Analysis and recommendations for the future of the “Research Potential” Activity

Expert Group report on Research Potential project portfolio - EXECUTIVE SUMMARY
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EXECUTIVE SUMMARY

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Executive Summary

A Success Story Towards A Broader ERA

1. Introduction to this report and the work of the Expert Group

During late 2010 and early 2011, an Expert Group was set up by the European Commission to prepare an impact assessment of the "Research Potential" Activity of the EU FP7 programme for the period 2007-2010. Its 10 members (including the chairman and the rapporteur) were in charge of preparing a thorough analysis of the achievements of the funded projects per thematic domain. The Expert Group made an impact assessment of the implementation of Research Potential Activity and drafted recommendations for its evolution.

The analysis of the "Research Potential" projects included a questionnaire sent to the project coordinators of all the 86 funded projects, as well as interviews and individual meetings with them. The achievements realised were discussed among the members of the Expert Group. The impact oriented summaries of the 86 funded projects have also been included in this report.

1.1 A brief introduction to the “Research Potential “Activity

According to the Lisbon Strategy, the EU should become the most competitive and dynamic knowledge-based economy in the world. To this end, the EU decided in 2000 to strengthen its Research and Innovation activities by creating the European Research Area (“ERA”) and link its best RTD institutions throughout the EU. The “Research Potential” Activity of EU FP7 programme was set up to reinforce the capacity of the (already) existing excellent research
institutions located in Convergence and Outermost Regions of the EU and permit their full participation in ERA. The aim was to expand ERA to the entire territory of the EU and make ERA “more balanced and equilibrated”. The priority was to increase the research potential in these regions and improve their knowledge & technological processes - contributing to the growth, productivity and employment of these regions. The “Research Potential” Activity also focused on fostering the sustainable socio-economic development of the regions and the EU.

Excellent research entities have been beneficiaries of the activity. The activity has allowed them to upgrade their RTD capacity through the recruitment of highly skilled experienced researchers, the acquisition of state of the art equipment and the increase of the visibility of their S&T excellence. The ultimate aim was the integration of these research entities into ERA as well as the improvement of their participation in EU FP7 projects.

1.2 Thematic domains

The 86 analysed projects were grouped into the nine thematic domains:

- Agriculture
- Biotechnology & Genetics
- Energy
- Environment
- Information and Communication Technologies (ICT)
- Material, Engineering, Space & Transport
- Medical Sciences
- Physics & Chemistry
- Socio-economic Sciences.
2. Research Potential @ FP7: A Success Story

The “Research Potential” Activity is a part of the EU FP7 "Capacities" Specific Programme and was created to reinforce excellent research institutions located in the Convergence and Outermost Regions and permit their emergence in ERA.

A global factual analysis of the implementation of the "Research Potential" Activity showed that the activity was considered to be simple to use and well understood by the applicants (demonstrated by its very low ineligibility rate <1%). It was a highly appreciated activity and the EC received a large number of proposals for each call - despite its known budget-related oversubscription problem. The ratio of selected versus submitted proposals was lower than 7%. For some calls even not all the proposals that scored 14 out of 15 were retained for funding.

<table>
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<th>Concept</th>
<th>Data</th>
<th>Success rates</th>
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<td>Submitted proposals 2007-2011</td>
<td>1,592</td>
<td></td>
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<tr>
<td>Total EC requested budget</td>
<td>2,656.2 M Euros</td>
<td></td>
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<tr>
<td>Selected proposals</td>
<td>106</td>
<td>6.6% selected/submitted</td>
</tr>
<tr>
<td>Total EC contribution</td>
<td>181.18 M Euros</td>
<td>6.8% awarded/requested</td>
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Table 1. Main data in the implementation of "Research Potential" Activity (Source: European Commission)

The responses of applicants to "Research Potential" calls have been impressive. With a total budget of 340 million Euro for the whole duration of the EU FP7 programme (and with one last call still to be launched), more than 1500 applicants from the Convergence and Outermost Regions of the EU responded and submitted proposals to the calls. To date 106 proposals have been funded, with average budgets per projects ranging from
approximately 1 million Euros for the calls of 2007 and 2008 to around 3.5 million Euros for the calls of 2009, 2010 and 2011. The grants provided were used for the purchase of new and often expensive equipment for research, the recruitment of highly qualified and experienced researchers, and the improvement of the beneficiary's visibility and network with strong players in ERA.

Thematically, all EU FP7 thematic domains were represented throughout the funded projects and the Expert Group did not observe any bias towards a specific thematic domain. The same wide representation was also found in the excellent geographical distribution of the funded projects among all the eligible countries (20 EU Member States and 6 Associated Countries). All these projects were of a very high quality.

Links with partnering organisations were strengthened in the last calls. On average each project had 7 partnering organisations coming from the EU Member States and/or Associated countries.

Undoubtedly, "Research Potential" has been the entrance gate for many research entities and researchers to other EU FP7 projects and the best path to upgrade their research capacities through a minimal bureaucratic process. Its appreciated flexibility created the conditions for brain gain in the Convergence and Outermost Regions of the EU (by offering competitive market salaries).

Several significant impacts could be directly associated with "Research Potential"@ FP7, such as the increased research capacity and visibility of the applicants and a geographical growth of ERA. ERA was strengthened by the new networks set up by the reinforced research centres of the Convergence and Outermost Regions. This will have a long term effect on ERA.

An indirect and important associated impact was also the increased capacity of the applicants to define new synergies
between their research policies and regional policies. Their research policies could now become more sustainable.

3. **Feedback from beneficiaries**

Analysis and interaction with the project coordinators of the analysed 86 "Research Potential" projects (after one to three years of funding depending on the call) already demonstrated the following impact of the activity:

1. Promising results for research capacity building (e.g. stronger networking in ERA, recruitment of excellent researchers, increased participation in EU FP7 and national funding programmes, and improved research capabilities as a result of updated technical equipment).

2. Increased research quality and recognition (e.g. number of publications, cooperation with local and regional industries and public institutions), and participation in other research projects.

3. Feedback analyses of the funded projects demonstrated that the contribution of "Research Potential" funding also resulted in an increase of cooperation between the majority of applicants and end-users, including SME’s and other stakeholders.

4. Regarding sustainability of their research activities, the project coordinators indicated that the effects of "Research Potential" activities would in most cases continue, with only slight changes in scale and scope once the funding of the "Research Potential" Activity had ended.
4. Reasons to continue and expand the "Research Potential" Activity

The answers to the following questions indicate why the “Research Potential” Activity should continue to expand:

- Does the EU want to avoid a 2-speed reality for research in ERA?

- When setting research priorities in the EU is the real state-of-the-art research potential of each specific thematic domain being taken into account?

- Is there a European need to have a “supranational” ERA instead of 27 separate national priorities to fund research?

- Will the Convergence and Outermost Regions benefit from the set up of strategic plans for their research centres, including the exploitation of their innovations?

- Does ERA still need to be completed?

- Do the Outermost and Convergence regions need brain gain?

- Can better research be performed in a wider Europe?

- Are there still many unlocked research talents to be discovered in Europe?

- Is “excellence” a true funding criteria and among the top funding priorities of the EU?

The Expert Group was fully convinced that the responses to all these questions should undoubtedly be a “yes” and that the success of "Research Potential" Activity in the EU FP7 programme
had to be expanded in the next Common Strategic Framework for Research and Innovation. This would benefit the ERA, enlarge it, and continue to increase the capacity of its already existing excellent research entities in the economically weak and geographically remote regions of the EU. Europe as a whole, its society, stakeholders, enterprises and regional players would continue to be the direct and indirect beneficiaries of this excellence-driven funding scheme.

5. **Recommendations of the Expert Group**

For the upcoming Common Strategic Framework for Research and Innovation, the Expert Group unanimously considered that:

1. The “Research Potential” Activity is a key instrument to make the European Research Area a reality for the entire territory of the EU. It complements other activities of the EU FP7 programme and its objectives need to be supported in the future.

2. The "Research Potential" Activity is a unique instrument. It is directly focused on unlocking the RTD potential of the Convergence and Outermost Regions of the EU, thus contributing to the improvement of the RTD potential of the entire EU.

3. The “Research Potential” Activity has an Action Plan composed of coherent, multifold and tailored-made measures. These distinctive features are not covered by the Structural Funds, given that "Research Potential" is based on the excellence of research teams while the aim of the Structural Funds is to support the creation of excellence.

4. The “Research Potential” Activity gives research teams based in the Convergence and Outermost Regions of the EU
the opportunity to connect with excellent research teams in the rest of Europe.

5. The “Research Potential” Activity is a highly effective instrument. With relatively few economic resources it has managed to create an impact on the research capacity of the applicant - visible in many projects.

6. The calls for the “Research Potential” projects were considered to be very attractive among potential applicants - demonstrating its popularity among research entities.

7. The “Research Potential” Activity gave to the whole academic institutions, where the research teams who applied were based, a tool to set up midterm and unique strategies, new institutional priorities as well as instruments to increase their visibility at European level.

8. The “Research Potential” Activity cannot be embedded in any other large instruments of the EU Cohesion Policy. Regional priorities tend to focus on specific issues of preselected socio-economic sectors and scientific excellence is not one of the criteria used for the selection of projects in the regions.

From the global analysis and findings, the Expert Group proposed the following three main recommendations for the evolution of the “Research Potential” Activity within the Common Strategic Framework for Research and Innovation:
Global Recommendation Nº 1
The “Research Potential” Activity should keep its distinctive features of simplicity and its mono-contractor approach by using the CSA funding scheme which offers clear advantages to potential applicants.

Global Recommendation Nº 2
The “Research Potential” Activity should support IP-oriented and innovation activities by requesting specific work packages to be submitted in the proposals and applying adequate measures in the evaluation process.

Global Recommendation Nº 3
The “Research Potential” Activity should become a distinctive and important part of the next Common Strategic Framework for Research and Innovation

More detailed recommendations have been included in the main text of the Final Report. The most important ones are mentioned below and they have been grouped as follows:

Recommendations related to the implementation aspects:

Recommendation Nº 1
The “Research Potential” Activity must remain as simple as possible by upholding the mono-contractor feature used in EU FP7 and the flexibility offered by CSA as its funding scheme.

Recommendation Nº 2
Applicants should increase the use of advisory panels which should be actively involved in the external evaluation of the research programme of the applicant.
Recommendations related to IP and innovation:

Recommendation Nº 3
Future Work Programme of the “Research Potential” Activity should include a mandatory IP and Innovation Capacity Building Plan (IPI Plan) with specific measures for its evaluation and implementation.

Recommendation Nº 4
“Research Potential” projects should include the elaboration, refinement and update of an IP strategy as a specific work package as well as the definition of an institutional IP policy with commitments of the authorities of the institution.

Recommendation Nº 5
The applicant should elaborate a set of innovation-based indicators and propose their desirable quantitative evolution over time. This set of indicators should be periodically reviewed by the EC and presented in the progress reports to the EC.

Recommendation Nº 6
The Commission should pay more attention to the results and impacts of “Research Potential” projects from an innovation perspective (both its internal and external dimension) by promoting special events and the dissemination of material.
Recommendations for a sustainable integration into ERA:

Recommendation Nº 7
"Research Potential" proposals should incorporate specific commitments/declarations from the institution and/or regional or national authorities to ensure/support long term sustainability of excellence.

Recommendation Nº 8
"Research Potential" proposals should include, and the evaluation should take into account, mutual and meaningful commitments between applicants and all the relevant stakeholders (including also the private sector to support innovation activities in addition to the public sector) during at least the lifetime of the project.

With respect to the evolution towards Common Strategic Framework for Research and innovation, apart from the elements mentioned above, the Expert Group considered:

Recommendation Nº 9
The “Research Potential” Activity should keep its current goals, structure and funding scheme but its budget should be substantially increased.

Recommendation Nº 10
Links with other Common Strategic Framework actions and other EU policies, as such regional policy, will require the definition of a new general framework with newly defined criteria. If this is the case the European Commission should promote an open debate on this topic.

Recommendation Nº 11
“Research Potential" beneficiaries of the Outermost Regions should be open to cooperate with non EU partners
located in their geographical region. This should be done without the transfer of EU funds.

Finally, the funding scenario worked out by the Expert Group assumes that the budget of the “Research Potential” Activity will need to be increased. The limited impact of "Research Potential" Activity in EU FP7 is partly due to its relatively low budget (340 M Euro), which resulted in a very low selection rate of excellent proposals and a reduction of the size of the funded activities.

The full report is available at:
http://ec.europa.eu/research/regions/index_en.cfm?pg=home
Composition of Expert Group

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Mandate and methodology of work of the Expert Group

The Expert Group on the Research Potential Project Portfolio was created by the European Commission in November 2010 to prepare short presentations of all the 86 Research Potential projects funded by the EC in the period from 2007 - 2010\(^1\). It was also asked by the Commission to propose some initial ideas for the evolution of the Research Potential Activity towards the next Common Strategic Framework for Research and Innovation.

Particular attention was paid to the impact of EC funded project on the beneficiary's long-term competitiveness. For its evaluation, the Expert Group made a broad analysis of the Research Potential projects per thematic domain\(^2\) as well as an analysis of each individual project.

More specifically, the Expert Group was mandated to deliver the following individual deliverables:

1. Impact orientated summaries of the projects
2. Analysis per thematic domain of the projects
3. Proposals for innovation and IP capacity building measures

The Final Report outlines the main findings and recommendations of the Expert Group, extracted from all the deliverables prepared by the Expert Group. They have been compiled into a single report, including an executive summary and annexes. In this process,

\[^1\] The projects selected and retained for funding in 2011 following the call of 2011 were not included in this review.

\[^2\] All EU FP7 thematic domains are eligible for the Research Potential Activity: agriculture and biotechnologies, energy (including renewable energy), environment and earth sciences, ICT, medicine, genomics and biotechnologies for health, materials and nanotechnologies, physics and chemistry (including astronomy), social sciences and humanities (including economics).
redundancies, reorganisation of recommendations and the text have been edited to facilitate a better understanding by external readers of the current situation and the possible evolution of "Research Potential" Activity.

The main activity of the Expert Group focused on obtaining impact oriented summaries of the funded "Research Potential" projects. This was done in close collaboration with the project coordinators. The project summaries, together with the experience of the experts in their specific fields and the statistics provided by the European Commission, generated a global analysis per thematic domain of all the projects.

To complete the work a questionnaire was prepared and sent to the project coordinators. The questionnaire was drafted to receive qualitative information on the implementation of the "Research Potential" Activity from the project coordinators as well as to receive their opinion on the desired future directions of the activity. All project coordinators replied to the questionnaire.

Based on the information received from the project coordinators, the analysis of statistics and the internal discussions of the Expert Group, an assessment of the implementation of the “Research Potential” activity was conducted.

From it, a set of recommendations were identified for the implementation of the “Research Potential” Activity and its future evolution in the Common Strategic Framework for Research and Innovation.

The work of the Expert Group was carried out in four meetings from November 2010 to April 2011. In addition, the chairman and rapporteur met twice with the European Commission.
The European Commission also provided support via the CIRCA network to facilitate the access and distribution of documents to the member of the Expert Group.
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This report outlines the main findings and recommendations of the expert group on the Research Potential project portfolio which was created in November 2010 to analyse the 86 projects funded between 2007 and 2010.