European Research Council
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Comments by the European Research Council Scientific Council on the *ex-post* report by the High Level Expert Group on the 7th Framework Programme for Research and Technological Development (FP7)

The Scientific Council of the ERC read with interest the *ex-post* evaluation of the 7th EU Framework Programme by the High Level Expert Group chaired by Professor Louise Fresco. The Expert Group made a serious effort to evaluate the design, implementation and outcomes of "one of the largest RTD programmes in the world". The report attempts to create a basis for comparison between the different parts of the programme and comes up with some important conclusions. However, and perhaps inevitably in a report having such a broad scope, many aspects of the programme are not covered in detail, and some perspectives get lost. In an attempt to provide a complementary view, the ERC Scientific Council would like to highlight and comment on some issues and findings of the report which, it feels, did not receive the attention it would have expected.

One of the main innovations of FP7 was the creation of the ERC under the Ideas Specific Programme. It represented a very significant development in European research policy and was the result of a long struggle. Previously the Framework Programmes (FPs) had largely supported research projects and networks involving trans-national collaboration on predetermined topics and subjects in applied, finalised or directed research fields, corresponding to the European Union's major policies in fields such as health, energy and the environment. With the ERC, for the first time, the FP had a component funding individual researchers to carry out ambitious, typically five years long, projects of their own choosing in any field including the social sciences and humanities, on the sole basis of the scientific quality of the project.

The governance of the ERC was also a first. The ERC would be an autonomous body led by an independent Scientific Council with full authority over all aspects of the scientific governance of the ERC, including the development of scientific strategy and work programmes, peer review processes, project selection and funding, and communication. These developments were recognised universally at the time as a major change in the European research policy.

The ERC Scientific Council feels that discussing the results of this major institutional innovation, covering a significant proportion of the FP7 budget, could have been a natural point of focus of the report. Such a development would have been of great interest to the European scientific and policymaking community. It would have complemented the 2010 independent Interim Evaluation of the Seventh Framework Programme which highlighted the novel measures of FP7. Of course some statements concerning the ERC can be found in a few places in the report: it mentions "world-class researchers", and "cutting-edge research training of the new generation of scientists and scholars", as well as research results hailed as "landmarks" and "exceptional advances". One also finds a reference to some of the structural effects on national research systems and institutional practices. However, these, and a small number of other statements, are widely dispersed among the other material of the report. The unique objectives and features of the ERC therefore tend to be diluted if not obscured.

Here it is worth pointing out some essential facts concerning the development of the ERC in the period 2007 to 2013. The ERC budget over FP7 was €7,510 million, corresponding to approximately

15% of the total FP7 budget. However, as a new funding body, the spending was heavily back-loaded to allow for the creation of its own dedicated implementation structure. At the same time, there was a constantly rising level of applications (following the ERC's first call which, as is commonly the case with first calls of new funding schemes, was extraordinarily oversubscribed). For example, applications to the Starting Grant calls increased from 2,500 in 2009 to nearly 7,000 in 2013, by which time the scheme had had to be split into two separate calls to meet demand, but also to guarantee the quality of the evaluation. Competition for ERC grants in FP7 was therefore intense. Success rates in ERC competitions, with an average of 10.5% over FP7, were around half those of any other FP7 Specific Programme, including the Marie Curie Actions (Specific Programme "People"). The ERC success rates are also well below those of other comparable funding organisations.

Another critical issue to highlight is that, at the time of the publication of the High Level Expert Group (HLEG) report, more than half of FP7 projects were still on-going. It is well-known that research results can take time to produce impacts on the economy, society and the environment. This is a particularly salient point for the ERC as awards are typically for five years and the first ERC grant was awarded only in 2008, meaning that at the time of preparation of the report only around 500 ERC projects had been completed out of over 4,300 funded. It was therefore difficult for the HLEG to draw strong conclusions on the impact of FP7 in general but especially for the ERC funded projects. Nonetheless, the ERC Scientific Council believes that there was sufficient evidence of the outstanding scientific impact of ERC-funded researchers to be discussed as such. For example, a remarkable one third of ERC grantees have already published a scientific article that ranks in the top 1% most highly cited publications worldwide. The ERC has initiated its own extensive and independent *ex-post* evaluation of finalised projects to assess whether the ambitious goals set were achieved, and the first completed projects have just been assessed. This should complement previous and upcoming work on the quality and impact of ERC-funded science.

The ERC Scientific Council would also like to point out what appears to be a serious misunderstanding in an important part of the HLEG's analysis: the HLEG seems to have misunderstood the ERC's two step evaluation process, as the HLEG report presents applications which received a grade B at step 1 as not of "high quality" when the ERC Work Programme describes them as "of high quality but not sufficient to pass to step 2 of the evaluation". The step 2 is designed to allow an in-depth evaluation calling on the most qualified experts as remote referees, a very specific feature of the programme. This may appear a technical point but it has an important consequence as it leads to the claim made in the report that the ERC has an "adjusted success rate" of about 50%, making it one of the least selective programmes in FP7, a statement that the scientific community would certainly find very surprising and difficult to accept. And in fact, elsewhere in the report it is stated correctly that the ERC is a highly selective programme.

Furthermore, two innovations introduced by the ERC Scientific Council are criticised in the report with very little objective evidence to support this criticism (although we recognise that this was part of a more general criticism by the HLEG of the proliferation of funding schemes in FP7). In response the Scientific Council would point out that:

- the two pilot Synergy calls, which aimed to enable a small group of Principal Investigators to bring together complementary skills, knowledge and resources in new ways to tackle very ambitious problems are clearly different from the consortia funded in other parts of FP7; they were highly successful in terms of demand from researchers, leading to very low success rates, and are currently being evaluated in detail;
- the Proof-of-Concept sub-programme funds the first steps towards linking highly original

research and innovation occurring in the main ERC grants, either with commercial or societal aims; the growing number of applications from ERC grantees shows that it corresponds to a need perceived by a significant number of scientists; it has been praised by a number of European actors, and received recently the first-ever prize for "Innovation in Science Venture Finance" from the European Business Angels Network.

The ERC's impact on research careers is also presented as doubtful by the HLEG, something that several independent studies, surveys that were commissioned during FP7 and extensive contacts with ERC grantees heavily contradict. This impact can take many forms including job offers or early promotions, and this impact was so important that the ERC Scientific Council decided to dedicate two-thirds of total ERC funding to early-career researchers. Indeed in just the eighth year of the ERC's existence, getting an ERC grant has become synonymous with scientific excellence for the world scientific community. The ERC is presently conducting an extensive new survey on the ongoing career development of not only the ERC grantees themselves, but also the large number of team members that they employ (over 30 000 during FP7).

The impact of making Europe a more attractive place to carry out research is also challenged in the report on the basis of the number of non-European who received ERC grants (some 8%). Two important points need to be made in this respect. Firstly, in spite of having received offers from outside Europe, some ERC grantees stayed in Europe thanks to the support of the ERC. And secondly, there is the very promising development that nearly 25% of all ERC-funded PhDs and post-docs, representing the next generation of researchers, are originally from outside Europe.

Finally, the ERC Scientific Council would like to emphasise the efforts of the ERC to achieve a better gender balance which it does not believe were sufficiently recognised in the HLEG report. It is true that there are significantly fewer applications from female than male researchers for ERC grants. Over FP7 female applicants represented only 30% of all applicants under the Starting Grant and Consolidator Grant schemes, and as little as 15% of all applicants under the Advanced Grant scheme. Female applicants to the ERC in general had lower success rates than male applicants by around two percentage points in all calls. Unfortunately this situation mirrors the overall situation in science in Europe. However, based on the strong belief that women and men are equally able to perform excellent frontier research, very early on the ERC Scientific Council put in place a gender equality plan with a number of ambitious objectives and concrete measures. These efforts have been recognised by stakeholders including at the annual Gender Summits, a quite critical platform. Furthermore, there are signs that the measures introduced have started to produce positive results. In particular, women have for the first time had a higher success rates than men in the last two completed Consolidator Grant calls in 2014 and 2015.

Although the ERC Scientific Council perceived the need to get a few facts straight, it would like to reiterate its appreciation of the work done by the HLEG and, above all, it would like to express its interest in cooperating with HLEG and its willingness to contribute to any future assessment of the ERC.

Link:
Report of High Level Expert Group