International Evaluation Conference

What's new and what works in the EU Cohesion Policy 2007-2013: discoveries and lessons for 2014-2020

How to Evaluate Innovation and Research and Technology Policy: the Experience of the Structural Funds

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Objectives and definition

Report findings:

- Main features of innovation strategies and ERDF contribution
- Evidence on the performance of innovation support measures co-financed by the ERDF in Convergence and Competitiveness regions
- Evaluations carried out on the innovation measures in 3 policy areas

Extensive definition of innovation and 3 policy areas:

- **Boosting applied research and product development** (R&TD in research centres, Investment in firms linked to R&I, Assistance to SMEs for environmentally-friendly products and processes, other measures to stimulate R&I in SMEs)
- **Knowledge transfer and support to innovation poles and clusters** (R&TD infrastructure and centres, technology transfer, Assistance to R&TD in SMEs)
- **Innovation friendly environment** (Developing human potential, advanced services, ICT services and applications for SMEs, measures for improving access to ICT by SMEs, TEN-ICT, ICT services and applications for citizens)

Main features of innovation strategies:

The national strategies for RTDI updated in all Member States over the past 5 years and described in official documents. Some tendencies emerge:

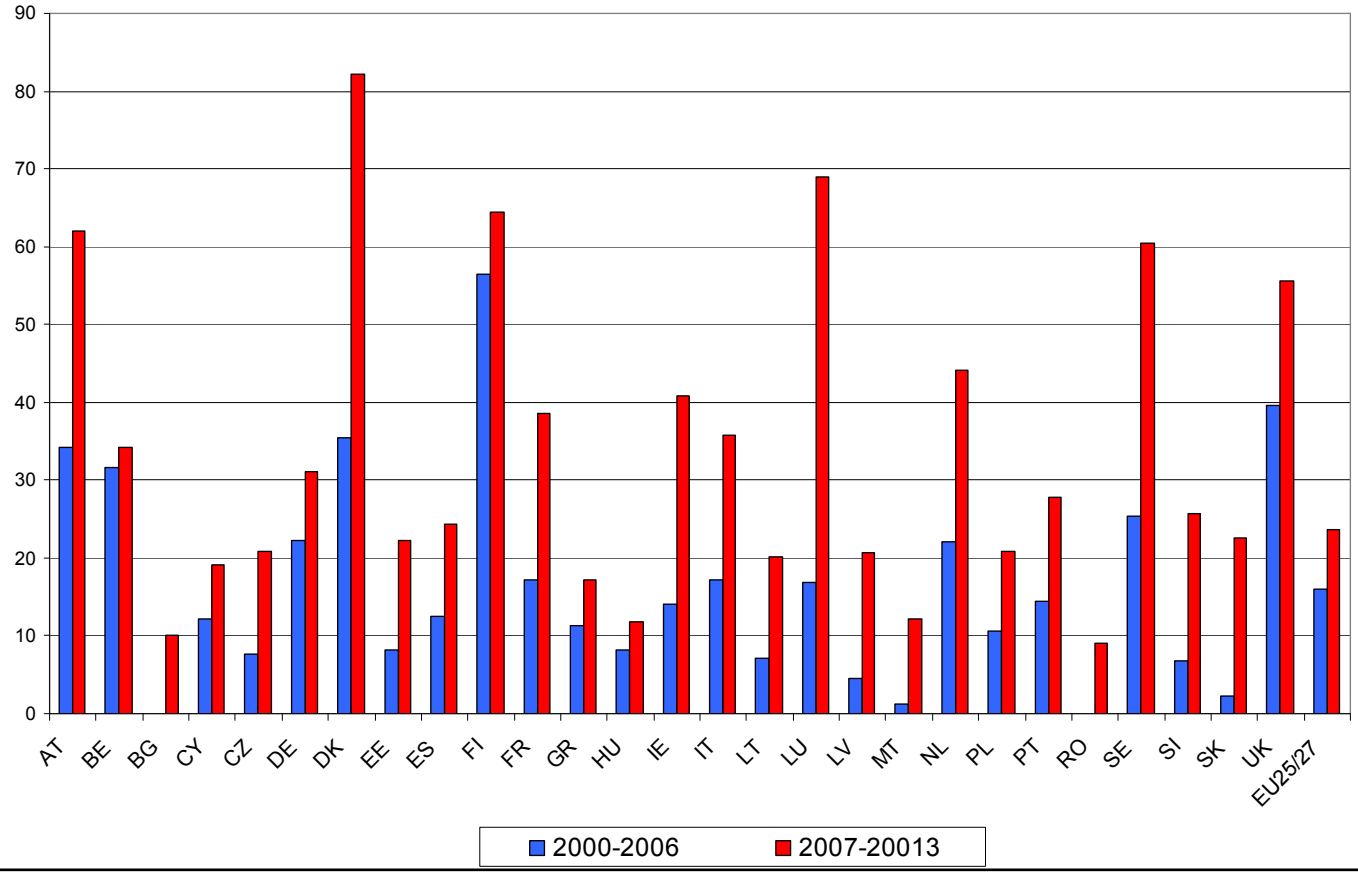
- **an increasing regional dimension** of innovation policies. More resources are spent within regional focused programmes
- **an increasing focus on SMEs** (in both Convergence and Competitiveness despite differences in the economic context). A common emphasis on:
  - increasing the number of firms involved in innovation
  - providing more general and easier access to services supporting innovation and to investment incentives;
- **the promotion of research and innovation poles** or other forms of clusters or networking. They involve cooperation between universities, research centres and businesses and a focus on particular technologies or sectors of economic activity.
  - poles can be defined at national level (France);
  - in other cases, they result from regional choices (as in Germany, Italy, Belgium and Austria).

Relevance of ERDF within the regional innovation programmes

- **ERDF finances most RTDI expenditure** in CONV
- **ERDF also relevant in COMP** (20% or more of regional exp. in R&D)
- **ERDF supports regional innovation systems** promoting ROPs and financing RISs, intermediary agencies, networking

Role of ERDF: increasing effort for innovation

Innovation on total ERDF and CF (%) in the two programming periods



ERDF contribution across policy areas

% of allocated funds	CONV	COMP	TOTAL
Boosting applied research	**37.5**	36.2	**37.0**
Knowledge transfer, poles	33.2	**39.0**	34.3
Innovation friendly environment	29.2	24.8	28.7
ERDF for innovation	100	100	100

STRATEGIC FOCUS

- **"Boosting research"** (Italy, Ireland, Poland and the three Baltic States);
- **"Knowledge transfer and poles"** (Nordic countries, Germany, Austria, the Netherlands, France Luxemb., the UK, and Slovenia).
- **"Innovation friendly environment"** (Belgium, Greece, Spain, Portugal and most of EU12 MSs)

Evidence available on performance: ongoing projects and evaluations

- Programmes started on a significant scale only in 2009 in all countries and objective regions.
- Analysis of ERDF performance can be based on:
  - Indirect evidence of programme execution in terms of **ongoing projects** and partial output indicators.
  - **Evaluation and studies** carried out during the present programming period and those referring to the past programmes when there is continuity in measures and instruments with the 2000-2006 period.

Most frequent ongoing interventions (i)

- Grants to support in-house firm RTDI and develop innovations. Typical demand side intervention
  - Most Convergence regions use these instruments
  - They may be focused on areas of regional specialisation or on priority areas like eco-efficiency or energy-efficiency (Romania, Austria).
- Advanced services to business
  - take different forms (vouchers, technological audits, financial engineering, managerial support to start ups and spin offs).
  - are designed to create an innovation-friendly environment and make firms and other stakeholders aware of their innovation needs.

Most frequent ongoing interventions (ii)

- Technology parks, clusters, poles, centres of excellence, incubators and other types of intermediate institutions.
  - specific activities depend on the maturity of the regional system and the quality of the actors. In Convergence a significant share of infrastructure and equipment ; in competitiveness a focus on critical technologies and platforms.
  - carried out at a regional level, implies a territorial strategy and a sector or technological priority setting.
  - In EU12 they takes the form of support of intermediate institutions or set the conditions for a regional RTDI policy. The risk is that clusters may result too weak to be sustainable
  - Collaborative research (firms-universities) and support for human capital development. Important in countries where Universities have no relationship with businesses
  - Convergence regions in Spain, Poland, Romania, Italy and Portugal have invested for the first time.

Most frequent ongoing interventions (iii)

- ICT infrastructure at national and regional level
  - in EU15 mainly in the form of business services and in EU12 development of basic infrastructure.
  - The risk is linked to the degree of utilization of the facilities by the regional actors
- Eco-innovations in several areas (Belgium, Austria, the Czech Republic, Germany, France).

Evidence from evaluations and studies

- The results of present and 2000-06 evaluations on measures which continue to be implemented in the 2007-13 period are a second indirect source of information.
- We need to rely on a number of on going or ex post evaluations 2000-2006 which are relevant for assessing the effectiveness of several measures and instruments implemented in 2007-2013.
- The progress made in implementing present programmes is greater in those countries in which more evaluations have taken place in the past and present period.
- There is a concentration of evaluations in some EU15 countries while there are fewer studies in EU12 and draw upon the experience in EU15 to formulate policies.

Availability of evaluations and studies:

- Evidence available in most of EU15 (Austria, Belgium, Germany, France, Spain, the United Kingdom, Finland, Italy, Denmark, Ireland, Sweden)
- Missing or poor in other EU15 MSs (Portugal, Greece, Luxembourg).
- Scarce or no evidence in EU12.
  - Relevant evaluations/studied have been identified in some cases (Poland, Slovakia, Estonia, Slovenia)
  - Limited evidence or no evidence at all found in the other countries (evaluation culture is only now starting to grow, the studies focus mostly on implementation efficiency and procedures etc.).

Evidence (not available, mixed, positive) at EU27 level related to the % of ERDF resources for innovation (by policy area and objective)

Policy area	Evidence	CONV.	COMP.	TOT.
Innovation friendly environment	n.a.	96,8	60,0	88,2
	Mixed			
	Positive	3,2	40,0	11,8
Knowledge transfer and clusters	n.a.	41,4	36,0	40,0
	Mixed	34,8	30,9	33,8
	Positive	23,8	33,1	26,2
Boosting applied research	n.a.	34,6	29,1	33,5
	Mixed	2,4	29,9	7,8
	Positive	63,0	40,9	58,7
Total innovation	n.a.	55,5	41,3	52,3
	mixed	11,9	21,0	14,0
	positive	32,6	37,7	33,8

- Evaluations mostly concentrated on Boosting research
- Mainly positive effects reported

Evidence (not available, mixed, positive) across countries related to the % of ERDF resources for innovation

EU15	n.a.	mixed	positive
AT	6,6	30,3	63,1
BE	22,0	78,0	
DE	6,5		93,5
DK		38,5	61,5
ES	70,3		29,7
FI	30,8	69,2	0,0
FR	33,2	37,6	29,2
GR	100,0		
IE	10,4	14,3	75,2
IT	49,0		51,0
LU	100,0		
NL	100,0		
PT	100,0		
SE	28,5		71,5
UK	27,0	44,7	28,4

positive results mostly in:

- Germany
- Ireland
- Austria
- Denmark

Evidence (not available, mixed, positive) across countries related to the % of ERDF resources for innovation

EU12	n.a.	mixed	positive
BG	100,0		
CY	100,0		
CZ	100,0		
EE	13,5		86,5
HU	51,0	49,0	
LT	100,0		
LV	100,0		
MT	100,0		
PL	31,3	24,5	44,2
RO	100,0		
SI	4,5		95,5
SK	50,9		49,1
EU27	**52,3**	**14,0**	**33,8**

positive results mostly in:

- Slovenia
- Estonia
- Slovakia and Poland

Approaches to evaluation

two main methodological approaches can be identified

- counterfactual approaches based on econometric analysis
  - employed mostly ex ante and ex post to assess the effects of RTDI aid schemes.
  - mainly used in academic studies and rarely in programme evaluations supported by the Managing Authorities.
  - rely on large databases of balance sheet indicators and are commonly not circumscribed to ERDF funding
  - differ in terms of the actual techniques used and in relation to the selection of the control groups (e.g. comparison between beneficiaries and non-beneficiaries; before-after comparisons of beneficiaries).
- approaches based on questionnaire surveys
  - adopted mostly in mid-term and ex post evaluations of the OPs
  - generally focused on analysing policy efficiency and instrument effectiveness as perceived by beneficiaries
  - control groups not always identified.
  - usually combined with other more qualitative methods for collecting and analysing information such as case studies, focus groups, expert panels etc.

Main challenges for the remainder of the programming period:

- ensure effective governance of innovation policy (coordination between authorities; coherence between national and regional priorities) and avoid fragmentation and duplication of support
- reinforce the regional focus of RTDI interventions, without giving rise to artificial entry barriers, duplications or an excessively local vision, while promoting trans-regional and transnational cooperation
- secure effective cooperation between public and private actors
- enlarge the number of SMEs involved in RTDI policy
- combine support for RTDI with support for human capital development
- integrate services and the support provided by different bodies (universities, technology transfer agencies, research centres, etc.) in line with local needs
- demonstrate that innovation is essential for restructuring and improving competitiveness in times of economic crisis as well as in more favourable periods
- simplify procedures to encourage SMEs to apply for funding.

In relation to evaluation:

- relatively few evaluations have been initiated during the present programming period and even fewer have focused on outcomes and effectiveness of policy
- the number of past evaluations that are relevant for a first assessment on the achievements in the present period is relatively large in many countries since they relate to interventions which continue from the previous programming period.
- As many as 50% of the interventions in the three policy areas are covered by evaluations
- These evaluations are concentrated in countries which have systematically carried out evaluations as part of their management procedures.
- For 11 countries (both EU12 and EU 15) there are no relevant evaluations that can be used to assess the measures implemented in the present programming period.
- For a small number of countries (4), few evaluations have been carried out and the measures implemented cannot really be assessed in terms of their (likely) performance.
- Evaluations are mainly concentrated on grants to SMEs, for collaborative research, and to research institutions; evidence on innovation-friendly environment intervention is scarce.

In relation to evaluation:

- the information and indicators available need to be improved and made more relevant in order to give a better insight into the content and quality of RTDI interventions
- need to increase evaluations in relatively neglected policy areas (e.g. creation of an Innovation-friendly environment and investment in infrastructure)
- comparing the innovation poles and centres of excellence supported, would enable a better understanding of the potential development of regional innovation systems
- carrying out a detailed examination of the coherence between ERDF interventions and support for human capital development in terms of policy design and impact