

Widening participation in the Horizon Europe programme

Paper by Prof Nigel Mason, August 2021

The European Commission has released details of the [11th Work programme, Widening participation and strengthening the European Research Area](#), with a list of first calls that have deadlines in autumn 2021 and 2022. Details are attached. While there are some calls for 2022 that have yet to be fully shaped, the overall aims and objectives are clear. The EC is aiming through the Horizon Europe call to increase the inclusion of researchers, institutions and industry in areas that have been and currently are ‘under-represented’ in the Framework and H2020 programmes. This is in response to political comments by governments of those states and the desire to fully exploit the intellectual and creative potential in these member states, which form a quarter of the total EU population.

None of the programmes in this work programme are specific in terms of topical areas, thus they are open to all areas of science and technology, and areas that address the wider thematic themes of the Horizon Europe programme (the Mission Programmes) are particularly encouraged.

Europlanet strongly encourages its partners to utilize the *Widening participation and strengthening the European Research Area* work programme to grow and sustain related research in those States where the planetary/space research community is small and developing.

Below is a schematic of the different programmes supported by the Work programme, with simple statement on each.

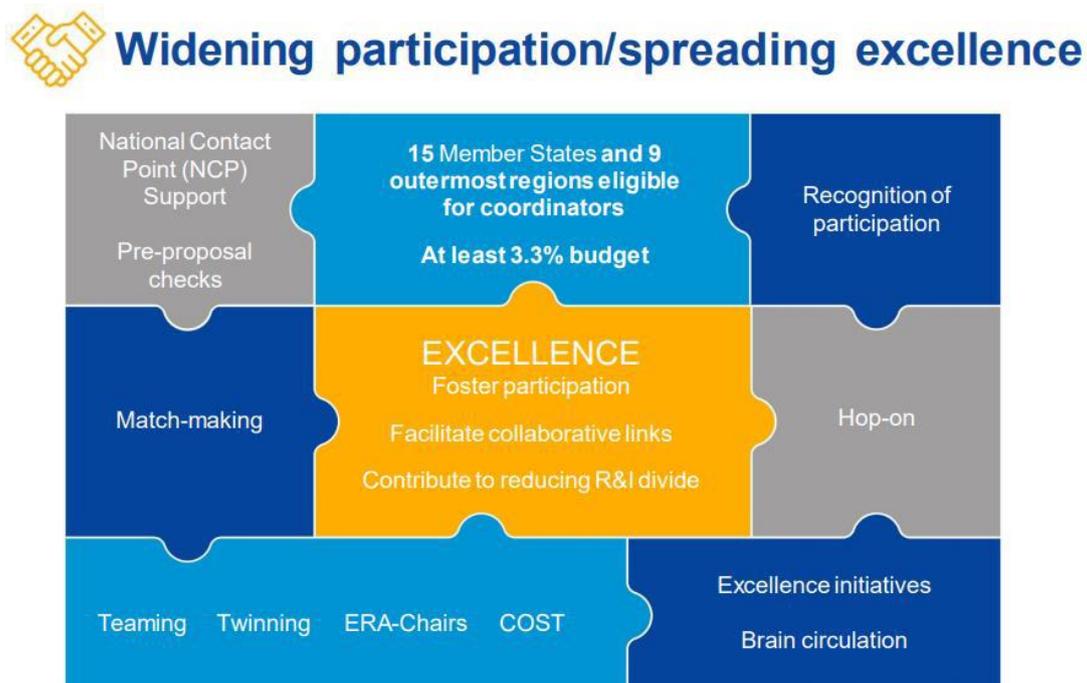


Figure 1. Schematic Diagram of programmes in the Horizon Europe: ‘Widening participation and strengthening the European Research Area’ Work programme.

Here is a short overview of Programmes in the Horizon Europe: ‘Widening participation and strengthening the European Research Area’ Work programme.

1. **People:** A major aim of the programme is to support the growth and development of research and innovation within institutions in ‘less developed regions’. To do, this the Horizon Europe programme aims to provide support for ‘talented’ researchers to develop their careers within these regions and limit/reduce the brain drain from these regions to other regions where they see greater opportunities and facilities. This falls under DESTINATION 2: ATTRACTING AND MOBILISING THE BEST TALENTS in the Work programme, which supports the following:

- **ERA Chairs.** These allow institutions to attract senior and leading researchers to their institution to build critical mass and provide leadership in a research area.

First call HORIZON-WIDERA-2022-TALENTS-01-01: ERA Chairs. Deadline: 15 March 2022; Expected No. Awards: 32; Budget: 80 M Euros, 1.5 to 2.5 M Euros per project; Duration up to 5 years with permanent post agreed afterwards at host institution.

Research organisations located in widening countries interested in establishing an ERA Chair shall submit a proposal with the prospective ERA Chair holder who should be an outstanding researcher and/or innovator in the chosen scientific domain. The scientific field can be any domain of research and innovation addressed under the Treaty on the Functioning of the European Union.

- **ERA Fellowships.** These aim to attract strong postdoctoral researchers from around the world to conduct research and innovation within institutions in ‘less developed regions’.

HORIZON-WIDERA-2022-TALENTS-02-01. Deadline: 12 Oct 2021; Expected No. Awards: 50; Budget: 8 M Euros for overall call; Duration: 2 years.

This action builds on the MSCA Postdoctoral Fellowships 2021 action (**HORIZON-MSCA-PF-2021**), providing a route for funding the top 32 applicants applying to an institution in ‘less developed region’ that were not selected in the general Marie Skłodowska-Curie actions (MSCA) Postdoctoral Fellowships 2021 call. This will be repeated in MSCA call in 2022.

HORIZON-WIDERA-2022-TALENTS-04-01. Deadline: 29 September 2022; (same level of support as above).

- **ERA Talents.** This will provide an opportunity for experts to support R&I in institutions in ‘less developed regions’ and may extend beyond researchers to technical and managerial staff (e.g. experts in project management).

HORIZON-WIDERA-2022-TALENTS-03. Deadline: 12 April 2022; Expected No. Awards: 40; Budget: 24 million Euros, 0.4-0.6 M Euros per project.

Quote: *‘The objective of this action is to attract more R&I talents of diverse expertise to entities in widening countries, by providing competitive grants and spreading attractive working and employment practices. Pending the outcome of an ongoing study on brain circulation, the action may target a specific or broad audience of early career and experienced researchers, and/or other R&I talents, such as research infrastructure experts and operators, R&I facilitators in higher education institutions and research organisations such as data stewards and knowledge brokers, research managers and administrators, as well as junior researchers in non-academic sector and starting entrepreneurs.’*

Europlanet will strongly support these schemes. We encourage the community to utilize the opportunities they provide to sustain and develop research and innovation teams in eligible states, and more widely to sustain and grow Europlanet and space-related research. Early Career Researchers seeking opportunities for independent fellowships in the Marie Skłodowska-Curie actions should be encouraged to explore applying for these calls with a partner eligible for support under HORIZON-WIDERA-2022-TALENTS-02-01 and HORIZON-WIDERA-2022-TALENTS-04-01.

2. **Institutions:** A major strategic goal is to ensure that institutions in the ‘less developed regions’ become more competitive and leading centres of research and innovation. A series of programmes will support institutions and research teams to develop their expertise, not only in science but in project management, bidding and contracts, and developing research and innovation cultures that can enhance their competitiveness. The institution/research team must be linked to (at least two) others in Europe with proven expertise to help the recipient in the less developed region (which must be the PI). This is in **DESTINATION 1: IMPROVED ACCESS TO EXCELLENCE:**

- ***Teaming and Twinning.*** These programmes are aimed at raising institutional Excellence.
 - **Teaming** is the most illustrious and requires national support with focus on areas defined in National plans e.g. in national smart specialisation strategies. It is also two stage.

HORIZON-WIDERA-2022-ACCESS-01-01-two-stage. Deadline stage 1: 05 October 2021; Expected No. Awards: 12 projects; Budget: 8-15 M Euros per project, Duration: up to 6 years.

To be successful, work would have needed to be done now since complementary funding from a national (or regional or European or private source) is required. Quote: *‘The Teaming action is designed to support the creation of new centres of excellence or upgrading the existing ones in low R&I performing countries, building on partnerships between leading scientific institutions in Europe and the main beneficiary*

institutions in low R&I performing countries that display the willingness to engage together for this purpose. This can help countries that are lagging behind in terms of research and innovation performance attaining a competitive position in the global value chains. Leading scientific institutions are advanced and established partners that have developed an outstanding reputation in research and innovation excellence in the chosen scientific domain. Institutions that are still in the process of development or modernisation, e.g. those that are still receiving support as coordinators from widening actions under Horizon 2020, are normally not considered leading institutions, unless a proper justification is provided for in the proposal.'

- **Twining** is similar to Teaming but on a smaller scale, with no complementary funding needed and less of a link to smart specialisation strategies.

HORIZON-WIDERA-2021-ACCESS-02-01 Deadline 5 October 2021; Specific to the States in the Western Balkans (Republic of Albania, Montenegro, Bosnia and Herzegovina, Kosovo, Montenegro, Republic of North Macedonia, and Republic of Serbia). Expected No. Awards: 15; Budget: 21 M Euros, 0.80 to 1.50 M Euros per project. Duration: 3 years.

HORIZON-WIDERA-2021-ACCESS-03. Deadline: 18 January 2022; Open to all institutions in declared less developed regions; Expected No. Awards: 100 projects; Budget to be funded each budget 0.80 to 1.50 M Euros; Duration: 3 years.

- **Excellence Hubs:** This call appears to be aimed at regional organization across an area (e.g. Western Balkans, Visegrad region, Baltic states etc) and must include companies, public authorities and 'societal actors'. They are strategic so must be in line with regional or national smart specialisation strategies and 'synergies will be sought with the programme parts on [European Innovation Ecosystems and the European Institute of Innovation & Technology \(EIT\)](#).'

This could be a possible call for regional initiatives in the space sector (e.g. like Baltic space).

HORIZON-WIDERA-2022-ACCESS-04. Deadline: 15 March 2022; Expected No. Awards: 10; Budget: 50 M Euros, 3-5 M Euros per project; Duration: 4 years.

Quote: *'Excellence hubs are an initiative to strengthen regional innovation excellence in placed based innovation ecosystems by cross-border collaboration on a common strategy and/or alongside value adding chains. Place based innovation*

ecosystems are interconnected companies, research institutions, governmental bodies and societal actors that are mutually reinforcing each other in a territorial context and together raise the level of innovation excellence in their regional fabric.'

Quote: 'Consortia must include at least two different place based R&I ecosystems in at least two different countries eligible to host the co-ordinator under the widening part of Horizon Europe. Each ecosystem needs to include four different categories of actors i.e. a) academic institutions (universities and/or non-university research centers or labs), b) business entities (active established firms with relevant revenues), c) public authorities or authorised agencies and d) societal actors (civil society organisations, associations, citizens, end users, media, cultural actors etc.). This quadruple helix approach needs to be presented in the proposal either by one or more umbrella organisations (e.g. clusters) or representative individual entities representing each of the four categories. Ecosystems with a large number of members are to be preferably represented by a limited number of key players (at least two, thereof one research and one business partner) whereas proposed activities are open for participation of other members, too. Such member need to confirm their engagement in the project by letters of endorsement (signed by the member sheet). At least one of the business entities needs to be an established firm (no start-up) with significant and proven operational income to be verifiable by balance sheets or business reports of at least two consecutive years. In addition, consultants and start-ups may participate if duly justified.'

- **European Excellence Initiative (EEI):** Strengthening capacity for excellence in higher education institutions and surrounding ecosystems. This has some similarities with Twinning and Teaming. Since it is aimed at strengthening cooperation between at least two organisations from higher education sector in a Widening country (or different Widening countries), by linking it with at least two internationally-leading institutions from two different Member States or Associated Countries. Proposals are expected to clearly outline the cooperation and strategy for stepping up and stimulating scientific excellence and innovation capacity in defined areas of research and innovation as well as the scientific quality of the partners involved in the exercise.

This call might help to develop a Space-led theme. Unlike the 'Hubs' call with some links to national strategy it is open to all areas.

HORIZON-WIDERA-2021-ACCESS-05. Deadline: 04 Nov 2021; Expected No. Awards: 15. Budget: 1.5 to 2.0 million Euros each.

Quote: Through the European Excellence Initiative, Horizon Europe's support aims at the transformation of higher education sector and their surrounding ecosystems, including non-university research centres. The Excellence Initiative would thereby mobilise local and regional government's investments in higher education sector (in its broadest sense). It will also include research activities in strategically relevant domains with a centre of gravity in widening countries. The widening

dimension and relevance will be closely monitored on the grounds of an overall distribution KPI.'

Quote: 'Pending the evaluation of the European Universities pilot portfolio in 2021-2022, the European Excellence Initiative in 2021 will focus on capacity building for networks of higher education institutions and partners in the local ecosystem, with a view of preparing the networks towards the full roll-out of the European Universities initiative in the years to come as announced in the European Skills Agenda adopted by the Commission on 1 July 2020.'

Quote: 'The way forward with and within the different priority areas for transformation of universities remains the choice of the beneficiaries.'

- **Hop on facility** HORIZON-WIDERA-2022-ACCESS-07-01: A call to allow institutions to join other funded Horizon Europe programs after they have started. This is only for projects funded under Pillar 2, so Research Infrastructures (funded under Pillar 1) sadly don't count.

HORIZON-WIDERA-2022-ACCESS-07-01. Deadline: 20 Apr 2022/10 Nov 2022; Expected No. Awards: 80. Budget: 40 million, 0.2 to 0.5 million Euros each.

Europlanet members should discuss with their institutions whether there are initiatives to exploit these calls and develop areas of R&I in the planetary/space science sector. If 'yes', please contact the Europlanet 2024 RI Office (europlanet2024ri@kent.ac.uk) to inform us of your plans and let us know if you need support e.g. in finding partners.

3. **Widening participation and strengthening the European Research Area.** The third theme of the Work programme is entitled REFORMING AND ENHANCING THE EU RESEARCH AND INNOVATION SYSTEM and has the largest number of calls. These calls are not solely directed at less represented states but aim at strengthening the ERA in its entirety. Details are in the work programme document.

The Europlanet research community can benefit from the general aims and structures that may develop from these initiatives, if not actually being members of projects.

- **Citizen Science actions:** These calls, with potentially direct relevance to Europlanet, will develop the framework for supporting larger scale citizen science projects across the ERA.

HORIZON-WIDERA-2021-ERA-01-60: A capacity-building and brokering network to make citizen science an integral part of the European Research Area. Deadline: 23 Sep 2021; Expected No. Awards: 1. Budget: 4 million Euros.

HORIZON-WIDERA-2021-ERA-01-61: Supporting and giving recognition to citizen science in the European Research Area. Financial support to 3rd parties: 10K-60K Euros.

Quote: ‘...this action will launch two calls for proposals through financial support to third parties:

- **Kick-starting:** This will kick-start and provide support services to *at least 100 citizen science activities that are at the conceptual or pilot stage and which show promise in terms of innovative theme or approach, collecting and analysing data, or generating other important benefits.*
- **Sustaining:** This will support *at least 25 on-going or recent citizen science activities to find ways to sustain their activities; these will have shown their worth in terms of innovative theme or approach, collecting and analysing data, generating other important benefits, or have particular potential to scale up across member states or the ERA.*

The two calls may be launched over one or more waves but it should not be necessary to be supported by the ‘kick-starting’ call to apply for ‘sustainable’ call. Efforts should be made to evaluate the response to the open calls, capture the benefits arising from the citizen science activities it kick-starts (social, economic, democratic, scientific, etc.), and develop intelligence about factors that support or hinder the sustainability of successful citizen science initiatives.

Amateur astronomers and the role they can play in conduct of academic-led research mean that Europlanet should be active if not a leader in these calls.

We should, at an early stage, determine how we engage with this opportunity – when called. Do we see our efforts defined as kick-starting or sustaining. What organizations of amateur astronomers would be /should we engage with? Who will lead a response to such a call?

- **Support for Project Management and exploitation of results:** Other calls are less directly obvious for Europlanet members to engage in. However, we will benefit from some of the planned actions and be governed by some of the policies that they will determine, so we should be aware of them. For example:

HORIZON-WIDERA-2021-ERA-01-20: Towards a Europe-wide training and networking scheme for research managers. This call will help create a forum of research managers who can share expertise and advice. The call states the network will include *research infrastructures managers*, through the integration of existing capabilities of Research Organisations, Higher Education Institutions and institutes, networks or umbrella organisations in research management.

Projects are expected to generate a wide outreach to the European community of research managers, active across the ERA. Europlanet 2024 RI and the Europlanet Society through the Executive Office hosted by the ESF should be part of the resulting networks.

HORIZON-WIDERA-2021-ERA-01-32: Standardisation Booster for fostering exploitation of FP-funded research results.

Quote: *‘The Standardisation Booster will help beneficiaries, whose H2020 and Horizon Europe research results appear likely to lead to the revision or creation of a standard, to test the relevance of their results for standardisation activities. This booster will be open for on-going and closed H2020 and Horizon Europe projects. This service will help these beneficiaries to engage with standardisation bodies and contribute to the preparation and elaboration of standardisation activities, such as participating in a focus group, setting up a new technical committee, drafting a technical specification or a technical report, participating in awareness events.’*

Any standards in Europlanet VAs might benefit from this which will provide 60K Euros to team towards *‘leading to the preparation and elaboration of standardisation activities’*.

- **Open Science:** A set of calls aimed at OPEN SCIENCE will set agendas for Open Science and FAIR which all projects including Europlanet RI will need to follow.

HORIZON-WIDERA-2021-ERA-01-40: Modelling and quantifying the impacts of open science practice. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 2 million Euros.

HORIZON-WIDERA-2021-ERA-01-41: Global cooperation on FAIR data policy and practice. Deadline: 23 Sep 2021; Expected No. Awards: 2; Budget: 2 million Euros, 1 million Euros per project.

HORIZON-WIDERA-2021-ERA-01-43: Capacity-building for institutional open access publishing across Europe; Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 3 million Euros.

- **Research and Society:** Similarly, policy will be set in these areas through:

HORIZON-WIDERA-2021-ERA-01-44: Societal trust in science, research and innovation. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 2 million Euros.

HORIZON-WIDERA-2021-ERA-01-50: Protection of Higher Education Institutions and research organisations against conventional and non-conventional threats. Deadline: 23 Sep 2021; Expected No. Awards: 2; Budget: 2 million Euros, 1 million Euros per project.

- **SCIENCE EDUCATION and culture change.** Several Calls are targeted at science education and changing research culture. Policy and guidelines from these will influence our activities so we should be aware of them.

HORIZON-WIDERA-2021-ERA-01-70: Developing a STE(A)M roadmap for Science Education in Horizon Europe. Deadline: 23 Sep 2021; Expected No. Awards: 3; Budget: 5 million Euros, 1.5-1.75 million Euros per project.

HORIZON-WIDERA-2021-ERA-01-80: Centre of excellence on inclusive gender equality in Research & Innovation. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 5 million Euros.

HORIZON-WIDERA-2021-ERA-01-81: Policy coordination to advance the implementation of the ERA gender equality and inclusiveness objectives within Member States. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 3 million Euros.

HORIZON-WIDERA-2021-ERA-01-90: The challenges of research ethics and integrity in response to crisis: the coronavirus pandemic and beyond. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 4.5 million Euros.

HORIZON-WIDERA-2021-ERA-01-91: Ensuring reliability and trust in quality of Research Ethics expertise in the context of new/emerging technologies. Deadline: 23 Sep 2021; Expected No. Awards: 1; Budget: 4.5 million Euros.

Call - European Research Area: HORIZON-WIDERA-2022-ERA-01 includes a series of 15 projects aimed at creating a more focused and effective European Research Area.

HORIZON-WIDERA-2022-ERA-01-31: Innowide Bridging Facility seek to develop links with Africa. Deadline: 20 Apr 2022; Expected No. Awards: 1. Budget: 1.5 million Euros.

HORIZON-WIDERA-2022-ERA-01-41: Increasing the reproducibility of scientific results. Deadline: 20 Apr 2022; Expected No. Awards: 2. Budget: 4 million Euros, 2 million Euros per project.

HORIZON-WIDERA-2022-ERA-01-50: Developing an effective ERA talent pipeline. Deadline: 20 Apr 2022; Expected No. Awards: 2. Budget: 3 million Euros, 1.5-2 million Euros per project.

This may be useful to highlight the long time lines for large scale space missions needing a pipe line of researchers over decades !

HORIZON-WIDERA-2022-ERA-01-51: Acceleration Services in support of the institutional transformation of Higher Education Institutions. Deadline: 20 Apr 2022; Expected No. Awards: 1. Budget: 10.5 million Euros.

This is general support for institutions (an sort of EU wide Twinning Teaming).

Quote: *‘The overall aim of the Higher Education Institutions acceleration services is to help institutions to successfully implement a strategy and roadmap for transformation, by creating a shared knowledge base, coaching service and virtual meeting place for them to connect with peers and other ecosystem actors, as well as with investors and public funders. The acceleration services should consist of (i) a coaching and support mechanism for HEIs to pursue institutional transformation in various areas, (ii) a methodology for an investment strategy to facilitate access of higher education institutions and surrounding ecosystem to support to deliver on the chosen transformations, (iii) a monitoring mechanism to assess progress in the transformation efforts. Projects should address all three aspects and test them with user groups.’*

HORIZON-WIDERA-2022-ERA-01-60: A European competence centre for science communication. Deadline: 20 Apr 2022; Expected No. Awards: 1. Budget: 3 million Euros.

HORIZON-WIDERA-2022-ERA-01-70: Open schooling for science education and a learning continuum for all. Deadline: 20 Apr 2022; Expected No. Awards: 3. Budget: 5.5 million Euros, 1.5-2 million Euros per project..

These are calls which Europlanet, with its experience in outreach and communications should engage with.

Conclusions:

The 11th Work programme *Widening participation and strengthening the European Research Area* may not appear to many to be an obvious programme in which to develop and build planetary and space science programmes and structures but when reading the calls there are many opportunities that we as a community can exploit. ERA Chairs and ERS Fellows are obvious options but there are also opportunities in citizen science and the development of stronger research teams through collaboration programmes aimed at raising the profile and research strength of groups and institutions.

Europlanet in its wider community sense should support and encourage initiatives so please do consider them and contact the Europlanet 2024 RI office (europlanet2024ri@kent.ac.uk) or myself directly to tell us if you or your institution is engaging in such activities.