



## **YERUN Position Paper - Mid-term Evaluation of H2020**

### **Introduction**

YERUN (Young European Research Universities Network) officially launched its cooperation in January 2015 with the aim of promoting joint initiatives in the areas of research, teaching and staff mobility, and becoming the voice of European young universities in Europe. The network brings together 18 European Universities established within the last 50 years across 12 EU countries, and included in any of the rankings of universities created in the last 50 years.

Apart of the “age”, other common denominators for YERUN Universities are their orientation towards high quality research and innovation for societal impact, commitment to internationalisation and emphasis on employability.

YERUN members believe in the role of young research universities in contributing and engaging within our society. We are committed towards the realisation of the “Quadruple Helix” of interactions between education, research, innovation and citizens’ engagement in the implementation of their policies within their institutions and further promotion of the European Research Area.

Horizon 2020 has a clear role in promoting international, interdisciplinary and transdisciplinary collaboration. It is fundamental to perform innovative and high quality science, and it enables innovative research of the highest quality to be carried out by encouraging inclusion and collaboration. YERUN members acknowledge that researchers are supported to establish, widen their networks, share resources (both intellectual and physical – infrastructures), develop their international careers, and connect research and other stakeholders in the pursuit of knowledge and innovation.

YERUN believes in the added value of Horizon 2020 in the education of young scientists by teaching them the importance of a culture and skills of European and international cooperation, collaboration with other scientific entities, industry, SMEs and civil society.

YERUN is pleased to share its position on the mid-term evaluation of Horizon 2020. YERUN supports the two most important criteria of Horizon 2020 being excellence and impact, and emphasises the importance of fundamental research and thematic openness. Our members actively participate in the framework programme and their experiences can enrich the design of the future programs to come.

## 1. Horizon 2020 structure – Better interaction is needed between the different pillars

Horizon 2020 represents a fundamental part of YERUN members' research activities and since its conception, there are more than 500 projects being implemented in YERUN institutions.

YERUN members participate actively in all pillars and programmes of H2020, especially in Pillars 1 and 3. YERUN the important added value of Pillar 1 in strengthening the capacity of researchers in European countries and would welcome further support for the European Research Council (ERC) and Marie Skłodowska-Curie actions (MSCA) grants.

YERUN also considers Pillar 2, Industrial Leadership, to be highly relevant to its membership in stimulating industry-university collaborations crucial to a globally successful knowledge-based economy and labour market. Technological development without sufficient consideration of the societal impact should not be encouraged. Furthermore, greater interaction and engagement between activities and projects of individual pillars would serve to strengthen H2020's mandate.

YERUN is concerned about the low success rates of proposals which in many cases is due to oversubscription. YERUN appeals for more synergies between activities and projects of individual pillars along the entire knowledge chain (e.g. research continuum from industrial leadership to societal challenges), the extended use of two-stage submissions, and a more complementary approach between national and EU funding programmes to avoid overlaps.

## 2. Impact shall properly address societal, environmental and cultural aspects

H2020 calls should be better formulated providing more precise information on expected impact in both the short and long term. YERUN advocates for better consideration of how H2020 programmes impact on social sciences and humanities. YERUN believes that applicants and beneficiaries should have greater opportunities to demonstrate socioeconomic impact, and that this should be a key consideration in deciding whether to fund a proposal.

YERUN calls for the inclusion and wide application throughout the Pillars of a Societal Readiness Level (SIL) classification, next to the Technology Readiness Level (TRL) classification. These should include broader societal, policy, environmental and public engagement elements. Incorporating these indicators would lead to a better participation of social groups, civil society and end-users in technological proposals, and would reward collaboration of interdisciplinary consortiums.

Co-creation, open innovation and citizen's science could be the focus in the future for addressing better societal impact. Many disciplines evidence impact through qualitative rather than quantitative means. A specific measure for societal impact will help the integration of humanities and societal sciences vision in non-SSH projects. A more sophisticated approach to impact is required (including definition and metrics) and a broader spectrum of research including early stage collaborative research should be facilitated in order to drive the innovation process. YERUN is committed to further collaborate with other networks and the Commission in developing this aspect further.

## 3. Social Sciences and Humanities require a better integration not yet achieved

The implementation of Social Sciences and Humanities (SSH) perspective throughout the H2020 programme is an essential step for the effective integration of those disciplines on projects addressing current societal challenges. Although their integration has been actively promoted in H2020, SSH topics are still underrepresented compared to science, technology and engineering projects, perhaps because of the demands created by Commission requirements.

YERUN believes that the objectives of H2020 would be better served and accomplished with an integral SSH component, which is crucial for assessing societal and economic benefits, users' perspectives, interdisciplinary interactions, etc. The implementation of SSH in other areas of research should be adequately integrated and have an important role in the assessment process.

YERUN encourages the inclusion of SSH profiles in the design of work programmes, description of calls as well as in the evaluation of proposals. SSH should also clearly feed into other challenges, such as pillar II, with the aim of avoiding the development of technocratic solutions that do not take into account societal impacts and problems.

#### **4. Young researchers should receive more support – Strengthening ERC and MSCA grants**

YERUN asks that, as a minimum, current level of support for ERC and MSCA is maintained, and new mechanisms to support early stage careers are introduced. We believe that a well-functioning knowledge triangle of Education-Research-Innovation can only be based on the strong pillar of young researchers' education and skills development (including soft skills).

YERUN stresses that the mobility of early career researchers is extremely important to build scientific networks, develop research capacities and to acquire a culture of internationalisation. ERC grants are extremely competitive and prestigious and it would be helpful to have a broader range of schemes, perhaps for smaller amounts of funding, specifically targeted to early career stage researchers. ERC could install a funding scheme for early stage researchers with, for example, less than two or three years after PhD completion. MSCA grants should also increase to raise its funding rates.

#### **5. Open Science is welcome but further guidance is needed**

Full awareness of open access and open science is not yet totally achieved by researchers. There is need for guidance to address some legal, ethical, financial issues (double funding of papers), embargo periods. Moreover, YERUN members believe Open Science should be “as open as possible, as closed as necessary” especially considering privacy, data security and Intellectual Property protection issues.

Additionally, key issues relating to journal rankings and impact factors, negatively impact on the implementation of an open science culture. Researchers and universities are often evaluated by funding bodies, government and other external parties on the basis of the impact factor of the journals they publish in. This implies that universities and researchers need to take into account the benefits and consequences of publishing open access and make choices from time to time. Specific contributions from funding bodies could stimulate and support Open Access to overcome some of the financial challenges.

YERUN recognises that Open Science is of great importance to increase impact of science in general and EU funded research and innovation in particular. YERUN members are committed to further implement an Open Science culture whenever possible within its members, and to collect, highlight and act upon challenges and recommendations for improvement.

#### **6. Responsible Research and Innovation (RRI) must be pursued by all players applying to EU funding**

YERUN members are committed to address individual policies promoting RRI within their institutions, and will welcome comparable commitment by other types of beneficiaries of H2020.

In relation to the implementation of the different RRI aspects within Horizon 2020, YERUN highlights the need to improve gender balance in the call topics including relevant expected impact

and content, as well as in the teams' composition. YERUN members are keen to contribute with their different experiences of improving gender balance and equality within their institutions<sup>1</sup>.

As regards RRI, researchers at YERUN members are supported in identifying and addressing ethical questions related to their research and they are encouraged to seek advice at early stages in the development of projects<sup>2</sup>. YERUN is part of the stakeholders' community supporting ALLEA (All European Academies) and the European Commission in the review of the European Code of Research Integrity.

## 7. Collaboration with new players is still under optimal implementation

YERUN members acknowledge that there has been engagement with new players, civil society organisations, private partners, etc. but not as much as desired. As a general rule, it is only larger non-academic organisations with the resources and expertise who are able to participate or collaborate effectively with universities.

To address this, YERUN recommends new steps to overcome the barriers to participation. This could include improved payment systems to reduce cash flow problems in small organisations, simplification of administrative processes needed to comply with EC requirements (ante, post and during project execution), and measures to address low success rates.

YERUN members believe there is still potential for improvement in participation of EU-13 in H2020. Horizon 2020 and future funding programmes should keep excellence as their main driver; however, more synergies and better interaction should be found between H2020, EFSI and Structural Funds. In this sense, regional and national policies are needed too. Regional policies should focus on research and innovation strategies and facilitate research and innovation by supporting infrastructures, capacity building, mobility, etc., in order to facilitate participation in H2020. Regional and national policy frameworks need to provide structural support for participation in European initiatives and activity.

## 8. Knowledge Exchange brings science closer to our communities

YERUN believes that knowledge exchange is a critical element of the research process and is essential to demonstrate the value of research and innovation to the wider community. YERUN would support funding initiatives to promote and foster a broad range of knowledge exchange activities, such as:

- post-grant knowledge exchange funding (for activities 18-24 months after a grant ends);
- funding to allow collaboration between completed projects and new projects to reduce duplication and overlap;
- opening H2020 to top-up partnerships, allowing taking newcomers on board after the start of the project; and,
- promotion of proof of concept of technologies coming from EU funded projects.

Further implementation of the Open Science and Citizens' Science agenda will also promote knowledge exchange in general. YERUN members would like to highlight examples of improved access and participation of citizens, other stakeholders and society in general the science process<sup>3</sup>.

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<sup>1</sup> University of Essex in addition to have policies in place committed to gender equality and diversity, it is the first Higher Education institution in the UK to close the gender pay gap at professional level. University of Bremen has an "Equal Gender Opportunity" strategy available [here](#).

<sup>2</sup> Brunel London University [Responsible Research Policy & Research Integrity Code of Practice](#).

<sup>3</sup> The Dutch National Science Agenda, the Bremen University initiative [BRIDGE](#) (Start-up business from universities), the [Brunel Innovation Hub](#) (supporting students' business and product ideas providing technical support, advance and networking opportunities), among others.

## 9. The reshuffle towards innovation is welcome but it cannot be the sole approach

Young research universities can contribute to the innovation debate by meeting their orientation and values. Their vision and strategies are ‘young’ and as such not only science driven, but also innovation-driven. Innovation is, in most cases, the implementation of research, technological and social developments. A significant proportion of the research carried out by young research universities and institutions is applied in nature with reasonably high TRL level hence they are close to innovation in innovation value chain.

YERUN appreciates the European Commission’s work to bridge the gap between research results and market uptake with the aim of strengthening Europe’s competitiveness and ability to tackle future challenges.

However, YERUN wishes to emphasize that innovation can take many forms (not only technological) and so long as this is recognised, we support the innovation agenda. Innovation encompasses a wide range of digital and creative industries, the digital humanities, data analytics and utilising big data and the implications of technology use for the wider society. However, it is a concern that the focus on, and investment in, social innovation under FP7 has been subsumed by market related innovation under H2020. The possible European Innovation Council (EIC) should take these aspects into account.

## 10. Transparency is needed as regards related H2020 initiatives

The complex structure of H2020 and ERA-related programs (ERA-Net, JPI, JTI, ETP, EFSI, etc.) would benefit from some systematic streamlining. In particular, duplication of scientific topics should be minimised across the range of programs, sub-programs, program parts or lines. These different funding schemes might be needed in order to fulfil the various objectives of H2020; however, they should focus on need.

It is important to ensure that the participation to all initiatives remains based on the principles of quality, transparency and equity in participation. Some of these initiatives that require a membership involvement can be difficult to access and thus, calls under those might be only available for those that are part of “the club”.

These funding instruments are reasonably new and best practices for leveraging these instruments are still in development. A lot more of clarity, simplification and transparency are required to make them work to their full potential for research communities.

In general, YERUN suggests strengthening flexible and easily accessible formats, open to smaller and medium-sized transnational consortia. In our view, smaller networks are oftentimes very capable of developing truly innovative and disruptive technologies.

## 11. European Added Value and contribution to our societies

The current programme, H2020, has created opportunities for European collaboration for universities which cannot be achieved through national funding mechanisms. Good examples of how to create and enhance EU added value and contribution to our societies is the participation of civil society organisations and end users in research projects, be it directly or (more important and far more practical) indirectly, as stakeholders being involved in the project execution and dissemination.

Further promotion of these research and innovation ecosystems, consisting of universities, research organisations, civil society, industry, and other cooperation partners in Europe are needed also in the future. The ecosystem must include basic research as well as the ability to transfer research findings

into innovations. YERUN has different examples of projects that are providing a specific EU added value<sup>4</sup>.

In order to maximise the efficiency in the use of resources at national and EU level, it would be beneficial that national and EU funding programmes are complementary. A better integration would increase the exposure and possibilities for cooperation between for instance, SMEs that do not have the resources to enter into proposals and universities on key challenge areas.

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<sup>4</sup> [EUROMOD](#) project, a tax-benefit simulation model for all 27 EU countries; [INTCATCH](#)– development of efficient, user-friendly water monitoring strategies and systems based on innovative technologies and facilitation of an eco-innovative approach; [MOVAID](#) Movement Assisting Devices: Manufacturing of personalized Kineto-Dynamics parts and products for workers, elderly and children.

## Looking forward – recommendations for FP9

In light of building upon the experience within H2020 and make recommendations for the future funding programme, YERUN emphasises the importance of fundamental research, thematic openness and excellence of research. YERUN members would like to highlight the need to provide an increased allocation of funds with an appropriate balance on research and innovation activities and establish realistic synergies between EU funding with national funding agencies.

Simplification of administration should continue, particularly in relation to the rules on personnel costs, which have become more complex, not less; greater use of two-stage calls should be made to reduce the financial and opportunity costs of making EU funding applications; minimum standards of feedback from reviewers needs to be introduced, and; more work needs to be done to highlight the role of SSH in calls.

YERUN believes it is fundamental to capitalise on the results of EU projects and gather findings to create bodies of knowledge about specific themes for researchers, non-academic staff, policy makers and the general public.

The development and funding of infrastructures are mainly the responsibility of the Member States. There is however an obvious need for better co-ordination between EU and Member States. Improvements in the access and collaborative use of research infrastructures should be ensured. Furthermore, FP9 should pay more attention to the research and innovation divide within Europe. Not by changing criteria within Horizon 2020 or spending much more money on the Spreading and Widening participation programme, but by complementing Horizon 2020 and European Structural & Investment Funds (ESIF).

In the longer term, YERUN would like to see new approaches for future EU research programmes to better target collaborative discovery research, creating opportunities across universities and industry in the context of pillars II and III, that do not focus primarily on short-term future technological applications, and to consider the introduction of a Societal Impact Level (SIL) classification, next to the Technology Readiness Level (TRL) classification.

Overall, YERUN welcomes the Commission proposal to increase the budget in the future financial framework for research and innovation. We recognise the Commission's efforts to introduce new financing methods and instruments for attracting more, especially private sector investments to the field of research and innovation but would like to bring a word of caution of including funding through loan-based approach in the funding programme. A loan-based approach may be appropriate for a relatively small number of collaborations between universities and industry where an innovation project has reached a stage of development where it is ready to be spun out commercially. The future framework programmes should therefore remain first and foremost grant-based.

YERUN members acknowledge the role of H2020 in covering the entire knowledge value chain and agree with that approach but encourage the Commission to make sure funding is adequately balanced and that there is no dominance of either basic or innovative research. A good combination of all types of research and of all disciplines, including SSH, shall be incorporated in all different streams of the framework programme.

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*For questions related to this position paper, please email them to [secretarygeneral@yerun.eu](mailto:secretarygeneral@yerun.eu).*