Spreading Excellence and Widening Participation in Horizon 2020

Information Day

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Disparities in research and innovation performance: barrier to competitiveness, growth and jobs across Europe

Some countries experience low participation in the EU Framework Programmes because of:

- insufficient national R&D investments
- lack of synergies between national research systems and the EU research landscape
- system learning effects
- reduced access to international networks
- problems with information, communication and training
FP7 country participation

FP7 Budget Share per country %

"Widening" MS
The issues with catching-up economies

Moris Abramovitz has summarised issues as follows:

- **Countries that are technologically backward** have a potentiality for generating growth more rapid than that of more advanced countries, provided their social capabilities are sufficiently developed to permit successful exploitation of technologies already employed by the technological leaders.

- **The pace at which potential for catch-up is actually realized** in a particular period depends on factors limiting the diffusion of knowledge, the rate of structural change, the accumulation of capital and the expansion of demand.

- **The process of catching up tends to be self-limiting**, but the strength of the tendency may be weakened or overcome, at least for limited periods, by advantages connected with the convergence of production patterns as followers advance towards leaders or by endogenous enlargement of social capabilities”

The issues with catching-up economies (II)

“....Arguably, to avoid being stuck along an inferior path and never catch up, “institutional instruments” may be needed to compensate for some of these “latecomer disadvantages”.... In particular what the developing country firm may need are “institutional instruments” that improve:

• links with the technology frontier,
• links with markets (and sophisticated users),
• supply of needed skills, services and other inputs,
• the local innovation system/network...”.

How the European Commission works on open and inclusive innovation
Promoting open and inclusive innovation

• An integral part of President Juncker and Commissioner Moedas priorities;
• drawing on a host of resources but primarily on:
  ➢ the European Structural and Investment Funds
  ➢ the Research and Innovation Framework Programme, Horizon 2020

Resources available:
  ➢ around 100 Bn Euro from the ESIF
  ➢ more than 800 M Euro from Horizon 2020
Major issues

- Structural deficiencies of planning authorities at national and regional level
- Absorptive capacity
- Difficulties of small players in integrating global innovation value chains
- Difficult or non-existent cooperation between universities and the business communities
- Spirale of marginalisation and lack of ambition
- Huge gaps in research and innovation investments correlate with gaps in innovation performance

Commission response: emphasis on better planning tools and on institutional networking with no compromise on excellence
A major policy intervention: the Widening Package under H2020

Measures in Horizon 2020 under **Spreading Excellence and Widening Participation:**

- **Teaming** (institution building)
- **Twinning** (institutional networking)
- **ERA Chairs** (bringing excellence to institutions)
- **NCPs** (information, communication, support)
- Policy Support Facility (support for R&I Policy design)
- **COST** (stimulating cross border science networks)

Total Budget in H2020 ~ **€800 million**
Criteria retained for Widening actions

• The Composite Indicator of Research Excellence

Why this indicator?

✓ Excellence is a key factor for performance for the whole R&I system
✓ Only indicator that can measure excellence embedding several dimensions
✓ Parameters normalised to eliminate size and population biases
✓ Innovation taken into account also through the patent applications variable
✓ Strong correlation between the Excellence indicator and the FP7 Budget share per country
**Composite Research Excellence Indicator at National level**

**Origin:** Developed by DG RTD & JRC, part of the IU progress at country level 2013 publication included in the *IU Competitiveness Report 2013.*

**Definition:** "A composite indicator developed to measure the research excellence in Europe, meaning the effects of the European and national policies on the modernisation of research institutions, the vitality of the research environment and the quality of research outputs in both basic and applied research."

**Methodology:** Composite indicator of four variables:
1. Highly cited publications of a country as a share of the top 10% most cited publications normalised by GDP
2. Number of world class universities and public research institutes in a country normalised by population in the world top 250 universities and research institutes
3. Patent applications per million population
4. Total value of ERC grants received divided by public R&D performed by the higher education and government sectors

**Threshold:** MS below 70% of the EU average

**Resulting eligible MS:** Latvia, Croatia, Lithuania, Malta, Slovakia, Romania, Luxembourg, Poland, Bulgaria, Estonia, Portugal, Slovenia, Cyprus, Czech Republic and Hungary
Bottom Line:

- A significant effort for **knowledge transfer**
- *Not a cohesion but a performance oriented approach*
- **Focus is on institution building**
- **Marked importance of links with Smart Specialisation!**
- **ESIF actions can be coupled to Teaming, Twinning and ERA Chairs initiatives**

**Big expectations – big risks; but maybe also huge gains**
Learn more:


Thanks for your attention!