Widening participation at the crossroads of Horizon 2020 and Horizon Europe

Foreword by Jean-Eric Paquet, 
Director-General DG Research and Innovation

I am delighted to address the readers of the NCP_WIDE.NET newsletter at this critical juncture for the widening community of the EU. Critical because not only have we recently published the results of the latest Twinning, ERA Chairs and Teaming Phase 2 calls, but we have also made progress in the Horizon Europe negotiations: last month, the Council, the European Parliament and the Commission agreed to an ambitious widening package.

Since my appointment as Director-General a year ago, I have realised that addressing disparities across the EU is a crucial issue for the R&I community, especially during this important period for Europe. That is why dealing with this issue has been a top priority of mine.

More concretely, as soon as I took office, I pushed for organising the widening summit in Warsaw in May 2018 where, before launching the Horizon Europe proposal, we exchanged informal views on the key issues with high-level officials of Member States.

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Since then, I have gone to Bulgaria, Romania, Lithuania, Estonia, the Czech Republic, Poland just to name a few of the widening countries where I discussed on the ground the main challenges researchers face in these countries. What I have realised from all these visits is the incredible talent and potential in these countries, which in many cases remains underutilised because of structural or other non-research related constraints. I was also impressed by the state-of-the-art laboratories and research facilities in some of the countries, which top research institutes in the United States would be envious of.

Moreover, I had the chance to visit the premises of different Teaming, Twinning and ERA Chair projects and was impressed by the enthusiasm, hard work and commitment of the people involved.

In my opinion, this testifies to the success of these measures in motivating the participants from the start.

I was also particularly pleased to see research institutions and universities interacting with national Ministries and managing authorities in the Teaming projects, where Horizon 2020 and European Structural and Investment Funds (ESIF) are working in tandem and promoting synergies on the ground.

Horizon 2020 has already funded 196 widening projects (11 Teaming Phase 2, 61 Teaming Phase 1, 97 Twinning and 27 ERA Chairs), allocating approximately €330 million of EU funding to these projects.

The first results of these projects, also measured during the interim evaluation of Horizon 2020, have shown significant improvements in networking and the opening-up of new channels of cooperation between institutions across Europe.
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In addition, these projects substantially contributed to bringing about structural changes in the recipient widening institutions, something that goes hand in hand with the policy support facility, a tool offered by my department upon request to help reform the R&I systems of the Member States.

I am now pleased to announce that we have selected another 59 widening projects for funding (13 Teaming Phase 2, 37 Twinning and 10 ERA Chairs) for a total budget of around €235 million from the latest 2018 widening calls. If all goes well, these projects are expected to start by summer 2019; I look forward to their successful implementation. Let me reassure our readers that, like for the ongoing projects, my department together with the Research Executive Agency (REA) will be there to support the programme’s new beneficiaries, to make these projects a success.

It would be an important omission from my side if I did not update our readers on the negotiations of widening in Horizon Europe. As I mentioned, the co-legislators have reached an important agreement on the new programme’s ‘Widening Participation and Spreading Excellence’ package. Even though the agreement is still informal and needs to be validated politically, let me highlight its key aspects.

Firstly, it was agreed that the budget for widening would be 3.3% of Horizon Europe. Compared with the mere 1% for Horizon 2020, this is a substantial increase, which also shows how the issue is politically significant.

In addition to the core widening measures of Teaming, Twinning, ERA Chairs and COST, which will continue with fine-tuning improvements in Horizon Europe, a number of other measures have been introduced as part of a toolbox to address the widening challenge.
Widening participation at the crossroads of Horizon 2020 and Horizon Europe

These measures include the so-called ‘hop-on’ calls that will enable entities from widening countries to join already selected collaborative projects. The programme will also support activities, such as professional pre-proposal checks and advice, to improve the quality of proposals from legal entities from widening countries and will boost the activities of national contact points to support international net-working. Activities to encourage ‘brain circulation’ and excellence initiatives have also been included in the agreement.

As you can see, a highly ambitious package has been agreed at the political level, indicating the importance given to widening participation. From the implementation side, I can commit the European Commission to now carefully start designing the programme, so that in Europe we achieve the objective of an integrated ERA with less disparities and barriers where excellence can flourish throughout Europe.

Widening is an issue of shared benefit but also of shared responsibility. Almost all of the EU investment in R&I is outside of Brussels! That is why I urge national governments to do their part too and take the necessary (sometimes painful) measures to reform, invest and implement at home. They must use all the different EU instruments available to achieve this, be they the ESIF Funds to build research capacity, the PSF and European Semester process to analyse the national R&I systems and produce recommendations, and the EU Reform Support programme to fund these reforms.

It is only by working together, in partnership at all levels — European, national, regional and local — that we will be able to see real results and meaningful impact across the EU.
Widening Fellowships

The year 2018 saw the birth of a new funding instrument to help combat the brain drain in Europe — Widening Fellowships (WFs). While funded from the ‘Spreading excellence and widening participation’ part of Horizon 2020, the WFs are tied to the Marie Skłodowska-Curie Individual Fellowships (MSCA IFs) in all but name.

The MSCA IFs aim at equipping researchers with new areas of knowledge, skills, and international and inter-sectorial exposure so that they are able to fill the top positions of tomorrow and solve current and future societal challenges. They are based on the principle of mobility, and researchers can receive funding on the condition that they move from one country to another in order to expand their knowledge. The results from the first years of the MSCA in Horizon 2020 also revealed the existence of a mobility gap across Europe and discrepancies between European countries in terms of their ability to attract funding.

The WFs were created specifically to address this gap in participation, by providing an additional opportunity to researchers of any nationality to acquire and transfer new areas of knowledge, and to work on research and innovation in widening countries.

It is not possible to apply directly for the Widening Fellowships. Applications to the MSCA IF Call, where the host organisation is located in an eligible Widening Country, are automatically transferred to the WFs call if they are not funded by MSCA but their grades still pass the evaluation threshold. Therefore, the creation of a ‘second chance’ for widening country-related IFs applications should also encourage more applications to the MSCA IFs call from these countries.

In 2018, Widening Fellowships were introduced for the first time, with a budget of five million euros, although that budget will increase by a million each year until the end of Horizon 2020.
Organisations from widening countries have submitted a total of 773 proposals to the MSCA IF call, which is 27% more than in 2017. Clearly, the WFs have had an impact: the overall increase was only 8%. Fifty of these proposals were funded under the MSCA IFs call, and an additional 33 from the Widening Fellowships call. The WFs therefore funds 66% more fellowships in widening countries!

Portugal, being the most active Widening Country in the MSCA IF call, produced the most fellowships: thirteen Widening Fellowships and 21 MSCA Individual Fellowships. In total, thirteen widening countries have benefited from the first WFs call.
The **next MSCA IF call is already open**, with a deadline of 11 September 2019. To benefit from the six million euro budget for the 2019 Widening Fellowships, Widening Country organisations have to submit high quality proposals for the MSCA IF call.

All 33 of the funded Widening Fellowships in the 2018 call were excellent, with evaluation scores above 90 (out of 100).

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Quantum Wide Web

Who are we?
QuantERA is the world's most widespread network of research funders in quantum technologies

It is a consortium of 31 organisations from 27 European countries, co-funded by the European Commission and coordinated by the National Science Centre in Poland. Our main goal is to fund transnational research projects in the quantum domain. QuantERA's wide range of additional activities also includes mapping public policies in quantum technologies, promoting responsible research and innovation (RRI), and much more... Read more on our website: https://quantera.eu/

What do we do?
We fund transnational research into quantum science and technology

With a budget of over EUR 55M, including EUR 11.5M from the European Commission, QuantERA supports research at the very highest level in the field of quantum technologies through the use of open calls for proposals.

The first QuantERA call was launched in 2017, and it attracted unexpectedly high levels of attention in the research community. QuantERA funded a total of 26 high level international projects that were worth over EUR 32M (see the projects catalogue). Promising research ideas involve 128 research teams and aim, in particular, to develop novel physical platforms for quantum communication, sensing, and computing, to advance architectures and algorithms for future quantum information processing systems, and to push for hardware scalability.

After the huge success of the first call, the QuantERA Partners decided to open a second call with a budget of more than EUR 20M (this call was not co-funded by the EC).
Submitted proposals involve researchers from 24 countries. The laureates of the call will be announced in autumn 2019.

The results of the QuantERA-funded projects are expected to address a number of societal challenges, including cybersecurity and advanced healthcare.

**The widening dimension**
QuantERA is the first and only ERA-NET Co-fund to be coordinated by an EU13 country. QuantERA aims to spread research excellence across the European Research Area by encouraging consortia to include partners from *those widening countries*, which are participating in the network.

The incentive proved successful within the first QuantERA Call 2017 in which 70% of the [funded projects](#) involved research teams from the widening countries.

QuantERA has been one of the biggest grants to have been obtained by Poland in Horizon 2020.
Quantum Wide Web

Quantum technology flagship
The quantum flagship is one of the most ambitious long-term research and innovation initiatives to have been launched by the European Commission

QuantERA has been a significant milestone in setting up the quantum technology flagship. The flagship’s goal is to consolidate and expand European scientific leadership and excellence in this research area, to kick-start a competitive European industry in quantum technologies, and to make Europe a dynamic and attractive region for innovative research, business, and investment in this field.

Get to know QuantERA during our mid-term event in Granada on the 13th-14th November 2019.

Our superpower —
Successful transnational cooperation in the triangle of science, policy, and administration

The network successfully links representatives of the European research community in quantum technologies, the EC, and National Research Funders.

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ERA Chairs: where innovation is **CREATED**

The Department of Physical Chemistry of Biological Systems (at the Institute of Physical Chemistry, Polish Academy of Sciences) is one of those **ERA Chairs**, which are supported by the European Commission under the coordination and widening programme, Horizon 2020 (CREATE). This chair, which focuses on optics and biophotonics with their links to medical applications, was established by **Professor Maciej Wojtkowski**, a scientist who is renowned for his significant impact on the design and development of the Fourier domain Optical Coherence Tomography (FdOCT).

This technique is commonly used in ophthalmic and cardiologic diagnosis.

Professor Wojtkowski’s department aims to **improve imaging techniques that are employed in the diagnosis of cardiac, cerebral, or visual dysfunctions**. In particular, researchers have been working on the exclusion of distortions that are caused by the penetration of the laser beam through opaque layers, such as skin, taking advantage of the properties of light such as its amplitude and phase.

However, this fascinating research field which has excellent prospects for application was not the sole cause for the establishment of the new chair at the Institute of Physical Chemistry, PAS. The key reason was prof. Maciej Wojtkowski — distinguished researcher who after winning an international competition settled by the Selection Committee composed of ERC grant holders, was appointed the ERA Chair holder with main task: to improve research excellence of the Institute.

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*Professor Maciej Wojtkowski*  
*Foto: Grzegorz Krzyżewski*
The Institute itself has had a solid research record in both — fundamental and application-oriented research on sensors, new materials for nanotechnology, and chemical functionalization of nanomaterials. It has also brought to perfection analytical methods, used for researching physical and chemical systems. However, development capacity of these methods almost ran out and the Institute lacked purpose and inspiration for further research allowing to catch up with the European Research Area.

Additionally, due to weak personal links with ERA, the Institute was rather a contractor than idea provider under international projects.

Apart from that, the Institute was among the top 30% research institutions in Poland with high success rate in national grant applications, offering very good working conditions for researchers (“HR Excellence in Research” award), and vibrant international environment. That gave very good outlook for changes. SWOT analysis and numerous discussions with major stakeholders led to the conclusion that the Institute should refocus on researching biological systems, which required finding reputable expert in biology and setting new research directions focused on application in biological systems.

Professor Wojtkowski perfectly matched to these needs of the Institute.
Having at his disposal secured funds for personnel, travels and basic equipment, wide autonomy and full support of the Board of Directors, the ERA Chair holder started with the review of the research carried out at the Institute and learning to know other researchers employed at the Institute. It resulted in setting general research directions for the new department on the border of biology/medicine, chemistry, and physics, complementing to the research carried out by other researchers from the Institute. (Successful) Applications for research funding and own team members selection went immediately afterwards.

However, the main challenge was to involve and initiate cooperation of the ERA Chair holder with other research groups (taking advantage of wide autonomy as well). Professor Wojtkowski selected so-called “synergetic groups” (research groups, which are interdisciplinary, and strive towards biological or medical applications, close to the research of the new chair) to streamline efforts and flow of funds. This strategy worked and resulted in closer cooperation between the research groups, the manifestation of which are joint research projects.
Apart from well targeted tutoring activity of the ERA Chair holder towards synergetic teams, a handful of measures was envisaged for the whole society of the Institute to support research on the border of disciplines, and – in particular – with practical applications (e.g. “Innovation source” business lectures series, and cyclical lectures linking biology/medicine, physics and chemistry). The ERA Chair holder has also supplemented International Doctoral School of the Institute introducing a separate “implementation doctorate” (i.e. doctorate focused on practical approach to research, aimed at application of research results).

Undertaken actions resulted in a significant increase of the quantity of publications and supported undertaking biology-oriented research projects. Improvement of the research excellence was also finally noted by the Polish Ministry of Science and Higher Education.

In 2018 the Institute received the highest excellence category among research units in Poland (A+) – top 5% of research units in Poland distinguished by the quality of R&D activities. However the biggest challenge related with extensive structural change of the Institute was yet to come. In 2019 professor Maciej Wojtkowski and professor Krzysztof Palczewski (the University of California, Irvine School of Medicine) obtained joint grant funding of EUR 8 M to fund the first five years of operation of a new research centre focused on human-eye dynamics and plasticity. If professor Wojtkowski and his team succeed, it will open the door for the creation of new therapies against various visual dysfunction, extending lifespan of millions of people and improving their life quality.

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Forthcoming: the Last H2020 SEWP Calls & their Novelties

As the end of the Horizon 2020 Framework Programme is approaching, the wording of the last calls in the section entitled Spreading Excellence and Widening Participation (SEWP) is now being finalised by the European Commission (EC). We would therefore like to bring your attention to these planned calls as well as to the particular novelties of the different SEWP instruments. Please be aware that the text is still under preparation. There may be some minor changes at the time of its official announcement by the EC on the Funding & Tenders Portal, which is envisaged for June 2019 at the latest.

WIDENING FELLOWSHIPS
The WF-02-2019 call was opened on 11 April 2019 to correspond with the MSCA-IF-EF calls, with a deadline of 11 September 2019. The budget for this call is EUR 6 million.
The WF-03-2020 call will open on 8 April 2020, also to correspond with the MSCA-IF-EF calls, and this will take place with a deadline of 9 September 2020.

The indicative budget available is EUR 7 million. There have been no changes in the eligibility and admissibility conditions.

TWINNING
The last TWINNING call WIDESPREAD-05-2020 will open on 24 July 2019 with a deadline of 14 November 2019. There are several novelties involved in this call in comparison with the 2018 call:

1. the requirement for a new, dedicated work package or task which focuses on improving management and administration skills within the coordinating institution; the process of setting up or upgrading a research management/administrative unit is expected to be a specific deliverable;
2. costs for equipment and consumables could be accepted to up to 10% of the total H2020 funding requested, and provided that they are deemed necessary to fulfil the scope and objective; infrastructure costs remain ineligible;
Forthcoming: the Last H2020 SEWP Calls & their Novelties

3. the maximum requested contribution per project is EUR 0.9 million, meaning that the indicative call budget of EUR 69 million would allow for funding of approximately 77 proposals;

4. in cases in which the coordinating institution has already been funded in the previous TWINGNING calls, these projects should be described in full, and the added value and impact of the new proposal should be clearly demonstrated in comparison with TWINGNING projects that have already been funded.

**ERA chairs**

The last ERA Chairs call WIDESPREAD-06-2020 will open on 24 July 2019 with a deadline of 14 November 2019.

There are several novelties involved in this call in comparison with the 2018 call:

1. making full use of the existing EU co-funded research infrastructure will be an asset;

2. H2020 funding should be made by means such as including a sustainability plan or an outline of transitional arrangements;

3. the requirement for a new, dedicated work package or task which focuses on improving management and administration skills (more details are available in point 1 of the TWINGNING section);

4. the project’s duration has been extended to a maximum of 6 years (it was set at five years in previous calls);

5. the maximum requested contribution per project remains at EUR 2.5 million. The indicative call budget of EUR 50 million would allow the funding of approximately twenty proposals;

6. in cases in which there are ERA-Chairs projects within the same institution that have already received funding, the added value and impact of the new proposal should clearly be demonstrated.
Forthcoming: the Last H2020 SEWP Calls & their Novelties

The last change in the 2020 TWNING and ERA Chairs calls targets a better spread of impact across the widening countries. The prioritisation of *ex aequo* proposals (those with the same score) will be based upon the following factors (sub-criteria) which are to be applied in the following order:

- proposals from widening countries not otherwise covered by more highly-ranked proposals;
- the approach described in Annexe H and paragraphs 3b to 3e (which involves scores in excellence, and then impact, followed by budget for SMEs, and the gender balance of consortia).

This approach will be applied successively for each group of *ex aequo* proposals which require prioritisation, starting with the highest-scored group, and continuing in descending order.

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Analysis of the closed ERA Chair 2019 call results

The WIDESPREAD-04-2019 call with the total budget of EUR 30,000,000 was closed on November 15th last year. A total of 105 proposals were submitted, out of which 77 were found to pass the quality threshold and 28 were below the quality threshold. The figures produced a competitive ratio of almost 1:9. It should be noted that all ERA Chair call projects are designed to be mono-beneficiary, and therefore applicable for ESIF refinancing according to national legislation in different widening countries. This may provide additional stimulus when it comes to various entities being able to submit their own proposals.

The outcome of the call is shown in Figure 1 in the form of a summary bar chart. It should be noted that it was possible to fund only 12+ proposals from the allocated total budget that is available to the call, which is less than an average of one project per single country or one project for two eligible countries.

Only widening and associated countries were analysed: out of 15 widening countries no proposals were received from entities within Hungary or Romania.

A top three of the most active participants consists of Portugal, Estonia, and Poland, with more than ten proposals coming from each country. Portugal, with almost twenty proposals and thirteen above the threshold, set a success rate of 11%. Estonia and Poland have a similar number of above-threshold projects, while Estonia had the highest quality in terms of ratings as all of its proposals were above the quality threshold requirements. Slovenia closely follows these countries with its own number of proposals; however none of these have been granted, thereby reducing to zero the total success rate for that country.
Meanwhile, entities from the Czech Republic are for the most part focused and successful, as two out of their six proposals have been granted. Cyprus and Serbia are similar in terms of success, with one of their five above-threshold projects gaining funding.

It should be noted that Serbia is the only associated country that will receive funding in this particular call. Finally, Bulgaria with its four proposals and one granted project concludes the list of seven successful countries in the WIDESPREAD-04-2019 call.
Analysis of the closed ERA Chair 2019 call results

Compared with the previous ERA Chair calls statistics available online, only Hungary, Malta, and Latvia are widening countries that are missing out as an ERA Chair holder. Moreover, progress in terms of associated countries has been made and their first ERA Chair holder will come from Serbia. This should be a good enough reason for entities to get themselves well prepared for the 2020 ERA Chair call.

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Forthcoming Calls and Events

**WIRE X 2019**

**When:** June 26-28, 2019  **Where:** Iași, Romania

The Week of Innovative Regions in Europe — **WIRE**— will be organised during the EU Presidency of Romania. The event will gather actors active in the innovation and education ecosystem with the aim to improve science-based competitiveness.
“READ ME” – Recommended Publications

The Role of Universities in Regional Innovation Ecosystems

Universities are moving away from linear concepts of innovation to closer co-creative approaches with external partners, which help them take on a new central role in their innovation ecosystems. This EUA study focuses on the role of universities in these innovation ecosystems by analysing the nature and changing quality of the interactions between universities, companies, governmental agencies and other public organisations in nine different European regions. The study clearly shows the role that universities and university leadership play in this multi-actor orchestration of innovation. Moreover, it looks at how universities are developing the interplay between research, education, and innovation within the institutions.

More information

She Figures 2018

The EU, through a large body of legislation, actively promotes gender equality in areas such as equal pay, work-life balance, health and safety at work, social security, access to goods and services, and protection from human trafficking, gender-based violence and other forms of gender-based crime. The ‘She Figures’ publication provides a range of indicators on gender equality in research and innovation at pan-European level. It aims to give an overview of the gender equality situation, using a wide range of indicators to examine the impact and effectiveness of policies implemented in this area.

More information
“READ ME” – Recommended Publications

Integration of social sciences and humanities in Horizon 2020: Participants, Budget and Disciplines

Monitoring the development of Social Science and Humanities (SSH) as a cross cutting issue is a commitment made under the Horizon 2020 Programme. A novelty introduced in this year’s report is a number of new chapters summarising the results for both pillar 1 (European Research Council, Maria Skłodowska-Curie Actions and Research infrastructures, as well as Future Emerging Technologies) and 2 (Societal Challenges) of the programme regarding SSH and inter-disciplinarity. Altogether the quantitative data presented by this publication indicate how well the policy of SSH Integration is being followed up in practice.

More information

Horizon 2020 Monitoring Flash

A series of quick reports on strategic topics provides insights and analysis of the programme’s implementation. Widening participation is monitored regularly as a cross-cutting issue across Horizon 2020. So far, three reports have been released: #1 Country Participation, #2 Dynamic Network Analysis, #3 International Cooperation.

More information
Dashboard Uncovered

The new ‘Dashboard’ concept presented by DG RTD is a data discovery tool for visual analytics in outcomes for Horizon 2020 and beyond. The basis of the concept is frequent update key indicators for H2020 proposals and granted projects. Nevertheless, it has been extended to further analyse SME performance, and to follow and link to developed IPRs with the EPO database.

The aim is to address the needs of R&I communities in EU Member and associated states to monitor the implementation of various policy instruments and initiatives. Recently, new features have been introduced into the publicly-available ‘Horizon Dashboard’. Two new dashboards have been added: the EIC and ‘Seal of Excellence’. In the eCORDA stream an ‘H2020 Projects – full details’ dashboard has been added, which now includes project abstracts that are available for search purposes. The Horizon Dashboard now has its own dedicated landing page under H2020 Project & Results on the F&T Portal (see Figure 1).
The next Horizon Dashboard developments that are foreseen for 2019 will include additional features such as collaborative links, geo-coordinates visualisation, and country profiles which will cover selected socio-economic data.

A standard section presents the summaries of evaluated proposals (including success rates), detailed statistics and information on funded projects and their participants which will be broken down by countries and regions, along with research domain/programme area, organisation type, etc. The relevant dashboard is organised into three subdomains; a search/filter menu, an interactive map menu, and search results summaries with tables, graphs and key indicators. All domains have extensive filtering option which allow users to tailor their enquiry.

As an example, one is able to sum up all fifteen widening countries in the dashboards for the ‘H2020 Project’ menu (see Figure 2), and see the correlation between them. For instance, the University of Luxembourg is the most highly funding-retained institution in the widening countries, while the Institute of Jozef Stefan in Slovakia is the most active, with double the number of participants when compared to their colleagues in Luxembourg. In general terms, one can see that widening countries retain 6.6% of the Horizon 2020 funding, which is divided mainly by research organisations or higher education institutes, along with SMEs. Other entities including large industry NGOs and public institutions have less than one sixth of the total funding share.
As an alternative, if one were to be interested in searching for a particular keyword such as ‘Twinning’, a number of successful projects will instantly be identified. In the ‘Topics’ menu enter ‘Twinning’ and all currently-funded projects will appear (see Figure 3).

Afterwards, if one were to select a country from the interactive map, e.g. Poland, a list of entities from that particular country alone will appear in the left-hand side menu.
As Dashboard is constantly evolving, all users are advised to make the most of any updates both in terms of new statistics and new features.

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