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This is the third in a series of Policy Briefs delivered by the "Knowledge for Growth" Expert Group advising the Commissioner for Research, Janez Potocnik. The full report on which it is based may be downloaded from:

http://ec.europa.eu/invest-in-research/monitoring/knowledge_en.htm

An Open, Integrated, and Competitive European Research Area requires policy and institutional reforms, and better Governance and Coordination of S&T policies¹

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It is recognized that strengthening and implementing EU-wide R&D policies is a core instrument for the full development of the Lisbon Agenda, but why should we have EU-wide R&D policies beyond those of national and regional Governments? One argument is that transnational cooperation in R&D programmes and infrastructures are a stimulus for European competitiveness in the Global Knowledge Society⁴, however, **"the main rationale for EU-wide R&D policies is based on the need to develop an Open, Integrated, and Competitive European Research Area."** Only within such an ERA can transnational cooperation achieve its full potential and - more importantly - can all European regions find their competitive advantage through a process of 'smart specialization'⁵. However, to consolidate such an ERA, **"better governance and coordination of S&T policies are needed"**.

'Smart specialisation' in the Global Knowledge Society is not achieved through a clever foresight-political process, but by letting Ideas, Innovations, and Researchers *compete without barriers, in a large, open and fair field*, as the ERA can be. The ERA is now an incredibly vast field, extending beyond EU borders, yet unfortunately national or regional boundaries and regulations often define the extent to which Ideas, Innovations and Researchers compete. The ERA not only needs to be Open with respect to the outside world (becoming an area of attraction for researchers, innovative

¹ This Policy Brief is based **on** the report "Governance and coordination of S&T policies in the European Research Area" by Ramon Marimon and Maria de Graça Carvalho, discussed during the 10th Meeting of the Expert Group on Knowledge for Growth (March 27-28, 2008, Ljubljana), with the participation of Commissioner Janez Potočnik. The views expressed here are those of the authors and do not necessarily reflect those of the European Commission.

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⁴ In fact, **on** the initiative of the EC, the EU is playing a leading role in 'Global Infrastructures and Initiatives' (e.g. ITER, Global Warming).

⁵ "Smart specialisation in a truly integrated research area is the key to attracting more R&D to Europe" argues the Knowledge Economists' Policy Brief n° 1, October 2007, by Dominique Foray⁵ and Bart Van Ark⁵

firms and R&D investments), but must be “Open within” otherwise it cannot be externally competitive.

A ‘fair competitive field’ means that there are institutions and rules that guarantee fair R&D competition, but it also means that each region within the ERA has its own fair chance to compete and to become competitive. In an *Integrated Research Area this goal can be achieved by* the emergence of strong R&D agglomerations combined with the development of a decentralized R&D and Higher Education base of excellence across *all* European regions. Only with such a local base and non-local perspective, is regional ‘smart specialization’ possible. Only then do pursuing ‘excellence’ and ‘cohesion’ become complementary objectives.

However, to guarantee an **Open, Integrated, and Competitive European Research Area** important policy and institutional reforms are still needed. Some of these reforms affect EU policies; others affect national or regional policies and institutions. Many of them have already been mentioned in the context of ‘the ERA Green Paper’ and its subsequent discussions. We want to emphasize, at the EU level, the importance of having a proper legal framework for setting up competitive European transnational R&D institutions, working with financial rules based on trust and proper S&T evaluation; at the national and regional level, the need for reforms of public Universities and other Research Performing Organizations⁶. These reforms are necessary preconditions, but better governance and coordination of S&T policies are also needed.

In order to achieve the Lisbon objectives, two main weaknesses in the current EU R&D and Innovation public governance structure must be addressed. First, most R&D public funds are in the hands of national and regional governments, and while this shows the commitment of national and regional governments to ‘build local R&D capacities’, this goal is often not pursued with an Open and Competitive ERA perspective, which results in fragmentation, weak competition and, possibly, ‘distorted specialisation’. Second, the ‘complexity’ of EU funding (EU financial rules, existing instruments for policy coordination and cooperation, etc.) often acts as a deterrent for scientists and innovative firms, and limits both the leverage capacity of the EU R&D policies, and the ability of the EC to lead intergovernmental initiatives.

To confront these weaknesses and reinforce R&D governance, at all its levels, one must take into account the fact that R&D funding institutions – as is the case with financial institutions – can only operate efficiently if they build up a good reputation, if they are ‘trusted’ in how they handle public resources and, more specifically, in how they handle the competitive and selection processes determining the allocation of these resources. Some organizational principles that help to build up ‘trust’ are: *i*) independence between the political authority (which may set social priorities and budgets) and ‘funding managers’ implementing the competitive and evaluation processes; *ii*) independence between ‘funding managers’ and those who may receive the funding; *iii*) a professional, stable and properly accountable organization, otherwise reputation can not be built; *iv*) clear, and well known, rules for

⁶ See, for example, “Report of the ERA Expert Group on: ‘Strengthening research institutions with a focus on university based research’”, January 2008.

evaluation criteria and selection procedures, and v) simple and timely implementation.

Based on the main objective of developing an *Open, Integrated, and Competitive European Research Area*, and on the above 'principles of trust and delegation', we make the following recommendations:

1. National or regional governments (and their funding agencies), should not only operate according to the above 'principles of trust' (some already do, others require reform), but should also operate according to the above ERA perspective, e.g. removing effective barriers to Open EU Competitions and taking advantage of EU evaluation capacities⁷, even if research has to be carried out locally.
2. EU institutions, such as the ERC (founded on the above 'principles of trust'), should be open to, and capable of, providing service to national and regional governments, and should design policies and programmes which can have a multiplicative, *leveraged*, effect on national and regional policies⁸.
3. While flexible coordination/cooperation may be the dominant mode in supporting R&D initiatives (in order to properly internalize economies of scale and scope, and knowledge spillovers), the experience in intergovernmental programmes (e.g. Eureka, ERA-Net, Article 169, etc.) shows the inherent complexity of intergovernmental governance, and suggests a different method of flexible cooperation: *to limit the intergovernmental intervention, and the EC leadership, to their policy role of setting and coordinating priorities, programmes and budgets, while delegating the evaluation, selection and management processes to 'autonomous EU funding agencies,'* based on the above 'principles of trust.'
4. The current EU (EC) governance structure must be simplified and reinforced. Two alternative paths can be followed: *a)* to reform existing institutions according to the above criteria (e.g. strengthen EC as a 'funding agency'); *b)* to create new 'autonomous EU funding agencies,' to which EC and intergovernmental programmes can be delegated (consistently with 3).

The current trend of 'outsourcing EC management competences' seems to reflect that the first alternative is neither advisable nor feasible. However, the second alternative, which we recommend, requires EU political commitment and careful implementation in establishing the governance and accountability of the agencies. Furthermore, one should avoid dismantling existing human capacities, but should not create another institutional layer without simplifying the current structure; one should neither concentrate all of the 'EU evaluation and funding' capacities in a unique agency (which may damage competition), nor disseminate such capacities in an ad-hoc

⁷ In fact, at the local level the 'independence principles' (i & ii) are often too problematic to guarantee an effective ERA competition.

⁸ ERA-NET+, where the EC provides additional funding to joint calls for specific R&D funding set by a number of national agencies, is a step in this direction. Another initiative in this direction, that will help the ERA, is the collaboration of the ERC with national & regional agencies, according to which these agencies (on a voluntary/flexible basis) fund researchers (possibly, working in their country or region) who pass the ERC standards of excellence, but cannot be funded with the limited ERC funds.

proliferation of shareholder-agencies (which will never create 'competitive trust')⁹

In summary, with FP7 the ERA is starting to have a better governance structure, but - aside from the ERC - the current 'diversity and complexity' – even if natural in the EU landscape – is a major deterrent to proper competitive participation by the scientific and technological communities. Governance, through proper EU delegation, must be improved, but the institutional engineering of the ERA cannot replace the urgent need for coordinated reforms at national and regional levels, so as to guarantee the development of an ***Open, Integrated, and Competitive European Research Area!***

⁹ While the EC DG has started an interesting process of creating 'Executive R&D Agencies,' it still seems limited in scope (recall recommendation 2) and, in particular, other forms of 'outsourcing EC competences', such as the Joint Technology Initiatives, raise the concern of the 'blurring between funding and spending' and of ad-hoc proliferation.