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Factsheet: Spreading Excellence and Widening Participation

The Framework Programmes for research and technology development (FP) have provided a vital contribution to the development of European competitiveness, growth and knowledge generation.

Despite, however, serious efforts deployed at national and European level, the Union sees significant internal disparities in terms of research and innovation performance as also identified in the Innovation Union Scoreboard. These trends are further exacerbated by the continuing severe financial crisis, and the subsequent adverse effects on public research and innovation budgets.

There is significant evidence pointing to the fact that the pathway to economic growth and competitiveness is largely connected to the scaling up of investment in research and innovation. To maximise such investment there is the need to tap into Europe's yet unexploited potential on research and innovation through a stronger commitment by the low-performing Member States and regions. This focus will enable the European Research Area to function in a more streamlined and homogeneous way, where the individual strengths of every Member State may be optimised.

In order to address these challenges, Horizon 2020 introduces specific measures for spreading excellence and widening participation.

Analysing underperformance

Analysis of the statistics of the 7th Framework Programme participation rates suggests three broad conclusions:

- No single indicator can explain participation under FP7. The picture is multi-level and complex and does not support simple conclusions (for instance, it is not simply a case of 'East vs. West' or 'New vs. Old');
- Variation between Member States as well as regional variations within Member States needs to be addressed. In some cases those pictures can vary greatly, for instance due to significant concentration of research activity in a few major centres.
- Participation analysis should not focus solely on financial returns but also needs to take into account the various important non-financial benefits, such as knowledge acquisition, technology transfer and networking.

The variations in the participation by countries can be explained according to a series of factors, which include issues such as:

- National level investment in research
- Interaction and synergies between the FP and the national research system;

- Experience with FP procedures within national systems
- Wage levels - variation in wages, even taking into account the variations in purchasing power, is a major reason why the level Marie Skłodowska-Curie actions of EU research funding per country varies.
- Access to networks
- Size of projects - large projects can be problematic for small countries and new actors
- Information, communication, training and availability of advice.

Measures to widen participation in Horizon 2020

- Teaming of excellent research institutions and low performing RDI regions: Teaming aims at the creation of new (or significant upgrade of existing) centres of excellence in low performing RDI Member States and regions. It will focus on the preparatory phase for setting up or upgrading and modernising such an institution facilitated by a teaming process with a leading counterpart in Europe, including supporting the development of a business plan. A commitment of the recipient region or Member State (e.g. support via Cohesion Policy Funds) is expected. Subject to the quality of the business plan, the Commission may provide further seed financial support for the first steps of implementation of the centre. Building links with innovative clusters and recognising excellence in low performing RDI Member States and regions, including through peer reviews and awarding labels of excellence to those institutions that meet international standards, will be considered.
- Twinning of research institutions: Twinning aims at significantly strengthening a defined field of research in an emerging institution through links with at least two internationally-leading institutions in a defined field. A comprehensive set of measures underpinning this linkage would be supported (e.g. staff exchanges, expert visits, short-term on-site or virtual trainings, workshops; conference attendance; organisation of joint summer school type activities dissemination and outreach activities).
- 'ERA Chairs': Establishing 'ERA Chairs' to attract outstanding academics to institutions with a clear potential for research excellence, in order to help these institutions fully unlock this potential and hereby create a level playing field for research and innovation in the European Research Area. This will include institutional support for creating a competitive research environment and the framework conditions necessary for attracting, retaining and developing top research talent within these institutions.
- Policy Support Facility (PSF): This will aim to improve the design, implementation and evaluation of national/regional research and innovation policies. It will offer expert advice to public authorities at national or regional level on a voluntary basis, covering the needs to access the relevant body of knowledge, to benefit from the insight of international experts, to use state of the art methodologies and tools, to receive tailor-made advice.
- Supporting access to international networks for excellent researchers and innovators who lack sufficient involvement in European and international networks. This will include support provided through COST.

- Strengthening the administrative and operational capacity of transnational networks of National Contact Points, through financial and technical support while improving the framework for the operation of NCPs and the flow of information between them and the Horizon 2020 implementation bodies.

Synergies with EU Cohesion Policy funding

Horizon 2020 will improve recognition and support for excellence. The upgrading of infrastructure and equipment, on the other hand, will come under the remit of the Structural Funds. For our scientists this means everything from laboratories and equipment to supercomputers and high-speed data networks. In future EU Cohesion Policy will have a greater focus on helping to create this infrastructure. Less developed regions should invest at least 50% of European Regional Development Fund money into support for research and innovation, SMEs and energy efficiency and renewable energies. This will create the right basis for researchers to work and compete for EU research funding. Based on a transparent competition there will also be the possibility to create new excellent research centres, based on a cooperation of excellent research institutions and regions to give our researchers new career perspectives all over Europe, and to help less developed regions to catch up.

Strengthening national R&D investment

Although not under the remit of Horizon 2020, national R&D investment needs to be strengthened. EU Member States have collectively pledged to reach a target of 3% of GDP spent on R&D (Combined public and private investment) by 2020. Member States must also develop national research and innovation strategies. These factors are of crucial importance to ensure there is both the appropriate capacity in the research system and compatibility of structures to enable successful applications for EU funding.