step4EU

Science, Technology, Education and Policy for Europe

www.step4eu.org

A Europe-wide, research-based, independent network aimed at fostering a new understanding of future policies of science, technology and higher education across Europe, together with new observation activities, "informed participatory debates" and the engagement of scientists in policy action

A proposal to complement and extend current EC activities on the observation of science, technological innovation and higher education

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Bergamo Statement of Purposes

Bergamo, 11 April 2014

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1. Vision

Step4EU aims to foster the systematic observation of science and technology, higher education and public policy in Europe based on in-depth research. The results will be publicly disseminated and made available to policy-makers, scientists and, in general, to citizens, as well as actively communicated to them through "informed participatory debates". In addition, the engagement of scientists in policy action will be attempted throughout Europe.

The ultimate goal is to create and promote an independent and credible international network to help improving science, technology and higher education policies and budgets across Europe through the systematic report, publicly and periodically, of relevant information and early warnings on the state of policies and budgets in each country and at EU level. It is aimed to complement and extend current EC activities on the observation of technological innovation by fostering new research and understanding of the impact of the current economic situation in Europe on the "states of knowledge", including science, technology and higher education capacity. In addition, it is aimed to foster informed participatory debates based on international perspectives, to help increasing public awareness of the strategic importance of science, technology and higher education policy decisions, as well as to strengthen the motivation of scientists and the academy to engage themselves in policy action as informed and responsible citizens.

This is important because the conditions for the social construction of technological systems in both central and peripheral EU regions and societies have been serious affected in recent years by the emergence of new social realities in those societies, as well as by other new factors of economic and social nature, most of the time of a global scope. To address these issues, science and technological innovation development case studies will be developed across EU member states.

The program is centred on the interaction of science, technological innovation and higher education, regarding the learning capacity of people, institutions and their regions to adapt to new socio-economic and technological realities. The emphasis is on issues in which the interaction of technology, humans and institutions are of central importance.

2. Rationale

It has become a common place to argue that science and technology permeates everyday life, but a new debate is emerging about the related role of the State, with emphasis in Europe[1]. The continuous need for growing investments in formal knowledge activities[2], by countries and firms, underlines the search for competitive advantages and the establishment of sustainable bases for further development of the required "smart specialization" for Europe[3]. This trend often combines mixed patterns of competition and collaboration[4] and, in the specific case of Europe, is growingly intertwined to face a fast-paced, globalized and uncertain world.

In particular, the current economic situation has had major implications on emerging policy discussions throughout Europe on whether or not to cut future investments in the realms of science and (higher) education[5]. The following aspects are worth noting:

- Overall, the average investment in R&D per citizen has decreased comparatively with that in USA and the accumulation of R&D investment over the last 30 years is 50% lower in Europe than in the USA by 2012 (Figure 1).
- On the other hand, the quasi stagnation of R&D public investment in Europe during the last decade hides a major trend of internal divergence inside Europe itself.
- For example, in the year 2000, Germany and France presented similar national R&D budgets; today, Germany outpaces France by 50%. Italy budgets have declined since 2007, and in real terms are 15% lower than in 2000. And, most of small countries have slowed down, or cancelled, previous increases in R&D budgets.
- Undoubtedly there was progress in Science, Technology and Higher Education throughout Europe, but as a whole, Europe has met neither its goals nor its promises in this area.

These few aspects, among many others that could have been listed, recall similar debates in the eighties, as associated with overcrowding among students, lack of resources, increased costs of the school places, maladjustment between the educational and productive systems and the slow speed of response to labour market demands in the educational response[6].

In that occasion, it was clear that investments in education were important drivers of economic and social development[7]. Indeed, investing in education in Europe, and elsewhere, contributed to develop new capacities and skills, together with professional competencies that mitigated negative effects of cyclic crisis. The flexibility in addressing economic and societal dynamics has

[1] Mazzucato, M. (2013), "The Entrepreneurial State: Debunking Public vs. Private Sector Myths", Anthm Press, London.
[2] Aghion, P., David, P. A., & Foray, D. (2009). Science, technology and innovation for economic growth: linking policy research and practice in 'STIG Systems'. Research policy, 38(4), 681-693.
[3] Foray, D. 2009. Understanding smart specialisation. In The question of R&D specialisation, ed. D. Pontikakis, D. Kyriakou, and R. Bavel, 19–28. Brussels: JRC, European Commission, Directoral General for Research.
[4] Bengtsson, M., & Kock, S. (2000). " Coopetition" in business Networks—to cooperate and compete simultaneously. Industrial marketing management,29(5), 411-426.
[5] M Heitor, H. Horta and J. Mendonça (2013), "Developing human capital and research capacity: science policies promoting brain gain", Technological Forecasting and Social Change, pp. 1-17.
[6] Coombs, P. H. (1985). The world crisis in education. Oxford, England: Oxford University Press.
[7] Gilead, T. (2012), Education and the logic of economic progress. Journal of Philosophy of Education, 46, 113–131.

been facilitated and stimulated through science and education[8], although many authors have argued that in the absence of a coherent policy framework (including collaborative arrangements, quality assurance procedures and other feedback mechanisms, among other issues) science and education are necessary conditions but not sufficient for wealth generation. In addition, analysis has also shown that budgetary cuts in science and (higher) education over time have exacerbated economic inequality and social exclusion[9].

In this context, scientific and higher education institutions are critical agents given their privileged locus as repositories of knowledge, skills and competencies[10], as well as their effective contributions to the economy[11]. Thus, the current economic situation presents a strategic opportunity for revisiting the role and mission of advanced training, knowledge and innovation in a post-financial crisis in Europe[12]. This requires the adequate and systematic observation of policies and budgets across Europe in a way to report, publicly and periodically, relevant information and early warnings on the state of policies and budgets in each country and at EU level.

Today most of the debate on emerging paradigms for science and higher education policies requires the *collective action* of related institutions and a system approach to science and higher education, together with their internationalization. Our departure point is to enquire if there is room for a common vision of the future of science, technology and innovation in Europe. Such a future would probably require to:

- Multiply global R&D and higher education networks;
- Better understanding of "policy mix": Exploration and exploitation;
- Extend business expenditure across small, medium and large companies;
- Consider the key role of local productive arrangements for global markets;
- Develop international R&D organisations and programmes;
- Invent jointly new economic drivers and diversify and combine funding sources;
- Promote the transatlantic debate for new research agendas.

Again, to deepen this and other debates, our goal is to foster the systematic observation of issues in science and technology, higher education and public policy in Europe based on in-

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[8] See, for example, Gradstein et al. (2005); Robertson (2010); Selwyn, N. & Brown, P. (2000). Education, nation states and the globalisation of information networks. Journal of Education Policy, 15, 661-682.

[9] See, for example, OECD (2012). Education at a glance 2012: OECD indicators. OECD Publishing. http://dx.doi.org/10.1787/eag-2012-en Accessed 3 Apr 2013; OECD (2012). Education Today 2013.The OECD perspective. Paris: OECD Publishing; UNESCO (2012). Youth and skills: Putting education to work EFA Global Monitoring Report. Paris, UNESCO. http://www.unesco.org/new/en/education/themes/leading-the-internationalagenda/efareport/reports/2012-skills/ Accessed 3 Apr 2013.

[10] Pillay, P. (2011). Higher Education and Economic Development: A Review of the Literature. Cape Town. + EU's various communiques on the role of the University in the Europe of Knowledge – Lisbon goals. http://europa.eu/legislation_summaries/education_training_youth/lifelong_learning/c11067_en.htm
See also EUA's declaration on role HE in Europe:
http://www.eua.be/fileadmin/user_upload/files/newsletter/Lisbon_declaration.pdf

[11] Lester, R., and Sotarauta, M. (2007). "Innovation, universities and the competitiveness of regions"Technology Review 214. City: Tekes: Helsinki. Also, Benneworth, P., Coenen, L., Moodysson, J., and Asheim, B. (2009). "Exploring the Multiple Roles of Lund University in Strengthening Scania's Regional Innovation System: Towards Institutional Learning?" European Planning Studies, 17(11), 1645 - 1664.

[12] Cunha et al. 2006; Deiaco et al. 2012; Hanushek and Woessmann, 2009; See also the OECD reports on the impact of the recent crisis on European HE: https://community.oecd.org/docs/DOC-20201

depth research. The results will be publicly disseminated and made available to policy-makers, scientists and, in general, to citizens, as well as actively communicated to them through "informed participatory debates". In addition, the engagement of scientists in policy action will be attempted throughout Europe.

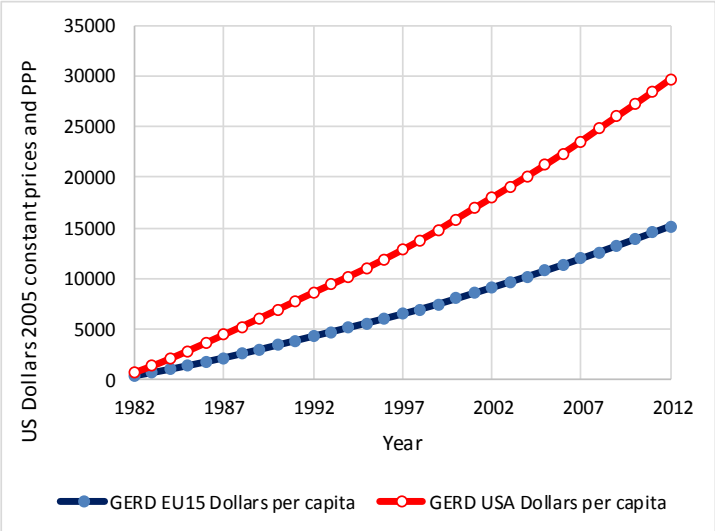
The emerging European context: a brief diagnostic

In spite of past experiences in dealing with financial and other cyclic crises for the last fifty years and the recognized value of science and higher education, public spending in these areas as a counter-cyclic measure to manage the current situation throughout Europe is far from being a reality, with the notable exception of Germany and the Nordic region[13].

The European Union, as it stands, provides an exceptionally challenging environment for the future of science and higher education. Indeed, national budgets, rooted upon domestic political perceptions of local strategic priorities, are key to the understanding of the development of public policies related to science and higher education[14].

Taken together, gross (public and private) R&D expenditure (GERD) in the EU-27 now account for about 2.0% of EU's GDP (for comparison, GERD in the US is about 2.8% GDP). The point to be made is that the quasi stagnation of R&D public investment in Europe during the last decade hides a major trend of internal divergence inside Europe itself.

Figure 1. Cumulative GERD per capita (U.S. Dollars 2005 constant prices and PPP); Source: OECD Statistics



[13] Pinheiro, R., Geschwind, L., and Aarrevaara, T. (in press, 2014). Nested tensions and interwoven dilemmas in higher education: the view from the Nordic countries. Cambridge Journal of Regions, Economy and Society, 7(2)

[14] It is known that this is largely related to the fact that the Lisbon Treaty does not give the EU a mandate over HE affairs – thus the former need to rely on 'soft-mechanisms' like reform communiques and/or Open Method of Coordination. See, for example: Gornitzka, Å. (2006). "The Open Method of Coordination as practice: A watershed in European education policy"Arena Working Paper. City: University of Oslo: Oslo. Also, Gornitzka, Å. (2007). "The Lisbon Process: A Supranational Policy Perspective", in P. Maassen and J. P. Olsen, (eds.), University Dynamics and European Integration. Springer Netherlands, pp. 155-178.

In a decade hit by recession and economic and budgetary problems, the EC has recently estimated that a large number of EU countries have not achieved Government expenditure over GDP growth in the period 2008-2012 (i.e., GBOARD, as in Figure 2), with the notable exception of Germany and a few other countries with high-intensity R&D, as well as some other fast growing R&D member states, like Luxemburg, Portugal and several recent EU members (Poland, Estonia, Czech Republic, Slovenia, Hungary, etc.)[15].

In absolute numbers, at least since 2008, a larger R&D divide is in the EU, with a growth of resources in Germany and some Nordic countries, against a relative global reduction of resources in other large countries like Spain, Italy, France and the UK (Figure 3). Europe has to work harder (and smarter) in promoting a specific and direct strategy in science and higher education in order to foster social and economic development and contribute to avoid the surprising estimates of UNESCO (2012), that warns about the possibility to have a "lost generation" of 200 million of young people – the bulk of which are expected to possess some kind of higher education qualification.

The challenges for Europe are immense, independently if they are global, national or local in nature, as most are to all effects transversal (e.g., global warming). In this setup, an adequate policy framework not only helps mediating the interface between science, higher education and society, but also contributes to shaping systems, strategies and development patterns[16]. Thus, a critical question arises: which types of public policies for science, technology and higher education for the coming decades, both for individual member states as well as the EU as a whole, are necessary?

It is clear that more is needed beyond an increase in GERD. It is also well known that emulation of successful policies elsewhere or of simple policy guidelines without understanding their timing and context is insufficient – even misleading - to drive for these objectives[17]. The complex attributes of the global, knowledge-centred economy[18] demand a complex and synergetic complementarity of policies and actions, within and across Europe.

This, in turn, entails that science, technology and higher education across Europe, including related national policies, has to be understood in a systemic and evolutionary way, framed internationally while accounting for regional characteristics. In other words, a "glonacal" evolutionary perspective[19], based on learned lessons, is of the utmost importance to tackle the challenges of the present and future.

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15 See, for example, M. Heitor and M. Bravo (2010), "Portugal on the crosstalk of change, facing the shock of the new: People, knowledge and ideas fostering the social fabric to facilitate the concentration of knowledge integrated communities", Technological Forecasting and Social Change, 77, pp. 218-247.

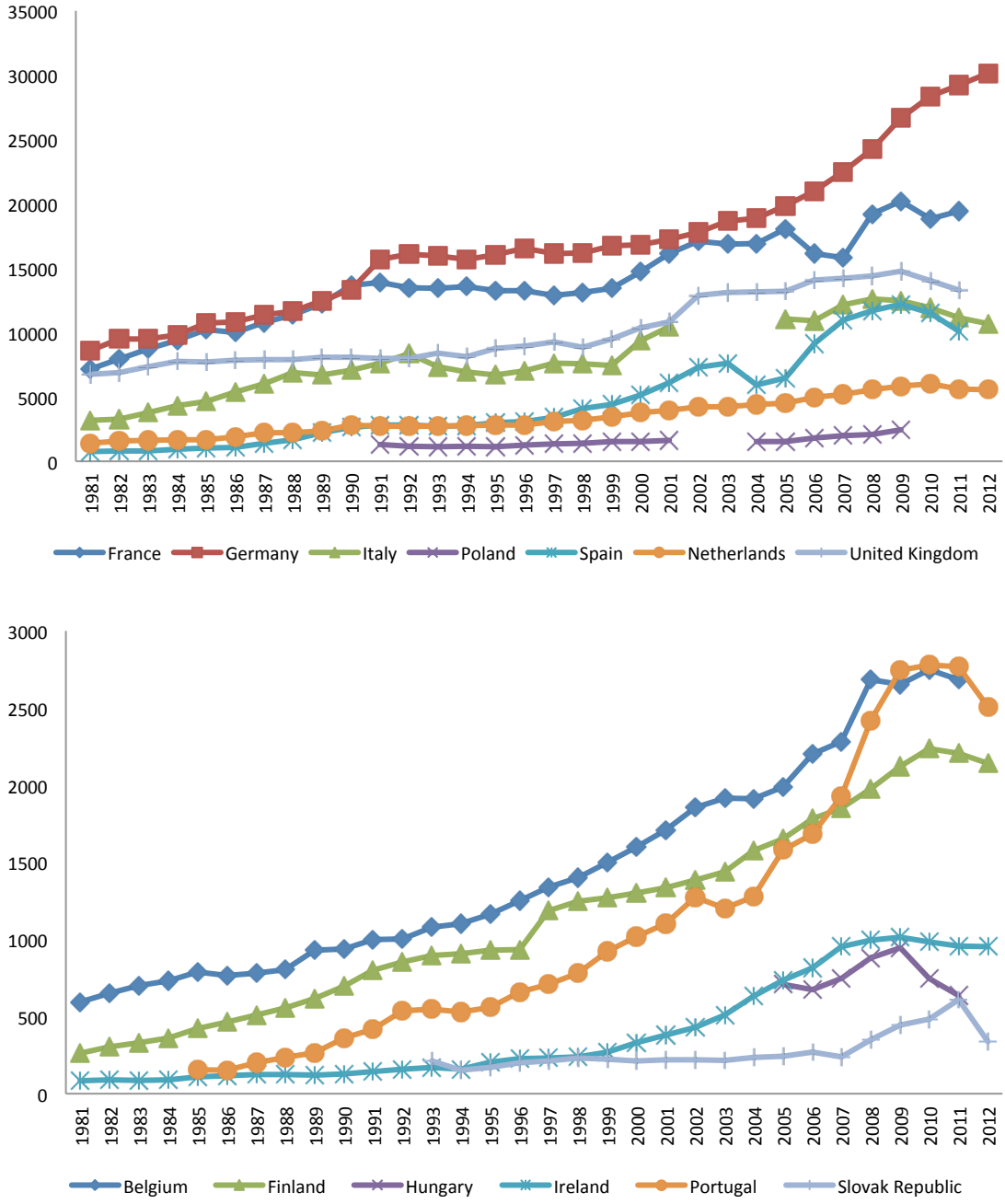
16 See, for example, H. Horta, J. Huisman and M. Heitor (2008). Does a competitive research funding encourage diversity in higher education? Science and Public Policy, 35(3), pp. 146-158.

17 Taylor, M., & Bryson, J. R. (2012). West Midlands (UK) regional planning (1999–2012), functioning economic geography and the E3I belt: coping with uncomfortable truths. Studies in Applied Geography and Spatial Analysis: Addressing Real World Issues, 196 – page. 202

18 Rooney, D., Hearn, G., and Ninan, A. (2008). Handbook on the Knowledge Economy, Cheltenham: Edward Elgar.

19 Marginson, S., and Rhoades, G. (2002). "Beyond national states, markets, and systems of higher education: A glonacal agency heuristic." Higher Education, 43(3), 281-309.

Figure 2 - Total Government Budget Appropriations or Outlays for R&D -- GBAORD (million current PPP $)

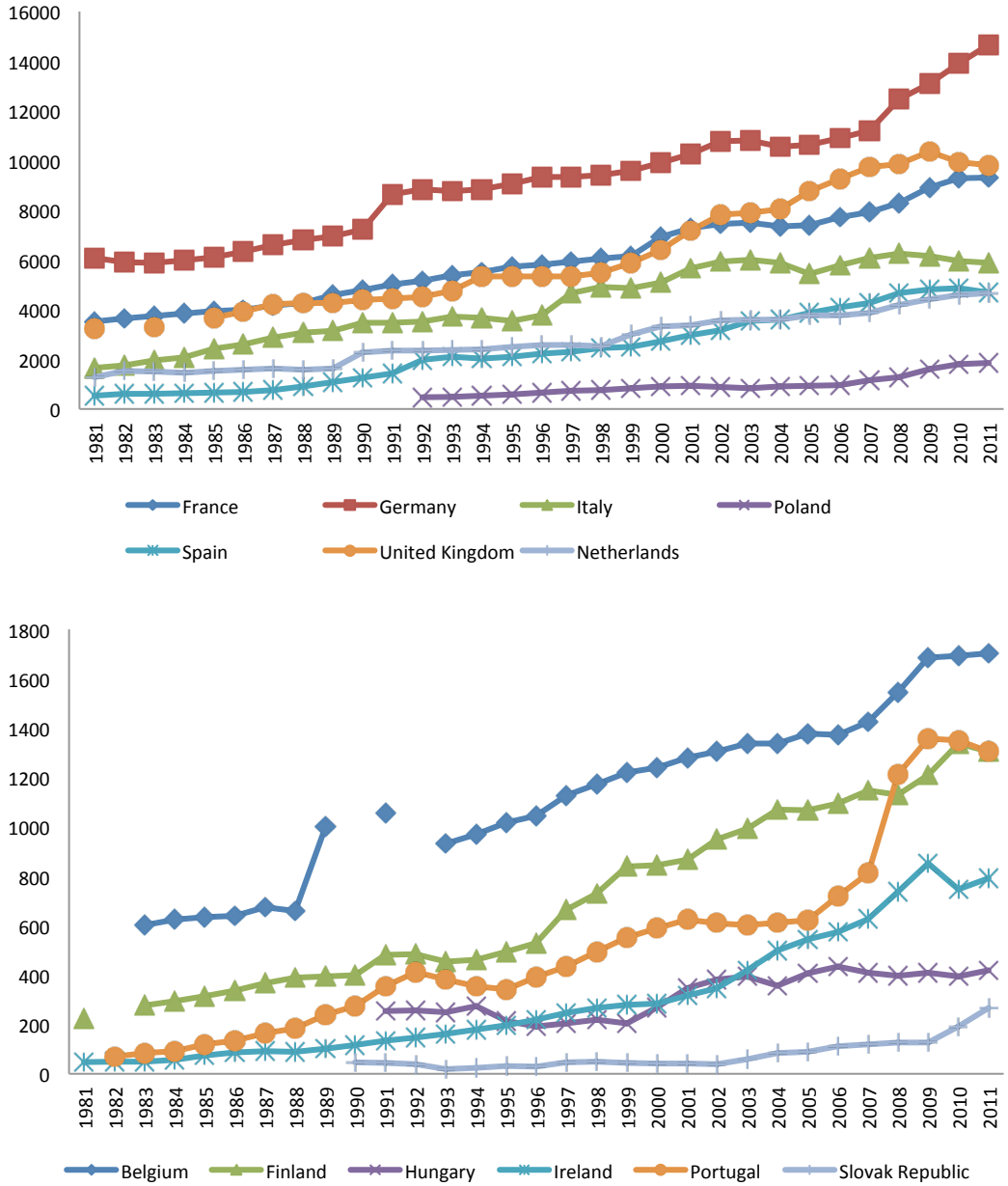


Source: OECD; Netherlands is included in the large sized countries because of the size of the budget

Both science and higher education rely on similar critical features: learning, through developed activities; funding, and other incentives, to support learning activities; and people, that by learning, being mobile, and a creative force, contribute to the emergence of new knowledge, better institutions, and ultimately, a more social cohesive society. In this framework, Europe has had a long history of development, but the world has changed. While it is true that Europe has a long established accumulated knowledge capacity, its relevance in the world has waned. Emerging regions in Asia and South America are currently striving to improve their knowledge

systems and have a much greater role in networked global markets, geopolitics, and societies[20]. The process of globalization itself points out towards a world of networks, of collaboration and competition, demanding adaptation and revision of the public policies of the past[21].

Figure 3 – Higher Education R&D expenditure, HERD -- (million 2005 dollars -- constant prices and PPP)



Source: OECD; Netherlands is included in the large sized countries because of the size of the expenditure

[20] Vest, C.M. (2011). Learning, Research, and Innovation in the 21st Century Networked World. Why Openness should be a Core Value.

[21] Castells, M. (2010). The rise of the network society, West Sussex: Wiley-Blackwell.

3. Proposed work program

The Research Network on Science, Technology, Education and Policy for Europe (Step4EU) aims to contribute for the definition and information of public policies in science and higher education across Europe. This will be pursued through two complementing sets of activities in a way that complements and extends current EC activities on the observation of science, technological innovation and higher education:

- Specialized and expert observation, to guarantee:
    - Simple indicators, with a periodic output for each country, in the form of a "thermometer of science, technology and education policy issues in each country". This will involve an expert information system and expert opinions, together with specialized "web-design" for communication purposes.
    - The annual analysis of R&D and HE budgets, by the time of the discussions in national parliaments (October), together with a mid term review (in June). This will involve creating a "back-office" in each country for the analysis of national budgets for science, technology and higher education (together with GBOARD data), together with aspects of policy configuration and relevant regulations.
    - A pro-active communication and dissemination agenda, making use of formal and informal methods, as well as a web-based platform and a diversified set of face-to-face meetings, workshops and events.
- Policy oriented thematic research, to help building and deepening a new research agenda on science, technology, education and policy for Europe, in a way to better understand innovation as a long-term cumulative, collective and uncertain process, involving an extensive division of labour over many stakeholders. It will include the systematic observation of national policies and budgets, as well as the observation of the changing dynamic environment between large firms, small firms, academic and non-academic research institutes, higher education institutions, government research and individuals in the innovation process. Potential initial ideas include:
    - Mobility of EU students, researchers and citizens, including detailed analysis for STEM and emerging issues associated with the impact of immigration policies on science, technology and higher education;
    - Innovation networks and growth through a multi-institutional framework, including the need to consider collective action of a quite large range of institutions and funding agencies;
    - Governance structures for science, technology and education in Europe, including the changing nature of the state and policy advise, as well as the debunking of public and private myths;
    - The multiple interactions between knowledge production and diffusion with urban dynamics and the need to foster smarter citizens and the continuous designing of cities for knowledge.

ANNEX 1: Potential Implementation instruments for Step4EU

Step4EU is aimed to enable an enriched environment for collaborative policy analysis and policy formulation, based on policy-oriented research questions with an international dimension. Examples of activities to be planned include:

- **New web-based platform, at "www.step4EU.org"**: as a means of: a) gathering pertinent data and information; b) actively engaging stakeholders, including knowledge producers and users; c) diffusing best practices and lessons learned as well as case studies.
- **A Research Fellowships Program** (6 to 9 months) for new research and fieldwork in EU countries and oriented towards new research on science and HE development, by involving post-doctoral and senior researchers in EU universities and research institutions.
- **Policy Fellowships** (3 months): to consider a program of fellowships for fieldwork in EU member states, oriented towards the preparation of policy briefs about selected and specialized themes on science, technology and higher education development. The ultimate goal is to involve students in short and medium term research periods (2 to 9 months) in EU regions.
- **Doctoral Consortium**: to foster an international Doctoral Consortium in order to bring together a few selected Doctoral programs focused on STEP into a network of cooperation and exchange of students and academic staff. An annual meeting of the Doctoral Consortium, involving Universities should help addressing common issues, providing a wider international educational environment for students.
- **Studios for policy analysis**: to foster the development of multi-site Studios for policy analysis, making use of internet-based technologies and groupware methodologies.
- **High level Conferences**: It considers the organization of a few high-level conferences over the next 6 years aiming at engaging stakeholders, including policy leaders and corporate managers, along with higher education institutions, research students and policy analysts, to jointly discuss emerging issues in science and technology development policies.
- **Specialized publications**, including a Book Series, promoting new material to assess and steer science and HE development policies in EU countries and regions.

ANNEX 2: Examples of current international Web-based Observatories

Name	Description	Website
Observatory of Economic Complexity"	A joint initiative of a few research groups at Harvard and Massachusetts Institute of Technology	http://atlas.media.mit.edu
Science of Science Cyber-infrastructure	Indiana University's cyber-infrastructure	http://sci.cns.iu.edu
Places & Spaces: Mapping Science	Supported by the US NSF, the Indiana University, Thomson Reuters, Elsevier and others	http://scimaps.org
Atlas of Science	Published by the Massachusetts Institute of Technology	https://mitpress.mit.edu/books/atlas-science

Annex 3: Current "Observation" activities led by the European Commission related to step4EU

(Survey by Mattia Cattaneo, Davide Donina, Michele Meoli, Marta Rószkiewicz, March 2014)

step4EU aims to complement and extend current EC activities and this Annex summarizes on-going activities that are expected to provide data for the proposed research network.

1. Research and Innovation Observatory

Under development.

http://era.gv.at/object/document/496/attach/NotetoERACdelegatesinviewofSeptember2012meeting_ArchitectureoftheRIObservatory.pdf

The R&I Observatory is an information system intended to support the strategic development of R&I policies in the EU. It should serve the information (qualitative and quantitative) needs of Commission services to monitor and assess R&I policies as well as provide added value services to Member States and Associated Countries and other stakeholders involved in the development of R&I policies. It is project set in the long-term aiming to build on and in due course supersede the current patchwork of R&I information systems (incluing Erawatch, Netwatch and IU Information and Intelligence System).

The business of the Observatory shall be to collect, organize, produce and disseminate data and analyses on innovation and research, in a way that contributes to a step change in our understanding of such activities as levers of growth, so that a decisional advantage for economic and public actors in the EU is created by the evidence base produced.

1. Collection and production of data and analysis on research and innovation, in both qualitative and quantitative dimensions, namely in respect of research and innovation sstems and policies, within the EU and abroad
2. Publication, dissemination and valorization of such data and analysis, whether produced by the Observatory itself, or ceded it by other parties
3. Application of the state of the art on the methodologies for the production of such data, on the conditions for their pertinence and reliability, as well as on the production of various forms of analyses that such data allows.

The geographical scope include the 27 Member States, the Associated States and some third countris (selection of key trading partners of the EU) and the regions within the EU (at a later stage).

The Observatory will be accessible to users and will offer access to the information and analysis available on research and innovation policies in the Member States, Associated Countries and selected Third countries. Access will be achieved through 'opendata.eu' concept.

2. NETWATCH

http://netwatch.jrc.ec.europa.eu/

Netwarch is the European Commission's central information platform on European transnational research programme collaboration. Developed by JRC-IPTS in collaboration with DG Research and Innovation and centred on the ERA-NET scheme it provides systematic mapping and monitoring of trans-national research cooperation activities in Europe and

beyond. It provides information on the composition and activities of ERA-NETS and other collaborative networks, as well as the results of analysis of the evolution and impact of transnational research collaboration activities. It also provides a platform for mutual learning among current and potential participants in transnational programme networks.

Netwarch supports transnational R&D programme collaboration in Europe by:

- mapping networks;
- providing information on Joint Calls;
- analysing the impact of programme collaboration;
- describing the scope and results of individual networks;
- supporting mutual learning among transnational programme networks.

3. ERAWATCH
http://erawatch.jrc.ec.europa.eu/erawatch/opencms/about/

ERAWATCH is the European Commission's information platform on European, national and regional research and innovation systems and policies. Its main objectives are to support policy-making in the research and innovation field in Europe and to contribute to the realisation of the European Research Area (ERA).

It is a long term initiative jointly carried out by the European Commission's Joint Research Centre - Institute for Prospective Technological Studies (JRC-IPTS), Directorate-General for Research and Innovation (DG-RTD) and in close collaboration with the Directorate-General for Enterprise and Industry (DG-ENTR).

ERAWATCH serves the information needs of decision-makers, policy analysts and the wider research community. It presents up-to-date information and analysis on national, regional and EU level R&D policies, actors, organisations and programmes and contributes to the realisation of the ERA by identifying policy options and improving the coordination of scientific and technological activities.

4. Industrial Research and Innovation (IRI)
http://iri.jrc.ec.europa.eu/

This European Commission's research initiative provides a platform for the long-term collection, monitoring, analysis and reporting of information on private-sector research and innovation activities in the EU, with particular emphasis on the relation between research, innovation and economic performance. The objective is to provide EU policy-makers and the business and academic communities with robust empirical evidence and analysis on the contribution of private-sector R&D to the growth and employment of the European economy. This should lead to the elaboration of medium and long-term evidence-based policy options to support the development and implementation of the Europe 2020 strategy which considers investment in knowledge and innovation a main driver for achieving a smart, sustainable and inclusive growth.

5. MIRRIS (Mobilizing Institutional Reform for Research and Innovation Systems)

Funding instrument: Coordination and support action (not a research project) under FP7 Social Sciences and Humanities programme
www.mirris.eu

Project funded within 7th Framework Programme, started July 2013 (still running)
Main goal: to encourage a better exploitation of European research and innovation programmes and participation in the European Research Area of the 13 target countries (which joined EU after 2004) (Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia and Slovenia) by setting up a process of analysis, dialogue, mutual learning among key concerned stakeholders, namely research, innovation and institutional actors. Within the project a network of key players within R&D&I systems was set .

The project aim was to establish a dialogue to understand how innovation systems can better address the participation to the European research and innovation area and enable innovation, competitiveness and openness. In order to obtain this goal MIRRIS has planned to set up an extensive policy learning exercise to identify barriers and to identify how innovation systems can better address the participation to the European research. The consortium has planned an organization of 3 rounds of policy dialogues in each country involving relevant stakeholders from three levels: decision makers, implementation institutions and operational structures.

6. MIRA – Mediterranean Innovation and Research Coordination Action

Funding instrument: Coordination and support action (not a research project) under FP7 INCO programme
http://www.miraproject.eu/
Project has finished, duration between 2008-2013

The Mediterranean Innovation and Research coordination Action (MIRA) is a dialogue and action platform encouraging scientific and technological collaboration between the Mediterranean Partner Countries (MPC's) and European Countries since 2008. MIRA is an INCO-Net type project funded by the 7th EU Framework Programme for RTD supported by the Monitoring Committee for the Euro-Mediterranean S&T Cooperation in RTD (MoCo). With a Network involving 30 partners in 20 countries, the MIRA platform gathers expert voices including leading scientific communities as well as policy makers and stakeholders, bridging policy and research.

The principal objectives of the MIRA project are:

- to develop and support the dialogue between EU – MPCs by bringing together policymakers and stakeholders from each MPC and EU Member states
- to create a dialogue and action platform to identify common interest in research areas, set up S&T priorities, support capacity building activities and enhance the interaction between different cooperation instruments of the EC
- to promote actions in order to monitor, develop and contribute to creating synergies among the various S&T cooperation programmes between MPCs/EU and foster the participation of the MPCs in the Framework Programmes

Activities:

- Workshops to raise awareness on FP7 opportunities
- Training led by experts to improve the quality of participation and management of the partners of FP7 from the MPCs
- Creating an Observatory on EU-MPC Science and Technology cooperation using agreed indicators for the monitoring of RTD cooperation activities. It will focus on the establishment of standard indicators for these purposes, to be used for the MoCo to support their recommendations. It will maintain a database on scientific production of the cooperation. It will engage in analysis of the dynamics of research system. More on the description of work required to set this Observatory: http://www.miraproject.eu/workgroups-area/workgroup.wp1/workgroup-documents-library/general-page-for-the-workgroup-documents-library-folder/
- Evaluation of the actual information points,
- training managers, scientists, auditors and other relevant actors
- promoting seminars of project writing and delivering recommendations for the national authorities.

7. MEDSPRING, Mediterranean Science, Policy, Research & Innovation Gateway

http://www.medspring.eu/WP8

MEDSPRING is built on previous experience of MIRA project adapted to the new reality of the Euro-Mediterranean policy and is focused on three societal challenges: Resource efficiency, High quality affordable food and Energy and aims at tackling policy objectives by creating a dialogue and coordination platform of governmental institutions, research organizations, associations and civil society.

Main actions:

- Bringing together researchers, stakeholders, civil society and private sector to enhance effective cooperation on innovation;
- Supporting European commission, Mediterranean countries and Member States to develop a research and innovation agenda accounting for the real needs and demand in the region;
- Capacity building and trying to enhance research system capacity and adsorption, innovation, research cooperation and networking, participation in the European Research Framework Programme and other relevant programmes;
- Promoting synergies among EU Member States, Associated Countries and Mediterranean Partner Countries based on joint programming;
- Supporting and contributing to Euro-Mediterranean policy dialogue, particularly MoCo (Monitoring Committee for the Euro-Mediterranean Science & Technology Cooperation in RTD).

Includes a platform of Mediterranean observatories:

Creation of a platform of Mediterranean observatories linking, describing and analyzing the research and innovation potential and policies in selected areas where societal challenges for policy dialogue have been identified, to support monitoring policy development and cooperation. Creation of a platform of Mediterranean observatories linking, describing and analyzing the research and innovation potential and policies in selected areas where societal challenges for policy dialogue have been identified, to support monitoring policy development and cooperation.

Catalogue of existing observatories: http://www.medspring.eu/sites/default/files/uploads/D8.1%20-%20MED-SPRING%20Catalogue%20of%20Observatories.pdf

8. BIS-RTD project Building and Improving Support for RTD Policy and Public Spending

Project funded within the 6th Framework Programme

Final report: http://cordis.europa.eu/documents/documentlibrary/125670121EN6.pdf

The BIS-RTD project had as a general goal to build a methodological framework and a learning platform for regional and national RTD policy makers and stakeholders interested in obtaining support arguments for their requests to bring public research funding to the Barcelona target level.

BIS-RTD aimed at establishing a permanent co-operation platform among European regions to facilitate the emergence and circulation of good practices and contribute to RTD policy making coordination, so as to ensure the spreading and (partial) adoption of effective adoption models of good practices. In order to carry this purpose, the project addressed the following objectives:

- Identify and evaluate existing RTD funding models, policies and instruments in participating regions/countries including their communication
- Identify critical success factors for RTD funding policies resulting in enhanced research and innovation performance
- Select and present good practice cases assisting policy makers through mutual learning and benchmarking
- Formulate guidelines for successful target-oriented RTD funding policies and their implementation
- Offer recommendations to RTD policy makers on communication tools for
- obtaining funding levels necessary for 'competitiveness-minded' research, leading to new and improved products and services

The results of the project are:

- One Country/Region Profile Report describing RTD public funding and communication models in each partner country/region.
- One specific study about benchmarking, success factors and best practices in public funding in each partner country/region
- One specific study about RTD communication models and best practices in each partner country/region
- The BIS-RTD Guidelines on Public RTD Funding Policies and Communication.
- The document includes a specific Executive Summary prepared to be independently distributed, especially to high level politicians and stakeholders
- The BIS-RTD Final Conference was held in Istanbul on April 29, 2008. The results of the project were presented to an attendance of more than 100 RTD policy and decision makers and key stakeholders
- A final Validation Workshop was held in Nova Gorica (Slovenia) on June 7, 2008 in order to decide the future sustainability of the project objectives and the future dissemination and the communication activities.

9. EUA monitoring activity
Period: current

EUA has been monitoring the evolution of public funding to higher education institutions and the impact of the economic crisis on higher education systems in Europe since its onset in 2008 and has published several reports.

An interactive online tool (EUA Public Funding Observatory) gives the user the opportunity to look at the data and the developments over years in a customised way.

Link of the tool: http://www.eua.be/publicfundingobservatory

- The monitoring is conducted in close cooperation with EUA's collective members, the National Rectors' Conferences, who report on developments within their national higher education systems on a regular basis. The continuous feedback from various sources provides up-to-date reports of the situation and highlights the evolving nature of the effects the crisis has had on university funding across Europe.
- The main objective of the monitoring is to look at the impact of the crisis on universities' public funding and to identify in particular the trends in public funding across Europe. It also explores how the crisis has affected the nature of public funding and how such shifts are influencing universities at institutional level.

10. SPIN, Science Policy Information Network, supported by UNESCO
webpage:http://www.unesco.org/new/en/natural-sciences/science-technology/sti-policy/global-observatory-of-policy-instruments/

SPIN is a revolutionary cluster of databases equipped with powerful graphical and analytical tools that has been devised for decision-makers and specialists in science, technology and innovation (STI) by UNESCO's Regional Bureau for Science in Latin America and the Caribbean. Now, UNESCO is preparing to extend the SPIN platform to the rest of the developing world. By 2015, this four-year project hopes to have extended coverage to approximately 130 developing countries.

SPIN provides regularly updated information on:

- STI policies;
- operational STI policy instruments; STI legal frameworks;
- STI national systems: organizational charts and STI priorities;
- a data analysis software managing more than 300 temporal series of indicators: economic, social, educational, industrial, scientific, technological, on innovation, infrastructure, ICTs, etc;
- a database listing organizations that provide technical and financial co-operation on STI issues;
- a web-semantic-text mining multilingual tool with different applications for selecting STI strategic priorities.;
- a digital library with more than 900 UNESCO documents on STI policies.

11. European Observatory of the research activity of University and National Public Research Funding Agencies

This project was about systematically improving the knowledge on the situation of research active universities in Europe and how requirements and conditions imposed by national funding agencies affect this situation. This was done through four main steps:

- Assessment and further development of the templates for data on universities and public funding agencies as provided by JRC-IPTS.
- Collecting data for a sample of 60 public funding agencies (in two waves including 30 agencies each) across the EU and six associated countries.
- Collecting data for a sample of 200 research active universities (in two waves including 100 universities each) across the EU and six associated countries. In addition to general information, data was collected on governance and management, human resources, academic output and third mission activities.
- A descriptive analysis of the information provided through the data collection on public funding agencies in two steps; a preliminary analysis based on the first subset of data, and a final analysis based on the full dataset.

Website:http://www.erawatch-network.com/en/Projects/research-inventory-service/european-observatory-of-the-research-activity-of-universities-and-national-public-research-funding-agencies.html

12. Some others initiatives at a European level:

- S3 Platform (S3P),
- European Cluster Observatory,
- Regional Innovation Monitor,
- Eco-innovation observatory