innovation policies by, for, in regions?

PLAN

1. Changing framework for innovation and innovation policy

2. State-of-the-art and challenges for innovation policy by, in, for regions

Regions and Innovation Policy: the way forward

The changing framework for innovation

- Increased awareness of the role of innovation as crucial ingredient for economic development
- 2. Interactive view of innovation innovation differs from R&D
- 3. System-based approach to innovation, emphasis on learning and diffusion / absorption of knowledge
- 4. Diffusion of tacit knowledge embedded in humans becomes a key performance factor
- 5. Glocalisation: localised nature of (tacit) knowledge spillovers importance of global connections

New innovation policy approach

Traditional policy

✓ Innovation as R&D

- Focus on research and technology
- ✓ High-tech focus
- ✓ R&D and transfer institutions
- Knowledge creation and diffusion

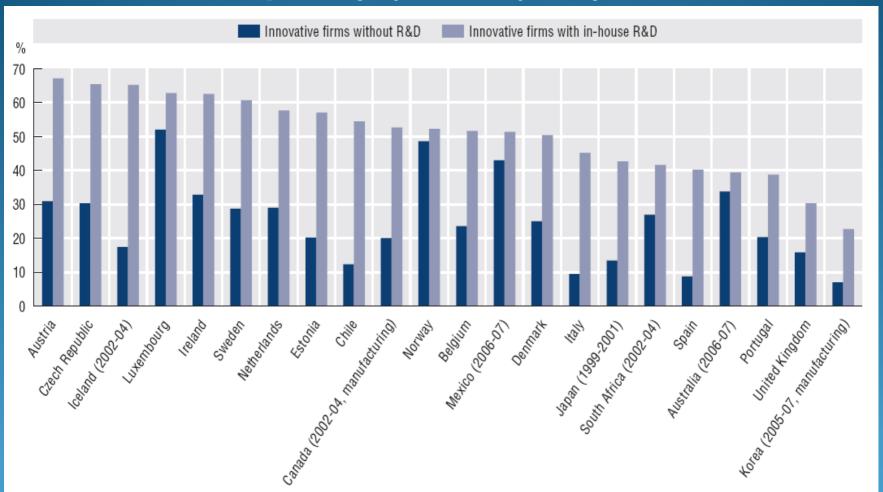
New policy

- ✓ Innovation as economic exploitation of new combinations
- ✓ Includes broad set of activities (design, organisational..)
- ✓ Innovation in all sectors
- ✓ Companies at the centre
- ✓ Knowledge absorption

Innovation is more than R&D

New-to-market product innovators with and without R&D, 2004-06

As a percentage of innovative firms by R&D status



OPENING THE BLACK BOX OF POLICIES: IDENTIFYING RELEVANT POLICY SPACES

Potential and limits for innovation policy in regions

- 1. Variety of institutional arrangements
- 2. Different types of innovation potential
- 3. Diversity in regional development & innovation strategies



Three dimensions to take into account

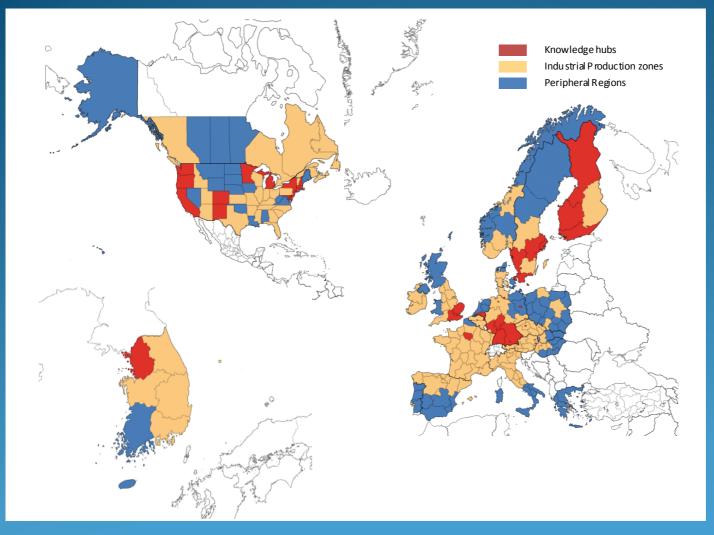
Innovating for what?

- Building on current advantages
- Supporting socio-economic transformation
- Catching up: towards creation of knowledge-based capabilities



Importance of setting policy priorities

I YPOLOGY OF OECD REGIONS DISPLAYS VARIETY



Knowledge Hubs



✓ Small sized knowledge intensive capital districts ✓ Regional knowledge and technology hubs

Industrial Production Zones



- ✓ Core manufacturing and service providers
- ✓ Skill-intensive production centres
- ✓ Service and rural production centres
- ✓ Old manufacturing centres

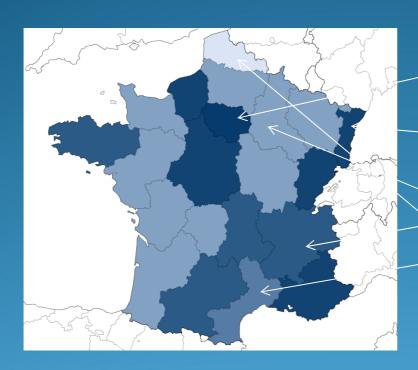
Peripheral Regions



- ✓ Low populated peripheral regions in rich countries
- ✓ Structural inertia/deindustrialising regions
- ✓ Rural low populated regions

Source: Regions and Innovation Policy OECD 2011

TYPOLOGY OF OECD REGIONS: WITHIN COUNTRY DIVERSITY



France (metropolitan):

21 regions belong to 6 types

Knowledge Hubs

- Small sized knowledge intensive capital districts
- Regional knowledge and technology hubs 1

<u>Industrial Production</u> Zones

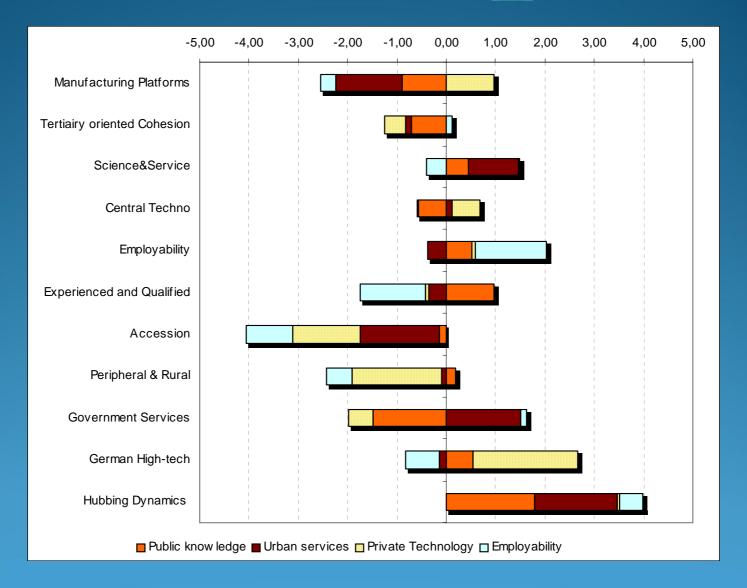
- **-** Core manufacturing and service providers **5**
- •Skill-intensive production centres **4**
- Service and rural production centres 1
- Old manufacturing centres **9**

Peripheral Regions

- •Low populated peripheral regions in rich countries
- Structural inertia/deindustrialising regions 1
- •Rural low populated regions

Source: Regions and Innovation Policy OECD 2011

The diversity of European regions



Source: Wintjes (2006)

Innovation policy instruments

and an artist of the second	Form and focus of innovation support services for SMEs	
Target of support	Reactive tools providing	Proactive tools focusing on
	inputs for innovation	learning to innovate
Global connections	Excellence poles Cross-border technology centres Funding for international R&D or innovation projects	International technology transfer schemes Mobility schemes Support for global networking of firms
		Cross-border innovation vouchers Lead market initiatives
Regional system	Collective technology or innovation centres	Cluster policies Proactive brokers, match-makers Innovation vouchers
		Support for regional networking of firms Schemes acting on the culture of innovation
Individual Firms	Incubators with "hard" support Traditional "reactive" technology centres Seed and venture capital funds R&D subsidies or tax incentives	Management advice Incubators with "soft" support "Proactive" Technology centres Audits, monitoring of needs Innovation Coach Innovation management training Techno-economic intelligence schemes

Source: Regions and Innovation Policy OECD 2011

Need for bridging initiatives between ALL actors

- Clusters programmes
- Regional growth initiatives

• ...



« Systemic » innovation policies

Challenge for Innovation policy: organise complementarity and synergy between policy areas – design effective policy mixes

Ten Questions Relevant to the Design of Policy Mixes

- Challenges for NIS
- 2) Policy Objectives
- 3) Gaps (between Challenges and Objectives)
- 4) Instruments (R&D, non R&D, using typology)
- 5) Gaps (between Objectives and Instruments)
- History
- 7) Actors
- 8) Balances within policy portfolio
- Interactions
- o) Governance

Source: UNU-MERIT 2008 www.policymix.eu

Implications for Science Parks

The BRIDGE

- ✓ Technology transfer
- ✓ From source to recipient
- ✓ A specific place
- ✓ Focused support
- ✓ Material support
- ✓ In-house support
- ✓ Technology gap

The CLUSTER of COMPETENCE

- ✓ Dialogue creation
- ✓ Multilateral exchanges
- ✓ A node in a system
- ✓ Multiple support
- ✓ "Learning support"
- Clearing house
- ...and managerial gap

Key challenges for European Cohesion Policy

- → Need for differentiated policies based on regional smart specialisation strategies
- ⇒ Move towards supporting more demand than supply side of innovation (ex ante analysis!)
- Balance technology focus with other forms of innovation
- Give preference for competitiveness when developing strategies
- >Focus on social capital, the oil in the regional system
- ⇒ Innovative and more complex projects should be favoured over focus on funds absorption

Innovation Policy: The way forward (1)

- ➤ Effectiveness of innovation systems depends on balanced combination of 3 capacities :
 - creation of knowledge
 - diffusion of knowledge
 - absorption of knowledge
- Growing importance of framework conditions
 - entrepreneurship
 - competition rules
 - labour market conditions
 - financial market
 - social capital, ...

Innovation Policy: The way forward (2)

- ➤ Government's role shifts from investor to facilitator promotion of public/private partnerships and interface management
- ➤ Improving knowledge governance in firms and clusters of firms becomes a key issue
- ➤ Policies need to « open borders »:
 - ✓ In terms of content
 - ✓ In terms of applications space

Innovation Policy: The way forward (3)

- The need for borderless content of innovation policies
 - "Hidden" forms of innovation, beyond R&D-driven innovation, should be stimulated through mixes of instruments from various policy areas: education, S&T, environment, infrastructure, etc.
- 2. The need for borderless territory for innovation policies
 - Innovation does not stop at administrative borders: cross-border collaborations in policies to target functional areas
 - RIS are not "small NIS": complementarities need to be ensured between policies and instruments at various levels

Innovation Policy: The way forward (4)

- More efficiency through "Policy packages" rather than isolated instruments – Consider Policy Mix
- ➤ Demand oriented innovation policies: a "set of public measures to induce innovations and / or speed up diffusion of innovations through increasing the demand for innovations, defining new functional requirement for products and services or better articulating demand." (Edler 2007)
 - Public procurement.
 - "Soft steering" concepts geared to the willingness and ability to accept, demand and apply innovations
 - Measures stimulating the articulation of needs, preferences, ideas and fears of potential users
 - Shaping of regulations and norms

Innovation Policy: The way forward (5)

- ➤ Need for more strategic policy intelligence
 - monitoring and evaluation of policies
 - sound analyses of innovation systems
 - « intelligent » benchmarking practices
 - long term views
 - inclusive policy design processes

SUMMING UP

FOUR KEY ARGUMENTS FOR MORE EFFECTIVE INNOVATION POLICIES IN AND FOR REGIONS

- 1. Variety in innovation policy models
- 2. Openness (content, space) of policies
- 3. Synergy of instruments (vertical, horizontal)
- 4. Policy learning and experimentation

Design and Evaluation of Innovation Policy in Emerging Countries Jakarta, 14-16 March 2011

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