

16.12.16

## Decision

Of the Bundesrat

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### **Bundesrat Resolution on the "European Commission Consultation on the Mid-term Evaluation of the "Horizon 2020" Framework Programme for Research and Innovation. "**

In its 952nd session on 16th December 2016, the Bundesrat adopted the annexed Resolution.



## Annex

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### **Bundesrat Resolution on the "European Commission Consultation on the Mid-term Evaluation of the "Horizon 2020" Framework Programme for Research and Innovation."**

1. The Bundesrat notes that European funding support for research and innovation strengthens cooperation between national research and innovation systems, and thus consolidates Europe's global position in this field. At the European level, the "Horizon 2020" Framework Programme is the most important instrument in shaping the European Research Area. The programme launch has been successful, but adjustments are needed in various areas, and must be reflected in a future Framework Programme.
2. In the Bundesrat's view, the extremely high over-subscription rate for "Horizon 2020" demonstrates that insufficient financial resources have been allocated to the programme; this has in addition been further exacerbated by budgetary reallocations of research funding in the current programme period. The Bundesrat therefore expects that adequate funding will be provided for the future Framework Programme in order to substantially reduce the excessively high rejection rate of very good funding applications.
3. The Bundesrat calls on the Federal Government to argue strongly for a commitment that funds from "Horizon 2020" will longer be used to top up the European Fund for Strategic Investments (EFSI) or be reallocated within the budget to other programmes. This also applies to the planned recast of EFSI after 2018, as, contrary to the Commission's proclaimed intentions, only a very small proportion of EFSI funds is actually deployed for research and development projects.

4. The Bundesrat observes that research projects are increasingly co-financed through credit lines, "venture capital" (risk capital) and other financial instruments. German state-run higher education institutions can only avail themselves of this option to a very limited degree. The Bundesrat therefore requests the Federal Government to express its opposition to distortions of competition in this field.
5. In addition, the Bundesrat requests the Federal Government to advocate more flexible programme design, in order to enable rapid responses to current problematic issues, for example migration and immigration. The political priorities of the "Europe 2020 strategy" should be taken into account to a greater degree in the "Societal Challenges" Priority Area.
6. The Bundesrat calls on the Federal Government to advocate further increases in funding for basic research and applied basic research, and to ensure that funding support for such research is also available outside the framework of the European Research Council and the "Future and Emerging Technologies" (FET) funding line.
7. Well-established cross-border collaborative research, with a particular focus on applied research, is an essential pillar of EU promotion of research. In addition, new funding instruments were created in "Horizon 2020", such as the small and medium-sized enterprises (SME) instrument, which aims to help ensure that disruptive innovations reach market maturity more rapidly. A future Framework Programme for Research and Innovation must on the one hand address successful applied collaborative research and take a targeted approach in supporting this traditional strength of cooperation with partners in Europe and beyond. On the other hand, the programme should continue to vigorously pursue its efforts to support firms, particularly small and medium-sized enterprises, in ensuring that innovations reach the market more rapidly.
8. The Bundesrat requests that steps be taken to ensure that "Horizon 2020" calls for proposals maintain a good balance between technology-oriented basic research and innovative business-oriented topics.

9. The Bundesrat is of the view that developing new technological solutions is of great importance in meeting the major challenges that our societies face. At the same time, the Bundesrat emphasises that research and development in the social sciences and humanities are indispensable in this context. There should therefore be more inter-disciplinary calls for proposals specifically targeting the social sciences and the humanities in "Horizon 2020" and any follow-up programme, as well as independent calls for proposals for these research areas.
10. The Bundesrat commends the fact that the Commission has introduced considerable procedural simplifications in "Horizon 2020" and accelerated such procedures. The Bundesrat requests the Federal Government to advocate continuous review of the process to further improve the provisions by making them simpler and more transparent, with a higher degree of legal security. This entails inter alia ensuring that there is no further fragmentation of the Framework Programme and limiting the current wide range of different funding forms. Efforts to simplify procedures must be continued in any future Framework Programme.
11. Appropriate measures must be adopted to significantly increase participation of scientists from the EU-13 states in "Horizon 2020" and any follow-up programme in order to safeguard continued social and political acceptance of EU research funding across Europe in future.
12. The Bundesrat points out that the Commission's aim of synergistic utilization of EU Structural Funds monies and EU research funding is difficult to put into practice. The Bundesrat requests the Federal Government to advocate improved coordination of the various funding instruments in a timely manner before the start of any new funding period.
13. The European Innovation Council (EIC)) proposed by the Commission is intended to ensure strategic bundling of existing activities to promote innovation under "Horizon 2020" and should also function as an advisory body in further programme design for the Member States, the Commission and organisations funding research. The EIC's main responsibilities should be contributing effectively to accelerated implementation, in particular for disruptive innovations, and fostering cooperation between innovation-oriented

scientists, business start-ups and companies. The Bundesrat underlines the vital importance in this context of good cooperation between the "European Research Council" (ERC), which aims to foster basic research, and the EIC, and the importance of striking the right balance; competition between the two bodies would be counterproductive.

14. The Bundesrat takes the view that defence-related research should not be integrated into "Horizon 2020" or any follow-up programme, given the particular sensitivity and specific requirements and objectives of this research area.
15. The Bundesrat reserves the right to present further comments at a later point in time on the Mid-term Evaluation and on further developments relating to a follow-up programme to "Horizon 2020".
16. The Bundesrat shall transmit this Opinion directly to the Commission.

Substantiation:

On 20th October 2016, the Commission published a public consultation on Mid-term Evaluation of the "Horizon 2020" Framework Programme for Research and Innovation. The federal states therefore drew up a position paper with a view to contributing to national and European reflections on these issues.

The programme, launched in 2014, is scheduled to run for seven years, with an initial total budget of approximately 80 billion Euro. It aims to promote smart, sustainable and inclusive growth in Europe through investment in research and innovation. It is the most important instrument at the European level in shaping the European Research Area and funds activities along the entire innovation chain, encompassing basic or frontier research, applications-driven research, and developing products and services for market release. As the largest research and innovation programme in the world, "Horizon 2020" enables additional cooperations and exchanges across national borders. As a result, national measures can be linked effectively to European initiatives.

The federal states are convinced that European research and innovation funding has a positive impact. The extremely high level of over-subscription demonstrates however that sufficient funding is not provided for the programme, and this has been further exacerbated by reallocation of research funding to other budget headings during the current programme period. An initial review of the current state of play reveals room for improvement in many aspects of the programme.

### 1. Programme Participation and Over-subscription

Application levels in "Horizon 2020" far exceed the available funds. This has inter alia led to a reduction in project approval levels to around 13 per cent (7th Framework Research Programme c. 20 per cent). The scant prospects of success when submitting a proposal deter many highly qualified scientists from participating in the programme. The method for drawing up the "Horizon 2020" Work Programme and the associated "binding of funds" restrict the programme's capacity to respond rapidly to current problems. To cite just one example, population development figures are recorded in the "Demographic Change" thematic focus area; however, this does not offer an adequate means of addressing the serious problem of migration and immigration that Europe faces. Along with allocation of appropriate funding levels, within the budgetary ceilings, programme design therefore needs to be made more flexible. The Work Programme's two-year rhythm allows potential applicants scope to prepare their application in a timely manner and should therefore be maintained.

### 2. Financial Design of "Horizon 2020" and a Follow-up Framework Programme

The ERC, the Marie Skłodowska Curie actions (MSCA) and investments in European large-scale research infrastructure are key factors underpinning the success of European research funding. The "Societal Challenges" programme area reflects the political priorities enshrined in the Europe 2020 strategy and addresses important problems in areas where our citizens expect business and politics to provide answers. Cross-border cooperation in collaborative research supported within this programme area should therefore be extended, and increased support provided for basic research.

Recently the Commission has tended increasingly to support product-oriented applied research through credit lines, venture capital and other financial instruments, rather than through grants. This kind of credit-financed research funding constitutes a grave competitive disadvantage for German higher education institutions and research facilities, which are generally not authorised to take out loans. The use of these new financial instruments must therefore be viewed highly critically.

Funds made available for research and innovation must be used in a targeted fashion for precisely these purposes. The Bundesrat is at present opposed to the Commission's proposal to prolong EFSI beyond 2020—in other words, beyond the current funding period—and to extend its scope. Despite EFSI's proclaimed advantages, it has not brought any benefits for German higher education institutions and research facilities. Further reducing funding for "Horizon 2020" would however have a significant negative impact on research and innovation.

To date EFSI projects with a total volume of 12.8 billion Euro have been approved (data from the Commission press release of 01.06.2016). Very few of these projects are pure research and development (R&D) projects. This does not correspond to the Commission's original pledge when funds were re-allocated from "Horizon 2020" that the money would also be reinvested in the same areas through EFSI.

It has not been shown that EFSI's leverage effect will have a greater impact than the existing instruments in "Horizon 2020." This lack of clarity is exacerbated by insufficient evaluation of possible reinvestments in R&D by the Commission and the European Investment Bank (EIB). Greater transparency must be created and total R&D investments in the framework of EFSI must be more clearly indicated.

The EU and the Member States can only hold their own in global competition between ideas and economies through greater investment in knowledge, research and innovation. Every Euro invested in these areas is therefore an investment in the EU's future. Budget increases from the 6th Framework Research Programme to the 7th Framework Research Programme, or from the 7th Framework Research Programme to "Horizon 2020" were around 30 to 40 per cent of the overall programme funding in each case, even if these increases were not true increases in budget levels but were achieved primarily by incorporating external programme areas into the main programme. The Bundesrat would welcome a comparable budget increase for the next financing period from 2021 to 2027.

### 3. Basic Research

Over the last ten years the ERC, like the Marie Skłodowska Curie actions, has become a globally recognised European flagship for promotion of outstanding basic and frontier research. ERC funding contributes to the pool of European basic research that can generate disruptive innovations. Within the context of international scientific competition, the ERC significantly enhances Europe's status as a centre of science through its funding for leading scientists and their ideas, and thus creates undisputed European added value.

The ERC is an integral component in creating outstanding basic research, which is of great importance, and, as the first link in the value-added chain, forms the basis for innovations in research and industry, making it a decisive factor in Europe's competitiveness. Ground-breaking discoveries in basic research cannot be planned, but are driven by a high degree of freedom and a broad perspective.



Higher education institutions in particular are enormously important for basic research and in many EU projects supply a font of ideas that feed into new developments. Excellence should be maintained as the principal selection criterion for funding in future.

There should therefore also be a corresponding budget increase after "Horizon 2020" to meet the future challenges of basic research. It is a positive sign that the cuts imposed on EFSI have at least not been extended to the ERC and the Marie Skłodowska Curie programme.

Overall, attention should be paid to balanced distribution of funding between basic research and business-oriented innovations. Additional calls for proposals should also provide funding for basic research outside the ERC and FET.

#### 4. Societal Challenges/Collaborative Projects (including the social sciences and humanities (SSH))

The well-established instrument of cross-border collaborative research with an emphasis on applied research is an important pillar of EU research promotion. The new funding instruments created in "Horizon 2020" are equally important and indispensable, for example the SME instrument, which is intended to help disruptive innovations progress to market-readiness more rapidly. Appropriate instruments are also needed to fund cross-border networks that bring together the academic and business worlds, and involve excellent, highly qualified scientists. A future Framework Programme for Research and Innovation must therefore cover the entire spectrum of research: it must on the one hand focus on targeted support for successful applied collaborative research, a classical strength of cooperation both within Europe and with external partners. On the other hand, the EU must continue to vigorously pursue efforts aimed at small and medium-sized enterprises, in particular helping SMEs deliver their innovations to markets more rapidly.

Tackling the major challenges of the future calls for more than advanced technological development. The social sciences and humanities (SSH) are just as crucial in this endeavour. Research funding must take this into account: in this context, it is helpful and important to organise interdisciplinary calls for proposals, on an equal footing with other calls, ensuring targeted outreach to the SSH, and above all with independent conceptual status for the SSH. The 6th Societal Challenge in the 3rd pillar of "Horizon 2020", "Europe in a changing world—inclusive, innovative and reflective societies", which is addressed primarily to the SSH, has a particularly high over-subscription rate, indicating that there is an even greater shortfall here than in the other thematic areas in integrating the interests and potential contributions of these academics into the programme.

#### 5. Simplification, Legal Security and Forms of Financial Support

The new provisions on administrative matters both in the application phase and for project implementation aim to significantly simplify and accelerate the procedures.

In particular the introduction of "Participant Portals" has to some degree made workflows easier to handle and automation has significantly improved communication. Some problematic issues must be raised however: enquiries to

the Commission are not answered promptly and it is so far not possible to process all EU programmes using this instrument. Information from applications that is entered into the "Participant Portal" cannot simply be transferred and used when concluding the contract. This leads to unproductive duplication of effort. The portal is not self-explanatory for users and should be simplified. Further simplification of the procedures and processes required.

The two-phase application procedure should be used more widely to reduce the work-load when submitting an application. However, it is important in this context to have binding provisions on how applications should be submitted in the first phase (for example by submitting of application outlines) and to ensure compliance with the 33-per-cent approval rate in the second phase, as envisaged by the Commission. In addition, the problem of divergent evaluations in the 1st and 2nd phase needs to be solved (for example by setting up a clearing house). Nevertheless, the two-phase procedure alone cannot resolve the imbalance between the volume of applications and the funds available.

The Bundesrat expressly commends the introduction of a single funding rate and the overhead flat rate, as well as eligibility for reimbursement of Value-Added Tax for higher education institutions in the context of project financial administration. However, the 25-per-cent flat rate for indirect costs generally does not cover the work-load that a project generates. Calculating the infrastructure costs as direct costs—through internal cost allocation—entails considerable administrative effort. The proposal to abolish annual adjustment of staff costs poses major problems for higher education institutions, as this causes financial losses that may undermine the financial viability of projects.

There is still a need to establish clear and comprehensive rules for calculating eligible costs when a new Framework Programme begins. This applies in particular to staff costs and internal cost allocation computations, in order to avoid systemic calculation errors right from the outset. In this context, legal security must urgently be established for the participating researchers and their research facilities.

The Bundesrat also welcomes in particular the uniform funding rate per project, which reduces administrative effort and simplifies participation in Framework Programmes. Nevertheless the Bundesrat also identifies scope for optimising the number of funding forms and instruments.

Further fragmentation makes the Framework Programme more complex, which has clear ramifications for advisory activities and for submitting applications. The Federation and federal states have responded to this issue by providing efficient advisory services. The spectrum of different forms of financial support should be further reduced for projects involving several partners from various Member States and associated states (generally a funding requirement and a positive programme objective). Further detailed differentiations through additional or specific adjustments to particular forms of financial support should be avoided, with a view to fostering consistent application of rules on participation.

## 6. Widening Participation

The EU must confront the political challenge of the "innovation gap" within the EU. In order to ensure continued societal and political acceptance of EU research funding in future funding periods, significantly increased participation of scientists from the EU-13 states in "Horizon 2020" and any follow-up programme is crucially important.

The instruments deployed by the Commission have to date not attained this goal. Greater participation by EU-13 scientists should therefore be secured by developing new, innovative methods for participation. In this context, existing macro-regional approaches, ideas and structures, as for example in the EU Baltic Sea Strategy, can be used as a "testing ground for the European Research Area (ERA)". Participation must be widened through positive incentive structures rather than through quotas. In the process, the decisive criterion of excellence must be upheld in EU research funding.

## 7. Trends in "Horizon 2020"—The EIC as a New Instrument

The EIC as proposed by the Commission is to function as "one stop shop" for the innovation policy area, drawing together relevant existing activities in "Horizon 2020". The aim is for the EIC is to support innovation on a broad basis, analogously to ERC support for excellent science. At present however it is unclear how a council of this kind would be structured, what responsibilities it would have and what form outstanding innovation support, analogous to the ERC excellence approach, would take.

The EIC should strategically bundle existing pro-innovation activities in "Horizon 2020", and the Member States, the Commission and organisations funding research and innovation should be included in forthcoming phases of designing the scheme.

The EIC's main responsibilities should be contributing effectively to accelerating implementation, particularly for disruptive innovations, and facilitating and fostering cooperation between innovation-oriented scientists, business start-ups and established firms. It is imperative to avoid competition between the ERC, which aims to strengthen basic research, and the EIC; instead there should be good cooperation and a good balance between the two bodies.

Collaborative research by small and medium-sized teams with participants from the worlds of business and science is one example of how to connect basic research with innovation-focused development in existing firms or start-ups. This indispensable instrument should be further strengthened within the framework of "Horizon 2020".

As noted above, the Bundesrat is opposed to the idea of replacing grants by loans for public research facilities. The EIC should therefore not function as a funding instrument, but at most as a platform that can help to close innovation gaps. The EIC must have access to the requisite expertise as a prerequisite for this role.

#### 8. Synergies between the Structural Funds and "Horizon 2020"

An increasing number of calls for proposals require EU Structural Funds - monies to be used. The requirement to ensure synergy effects between "Horizon 2020" projects and EU Structural Funds projects is however difficult to fulfil in practice. There is a need for improved coordination of these two very different funding instruments. In addition, a longer preparatory period would have been helpful in order to allow the federal states to respond to the new requirements in a timely manner in their programmes.