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An Innovation Union? – Perspectives and Shortcomings

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Research and innovation have always been the central priorities of the European Union. "R&D and innovation", "the knowledge economy", "knowledge-based competitiveness", and "innovation-driven growth" are all compulsory mantras of European communications. Not only RTDI's importance is emphasized, but also the role EU-level science and technology (S&T) policy plays in enhancing integration.

In fact, beyond *support for and the promotion of innovation,* coordination has been the other key sphere of the evolution of European S&T policy. The history of European S&T policy features ever-increasing efforts to achieve the ambitious objective that innovation policies be designed and implemented from a common perspective, based on a common legal basis, set of policy plans and structures.

It is therefore frustrating and at the same time alarming that not only the innovation performance of the European Union lags expectations, the supranational coordination of innovation (e.g. the realization of the European Research Area) cannot be considered a success story either.

This short notice argues that hard-to-eliminate deficiencies in the European level coordination of innovation account for below-expectation results in innovation performance.

Meager results in innovation performance are well-documented and well-known. We recapitulate here some of the key features. According to the European Innovation Scoreboard (2009), the EU's catching up process, i.e. the narrowing of the innovation gap with the US and Japan halted and was even reversed in 2009. Note that a substantial part of past catching-up performance was due to a statistical artifact, *i.e.* to the fact that the value of the summary innovation index is influenced by *changes* in indicators with respect to which European performance indicator lagged that of the U.S. (*e.g.* access to venture capital financing; broadband access by firms). This latter indicator improved mostly in lagging new EU member states (MS), while higher-than average improvement in the former was due to the much lower-than-the competitors' level of this indicator.

Moreover, investment into knowledge is lagging far behind the respective indicators of an increasing number of competitors. Europe likewise performs poorly with respect to its main competitors in terms of access to finance, innovation-related skills and education, the number of researchers, etc.. According to the most recent (2010) European Competitiveness Report, Europe's patenting performance in selected key enabling technologies cannot keep pace with that of its emerging Asian competitors.

Another area where European level innovation policy targets are far from being achieved is intra-Europe convergence in innovation performance. Disparities are still large and the economic crisis may lead to a reversal of past convergence tendencies. Past convergence was due mainly to performance improvements by some of the cohesion countries – Bulgaria, Latvia, Romania – from very low levels. This suggests that above a certain threshold this effect will lose momentum and intra-EU convergence in innovation performance will be much harder to maintain.

As for EU-level coordination of public innovation policies, Maurseth-Verspagen's 1999 claim[1] that it is

[1] Maurseth, P.B. – Verspagen, B. (1999): Europe: one or several systems of innovation? An analysis based on patent citations. In:

far too early to think in terms of a supranational European innovation system remains valid more than a decade later. Common arguments that underpin this observation include Europe's failure:

1) to deliver on its Lisbon agenda commitment to increase the R&D-to-GDP ratio to three percent (this overambitious policy target is being reiterated in the post-Lisbon agenda as well);

2) to design and implement a *European Innovation Strategy*. (This can partly be explained by the principle of subsidiarity that limits the delegation of functions to the European level only to the areas with European added value.)

3) to create a single (unitary) European patent system. (The elimination of this last deficiency seems already on its way with the "Enhanced Partnership" among 12 MS, approved by the Legal Affairs Committee in January 2011).

The usual argument against this pessimistic assessment of coordination performance is that MS' national research policies are becoming increasingly integrated in the European framework. In the case of new EU MS the Europeanization of innovation policy is self-evident: Structural Funds have opened unprecedented opportunities to innovation stakeholders. The volume of support these Funds provide is larger than that available from national sources by an order of magnitude. However, this situation harbors a threat that has to be carefully considered: given the heretofore unseen volume of EU funding available to support innovation, governments that try to implement fiscal austerity programmes and balance their budgets may be tempted to withdraw funding for innovation purposes. Though this is against the principle of additionality: i.e. that EU Structural Funds may not replace the national expenditure by a MS, but is nonetheless a realistic possibility.

In most of the old MS, it is the national level that is predominant in funding innovation objectives. The EU FP7 budget amounts to EUR 50.5 billion for the period 2007-2013. Compare this figure with government budget appropriations or outlays on innovation (GBAORD) in selected advanced European economies! In 2008 alone this figure was 19.8 bn Euros in Germany, 1.8 bn in Finland and 1.9 bn in Austria (Source: Eurostat). Thus, in advanced EU economies MS provide the majority of R&D funds that promote innovation. This, together with their superior institutional performance (superior national innovation systems) accounts for the fact for the advanced EU MS, the pace of the Europeanization of S&T policies is much inferior to that for the new MS. In the case of this latter group of countries, policy transfer is easier since it is tied to transfers in funding, the volume of which is dominant within total funding.

There are some other reasons that explain the weakness in EU-level coordination of public innovation policies. First, with the accelerated internationalization of corporate R&D activities, the location decisions of multinational corporations with respect to R&D exerts a stronger influence on the innovation performance of EU MS than EU-level R&D programmes. Second, coherent EU-level coordination of S&T policies is hampered by large institutional disparities across MS in publicly funded research systems and also in the institutional arrangements of the administration of public R&D funding. Third, difficulties in increasing the coherence of coordination are exacerbated also by the fact that MS technological specialization also shows large differences. In this context, the other coordination level, i.e. the delegation of certain functions of the national innovation system to the regional level, makes more sense. It is by no means surprising that decentralization (regional innovation systems) and the regional coordination of public S&T-policies have been much more successful than EU-level coordination.

In summary, instead of being the engine of integration, S&T policy, or rather its EU-level coordination, has become an outlier in the otherwise more efficient integration of the European marketplace.

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Fagerberg, J. (ed.) The Economic Challenge for Europe: Adapting to Innovation Based Growth. Cheltenham: Edward Elgar