EU legislation in the European Research and Innovation Area?

Policy Brief by the Research, Innovation, and Science Policy Experts (RISE)

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EXECUTIVE SUMMARY

This paper proposes a combination of a pragmatic and ambitious approach on how to progress with the European Research and Innovation Area as regards the use of legislation. Pragmatic in the sense that legislation should be a means to an end not an end in itself; ambitious in the sense to be brave and test new approaches.

For the implementation of the ERA the anticipated ERA Roadmap in combination with establishing an effective High Level ERA Governance structure will be key to success. However, the long term sustainability of ERA cannot rule out legislation in the future

The new Commission states as a first priority to stimulate investment for the purpose of job creation. Investors require long term stability and predictability and in order to attract investments in innovation a new mind-set is needed. This mind-set should include a new approach to legislation. Legislation should not always be used top-down but also to stimulate new markets. The lead-market concept was a forerunner in this context and a step in the right direction. This is also true for the European Innovation Partnerships introduced in 2010 in order to stimulate 'demand side in selected societal challenges. The weaknesses so far in different initiatives have been the that the approach to legislation have been from a 'demand-point' of view at a higher level (framework conditions) but misses the aspect of the use of legislation to stimulate innovation identifying barriers and to remove uncertainties, i.e. to give predictability for actors. In addition and maybe one of the major weaknesses is that the identification process has been mainly steered by various interests groups and not always with a clear European added value.

This is the reason why a thorough 'screening process' is necessary to identify potential areas and in combination with establishing 'zones' where new concepts could be developed and tested. Initially such 'zones' could be established in 2-3 areas relevant for the challenges identified in Horizon 2020. In this respect the Investment Plan presented by the Commission at the end of November should include 'large scale demonstrators'. The 'screening process' identifying 'zones' should be forward looking and at the same time also take into account the planning of the next Framework Programme after Horizon 2020.

Concrete recommendations are given in this paper regarding the development of the European Research and Innovation Area.

INTRODUCTION

The question of legislation (regulations, standards etc.) has been discussed on and off since the introduction of the ERA-concept in 2000 and in particular under the Treaty of Lisbon when the ERA was included in the treaty (art 179 TFEU) and in combination with article 181.1 where it says 'the Commission may take any useful initiative to promote the coordination'. However, in many sectors this is not a new issue, e.g. the mobile telephony GSM Standard in the 1980s helped the European telecommunication industry whereas the chemicals regulation REACH from 2006 also hampered innovation.

In recent years a good example is the Community legal framework for a European Research Infrastructure Consortium (ERIC). On the more negative side could be the proposed new General Data Protection Regulation where, if adopted, an amendment from the EP would stop important longitudinal research with large potential benefits for the European citizens.

EUROPEAN RESEARCH AREA

A couple of years ago there were growing frustration from the Commission's side on the lack of progress in establishing the ERA. The Communication from the Commission (July 2012)[1] : A Reinforced European Research Area Partnership for Excellence and Growth setting out five priority areas initiated a debate and a new momentum through the Council Conclusions in December 2012[2] on A Reinforced European Research Area Partnership for Excellence and Growth[3] on the progress in the European Research Area in February 2014 with a clear commitment from Member States to develop an ERA Roadmap by mid-2015. In addition e.g. Germany published a national ERA strategy. The process to develop the ERA Roadmap has not identified any shortcoming as regards legislation but putting emphasis on implementation what has already been decided. The ERA Roadmap is not about new policy but implementing what has already been decided.

The study[4]: Translating ERA into legislation? How to ensure the completion of ERA examined the achievements and gaps in implementing the European Research. However, the study does not take into account the achievements the last year but concludes: 'caution is advised, given the competence structure between the EU and the Member States'. It continues, 'the role of (binding) law should not be overestimated as a steering mechanism for the research system. Weighing the pros and cons, the central recommendation of this report is to focus on the removal of barriers to transnational mobility'. The study also points at the shortcomings in the ERA-governance structure at EU-level.

There are very little 'push'/demands for legislation in order to implement ERA among the major stakeholders[5] such as Science Europe, EUA, LERU and Business Europe. In fact, in many Member States it's not the lack of legislation it's the lack of ambition to implement which is the main problem.

A longer term issue is how to make ERA sustainable. Despite efforts the amount spent by Member States in order to align research policy and funding through e.g. Joint Programming is very small – around 1% according the second ERA progress report from the Commission. The ERA Priority 2 on transnational collaboration is therefore key to the success of the implementation of ERA. In this respect there will be a need to also more actively include other stakeholders n.b. research performing organisations. Again, this is most likely not done by legislation but rather in the form of incentives. Equally important to the success of ERA will be the result of Priority 5 on Knowledge Transfer. In this area there are possible obstacles to innovation which will be covered in the next section of this paper. Finally, the ERA priority 3 on mobility should be a top priority in the Road-map.

In this context experiences should be drawn from the ERIC-regulation[6] e.g. legislation which could enable transnational cooperation such as pan-European pension funds, cross-border programmes and/or training.

Recommendations as regards possible legislation to implement the ERA:

- With the momentum at the moment it would at this stage not be recommend any proposal for legislation in implementing ERA.
- The governance structure, e.g. the advisory groups (ERA-related groups) should be reviewed in order to better fit the implementation of the ERA priorities. In this respect it is important that the ERA-groups have a forward looking approach in order to foresee potential needs not only to be reactive[7].
- In 2016 the progress should be assessed.
- The long term sustainability of ERA has to be secured and the potential of using legislation should be kept.
- In this context specific legislation, drawing from the experiences of ERIC, could be considered in order to enable transnational cooperation.

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[1] COM(2012) 392 final
[2] http://register.consilium.europa.eu/doc/srv?l=EN&f=ST%2017649%202012%20INIT
[3] http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/intm/141120.pd
[4] Translating ERA into legislation? How to ensure the completion of ERA, Prof. Dr. Arne Pilniok
[5] http://www.eua.be/Libraries/Publications_homepage_list/EUA_ERA_Publication_04_14_web.sflb.ashx
http://www.neth-er.eu/en/news/Mixed-feelings-about-ERA-legislation
http://www.scienceeurope.org/uploads/PublicDocumentsAndSpeeches/120717_Science_Europe_ERA_Statement.pdf
[6] The Community legal framework for a European Research Infrastructure Consortium (ERIC) entered into force on 28 August 2009
[7] The on-going process on ERA-governance to be concluded during the Latvian Presidency is acknowledged

INNOVATION UNION

The paper How Can EU Legislation Enable and/or Disable Innovation[8] studied the interaction between regulation and innovation and how regulation can affect innovation. Some main conclusions in the study are:

- Regulation can, under certain circumstances, be a powerful stimulus to innovation and entrepreneurship.
- EU regulation matters at all stages of the innovation process, from R&D to commercialisation.
- Different types of regulation can be identified, in terms of their impact on innovation. We distinguish between general rules, innovation-specific rules, and sector-specific legislation.
- Different types of regulatory approach can have different impacts on innovation. Typically, more prescriptive, rigid regulation can hamper innovative activity by reducing the attractiveness of engaging in R&D, constraining modes of commercialization, and creating lock-in effects that force the economy into suboptimal standards. The more regulation is flexible, such as in co-regulatory settings (and subject to competition law constraints), or in the use of performance-based or outcome-based standards, the more innovation can be stimulated.

The emphasis so far has been on Framework Conditions from a 'demand point of view' (e.g. European patent) which is important but misses the aspect of the use of legislation to stimulate innovation identifying barriers and to remove uncertainties, i.e. to give predictability for actors.

The report from the High Level Group on Innovation Policy Management "The way forward to improve people's lives: Inspiring and Completing European Innovation Ecosystems"[9] argues that "maintaining existing regulations for too long or pursuing the same regulatory trajectory can create obstacles for new market entrants and hinder innovation in the Single Market" and that is important to "fast-track any necessary regulation and standards and mobilize demand".

The OECD-report[10] highlights a systemic approach to innovation policy and meeting these challenges will require technological breakthroughs, rapid deployment of existing or new technological solutions and system-level changes (in policies, regulation, behaviours, etc.).

Systemic Innovation is about transforming whole 'societal systems' to meet societal challenges and is different from traditional 'system' such as energy systems, transport systems, sustainable cities etc.

Legislation could be an important tool used in conjunction with other instruments. The actual composition of different instruments depends very much on the area. This is one reason why it is usually not fruitful to look at legislation as an isolated instrument.

One example[11] is in the field of 'electrifying vehicles' where combinations of financial and political instruments are needed:

- Subsidising – to lower the cost of electrical vehicles
- Investment in infrastructures e.g. charging stations (public and private)
- Parking priority for electrical vehicles
- Public Procurement of Innovation
- Legislation concerning CO2 emissions

Another example could be in the field of 'automated road transport'. Around 80 people die every day in the EU on the roads and ten times more are injured. The demand should come from the health care sector – a demand to drastically reduce the number of deaths and injuries. Together with the insurance sector this could pave the way for development of new innovative solutions to e.g. automated road transport including necessary changes in legislation.

Key words for successful systemic innovation are: high ambitions, clarity and predictability for all actors.

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[8] How Can EU Legislation Enable and/or Disable Innovation, Jacques Pelkmans and Andrea Renda
[9] http://www.highlevelgroup.eu/sites/default/files/company/HLG_report2014_V9_web.pdf
[10] OECD SCIENCE, TECHNOLOGY AND INDUSTRY OUTLOOK 2014 © OECD 2014
[11] Given by Göran Marklund, VINNOVA. Member of OECD/TIP.

In many areas, more general regulations hinder innovation (e.g. the chemical directive REACH). One way to test/explore the possibilities would be to give 'licenses' to large scale demonstrators ('zones') with exemption from legislation in order to demonstrate what could be done with modified legislation. This has to be done in a very transparent way involving all relevant stakeholders. One example is in the recycling industry where the REACH directive hinders recycling of certain products due to the chemical content. Even in one country there are sometimes different regulations in different regions. This makes it difficult for companies having to comply with different rules even in the same country.

In this context experiences can be drawn from the Dutch 'Green Deal'[12] projects where the goal is to remove obstacles caused by 'confusion about licenses, lack of collaborative partners, or ambiguous regulations'.

This approach also fits well with the Commissions thinking in Better Regulation and Juncker's priority for 'smarter investment, more focus, less regulation and more flexibility when it comes to the use of these public funds.' The investment package presented by the Commission in November 2014[13] should also allow for pilots as described in this brief.

Lead market initiative[14]

The expert group (2006) led by Esko Aho concluded: 'At the core of our recommendations is the need for Europe to provide an innovation-friendly market for its businesses, the lack of which is the main barrier to investment in research and innovation. This needs actions on regulation, standards, public procurement, intellectual property and fostering a culture which celebrates innovation'. Further seven areas were identified: e-Health, Pharmaceuticals, Energy, Environment, Transport and Logistics, Security and Digital Content.

European Innovation Partnerships[15]

European Innovation Partnerships (EIPs), set up in 2010, was new approach to EU research and innovation with the aim of rapid modernisation of the chosen sectors and markets. Again, this was very much a demand driven approach with an important aim to anticipate and fast-track any necessary regulation and standards. Rather than taking different steps (research, demonstration, regulation, procurement) independently the aim of the EIPs is to design and implement them in parallel to cut lead times.

However, the evaluation[16] carried out in 2013 under the chairmanship of Esko Aho identified a number of shortcomings. In order to be successful the EIPs 'must aim to achieve systemic change guided by a plan for how to move from the present system to the preferred one. This will help guide what kinds of interventions are needed and in what manner by showing how linkages and interdependencies between elements of the system need to be reshaped or restructured'. In addition, the identification process for EIPs has to be improved: 'The EIP approach should only be applied to societal challenges that meet pre-defined criteria. These include the existence of a clear need or prospects for: a) breakthrough innovation and systemic solutions, b) wide-ranging partnering, c) European level action, d) new European competitive advantages'.

Both the Lead-market and the EIPs included how regulation can affect innovation but failed so far to have a real impact. The main weakness of these initiatives was the identification process and, in the case of EIPs, the maybe too ambitious and wide approach. The key to success in launching any new initiatives, with the aim of identifying how legislation can enable and/or disable Innovation is in the identification process and to focus on concrete actions.

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[12] http://www.government.nl/issues/energy-policy/green-deal
[13] An Investment Plan for Europe, COM(2014) 903 final
[14] http://ec.europa.eu/enterprise/policies/innovation/policy/lead-market-initiative/index_en.htm
[15] http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip
[16] http://ec.europa.eu/research/innovation-union/pdf/outriders_for_european_competitiveness_eip.pdf#view=fit&pagemode=none

It is recommended that the emphasis should be on how systemic innovation can be used to create new markets. This could be done through:

- Pilot projects/large demonstrators ('zones') should be initiated in "thematic" areas addressing societal challenges and appropriate exemptions should be given as regards certain legislation in a transparent way in order to test new solutions.
- The 'screening process' identifying 'zones' should be forward looking and at the same time also take into account the planning of the next Framework Programme after Horizon 2020.
- It is important to involve all relevant stakeholders in such a process.
- DG RTD should in close contact with relevant Policy DGs draw up a list of potential areas/demonstrators ('screening exercise') relevant for the Horizon 2020 (societal challenges and industrial technologies) including collecting relevant data. Potential areas could be e.g. in the field of circular economy, energy, bio economy, smart cities and health
- Lessons from these demonstrators would lead to recommendations on modifying and /or introducing new legislation.
- The Investment Package presented by the Commission in November 2014 should allow for such projects/large demonstrators.
- Examples of different kinds of regulations could be:
  - Regulations for new products – (e.g. REACH, medical devices, pharmaceuticals, vehicle type approvals etc.) where considerations should be taken not to hinder innovation by introducing new legislation but instead enabling innovation
  - Regulations for setting environmental and/or energy standards/bonuses in order to incentivize innovation
  - Regulation to introduce new EU wide standard taking into account the innovation perspective from beginning, e.g. such as the e-invoicing Directive[17].

[17] Directive 2014/55/EU on e-invoicing in public procurement – 16.04.2014

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This paper proposes a combination of a pragmatic and ambitious approach on how to progress with the European Research and Innovation Area as regards the use of legislation. Pragmatic in the sense that legislation should be a means to an end not an end in itself; ambitious in the sense to be brave and test new approaches. The paper encourages the use of thorough 'screening process' to identify potential areas for regulatory testing, in combination with establishing 'zones' where new concepts could be developed and tested. Concrete recommendations are given in this paper regarding the development of the European Research and Innovation Area.

Studies and reports

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