"Strategic approaches for innovation policy in the European Union: Options and conditions for reinforcing regional innovation systems"

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The changing framework for innovation

1. 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. Mobility of tacit knowledge embedded in humans becomes a key performance factor
5. Glocalisation: localised nature of (tacit) knowledge spillovers - importance of global connections
Policies for innovation systems

From “stocks” to “flows” as main focus of policy attention
★ Flows in the system need to be addressed in priority

From “raising resources” towards “promoting change”
★ Performance is affected by learning abilities of firms and others

From “best practice” towards “context-specific” solutions
★ Policies should be fine-tuned to specific system failures

From “standard” policy-making towards policy “learning process”
★ There is a need for more strategic intelligence in policy-making

Policies for “activating knowledge”
The policy context in Europe

- Political will to combine the goal of **cohesion** with growth – competitiveness - employment (Lisbon objective)
- European Research Area = one more step in European integration: how to avoid “islands of innovation”?
- Enlargement of EU to 12 New Member States deepens disparities and creates need for more effective instruments
- Structural Funds established to help poorer regions catch up with the “core”: shift of emphasis from redistribution towards **capacity building** approaches
Strategic Evaluation of EU Structural Funds
innovation and knowledge measures

- What lessons can we draw from 10 billion Euros of spending on R&D & innovation through the Structural Funds 2000-2006?

- What do we learn by grouping EU regions based on innovation potential?

- What does this imply for policy to improve ‘innovation systems’?

- How can we ensure that EU regions spend 60 billion Euros more effectively in 2007-2013?

Source: Technopolis, Ismeri, Lacave, Logtech, UNU- MERIT
Some important ‘structuring effects’:
- ‘Financial leverage’: SF are main if not only instrument for developing an innovation policy in Objective 1 zones
- Boosting capability to develop RTDI policy:
  - financially marginal ‘governance’ measures important for ‘behavioural additionality’
- More effective multi-level governance: increased role of regions in RTDI policy through SF.

Old Objective 1: building up resources but not yet creating linkages in innovation systems;

New Objective 1: introduction of new policy instruments vs difficulty of mobilising enterprises

Objective 2: possibly the biggest disappointment...some good practice however that shows road to follow.
Lessons on technology transfer and university-business linkages

• Return on investment often appears poor with inefficient multiplication of intermediary structures

• ‘Open innovation’ - “knowledge is widely distributed and even the most innovative organisations need to connect and leverage external knowledge
  - Implies much greater focus on inter-regional linkages

• Structural Funds should increase support for:
  - ‘entrepreneurial universities’ and
  - measures such as competence centres which offer a more interactive model of technology development and diffusion.
Structural Funds for the knowledge economy

Main bottlenecks to efficient absorption of funds and effective outcomes of RTDI measures:

➢ Administrative rather than strategic management of RTDI measures
➢ Need more expertise at national and regional levels in managing RTDI measures
➢ Continuing dominance of supply-side measures with poor linkages to regional innovation systems
➢ Limited interest for many ‘softer’ ‘demand-side’ measures aimed directly at enterprises

There is a “path dependency”: SF devoted to RTDI are higher where national innovation policy is more intense, and lower where national policy is weaker. Difficulties for the SF to modify national strategies.
Four key factors for understanding regional innovation potential

- Statistical analysis highlights four key factors:
  - Public knowledge
  - Urban services
  - Private technology
  - Learning families.
- Almost half of difference in GDP per capita in 215 EU27 regions is explained by these four factors!
- An interesting conclusion is that public and private R&D are not closely related:
  - implications for policies based on the “European paradox”...
- Led to definition of 11 types of regional knowledge economies:
  - three types dominate in terms of share of EU27 GDP: learning regions, central techno, high techno.
Score on "Urban Services" Factor

Urban Services (US)
- -2.44 to -1.03
- -1.02 to 0.03
- 0.04 to 1.09
- 1.10 to 3.73
- No data

Projection: Lambert Conical Conform

Source: Statistical work done by MERIT (Maastricht) on Eurostat Data

(c) EuroGeographics for the administrative boundaries

European Commission
Directorate-General for Regional Policy
Score on "Private Technology" Factor

Private Technology (PT)
-2.29 to -0.99
-0.98 to -0.01
0.00 to 0.97
0.98 to 3.77
No data

Projection: Lambert Conical Conform

Source: Statistical work done by MERIT (Maastricht) on Eurostat Data

(c) EuroGeographics for the administrative boundaries

European Commission
Directorate-General for Regional Policy
Four “Strategic groups of innovative regions” in Europe

Global consolidation

Sustain competitive adv.

Boost entrepr. knowledge

Enter knowledge economy

Public knowledge

GDP per capita

Urban services

Learning families

Private Technology

Learning

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Learning

GDP
Four groups with different strategic challenges (1)

- **Global Consolidation:**
  - the ‘crème de la crème’:
    - Copenhagen, Ile de France, London, Prague, Stockholm, Vienna…
  - Well above average for all four factors + GDP/capita, except private technology!
  - Challenge: to continue competing globally and generate new local clusters of activities from advanced tech.

- **Sustaining Competitive Advantage:**
  - Strong industrial & learning regions:
    - Baden-Württemberg, Flanders, Ireland, Piemonte, Rhône-Alpes, Salzburg, Scotland……
  - Strong on private technology and on learning families but weaker in public knowledge and urban services
  - Challenge: to stay at leading edge in core-technology capacities and move towards knowledge based services.

Technopolis, Ismeri, Lacave, Logtech, UNU-MERIT
Four groups with different strategic challenges (2)

- **Boosting entrepreneurial Knowledge:**
  - Second-tier capitals & regions with strong public research
    - Athens, Berlin, Bratislava, Catalunya, Lisbon, Midi-Pyrénées, Warsaw, Wallonia.....
  - Strong on public knowledge and relatively competitive in terms of urban services
  - Need to boost private technology and learning family drivers.

- **Entering knowledge economy**
  - ‘Convergence regions’ - southern and Eastern rims of EU.....
  - Eastern EU regions challenge: make rapid stride towards higher technology activities based on current skills base, increased investment in knowledge and attracting more research intensive industries.
  - Southern cohesion and rural areas: depend on access to improved ICT networks, innovative tourist products and reconversion of agro-sectors towards new products & services (bio-fuels, etc.).
Key challenges for ERDF

- Incentives to develop **regional strategic frameworks** in line with **diversity** of regional potential
- Focusing attention to **demand** rather than supply side of innovation (ex ante analysis !)
- Balance technology focus with other forms of innovation
- Consider ‘**downstream**’ research developed for the needs of markets
- Integrate **social capital**
- **Innovative** and more complex projects should be favoured over focus on funds absorption
Strategic questions for regions

- How do regions avoid promoting “weak clusters of innovation”?
  - Inter-regional co-operation is necessary to achieve critical mass of skills and finance

- Innovation promotion needs to move beyond classic ‘industrial product’ model:
  - Knowledge intensive services
  - Creative industries
  - Innovation in public services
  - Eco-innovation and sustainable development
  - Rural and tourism innovation...
Innovation Policy : The way forward (1)

• Effectiveness of innovation systems depends on balanced combination of 3 capacities:
  - creation of knowledge
  - diffusion of and access to 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**": between:
  - traditional fields of policy intervention
  - industries traditionally defined
  - various forms of knowledge production and diffusion
Danger of fragmentation of innovation policy: need for intra-government policy coordination and national-regional policy coordination.

More efficiency through “Policy packages” rather than isolated instruments.

Need for more policy intelligence:
- Monitoring and evaluation of policies
- Sound analyses of innovation systems
- «Intelligent» benchmarking practices
- Long term views
- Inclusive policy design processes