

EN

Annex 11

Horizon Europe **Work Programme 2021-2022**

11. Widening participation and strengthening the European Research Area

DISCLAIMER

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Introduction

Overall description of common policy objectives and rationale based on specific programme and strategic plan

This part of the Work Programme will implement concrete measures in support of widening participation and strengthening the ERA. It will underpin geographical spread, build the necessary capacity to allow successful participation in the R&I process and promote networking of and access to excellence thus optimising the impact of Pillar II and contributing to the objectives of the entire framework programme especially in its innovation components. In this context, synergies will be sought with the programme parts on European Innovation Ecosystems and the European Institute of Innovation & Technology (EIT). Another way of furthering dissemination and exploitation of research results is through reinforcing the interaction between education and research. In addition this programme part will strengthen collaborate links across Europe and open up European R&I networks, contribute to improving research management capacities in the widening countries and Outermost Regions, support national policy reforms as well as exploit the potential of the Union's talent pool by targeted actions. The work programme part is based on the strategic planning process and is fully aligned with the strategic objectives of the ERA communication (COM(2020) 628 final) published on 30/09/2020 that aims at building a common scientific and technological area for the EU.

Although the EU is still a global leader in research and innovation, its performance has stagnated since 2012, and major players, from Asia in particular, are gradually growing and occupying a more prominent position on the global R&I and technological landscape. While R&I is the engine of long-term productivity growth, Europe continues to lag behind in turning the outcomes of its excellent research into disruptive innovation and fails to fully mobilise research and technological capacities in less developed regions.

Meanwhile, there is a growing disparity in Europe between those countries and regions that lead in R&I and those that lag behind. Change, for example through more and better links between R&I actors across Europe, is needed if Europe as a whole is to capitalise on excellence from across the continent, maximise the value of public and private investments, and their impacts on productivity, economic growth, job creation and well-being. In addition, there is a need for structural R&I policy reforms and better national, regional and institutional cooperation in the production and diffusion of high-quality knowledge.

The Union now needs to raise the bar on the quality and impact of its R&I system, requiring a revitalised ERA across the EU and associated countries, better supported by the Horizon Europe and national and regional programmes.

Specifically, according to Article 181(2) of the TFEU, a well-integrated yet tailored set of Union measures is needed, combined with reforms and performance enhancements at national level (to which the Smart Specialisation Strategies supported under the cohesion policy as well as the Policy Support Facility and reform tools can contribute) and, in turn, effective institutional changes within research funding and performing organisations, including universities, leading to outstanding knowledge production. Consequently, the enabling

conditions related to the governance of smart specialisation introduced under the new generation of cohesion policy programmes is a key delivery tool of these reforms. By combining efforts at Union level, synergies can be exploited across Europe and the necessary scale can be found to make support to national policy reforms more efficient and impactful.

The activities supported under this part specifically address ERA policy priorities, notably deepening the ERA while generally underpinning all parts of Horizon Europe. In this regard, they aim at inciting more investments, improving the access to excellence, translating R&I results into the economy, improving research management capabilities and deepening the ERA.

Activities may also be established to foster brain circulation across ERA through mobility of researchers and innovators, taking fully into account current imbalances, and to create and develop networks of scholars, scientists, researchers and innovators, policy makers and research managers to put all their (intangible) assets to the service of the ERA and by supporting the development of domain-specific science roadmaps.

The goal is an Union where knowledge and a highly-skilled workforce circulate freely, research outputs are shared rapidly and efficiently, researchers benefit from attractive careers and gender equality is ensured, where Member States and associated countries develop common strategic research agendas, aligning national plans, defining and implementing joint programmes, and where the outcomes of R&I are understood and trusted by informed citizens and benefit society as a whole.

This part will contribute de facto to all SDGs, but directly to the following: SDG 4 - Quality Education; SDG 5 - Gender Equality; SDG 9 - Industry, Innovation and Infrastructure; SDG 17 - Partnership for the Goals.

It will also contribute to the implementation of key policy objectives of the European Commission notably the European Green Deal and the EU's digital strategy while supporting the related green and digital transition (twin transition).

Part: Widening Participation and Spreading Excellence - Overall strategic approach

R&I policy can only strive towards more excellence if everyone progresses. The EU's R&I system needs to promote a more inclusive approach in which all can participate and from which all can benefit. Existing disparities in Research and Innovation (R&I) between R&I leading and R&I lagging countries (eligible countries for the widening programme are EU13, Portugal, Greece and all Associated Countries with equivalent characteristics in terms of R&I performance) and Outermost Regions (defined in Art. 349 TFEU can be tackled by introducing structural policy reforms. Closer links between research and innovation and institutional cooperation to produce high-quality knowledge are also paramount to help bridging these disparities. By upgrading these pockets and connecting them to broader networks of excellence less R&I advanced countries will be able to upgrade their R&I systems, making them stronger and allowing the EU as a whole to advance together. All possible means needs to be mobilised and their used coordinated towards this end. This programme part is especially responding to the second policy priority of the ERA communication i.e. Improving access to excellence: towards more excellence and stronger R&I systems across the whole of the EU where best practice is disseminated faster across Europe. It will support the less performing Member States to increase the performance of their R&I system towards excellence building on dedicated Horizon Europe measures and complementarities with smart specialisation strategies under Cohesion Policy.

The key objectives of these parts are the following:

1. Encourage reforms and transformation processes of the R&I system at institutional, national and regional level in widening countries in line with ERA principles
2. Mobilise national investments in R&I capacity in widening countries
3. Raise the bar for excellence of R&I actors in widening countries in partnership with outstanding European and international institutions ('win win situation')
4. Increase number of participations and success rates of widening actors in research and innovation projects in other parts of Horizon Europe (notably in pillars 2 and 3)
5. Promote the creation of new and upscaling of existing innovation ecosystems by a set of measures, which include, among other, place based and international collaboration between academia and business in widening countries
6. Foster brain circulation, including inter-sectoral mobility for researchers and innovators and turn it into brain gain for widening countries

These objectives will be achieved by a bunch of revamped traditional widening actions and a number of novel elements included in the advancing Europe package agreed by the legislators in March 2019.

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Destination 1 – Improving access to excellence

The ERA communication of 30th of September 2020 [COM(2020) 628 final] has established the need of improving access to excellence as one of the four main strategic goals. In particular striving towards more excellence requires a stronger R&I system where best practice is disseminated faster across Europe. The strategic plan for Horizon Europe aims at underpinning geographical spread, build the necessary capacity to allow successful participation in the R&I process and promote networking of and access to excellence thus optimising the impact of Pillar II and contributing to the objectives of the entire programme.

The intervention logic of this destination is therefore to launch a portfolio of complementary actions that will build R&I capacities in widening countries enabling them to advance to the competitive edge at European and international level. This portfolio constitutes the widening dimension of a broader European Excellence Initiative that reaches out beyond this programme part and will be implemented together with ERASMUS+.

Each of the four proposed actions is addressing a different target group of potential beneficiaries with a customised intervention logic. The use and appropriate design of partnerships with leading institutions abroad is instrumental as a vector for accessing excellence. The intervention points are effective at a multiple of scales ranging from individual researcher through career development, focussed networks, institutional development to a systemic impact on national R&I systems.

Capacity building will go beyond scientific capacities in the close sense since it includes the development of management and administrative capacities for the benefitting institutions (notably in Twinning and the Strengthening Capacities for Excellence in Universities) that will enable them to take over consortium leadership roles especially under pillar 2. The intervention at the institutional level by Teaming actions will create new or modernise existing centers of excellence by means of a very close and strategic partnership with leading institution abroad. The impact will be amplified by the conditionality of a complementary investment (especially for infrastructure, building, hardware) from the structural funds or other sources. Once established the center will have an outreaching impact by serving as lighthouse and role model attracting the best talents while demonstrating the success of modern governance and management to the national R&I environment, hence stimulating generalised reforms.

In a complementary manner with a focus on the transformation of the academic and higher education system the university related scheme will push forward reforms in widening countries embedded in dynamic European university alliances. Scientific excellence in the more traditional sense is the aim of Twinning where focused networks with excellent partners will develop new promising R&I domains and test novel approaches in smaller joint research projects.

Innovation excellence is the focus of excellence hubs where placed based innovation ecosystems in widening countries and beyond will team up and grow for creating better linkages between academia, business, government and society that will foster a real innovation culture

in widening countries on the grounds of a strategic agenda in line with regional or nation smart specialisation strategies.

Expected impact

Proposals for topics under this Destination should set out a credible pathway to contributing to the following expected impact:

- Increased science and innovation capacities for all actors in the R&I system in widening countries
- Modernised and more competitive R&I systems in eligible countries
- Reformed institutions and increased attractiveness and retention of-research talents
- Higher participation success in Horizon Europe and more consortium leadership roles
- Stronger linkages between academia and business and improved career permeability
- Strengthened role of the Higher Education sector in research and innovation
- Greater involvement of regional actors in R&I process
- Improved outreach to international scale for all actors

The following call(s) in this Work Programme contribute to this Destination:

Call	Budgets (EUR million)		Deadline(s)
	2021	2022	
Teaming for Excellence	XX.XX		XX XX XXXX [or XX XX XXXX (First Stage) XX XX XXXX (Second Stage)]
Twinning		XX.XX	
Twinning for Western Balkan Countries	XX.XX		

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Excellence Hubs		XX.XX	
Strengthening capacity for excellence in universities		XX.XX	
Overall indicative budget	XX.XX	XX.XX	

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Call 1 – Teaming for Excellence

Conditions for the Call

Indicative budget(s):¹

Topics	Type of Action	Budget (EUR million) 2021	2022	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: [date] Deadline(s): [date] [date (First Stage), [date] (Second Stage)]					
TST-01-01-2021 Teaming for Excellence	CSA	XX.XX		XX – XX	ca. X
Overall indicative budget		XX.XX			

Disparities are due to, among other reasons, the insufficient critical mass of science and lack of centres of excellence having sufficient competence to engage countries and regions strategically in a path of innovative growth. Teaming is responding to this challenge having a strong potential helping countries that are increasing their R&I intensity to attain a competitive position in the global value chains, especially by becoming drivers of change.

Teaming will 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 and partner institutions in low R&I performing countries that display the willingness to engage together for this purpose.

¹

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

Proposals are invited against the following topic(s):

TST-01-01-2021: Teaming for Excellence

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of 15 million EURO would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR [number] million.
<i>Type of action</i>	Coordination and Support Action
<i>Funding rate</i>	[e.g.100%]
<i>Admissibility</i>	The conditions are described in General Annex A. [The following exceptions apply: ...]
<i>Eligibility</i>	The conditions are described in General Annex B. [The following exceptions apply: ...]
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D.

Expected outcomes: Projects are expected to contribute to the following outcomes:

- Newly created or upgraded Centers of Excellence in countries eligible to host the coordinator under this programme part
- Increased scientific capabilities of the beneficiary institution and the host country enabling them to successfully apply for competitive funding in the EU and globally.

- Improved the R&I culture of the country hosting the co-ordinator (indicators such as research intensity, innovation performance, values towards R&I) through centers of excellence as lighthouses and role models
- Stimulus for institutional and systemic reforms at national level taking into account the enabling conditions on governance of smart specialisation introduced under cohesion policy programmes as far as applicable
- Mutual learning and two-way benefit from and to the partners from leading scientific institutions from abroad
- Development and promotion of new research strands in relevant domains

Scope: A Teaming project will be implemented as a Coordination and Support action (CSA) under Horizon Europe with grants of up to 15 million € involving the main applicant organisation (the coordinator) established in an eligible country (university or a research organisation, a national/regional authority or a research funding agency) and at least one university or research organisation from a different country with an outstanding international reputation in research and innovation excellence in the chosen scientific domain.

This will be a single application evaluated in a two-stage evaluation procedure with a possibility of evaluating the co-financed part (ERDF or other) in the same work flow in order to create better synergies with the structural funds and alleviate state aid rules. Dedicated provisions for the ranking and selection of proposals will ensure an appropriate geographical balance of the benefitting countries. Appropriate attention will be paid to the content of the proposal and their cutting-edge R&I excellence. In addition, a preparatory research activity may be included.

In the first stage of evaluation the R&I excellence and the conceptual approach for the Centers of Excellence will be evaluated. Applicants have to present a strategic vision how to develop R&I excellence beyond the state of the art in the chosen domain and how the co-ordinator will benefit from the partnership with a leading institution from abroad. In addition, the conceptual approach should outline how to access complementary funding from other sources such as the European Fund for Regional Development (ERDF). This additional funding must however be aligned with national, regional (notably smart specialisation strategies) and/or European strategies or policy priorities (e.g. Green Deal, Digital transformation). Proposals also should sketch out briefly how the autonomy of the envisaged center will be ensured and the necessary human resources recruited and retained.

Applicants successful in stage one will be invited to submit a full proposal for stage two. Proposals at that stage must include an investment plan for the full project including a binding commitment for the necessary complementary funding of at least the same amount then the requested EU contribution.

At a detailed level the full proposal must:

- Present a strategy for how the center will develop excellence in the chosen relevant R&I domain that will put it at the competitive edge beyond the state of the art enabling future success in competitive calls
- Demonstrate the growth potential and expected socio-economic outreach of the Centre of Excellence for the benefit of the host country or region
- Demonstrate how the project will contribute to encouraging and supporting reforms of the R&I system at organisational, regional and or/national level
- Elaborate on the structure of the partnership how this will create a win-win situation
- Demonstrate how the newly established/upgraded Centre will have full autonomy in decision making. In particular, the Centre of Excellence should have the maximum degree of autonomy in terms of taking its own decisions, being in legal, administrative, operational, personnel and academic matters. The Centre should be able to fix and pay competitive salaries for its personnel.
- Elaborate on the steps that will be taken to ensure long term self-sustainability after the end of the Horizon Europe grant.
- Propose a robust human resource strategy that includes gender dimension and international component, ensuring appropriate management capacities for the effective and efficient running of the Centre of Excellence. All recruitments have to follow a transparent, merit based and open recruitment procedures.
- In order to assure the autonomy of the Centre of Excellence (CoE), if relevant, the project might benefit of having the CoE coordinating the project within the duration of the Grant
- Present an investment plan including the letter(s) of commitment for complementary funding from the competent national/regional authorities or private sources to commit financial resources (e.g. resources coming from the ERDF or Instrument for Pre-accession Assistance (IPA II) funds as appropriate) for implementing the future Centre, in particular regarding investment in infrastructure and equipment. The letter(s) of Commitment for complementary funding of the project will be an integral part of the evaluation of the proposal.
- Applicants with an envisaged complementary funding from ERDF may opt for a joint evaluation of the project parts funded under Horizon Europe and ERDF respectively. These operations supported from the ERDF must comply with the relevant cohesion policy programme, related enabling conditions and scope. In this case a clear description of the ERDF funded part needs to be included in the proposal, notably technical specifications of infrastructure, preliminary planning for building and installations etc. The evaluation of this part may use additional criteria required by the Common Provisions Regulation (CPR) for the structural funds (legal implications still to be checked).
- The grant awarded from the Horizon Europe budget will provide substantial support for the start-up and implementation phase of the future Centre of Excellence including the recruitment

of the administrative, technical and scientific personnel. It will also cover expenses related to team members of the future Centre of Excellence (e.g. their salaries, recruitment costs ², administrative costs, travel and subsistence costs).

The grant will not support infrastructure cost. A minor research component will be accepted not exceeding 10% of the total Horizon Europe grant that may include necessary consumables, small equipment and personnel for a preparatory research project. Such small research project embedded in the Teaming action must be aligned with the objectives of the project and e.g. serve the purpose of developing and testing new methodologies and instruments and/or the integration of new scientific personnel.

- The duration of the grant will be up to six years.
- The final ranking of proposals foreseen for selection may take into account the geographical balance and give preference to proposals from countries that were not yet ranked higher in the list in case of equal scoring (to be legally checked).

² This can be considered under the category of "other direct costs"

Call 2 – Twinning

Conditions for the Call

Indicative budget(s):³

Topics	Type of Action	Budget (EUR million) 2021	Budget (EUR million) 2022	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: [date] Deadline(s): [date] [date (First Stage), [date] (Second Stage)]					
TST-02-01-2021 Twinning Western Balkans special	CSA	XX.XX		1,5	ca. X
TST-02-02-2022	CSA		XX.XX	1,5	
Overall indicative budget		XX.XX			

TST-02-01-2021 Twinning Western Balkans special

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]

³

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

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Widening participation and strengthening the European Research Area

<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution in the range of million EUR [1,2 - 1,5] million would allow these outcomes to be addressed appropriately.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR XXX million.
<i>Type of action</i>	Coordination and Support Action
<i>Funding rate</i>	100%
<i>Admissibility</i>	The conditions are described in General Annex A. The following exceptions apply: For the special call at the benefit of Western Balkans only the countries Albania, Bosnia Hercegovina, Montenegro, North Macedonia, Serbia and Kosovo are eligible to host the co-ordinator.
<i>Eligibility</i>	The conditions are described in General Annex B. The following exceptions apply:
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D.

Expected Outcomes: Projects are expected to contribute to the following outcomes:

- Improved excellence capacity and resources in Western Balkan countries enabling to close the still apparent research and innovation gap within Europe.
- Enhanced strategic networking activities between the research institutions of the Western Balkan countries and at least two internationally-leading counterparts at EU level.
- Raised reputation, research profile and attractiveness of the coordinating institution from the Western Balkan country and the research profile of its staff.

- Strengthened research management capacities and administrative skills of the staff working in institutions from the Western Balkan country.
- Improved creativity supported by development of new approaches, increased mobility (inwards and outwards) of qualified scientists.

Scope:

The special Twinning call for Western Balkans will contribute to the wide policy initiative to support of Western Balkan countries. The European Commission adopted on 6th of October a comprehensive Economic and Investment Plan for the Western Balkans (COM(2020) 641, 6/10/2020), which aims to spur the long-term economic recovery of the region, support a green and digital transition, foster regional integration and convergence with the European Union.

In order to support reaching the goals of the Economic and Investment Plan for the Western Balkans and to ensure the sustainability of investment in the region, the Commission will propose a dedicated Agenda for the Western Balkans on Innovation, Research, Education, Culture, Youth and Sport (“Innovation Agenda for the Western Balkans”) (not yet adopted and published).

The purpose of the special Twinning call is to raise the bar for excellence of all R&I actors in these countries. It will be implemented as one special call for Western Balkan countries with a limited eligibility for hosting the co-ordinator for the countries Albania, Serbia, Montenegro, Bosnia and Herzegovina, North Macedonia, and Kosovo in 2021.

This special Twinning aims to enhance networking activities between the research institutions of the Western Balkan countries and internationally-leading counterparts at EU level by linking it with at least two research institutions from two different Member States or Associated Countries. Therefore, building on the huge potential of networking for excellence through knowledge transfer and exchange of best practice between research institutions and partners.

Twinning proposals will have to clearly outline the scientific strategy for stepping up and stimulating scientific excellence and innovation capacity in a defined area of research as well as the scientific quality of the partners involved in the twinning exercise. This scientific strategy should include arrangements for formulating new (or ongoing) joint research project(s) in the scientific area of choice and describe how Twinning will take this research to a new stage, by enlarging its scope and/or the research partnership. If relevant, any links with sustainable development objectives are to be outlined.

Such a strategy should include a comprehensive set of activities to be supported. These should include at least a number of the following: short-term staff exchanges; expert visits and short term on-site or virtual training; workshops; conference attendance; organisation of joint summer school type activities; dissemination and outreach activities.

Proposals should also focus on strengthening the research management and administration skills of the coordinating institution from the Western Balkan country. This should take the form of a dedicated work package or task, placing emphasis to specific activities, in view of

helping the staff of the coordinating institution to improve their proposal preparation and project management/administration skills. If not yet in place, setting up/upgrading a research management/administration unit within the coordinating institution would be beneficial. This will be achieved by fully utilising the experience and best practices of the internationally leading partners and is expected to be a concrete deliverable of the Twinning exercise.

In general, costs relating to administration, networking, coordination, training, management and travel cost are acceptable under Twinning projects. In addition to the above mentioned costs, research, consumables and small equipment costs become eligible and they could constitute up to 30% of the requested funding. This will open opportunities for integrating smaller research projects and by this strengthening the commitment and the engagement of the twinning partners.

The Twinning proposals should illustrate quantitatively and qualitatively the expected potential impact of the twinning exercise within the coordinating institution (and possibly at regional/national level) based on indicators like expected future publications in peer reviewed journals, collaboration agreements with businesses, intellectual property, new innovative products or services.

It should be explained how the leading scientific institutions in the partnership will contribute in terms of provision of access to new research avenues, creativity and the development of new approaches, as well as acting as a source for increased mobility (inwards and outwards) of qualified scientists.

The benefits for the internationally leading scientific institutions and the way they would materialise through the partnership should be substantiated.

The research part of the project must be presented by a dedicated work package and plan including the scientific objectives, tasks and roles of the partner. At least 70% of the research activities must take place at the premises of participants from the eligible countries, notably the co-ordinator.

The duration of the Twinning project can be up to 3 years.

EU contribution of up to EUR 1,5 million would allow Twinning specific objectives to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting lower amounts.

Twinning will be implemented by Coordination and Support Actions (CSA).

TST-02-02-2022: Twinning

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution in the range of million EUR [1,2 - 1,5] million would allow these outcomes to be addressed appropriately.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR XXX million .
<i>Type of action</i>	Coordination and Support Action
<i>Funding rate</i>	100%
<i>Admissibility</i>	The conditions are described in General Annex A.
<i>Eligibility</i>	The conditions are described in General Annex B. The following exceptions apply:
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D.

Expected Outcomes: Projects are expected to contribute to the following outcomes:

- Improved excellence capacity and resources in Widening countries enabling to close the still apparent research and innovation gap within Europe.
- Enhanced strategic networking activities between the research institutions of the Widening countries and at least two internationally-leading counterparts at EU level.

- Raised reputation, research profile and attractiveness of the coordinating institution from the Widening country and the research profile of its staff.
- Strengthened research management capacities and administrative skills of the staff working in institutions from the Widening country.
- Improved creativity supported by development of new approaches, increased mobility (inwards and outwards) of qualified scientists.

Scope:

Twinning aims to enhance networking activities between the research institutions of the Widening countries and internationally-leading counterparts at EU level by linking it with at least two research institutions from two different Member States or Associated Countries. Therefore, building on the huge potential of networking for excellence through knowledge transfer and exchange of best practice between research institutions and partners.

Twinning proposals will have to clearly outline the scientific strategy for stepping up and stimulating scientific excellence and innovation capacity in a defined area of research as well as the scientific quality of the partners involved in the twinning exercise. This scientific strategy should include arrangements for formulating new (or ongoing) joint research project(s) in the scientific area of choice and describe how Twinning will take this research to a new stage, by enlarging its scope and/or the research partnership. If relevant, any links with sustainable development objectives are to be outlined.

Such a strategy should include a comprehensive set of activities to be supported. These should include at least a number of the following: short-term staff exchanges; expert visits and short term on-site or virtual training; workshops; conference attendance; organisation of joint summer school type activities; dissemination and outreach activities.

Proposals should also focus on strengthening the research management and administration skills of the coordinating institution from the Widening country. This should take the form of a dedicated work package or task, placing emphasis to specific activities, in view of helping the staff of the coordinating institution to improve their proposal preparation and project management/administration skills. If not yet in place, setting up/upgrading a research management/administration unit within the coordinating institution would be beneficial. This will be achieved by fully utilising the experience and best practices of the internationally leading partners and is expected to be a concrete deliverable of the Twinning exercise.

In general, costs relating to administration, networking, coordination, training, management travel cost are acceptable under Twinning projects. In addition to the above mentioned costs, research, consumables and small equipment costs become eligible and they could constitute up to 30% of the requested funding. This will open opportunities for integrating smaller research projects and by this strengthening the commitment and the engagement of the twinning partners.

The Twinning proposals should illustrate quantitatively and qualitatively the expected potential impact of the twinning exercise within the coordinating institution (and possibly at

regional/national level) based on indicators like expected future publications in peer reviewed journals, collaboration agreements with businesses, intellectual property, new innovative products or services.

It should be explained how the leading scientific institutions in the partnership will contribute in terms of provision of access to new research avenues, creativity and the development of new approaches, as well as acting as a source for increased mobility (inwards and outwards) of qualified scientists and young researchers including doctoral candidates.

The benefits for the internationally leading scientific institutions and the way they would materialise through the partnership should be substantiated.

The research part of the project must be presented by a dedicated work package and plan including the scientific objectives, tasks and roles of the partner. At least 70% of the research activities must take place at the premises of participants from widening countries notably the co-ordinator

The duration of the Twinning project can be up to 3 years.

EU contribution of up to EUR 1, 5 million would allow Twinning specific objectives to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting lower amounts.

Twining will be implemented by Coordination and Support Actions (CSA).

Call 3 - Excellence Hubs

Conditions for the Call

Indicative budget(s):⁴

Topics	Type of Action	Budget (EUR million) 2021	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: [date] Deadline(s): [date] [date (First Stage), [date] (Second Stage)]				
TST-03-01-2021 Excellence Hubs	CSA	XX.XX	XX – XX	ca. X
Overall indicative budget		XX.XX		

Proposals are invited against the following topic(s):

TST-03-01-2021: Excellence Hubs

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR 3 million and 5 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR [number] million.
<i>Type of action</i>	. Coordination and Support Action
<i>Funding rate</i>	[e.g.100%]

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The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Admissibility</i>	The conditions are described in General Annex A. [The following exceptions apply: ...]
<i>Eligibility</i>	The conditions are described in General Annex B. [The following exceptions apply: ...]
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D. [or ‘not applicable’]

Expected Outcomes: Projects are expected to contribute to the following outcomes:

- Excellent and sustainable place based innovation ecosystems in widening countries in relevant domains of cutting-edge science and innovation
- Long term joint R&I strategies underpinned by concrete action plans of European relevance
- Common investment plans for R&I including infrastructures leveraging national, regional and European fund as well as private capital in a synergetic manner
- R&I pilot projects alongside a joint strategy and in line with regional and national strategies notably regional innovation strategies for smart specialisation (RIS3)
- New competencies and skills for researchers, entrepreneurs and professionals in R&I intensive domains
- Strengthened linkages between science and business
- Poles of attraction for talents in catching up regions
- Improved knowledge transfer and development of entrepreneurial skills.

- Uptake of innovative technologies
- New business opportunities especially for SMEs and new employment.

Scope:

Excellence hubs are part of the European excellence initiative and complement the science oriented schemes Teaming, Twinning, ERA Chairs and the university alliances by a dedicated innovation component. This action is embedded into the broader European initiative on ERA hubs and will help to bridge the innovation divide in this context. It responds to the third priority in the ERA communication on translating R&I results into the economy and will especially: R&I policies should aim at boosting the resilience and competitiveness of our economies and societies. This means ensuring Europe's competitive leadership in the global race for technology while improving the environment for business R&I investment, deployment of new technologies and enhancing the take up and visibility of research results in the economy and society as a whole.

Unlike Teaming projects that are centred around a single beneficiary Excellence hubs are partnerships of place based innovation ecosystems in widening countries involving larger communities of actors in a regional context based on the quadruple helix principle (see below). To limited extent, participants from other EU member states, associated countries and international co-operation partners may join in duly justified cases e.g. given by a specific expertise needed or the involvement in a relevant value adding chain.

Projects will be established around the following core components:

- Cross broader joint R&I strategy
- R&I project consolidating academia business partnership and providing evidence for strategy building and investment
- Action and investment plans for implementation of the strategy
- Conceptual design and pre-planning for pilots and demonstrators (if applicable) in line with the strategy
- Accompanying measures e.g. to raise visibility, citizen engagement, technology transfer, entrepreneurship training, staff exchange, mutual learning etc.

Excellence hubs will improve access to excellence for R&I actors in widening countries and elaborate joint R&I strategies that must be aligned with national, regional (notably RIS3) and/or European strategies or policy priorities (e.g. Green Deal, Digital transition). These strategies will be underpinned by concrete actions plans and an investment strategy that reaches out beyond the project's lifetime and will leverage national, regional and European funds as well as private (venture) capital. Investment plans may include pertinent R&I infrastructures as well as demonstrators and pilots.

The research component should be developed by joint pilot research projects in a domain covered by the joint strategy that will facilitate long term cross border and inter-sectoral collaborative links between partners notably academia and business and advancement in science and technology development with market potential. In a particular R&I projects should serve the purpose to close knowledge gaps and develop evidence to underpin the development of the strategy and the investment plans. For example, in the R&I projects lab prototypes might be developed leading to the design of pilot plants or demonstrators (see above). However, the realisation of such pilots and demonstrators must be financed by other schemes in particular ERDF.

Accompanying measures are complementary activities that may promote knowledge and technology transfer, mutual learning and skills development especially in research and innovation management and entrepreneurship as well as citizen engagement. Mutual secondments and staff exchange within and between ecosystems will help to build trust and long term collaborative links.

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), business entities (active established firms with relevant revenues), public authorities or authorised agencies and 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 member should be preferably represented by a limited number of key players (at least two, thereof one research and one business partner) whereas proposed activities would be open for participation of other members, too. Such member need to confirm their engagement in the project by letters of endorsement. At least one of the business entities needs to be an established firm with significant and proven operational income. In addition, consultants and start-ups may participate if duly justified.

Proposals should outline the nexus of collaborative links and if applicable competition within each of the ecosystems in a conceptual model. Ecosystems or individual partners from outside the widening countries may participate in the consortium as long as they prove added value by facilitating access to excellence for the widening countries. Proposals must convincingly demonstrate the relevance of the chosen domain by its alignment with regional (in particular RIS3), national and/or European R&I strategies and policy priorities. Applicants may choose between a more regional orientation e.g. proven by a common denominator in their regional smart specialisation strategy and/or a more global orientation towards European policy priorities such as the green or digital transition.

The description of R&I content based on this choice should include a long-term vision beyond the state of the art. On top of that, proposal need to demonstrate the win-win effects of the partnership and the benefits for employment and post crisis recovery. For the implementation,

proposals should present a coherent package of actions well proportioned in terms of strategy development, research, innovation and outreach activities.

Excellence hubs as a new action under are complementary but different to initiatives such as Digital hubs or the EIT regional innovation scheme (RIS) because of their strategic orientation, broader scope and alignment with widening eligibility criteria.

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Call 4 - Strengthening capacity for excellence in universities and surrounding ecosystems (European Excellence Initiative (EEI) (preparatory action in 2021))

Conditions for the Call

Indicative budget(s):⁵

Topics	Type of Action	Budget (EUR million) 2021	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: [date] Deadline(s): [date] [date (First Stage), [date] (Second Stage)]				
WPSE-0x-0x-2021 European Excellence Initiative – preparatory action	CSA	xx	XX – XX	xx
Overall indicative budget		XX.XX		

WPSE-xx-xx-2021: Capacity building to strengthen networks of higher education institutions and cooperation with surrounding ecosystems

<i>Conditions related to this topic</i>	
<i>Opening date</i>	Q2 2021 and Q1 2022
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of EUR xx million would allow these outcomes to be addressed appropriately (approx. EUR xx million per network). Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR xx million (two topics).
<i>Type of action</i>	Coordination and Support Action – lump sum
<i>Funding rate</i>	100%

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The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

<i>Admissibility</i>	The conditions are described in General Annex A. [The following exceptions apply: ...]
<i>Eligibility</i>	The conditions are described in General Annex B. The call is targeted to academic sector; this may include comprehensive universities, small universities, non-university research centres, academy of science institutes, polytechnic universities, universities of applied science, and specialised laboratories. Actors of surrounding innovation ecosystems are encouraged to be involved as partner organisations.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: At least 70% of the budget should be allocated to the beneficiaries based in widening countries, or benefit directly the institutional transformation of such beneficiaries. Entities who already benefit from the European Universities initiative pilot funding of Erasmus+ and Horizon 2020 can participate, but are excluded from receiving funding through this action. as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D.

Expected outcomes: Projects are expected to contribute to the following outcomes:

- Integrated and longer term cooperation between the partner universities in the network, and with actors in surrounding ecosystems, jointly creating critical mass to contribute better to major societal challenges
- Tangible progress towards institutional transformation / modernisation of universities (in its broadest sense), including through pilots or study cases following the transformation agenda for universities and higher education institutions, with a particular emphasis on the entities located in widening countries
- Strengthened cooperation with a view to raising excellence, global competitiveness, and general attractiveness for international talents and investments; this includes preparations to embark onto the future European Universities initiative

- Contribute to a portfolio of successful cooperation models for modernisation/transformation at research and innovation level, in synergy with their education dimension; identify remaining barriers at regional/national/EU level hampering cooperation and modernisation; act as a regional role model of successful transformation;
- Facilitate future synergies between the European Education Area and the European Research Area, in particular liaising with the European Universities pilot projects

Scope: The capacity building towards the European Excellence Initiative aims to significantly strengthening cooperation between at least two organisations from academic 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.

1. Enhance the scientific and technological capacity of the linked institutions with a principal focus on the entities from the Widening Country/-ies;
2. Help raise the excellence profile of the institution from the Widening country as well as the excellence profile of its staff;
3. Strengthen considerably the networks towards realising integrated cooperation between the participating entities in the research and innovation dimension, in synergy with the entities' education and training missions

Successful proposals will have to clearly outline the cooperation and strategy for stepping up and stimulating scientific excellence and innovation capacity in defined areas of research as well as the scientific quality of the partners involved in the exercise. This strategy should include arrangements for institutional transformation according to a shared agenda that could include (a) developing shared research & innovation strategies and roadmaps to create directional and interdisciplinary critical mass, in order to more effectively create impact for society; (b) sharing capacity and resources, through collaborative settings preparing the network towards the establishment of a European Universities alliance or similar long-term network, (b) strengthening attractiveness of researchers' careers, towards a pipeline of talents crucial for an effective European Research Area, including reform in career assessment; (c) co-operation with surrounding ecosystem actors for the transmission of knowledge and talents; (d) transition to knowledge- and digitally-driven universities, embracing Open Science; (e) creating proximity to and engaging citizens for solving societal challenges. Where relevant, any links with sustainable development objectives are to be outlined.

The way forward with and within the different priority areas for transformation of universities remains the choice of the alliances. For all modules listed above, where appropriate, legal, regulatory, and financial barriers hampering cooperation among universities in research and innovation as well as recommendations on the way forward shall be identified. More detailed information, including examples of activities that can be supported within these different priority areas can be found in the accompanying [guidance document](#), which is published together with this work programme [to be updated, LINK:

https://ec.europa.eu/research/participants/data/ref/h2020/other/guides_for_applicants/other-doc_h2020-iba-swafs-support-1-2020_h2020-iba-swafs-support-2-2020_en.pdf].

Such a common strategy should include a comprehensive set of activities to be supported. These should include at least a number of the following: short term staff exchanges; expert visits and short-term on-site or virtual training; workshops; conference attendance; organisation of joint summer school type activities; dissemination and outreach activities; research management and administration.

The duration of the university network capacity building project can be up to 3 years.

The Commission considers that proposals requesting a contribution from the EU of EUR XX million, would allow this specific challenge to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting lower amounts.

Destination 2 – Attracting and mobilising the best talents

In line with the fourth strategic priority of deepening, the ERA this part will help to make further progress on the free circulation of knowledge in an upgraded, efficient and effective R&I system. The intervention points are both at the level of individual researchers e.g. helping to develop the skills that researchers need for excellent science and, connect all actors across Europe and at the level of institutions and smaller research groups around future ERA Chair holders.

The impact of ERA Chairs will be support to universities or research organisations from eligible countries to attract and maintain high-quality human resources under the direction of an outstanding researcher and research manager (the 'ERA Chair holder'), and to implement structural changes to achieve excellence on a sustainable basis.

The institutional dimension will be complemented by opportunities for brain circulation for postdoctoral researchers' right across the ERA and across sectors aiming at reverting the brain drain from widening countries. In addition, a better exploitation of existing (and possibly jointly managed) research infrastructures in the targeted countries through mobility of researchers and innovators will be achieved. Reinforcing and strengthen the interaction between education and research, such as through the research and innovation dimension of European Universities, training and mobility will further improve attracting and retaining the European talent pool.

Expected impact

Proposals for topics under this Destination should set out a credible pathway to contributing to the following expected impact:

- Inciting institutional reforms in research institutions in widening countries
- Better use existing research infrastructures and populate them with excellent talents
- Attract first-class talents and turn them into game changers in institutions
- Revert brain drain
- Improved linkages and increased mobility between academic and business, notably by overcoming sectoral barriers
- Free circulation of knowledge and expertise in line with ERA priorities
 - Improve gender balance and equal opportunities

The following call(s) in this Work Programme contribute to this Destination:

Call	Call budget (EUR million)	Call budget (EUR million)
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Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

	2021	2022
D2-01-2021 ERA Chairs	XX.XX	
WPSE-0x-2021 Fostering balanced brain circulation (part I, together with MSCA-Postdocs)	XX.XX	
WPSE-0x-2022 Fostering balanced brain circulation (part II, together with MSCA-Postdocs)		XX.XX
Overall indicative budget	XX.XX	XX.XX

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Call 1 - ERA Chairs

DDD-01-2021

Conditions for the Call

Indicative budget(s):⁶

Topics	Type of Action	Budget (EUR million) 2021	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: [date] Deadline(s): [date] [date (First Stage), [date] (Second Stage)]				
DDD-01-01-2021 ERA Chairs	CSA	XX.XX	XX – XX	ca. X
Overall indicative budget		XX.XX		

Proposals are invited against the following topic(s):

DDD-01-01-2021: ERA Chairs

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of up to xx million EUR would allow these outcomes to be addressed appropriately.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR [number] million.
<i>Type of action</i>	CSA
<i>Funding rate</i>	[e.g.100%]
<i>Admissibility</i>	The conditions are described in General Annex A. [The following exceptions apply: ...]
<i>Eligibility</i>	The conditions are described in General Annex B. [The following exceptions apply: ...]

⁶

The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.

The Director-General responsible may delay the deadline(s) by up to two months.

All deadlines are at 17.00.00 Brussels local time.

The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D.

Expected Outcomes: Projects are expected to contribute to the following outcomes:

At system level:

- Increase in number of R&I talents moving to host organisations in Widening countries
- Increase in international, interdisciplinary and intersectoral mobility of researchers and innovators
- Strengthening of Widening countries' human capital base in R&I with more entrepreneurial and better trained researchers and innovators
- Better communication of R&I results to society
- Better quality and capacity of research and innovation contributing to Europe's competitiveness and growth
- Improved excellence capacity and resources in Widening countries and close the still apparent research and innovation gap within Europe

At organisation level:

- Research excellence of the institution in the specific fields covered by the ERA Chair holder in partnership with an outstanding European or international institution.
- Increased attractiveness of the institution for internationally excellent and mobile researchers.

- Creation of a permanent and excellent research group in the chosen scientific field with a spill-over effect on the institution;
- Improved capability to succeed in competitive research funding in the EU and globally, at least, in the fields of choice;
- Greater contribution to the knowledge-based economy and society

Scope:

Progress towards more and better links between research and innovation actors across European Research Area and beyond is a requirement if Europe as a whole is to capitalise on excellence from across the continent. To foster brain circulation for researchers and innovators the intervention point of the ERA Chairs actions is attracting in a sustainable manner outstanding scientists and innovators to universities or research organisations in catching up countries and regions. This measure of “brain gain” and creation of pockets of excellence will impact on the culture and performance of host institutions.

The leadership of the ERA Chair holder and the creation of a permanent and excellent research group in the chosen scientific field will ensure excellence, visibility and better integration in the European Research Area, as well as fostering competitiveness in research funding and promoting institutional reforms aligned with ERA priorities.

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 Union⁷. The institution in the Widening country shall be the coordinator and can opt between a joint application with the legal entity currently employing the future ERA Chair or submitting a proposal as a single applicant. For the former, partner institutions can be located in any country (including countries outside the EU) except the country of the coordinator and ERA Chair holders can be citizens of any country in the world.

Proposals should include a simplified CV of the future ERA Chair holder and detail the scientific and technical support he/she will provide to the coordinator and how the proposed activities will upgrade from the current situation. If there is a partner institution proposals should outline its scientific quality and any additional support to be provided by it to the coordinator. Proposals should also describe any relevant investments of the coordinator in research projects, facilities and infrastructures and how those will be achieved and/or a better use of the installed research capacity (in particular of EU co-funded research infrastructures & facilities). Existing or foreseen arrangements for compliance with ERA priorities⁸ including the

⁷ <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12012E/TXT&from=en>

⁸ <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2012:0392:FIN>

European Charter for Researchers & Code of Conduct for the Recruitment of Researchers⁹ are to be outlined in the proposal and this should also include a dedicated work package or task aimed at strengthening the research management and administration skills of the coordinator institution.

ERA Chair holders should be excellent researchers and/or innovators in the chosen field of research. They should establish a research team fully integrated in the coordinator's institution to significantly improve its research performance in the scientific domain of choice and to be more successful in obtaining competitive funding. The ERA Chair holder should have a position within the organisation/university, allowing her/him to make appropriate resource allocation decisions, supervise team members and freely apply for research funding. When this is compatible with the nature of the coordinator, he/she is expected to take on some teaching duties.

To allow for the determination of the commitment of the future ERA Chair holder and of the coordinator institution, proposals shall include: 1) a letter signed by the prospective ERA Chair holder expressing his/her commitment to the proposal and willingness to take on the underlying tasks and obligations; 2) a letter from the head of the coordinator institution committing to the proposal and stating that the ERA Chair holder is to receive adequate support to take on her/his tasks and duties including, for example, access to research facilities, supervision of researchers, teaching duties (if any) and capacity to apply freely to national and international funding.

The ERA Chair holders might move on a temporary or permanent basis to the coordinator's premises. To this end, secondments or any other legal arrangements (e.g., leave without pay, sabbatical licences) are possible including part-time work and multiple stays. All contractual arrangements and the timeline of ERA Chairs stays at the coordinator should be indicated in the proposal as well as the salary, travel and daily allowances and/or other perks to be offered. If, at any stage, the preferred option is an employment contract the future contractual arrangements with the coordinator should be detailed.

The composition, levels of remuneration and timeline of implementation of the ERA Chair holder research team should be indicated and the appointment of team members must follow an open, transparent and merit-based recruitment process with the assessment of candidates by an international recruitment panel to be outlined in proposals.

To ensure the sustainability of the action, the ERA Chair research team should have conditions to thrive after the end of the Horizon Europe funding. This should be clearly demonstrated in the proposal and include the appointment of the leader of the newly created research group on a permanent basis within the coordinator organisation (to which the ERA Chair holder might apply) no later than during the initial 2/3 of the duration of the grant. This is to be conducted through an open recruitment procedure to be monitored by the European Commission.

⁹ <http://eur-lex.europa.eu/eli/reco/2005/251/oj>

Grants can have a duration of up to five years and cover expenses related to the ERA Chair holder and a number of team members (e.g. their salaries, recruitment costs¹⁰, administrative costs, travel and subsistence costs) and research costs up to 10% of the EU contribution. . Costs to be claimed by a partner institution should be mainly linked to personnel seconded to the coordinator. The grant will also provide a contribution towards measures aimed at facilitating structural changes in the institution (e.g. costs for trainings, meetings, publications and managing Intellectual Property Rights (IPR).

For grants awarded under this topic and type of action, the following cost categories will be ineligible costs:

- Infrastructure costs;

ERA Chairs will be implemented as a Coordination and Support action (CSA) evaluated in a single-stage evaluation procedure under Horizon Europe with grants up to XX€ involving an university or a research organisation established in a Widening country as monobeneficiary or as coordinator if the proposal is submitted in partnership with the legal entity employing the prospective ERA Chair holder.

¹⁰ That can be considered under the category of "other direct costs"

Call 2 - Fostering balanced brain circulation (BBC)

DDD-02-01-2021-2022: Fostering balanced brain circulation

<i>Conditions related to this topic</i>	
<i>Opening date</i>	[date]
<i>Deadline</i>	[date] [date (First Stage), [date] (Second Stage)]
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of [between] EUR [number] [and [number]] million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR [number] million.
<i>Type of action</i>	[e.g. Coordination and Support Action]
<i>Funding rate</i>	[e.g.100%]
<i>Admissibility</i>	The conditions are described in General Annex A. [The following exceptions apply: ...]
<i>Eligibility</i>	The conditions are described in General Annex B. [The following exceptions apply: ...]
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C. [The following exceptions apply: [insert additional details] as [insert text to duly justify this exception].
<i>Award criteria</i>	The conditions are described in General Annex D. [if needed, insert additional conditions here]
<i>Documents</i>	The documents are described in General Annex E.
<i>Procedure</i>	The procedure is described in General Annex F. [if needed, insert additional rules here]
<i>Legal and financial set-up of the Grant Agreements</i>	The conditions are described in General Annex G. [if needed, add exceptions here]
<i>Technology or societal readiness level</i>	Activities are expected to achieve TRL/SRL [delete as appropriate] [add range] by the end of the project – see General Annex D. [or ‘not applicable’]

Expected outcomes: Projects are expected to contribute to the following outcomes:

- Attract more R&I talents to entities in widening countries, by providing competitive grants and spreading attractive working and employment practices

- Enhance the creative and innovative potential of research and innovation talents wishing to diversify their individual competences and skills through advanced training, international, interdisciplinary and inter-sectoral mobility across all sectors of research;
- Support diversification of careers for R&I talents
- Strengthen Europe's human capital base in R&I with better trained, innovative and entrepreneurial researchers
- Enhance the quality of R&I contributing to Europe's competitiveness and growth
- Contribute to Europe's attractiveness as a leading destination for R&I and for good working conditions of researchers
- Facilitate knowledge transfer and brain circulation across the ERA
- Promote wider diffusion of Open Science practices

Scope: Brain Circulation Grants aim to attract more R&I talents to host organisations in widening countries. The action will support mobility of a diverse audience of early career and experienced R&I talents, such as research infrastructure experts and operators, science managers, R&I facilitators such as data stewards and knowledge brokers, researchers in business sector, starting entrepreneurs, moving or returning to host organisations in widening countries.

At individual talent level, the goal of Brain Circulation Grants is to enhance the creative and innovative potential R&I Talents, wishing to diversify their individual competence in terms of skill acquisition through advanced training, international and intersectoral mobility. The action provides opportunities to researchers and innovators of any nationality to acquire and transfer new knowledge and to work on research and innovation...

The fellow is encouraged to collaborate with other sectors, and perform secondments to the partner organisation(s) during the fellowship; the opportunity to continue the employment at the host or partner organisation after the duration of the grant is not mandatory but will be considered beneficial during the evaluation (higher score for impact selection criterion).

Brain Circulation Grants will provide mobility fellowships of up to 2.5 years. There are no limits to the nationality, age, or origin of the target group, but the Grant is restricted to applicants with a host organisation in a widening country.

Support is foreseen for individual, trans-national fellowships awarded to R&I talents of any nationality, moving or returning to host organisations in Widening countries.

[This topic is relevant for MSCA Postdoctoral Fellowships and will be updated in due time in order to ensure adequate complementarity, on the basis of discussions with Member States.]

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Other Actions not subject to calls for proposals¹¹

Grants not subject to calls for proposals

1. Grant to identified beneficiary according to Financial Regulation Article 195: COST (European Co-operation in Science and Technology)¹²

COST (European Co-operation in Science and Technology) is an EU funded pan European programme that enables researchers to set up their interdisciplinary research networks in Europe and beyond. The programme was established in 1971 in an intergovernmental mode. It is currently implemented by a member state owned organisation i.e. the COST Association under a Framework Partnership Agreement (FPA). Three underlying Specific Grant Agreements (SGAs) are funded through the EC.

While the networks are open to international partners from outside Europe, COST provides a unique low entry mechanism for researchers from countries catching up in the R&I in the EU and from its Eastern and Southern neighbours while remaining open for researchers from all European countries and international partners. For many researchers (especially at the beginning of their career) from widening countries, the participation in COST networking actions is the sole opportunity for getting in touch with European and international research initiatives and to benefitting from exposure to leading scientists in their field. The approach of COST is not funding research itself but pooling resources and research results by networking and hence upscaling.

The specific objectives of this support mechanism are to:

- Increase participation of widening countries (so-called ITC inclusive target countries according to COST) in European research activities and higher success rates;
- Contribute towards improving the R&I culture of the widening country (indicators such as research intensity, innovation performance, values towards R&I);
- Improve scientific capabilities of widening countries to increase their chances in participating and successfully obtaining competitive funding from the EU and other international sources;
- Trigger scientific breakthroughs and new research strands by pooling interdisciplinary resources across Europe;
- Boost the career of young and female researchers by networking and brain circulation in line with ERA principles and the development of leadership skills;

¹¹ The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

¹² Add footnote if necessary

- Strengthen the research management capacities and administrative skills of participating researchers.
- Develop synergies with other widening actions and create links to thematic parts of Horizon Europe notably pillar 2

Legal entities:

COST (European Co-operation in Science and Technology)

21 Avenue du Boulevard, 1210 Brussels BE

Form of funding: Grants

Type of Action: Grant to identified beneficiary – [sub-type, chosen in CPS from a drop-down menu]

Indicative timetable: [Add action timetable](#)

Indicative budget: EUR X.XX million from the 2021 budget

2. Specific grant agreement under a Framework Partnership Agreement FPA¹³

The EC funds almost the entire programme under a Framework Partnership Agreement (FPAs) with underlying two sequential Specific Grant Agreements (SGAs). In the FPA and the SGA the beneficiary COST Association a mandatory conditionality will be introduced to spend at least 50% of the budget at the benefit of researchers from countries eligible for SEWP ("widening countries") and to run 80% of the activities with a significant widening dimension. The primary purpose of this grant is the implementation of the COST networking actions. The costs of operations incurred by the COST Association as the implementing structure are eligible as direct cost within a budget ceiling of XXXX million Euro as far as they are necessary for the implementation of the COST networking actions and related other support activities. The cost items in the following closed list are considered eligible in this respect: (XXXX to be defined XXXX)

Form of funding: Grants

Type of Action: Specific grant agreement – [sub-type, chosen in CPS from a drop-down menu]

Indicative timetable:

SGA 1 XXX million from 2021 Budget (3 years duration)

SGA 2 XXX million from 2024 Budget (4 years duration)

Indicative budget: EUR X.XX million from the 202X budget and EUR X.XX million from the 202X budget

¹³ [Add footnote if necessary](#)

3. Grant to identified beneficiary according to Financial Regulation Article 195: NCP Network ¹⁴

To reduce disparities in research performance and participation success, actions to facilitate the trans-national co-operation between NCPs will be deployed, helping less experienced entities in low performing Member States or regions, bridge the knowledge gap and rapidly acquire know-how accumulated in other countries thus enabling better access to funding opportunities in the EU Framework Programmes and beyond.

As a part of the Advancing Europe package, a dedicated support mechanism will be established to strengthen the activities of NCPs to support international networking and to improve the quality of proposals from legal entities from low R&I performing Member States. This will be a key element to realise the advancing Europe package agreed by the legislators.

The specific objectives of this support mechanism are to:

- Assist and support the potential clients in submitting proposals to the widening part of Horizon Europe, including detailed guidance on the web portal submission system;
- Foster collaboration within the NCP system to promote synergies with non-widening countries participants, including developing of a match-making electronic platform;
- Support applicants with professional pre-proposal checks and advice. Add description of the action here. See guidance on the Horizon Europe toolbox for more information.

Legal entities:

National Contact Point for Research Programmes of the EU

Warsaw, Poland

(to be double-checked)

Form of funding: Grants

Type of Action: Grant to identified beneficiary – [sub-type, chosen in CPS from a drop-down menu]

Indicative timetable: [Add action timetable](#)

Indicative budget: EUR X.XX million from the 202X budget and EUR X.XX million from the 202X budget

4. Specific grant agreement: NCP Network including proposal pre-check

Form of funding: Grants

Type of Action: Specific grant agreement – [sub-type, chosen in CPS from a drop-down menu]

¹⁴ [Add footnote if necessary](#)

This support mechanism will take the form of a Coordination and Support Action (CSA) grant under Horizon Europe, possibly, it may include cascade funding, (financial support for third parties - FSTP).

The implementation will include following actions: info days, training and joint workshops; tailored consultations and advice; support to matchmaking platform; proposal pre-screening (checks on eligibility and viability of concept) and actions dedicated to networking and matchmaking activities. A mutual learning process among NCPs will help building capacity by helping less experienced NCPs to enhance their competence (training, workshops) For the proposal pre-check part it ranges from seminar style training for proposal writing for larger groups to written advice on individual proposals (e.g. on clarity of objectives, consistency with work programme, balanced budget etc.) but not on scientific content and coaching of individuals. The action may include advice for applications outside the widening programme to a limited extent and based on strategic choices. As far as the matchmaking is concerned far as possible synergies with existing platforms e.g. Participants Portal and EURAXESS should be explored but also dedicated events in a physical or virtual mode needs to be organised.

The duration this project can be up to 5 years (plus 2 year of extension). EU contribution of up to EUR 15 million would allow specific objectives to be addressed appropriately.

Indicative timetable: [Add action timetable](#)

Indicative budget: EUR X.XX million from the 202X budget and EUR X.XX million from the 202X budget

The use of a cascade-funding model could help to fill the gaps in availability of personnel with NCP host organisation by delegating parts of the tasks to third parties (external consultants) under control of NCPs. The modalities still need to be clarified.

In the current network of widening NCPS there is also a competition between countries for the best success in the calls notably in Teaming and therefore sharing knowledge in some cases becomes a sensitive issue. On top of that, there are strong disparities in the endorsement of NCP organisation by their national environment. The question arises to what extent the grant should step in to smoothen these disparities and hence “reward” the low investment by member states with European funding.

5. Hop-On schemes

The scheme helps to achieve the Inclusiveness ambition of the future ERA policy by involving research institutions from less research performing countries in the HE collaborative R&I projects. It will be implemented in two steps with an incentive scheme already for the first HE calls and a classical topping up hop on scheme following in 2023 once the first projects have been established that could host additional partners.

A. Hop-on incentive scheme (a pilot)

The implementation of this pilot scheme will be done by an integration prime (a lump sum) on the grounds of Article 125 of the Financial Regulation (FR) as an incentive to be paid to consortia under HE Pillar 2 for the additional efforts needed to integrate one or more partners from widening countries.

Expected outcomes: The scheme contributes to the following outcomes:

At system level:

- Mobilising excellence in the Widening countries
- Increasing visibility and reputation of the participants from the Widening countries and improve knowledge circulation
- Reducing imbalances in participation of widening countries in specific thematic domains and improving knowledge circulation

At organisation level:

- Opening up silos of established closed clubs by building trust for new partners
- Increasing research excellence of the institution in the specific fields covered by the international projects
- Established participants will enlarge scope and outreach of their R&I actions and get access to new partners and talent pools.

Scope:

An incentive scheme integrates participants from widening countries as full project partners from the start while topping up a continuous mentoring and capacity building during the project, incentive prime or lump sum of maximum 5% of project budget and no more than 3% of total widening budget to be earmarked for this action. This will happen on a voluntary basis without affecting the freedom of choice for the consortium.

Financing is based on the achievement of results measured by reference to previously set milestones or through performance indicators. The milestones are defined as the implementation of a mentoring scheme for the widening partner(s) proven by a dedicated activity report whereby the concrete design and implementation is left to the consortium itself. Activities could include coaching, staff exchange, training especially on science management and communication, legal and financial aspects of EU funded R&I projects, and others. The achievement of the milestone should be evidenced by a simple activity report annexed to the first periodic report of the project.

To ensure effective functioning of the scheme, the access of information about the ongoing projects should be organised as a web-based matchmaking service coordinated by an electronic matchmaking platform by the National Contact Points (NCPs) in cooperation with the European Commission.

In addition, matchmaking activities for widening partners will be included in dedicated CSAs running under pillar 2.

Type of Action:

For the sake of effectiveness, the scheme takes the following form: (a) financing not linked to the costs of the relevant operations based on (ii) the achievement of results measured by reference to previously set milestones or through performance indicators.

The milestones are defined as the successful implementation of a mentoring scheme for the widening partner(s) proven by a dedicated activity report whereby the concrete design and implementation should be left to the consortium itself. Possible activities could be for example coaching, staff exchange, training especially on science management and communication, legal and financial aspects of EU funded R&I projects.

Indicative timetable:

The approach will be tested in 2021 with a pilot focussed on thematic calls in clusters related to domains where a significant underrepresentation of widening countries was observed under Horizon 2020. Once successful, the scheme will be expanded to the entire HE Pillar 2 from 2022.

Indicative budget:

EUR X.XX million from the 2021 budget and EUR X.XX million from the 2022 budget.

B. Hop-on classical scheme

This scheme means a voluntary possibility for a consortium to add only one new extra partner (from a Widening country) to the established consortium after the evaluation of a project (ex-post). Its implementation can be done via an amendment in reply to an open call under the thematic actions of Pillar 2, where also the modalities for its implementation will be added.

Expected outcomes: The scheme contributes to the following outcomes:

At system level:

- Mobilising excellence in the Widening countries
- Increasing visibility and reputation of the participants from the Widening countries and improve knowledge circulation
- Reducing imbalances in participation of widening countries in specific thematic domains and improving knowledge circulation

At organisation level:

- Opening up silos of established closed clubs by building trust for new partners

- Increasing research excellence of the institution in the specific fields covered by the international projects
- Established participants will enlarge scope and outreach of their R&I actions and get access to new partners and talent pools.

Scope:

The Hop-on classical scheme integrates participants from widening countries to a running project ex-post while topping up with costs for that additional participant. These costs, cannot exceed 5% of project budget. This will happen on a voluntary basis without affecting the freedom of choice for the consortium.

To ensure effective functioning of the scheme, the access of information about the ongoing projects should be organised as a web-based matchmaking service coordinated by an electronic matchmaking platform by the National Contact Points (NCPs) in cooperation with the European Commission.

In addition, matchmaking activities for widening partners will be included in dedicated CSAs running under pillar 2.

Type of Action:

Indicative timetable:

This scheme can be implemented as from the second Work Programme (2023-2024).

6. Presidency conferences with a European regional dimension

Since 2010, annual presidency conferences have created a platform to address, develop and progress key topics of interest to the European regional innovation community. As such, the conferences have contributed largely to the important task for all potential actors in H2020 to network, spread research and innovation excellence and connect regions and people.

The specific objectives of this support mechanism are to:

- Contribute to regional excellence, research and innovation in Europe;
- Better positions regional actors to strengthen and enlarge the research and innovation networks in Europe;

7. Expert Contracts for Programme Monitoring, Impact Assessment and Evaluation

- still under elaboration -

Form of funding: Other budget implementation instruments

Type of Action: Expert Contracts

Indicative timetable: Add action timetable

Indicative budget: EUR X.XX million from the 202X budget and EUR X.XX million from the 202X budget

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Budget¹⁵

Budget tables may be adapted after discussion with BUDG

	Budget line(s)	2021 Budget (EUR million)	2022 Budget (EUR million)
Calls			
[List of calls here]		X.XX	X.XX
	<i>Budget line 1</i>	<i>X.XX</i>	<i>X.XX</i>
	<i>Budget line 2</i>	<i>X.XX</i>	<i>X.XX</i>
	<i>Budget line 3</i>	<i>X.XX</i>	<i>X.XX</i>
Other actions not subject to calls for proposals			
Grants not subject to calls for proposals		X.XX	X.XX
	<i>Budget line</i>	<i>X.XX</i>	<i>X.XX</i>
Direct action grants		X.XX	X.XX
	<i>Budget line</i>	<i>X.XX</i>	<i>X.XX</i>
Prizes		X.XX	X.XX
	<i>Budget line</i>	<i>X.XX</i>	<i>X.XX</i>
Procurements		X.XX	X.XX
	<i>Budget line</i>	<i>X.XX</i>	<i>X.XX</i>
Expert Contracts		X.XX	X.XX
	<i>from Budget line</i>	<i>X.XX</i>	<i>X.XX</i>
Subscription		X.XX	X.XX
	<i>Budget line 1</i>	<i>X.XX</i>	<i>X.XX</i>
	<i>Budget line 2</i>	<i>X.XX</i>	<i>X.XX</i>
Estimated total budget		X.XX	X.XX

¹⁵

The budget figures given in this table are rounded to two decimal places.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

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Destination 3: Reforming and enhancing the EU research and innovation system

Introduction

The Horizon Europe intervention area on Reforming and Enhancing the EU Research and Innovation System seeks to facilitate the implementation of concrete measures to support the strengthening of the European Research Area. The overall objective is to support the development of a European Research Area where knowledge and a highly skilled workforce circulate freely; where research outputs are shared rapidly and efficiently; where researchers benefit from attractive careers and gender equality is assured; where common strategic research agendas are aligned to national plans and where the outcomes of research and innovation are understood, and trusted, by informed citizens and benefit society. While fully in line with the Horizon Europe legislative act, the envisaged activities also underpin the direction of the forthcoming ERA Communication regarding directionality, inclusiveness and connectivity.

Under this destination, policy reforms at national level will be mutually reinforced and complemented through the development of EU-level policy initiatives, research, networking, partnering, coordination, data collection and monitoring and evaluation. Concrete measures will be implemented to support the strengthening of the European Research Area in order to maximize the impact of European research and innovation worldwide during Horizon Europe.

Call	Budgets (EUR million)Deadline(s)
HE-ERA-D3-01-2021 REFORMING AND ENHANCING THE EU RESEARCH AND INNOVATION SYSTEM	
HE-ERA-D3-01-2022 REFORMING AND ENHANCING THE EU RESEARCH AND INNOVATION SYSTEM	
Estimated total budget	

Call - REFORMING AND ENHANCING THE EU RESEARCH AND INNOVATION SYSTEM

HE-ERA-D3-01-2021

Conditions for the Call

Indicative budget(s)¹⁶

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: na				
ERA-D3-01-10-1-2021 Innowwide Bridging Facility	CSA	N/A - N/A	N/A	
ERA-D3-01-14-1-2021 Standardisation Booster for fostering exploitation of FP-funded research results	CSA	N/A - N/A	N/A	
ERA-D3-01-14-2-2021 R&I intensive IP management: Scenarios for the future	CSA	N/A - N/A	N/A	
ERA-D3-01-3-1-2021 Support for policy makers – Programme level collaboration between national R&I programmes	CSA	N/A - N/A	N/A	
ERA-D3-01-3-2-2021 Support for R&I policy making in the Western Balkans	CSA	N/A - N/A	N/A	
ERA-D3-01-4-1-2021 Evidences on the impacts of open science practice	RIA	N/A - N/A	N/A	

¹⁶ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
The Director-General responsible may delay the deadline(s) by up to two months.
All deadlines are at 17.00.00 Brussels local time.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

ERA-D3-01-4-2-2021 Supporting the development of aligned policies for open access books and monographs	CSA	N/A N/A	-	N/A	
ERA-D3-01-4-3-2021 Supporting the transition to Open Access of publishing activities of scholarly societies	CSA	N/A N/A	-	N/A	
ERA-D3-01-4-4-2021 Global cooperation on open science policy and implementation, such as for the FAIRness of data & digital objects in a discipline specific manner	CSA	N/A N/A	-	N/A	
ERA-D3-01-4-5-2021 Support to changes in the assessment of research and researchers to reward the practice of open science	CSA	N/A N/A	-	N/A	
ERA-D3-01-4-6-2021 Doctoral training for an open and responsible practice of research and innovation	CSA	N/A N/A	-	N/A	
ERA-D3-01-6-1-2021 Towards a Europe-wide mobility programme for science managers	CSA	N/A N/A	-	N/A	
ERA-D3-01-6-2-2021 Protection of Higher Education Institutions and research organisations against conventional and non-conventional threats	CSA	N/A N/A	-	N/A	
ERA-D3-01-6-3-2021 Acceleration Services in support of the institutional transformation of Higher Education Institutions	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-1-2021 A capacity-building and brokering network to make citizen science an integral part of the European Research Area	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-2-2021 Kick-starting and making citizen science initiatives sustainable in the European Research Area	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-3-2021 Trust of society in science, research and innovation	RIA	N/A N/A	-	N/A	
ERA-D3-01-7-4-2021 Developing a STE(A)M roadmap for Science Education in Horizon Europe	CSA	N/A N/A	-	N/A	

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

ERA-D3-01-8-1-2021 Centre of excellence on inclusive gender equality in Research & Innovation	RIA	N/A N/A	-	N/A	
ERA-D3-01-8-2-2021 Policy coordination to advance the implementation of the era gender equality and inclusiveness objectives within member states	CSA	N/A N/A	-	N/A	
ERA-D3-01-8-3-2021 Enhanced partnership with R&I funding organisations to promote gender-inclusive policies and programmes	CSA	N/A N/A	-	N/A	
ERA-D3-01-8-4-2021 Support to national expertise on the integration of gender dimension in Horizon Europe	CSA	N/A N/A	-	N/A	
ERA-D3-01-9-1-2021 The challenges of research ethics and integrity in response to crisis: the coronavirus pandemic and beyond	CSA	N/A N/A	-	N/A	
ERA-D3-01-9-2-2021 Ensuring reliability and trust in quality of Research Ethics expertise in the context of new/emerging technologies	CSA	N/A N/A	-	N/A	
Overall indicative budget					

Prioritizing investment and reform

Proposals are invited against the following topic(s):

ERA-D3-01-3-1-2021: Support for policy makers – Programme level collaboration between national R&I programmes

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

The actions funded under this topic will coordinate national and regional R&I programmes by pooling national resources and contributing to the alignment of national research and innovation policies. The expected outcomes:

- Identification of common research and innovation priorities agreed among the participating national and regional R&I programmes, taking into account international developments where relevant;
- Implementation of multiannual joint calls, resulting in the funding of transnational collaborative R&I projects;
- Implementation of other joint activities supporting the market, regulatory or societal uptake of results;
- Contribution to participating states meeting Global Challenges, including relevant contribution to the SDGs.

Scope: Since the introduction of the European Research Area (ERA) and starting with FP6 the Programme level collaboration among Member States and their research and innovation programmes has become a cornerstone of ERA, with annual investment from Member States in excess of € 800 million per year. More than 250 networks among research funders have been created over time, serving different research needs but always coordinating public research investments across borders and allowing researchers to apply calls for transnational research projects funded by the participating states.

The new policy approach to European Partnerships limits co-funding to Member State collaboration to Union and Horizon Europe priorities. Therefore, the ERA part of the Horizon

Europe provides the possibility for Member States, Associated Countries and civil society organisations such as foundations, to maintain existing and established new collaborations on priorities of their choice.

The successful proposal should align national, regional research funding programmes on agreed common priorities and implement joint calls for transnational R&I projects as well as other joint. Proposers have to demonstrate clear commitments from participating programmes to pool resources and ensure complementarity between activities and policies with those of the Framework Programme and relevant European Partnership Initiatives.

Proposals should pool the necessary resources from the participating national (or regional) research programmes as well, where appropriate, leverage resources from pertinent foundations, charities and transnational initiatives, with a view to implementing calls for proposals resulting in grants to third parties with EU co-funding in this area.

The proposal should also demonstrate potential impact at national, regional and transnational research and innovation. The proposal should demonstrate that activities exclude any overlaps with on-going actions co-funded by the EU under Horizon 2020 or Horizon Europe.

Participation of legal entities from third countries, and/or regions including those not automatically eligible for funding in accordance with General Annex A, is encouraged. Participants from countries not listed in General Annex [insert] are eligible for EU funding under this topic

The actions should envisage a duration that is appropriate to the ambition and complexity of the proposed topic..

Improving access to excellence

Proposals are invited against the following topic(s):

ERA-D3-01-6-1-2021: Towards a Europe-wide mobility programme for science managers

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions

<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Improved knowledge for policy making about the networking patterns of research support staff and research management
- Measures to increase awareness amongst research management staff about existing networking and mobility opportunities at EU, national, and regional level – and, where needed, new networking and mobility schemes
- Ultimately, increased capacity and compatibility of cooperation and funding systems throughout the ERA for research management, and support to scientists.
- Improving the awareness of the EU policy drivers and the EU research peculiarity in the Higher Education Institutions and Research organizations
- Preparation of the Establishment of (a) central hub(s) to provide the EU research system with the most appropriate “fit for purpose” skills in EU research management, with a particular emphasis on the entities located in widening countries
- Define a clear path career for science/research manager enhancing their role towards the ERA achievement

Scope:

Research management can take many shapes: research policy advisers, research managers, financial support staff, knowledge transfer officers, business developers, knowledge brokers, innovation managers, etc. Entities and regions who are proven strong and excellent hubs in knowledge creation and innovation usually rely on a strong population of research managers.

This topic aims at improving training and skills development of research management staff, to develop better research and innovation management capacity and excellent guidance for researchers across the entire ERA. Projects are requested to map and analyse mobility patterns of research management staff, as well as collect information about existing funding schemes offering support to mobile research support staff.

This could be achieved through the creation of a **"European Network for Science Management"** through the integration of existing capabilities of research Organizations, Universities and Institutes in research management.

In collaboration with the Talent Platform (EURAXESS), an easy-accessible and one-stop-shop platform will be developed on existing opportunities for networking and mobility of such staff, such as MSCA Staff Exchange, Erasmus Staff Exchange, COST Actions, and various national schemes.

Projects will explore the possibility to create new training paths either to be included in the existing mobility scheme or as an ex novo action, dedicated to research support/management staff. Both these solutions will aim also at developing recommendations to strengthen existing schemes at EU level. New developments are expected to be pilot.

ERA-D3-01-3-2-2021: Support for R&I policy making in the Western Balkans

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.

<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: The actions funded under this topic will coordinate national and regional R&I initiatives by pooling resources and contributing to the alignment of national and regional research and innovation policies. The expected outcomes are:

- Support to the Western Balkans Steering Platforms for Research and Innovation, and Education and Training (incl. support to the annual Ministerial meeting);
- Facilitation of the implementation of the Western Balkans Agenda on Innovation, Research, Education, Culture and Youth:
 - o Highlighting the strategic importance of the Western Balkans and facilitating actions aiming to support the region's EU integration process, covering Research, Innovation, Education, Culture, Youth and Sport.
 - o Aiming to promote regional economic growth and prosperity through planned investments, to be directed towards game-changing innovations and actions that create a sustainable and human centric development and digital future. Support the ongoing process of reforming education, training and research systems, and the development of the cultural and creative sectors with more and better opportunities for capacity building.
 - o Contributing to the closer integration of the Western Balkan partners with the EU's priorities, most notably the Green Deal, the Digital transformation, including the enhancement of ICT and digital skills along the lines of the Digital Agenda for the Western Balkans and the renewed Digital Education Action Plan, and an Economy that works for and connects people and communities.
- Identification of common research and innovation priorities agreed among the participating national and regional R&I programmes, taking into account international developments where relevant;
- Contribution to joint initiatives, resulting in the funding of cross-border innovation actions, design/implement a portfolio of complementary actions which would enable Western Balkans stakeholders and policy makers to better internationalise and integrate in EU actions and policy making;
- Implementation of and financial support to other joint activities supporting R&I, regulatory or societal uptake of results.

Scope: The COVID-19 pandemic has stressed the important role of research and innovation to tackle the immediate crises but also to ensure a sustainable and inclusive recovery while

boosting the resilience of production sectors, the competitiveness of economies, and the transformation of the socio-economic systems across Europe. The Western Balkans is trying to catch up on Research, Development and Innovation (RDI). Closer links between research and innovation and institutional cooperation to produce high-quality knowledge, underpinning economic and societal solutions are paramount to help bridging the R&I gap between the EU Member States and (potential) Candidate Countries. Actions stemming from this Call will foster the capacity building in the Western Balkans to allow successful participation in the R&I process, improve the Technology Transfer Process, promote networking of and access to excellence, thus optimising the participation in and impact of Horizon Europe across the region. Activities from this Call will strengthen and foster the development of the human capital base in the region, they will promote the establishment of open, inclusive and responsible national research and innovation systems, and they will support evidence based policymaking.

Underpinning the Western Balkans Agenda on Innovation, Research, Education, Culture and Youth, this action will foster a comprehensive policy approach, while seeking synergies across the entire Horizon Europe and other EU funding programmes. An action funded under this call will support the coordination and synchronised interaction among a multitude of instruments and programmes targeting the Western Balkans region. This should not only facilitate an increased participation of Western Balkan entities in Horizon Europe but also create economies of scale, complementarity, synergies, and avoid overlapping of actions.

An action stemming from this topic will support a platform for the various services addressing education, research and innovation in the Western Balkans in their programming and implementation. Research and innovation are key for finding new solutions to the challenges we are facing across South East Europe. This action aligns with ERA and Widening objectives in that it aims to strengthen links with EU partners and opens up to EU networks, contributes to improving research and innovation management capacities in the Western Balkans, and it supports national policy reforms through targeted actions. A key element in this is the support to the development and implementation of Smart Specialisation Strategies in cooperation with the JRC and the Policy Support Facility.

Research and innovation creates new opportunities, helps to tackle climate change, supports sustainable economic growth and the competitiveness of businesses and industries, enables digital transformation and provides better public services for all Europeans. The challenges of today require international efforts, addressing them jointly is in of broader and direct interest.

Proposals have to demonstrate commitment from participating programmes and initiatives to pool resources and to ensure complementarity between activities and policies with those of the Framework Programme and relevant initiatives.

Proposals should pool the necessary resources from the participating national (or regional) research programmes and initiatives as well, where appropriate, leverage resources from national agencies, pertinent foundations, charities and transnational initiatives, resulting in grants to third parties with EU co-funding.

The proposal should also demonstrate potential impact on national, regional and transnational research and innovation.

Participation of key legal entities from associated third countries, particularly from the Western Balkans, is encouraged.

The action should envisage a duration of 4 years which is appropriate to the ambition and complexity of the proposed topic. The Commission considers that proposals requesting a contribution from the EU of million per proposal would allow these challenges to be addressed appropriately. Nonetheless, this does not preclude submission and selection of proposals requesting other amounts.

Translating R&I results into the economy

Proposals are invited against the following topic(s):

ERA-D3-01-10-1-2021: Innowwide Bridging Facility

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.

<i>Procedure</i>	The procedure is described in General Annex F.
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Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Increased participation of research generators in standardisation activities by allocating a budget to help research generators funding the standardisation fees and hence decreasing the time to market
- Increased uptake of new technologies and knowledge based solutions through higher collaboration between research generators and standardisation organisations.
- Supporting innovative solutions developed in the EU to be tested in the EU and taken up in the EU thanks to increased exchanges and collaboration between research generators and standardisation organisations.

Scope: R&I results and new scientific knowledge can inform policy making at national and regional levels and provide inputs to design and test new policy initiatives that will help Europe rebuilt after the pandemic.

This action aims at increasing the visibility and fostering the use of R&I results with high policy relevance and capacity to generate pilot schemes at EU, national and regional levels. Such schemes will enable policy experimentation and testing of new approaches (including technological and non-technological solutions). Successful initiatives could then be scaled up and replicated in other parts of Europe.

The action draws on the need to strengthen the use of scientific knowledge to respond to Europe's main challenges, fully in line with the ERAC draft Opinion (4.12.2019) recommendation for ERA to include a new focus on the use of knowledge and scientific evidence in policymaking, as a feature of the European culture of policymaking. It will contribute to developing a joint up approach between R&I and other public policies, where valorisation of R&I for better policymaking will play an important role for EU recovery from the coronavirus pandemic, preparedness and resilience to crises.

The action will also help address public distrust on science and reaffirm the value of scientific evidence for policymaking. It will contribute to more engaged societies, where citizens are better informed and engaged in public debate.

The scope of the action is to connect R&I results to public policies in all fields in which R&I can provide an evidence base to inform governments, as well as citizens. This will enable ERA to contribute to policy making that takes into account R&I and uses knowledge to design, test, adapt, monitor and implement policies.

ERA-D3-01-14-1-2021: Standardisation Booster for fostering exploitation of FP-funded research results

Conditions related to this topic

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Increased participation of research generators in standardisation activities Increased development of new standards or revision of existing standards to reply to new industrial and market conditions through contribution of EU research generators
- Research generators enabled to play a stronger role in European and international standardisation
- Increased uptake of new technologies resulting from boosting standardisation activities.

Scope: 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 their results with standardisation bodies. This booster will be open for on-going and closed H2020 and Horizon Europe projects. The aim will be to support projects when standardization potential becomes evident during their lifetime (so it had not been included in the work plan) or after the project has ended. This service will help these beneficiaries to engage with standardisation bodies and contribute to the preparation and elaboration of standardisation activities, such as

setting up a CWA (CEN Workshop Agreement), drafting a technical specification or a technical report, setting up a new technical committee, participating in a focus group, participating in awareness events.

The Standardisation Booster will serve as a standardisation proof of concept. The consortium should be able to engage high level independent experts in standardization in order to access the standardization potential of research results. The consortium will select H2020 or Horizon Europe projects with a high likelihood of leading to the preparation and elaboration of standardisation activities, while ensuring geographical and gender balance. These projects will be supported to engage with standardisation bodies and contribute to the preparation and elaboration of standardisation activities.

Beneficiaries may provide financial support to third parties. The maximum amount to be granted to each third party is EUR XX.XX. The respective options of the model grant agreement will be applied.

ERA-D3-01-14-2-2021: R&I intensive IP management: Scenarios for the future

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.

<i>Procedure</i>	The procedure is described in General Annex F.
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Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- A mapping of the forthcoming technology process trends and the IP framework relevant for R&I that will go with these
- An assessment of the current intellectual property methods and how fit for purpose they are taking into account the transformation of research results into markets / socio-economic benefits
- Development of scenarios with potential new protection mechanisms that will benefit both the research community and society.
- Set of guidelines to R&I actors, notably the research generators, for the protection and use of intellectual property assets.
- Set of recommendations for policy makers regarding the future needs for framework conditions relevant for R&I.
- Establishment of a communication channel with the aim of promoting an open dialogue on R&I driven intellectual property needs, bringing together various stakeholders and practitioners and providing a feedback loop between practitioners and policy makers regarding emerging needs.

Scope: Technology sovereignty requires, together with investment, an in-depth understanding of the research and innovation's landscape. The current Open Innovation strategies, the ever growing Open Science practices and the artificial intelligence revolution create an ecosystem where the innovations happen faster than ever (machine learning, big data etc.). This topic will look at ways to overcome the existing gaps researchers have to face when following unconventional discovery methods (e.g. artificial intelligence, computer inventions etc.).

Deepening the European Research Area

Proposals are invited against the following topic(s):

ERA-D3-01-6-2-2021: Protection of Higher Education Institutions and research organisations against conventional and non-conventional threats

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na

<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following outcomes:

- Increase the awareness of Higher Education Institutions and research organisations to conventional and non-conventional threats
- Boost the capacities of Higher Education Institutions and research organisations to deter and respond to non-conventional threats
- Improve the resilience of Higher Education Institutions and research organisations

Scope: The EU Higher Education Institutions and research organisations continue to face serious and acute threats, which are increasingly taking non-conventional forms, such as cyber-attacks, infiltration or disinformation campaigns. These actions seek to access research findings, destabilise and endanger our higher education and research institutions and undermine our fundamental European values. To respond to this threat, the EU Higher Education Institutions and research organisations need to significantly boost capacities in detecting and tackling these threats and they need to be well informed and geared with simple and effective tools ensuring security while respecting the openness of research and innovation. Giving the very nature of the topic, continued exchange with member states and relevant stakeholders is necessary in order to expand the knowledge of the topics and develop appropriate actions.

Projects are expected to: (i) analyse possible threats and identify mitigation measures; (ii) increase awareness within higher education institutions and research organisations; (iii) promote networking and optimising of infrastructure and resources to ensure adequate preparedness and prevention at European level.

ERA-D3-01-6-3-2021: Acceleration Services in support of the institutional transformation of Higher Education Institutions

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: The acceleration services will consist of (i) a support mechanism for higher education institutions (HEI) to pursue institutional transformations, (ii) an investment agenda to support higher education institutions and surrounding ecosystem to deliver on the transformations, (iii) a monitoring mechanism to assess progress in the transformation efforts. Projects are invited to address either all three aspects or a subset while enabling close collaboration with the complementary projects in the portfolio.

Projects are expected to contribute to the following outcomes in relation to acceleration services in support of institutional transformation of higher education institutions (HEI):

- Development of a methodology towards acceleration services that can help universities or alliances or networks of HEI in pursuing institutional transformations, including a monitoring mechanism to assess quality of the delivered services, the overall aim of the HEI acceleration services being 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.
- Deployment of acceleration services with user groups (HEI, alliances of universities and surrounding ecosystem actors), supporting HEI or alliances of HEIs in pursuing institutional transformations in the field of R&I, including a monitoring mechanism to assess quality of the delivered services.
- Creation of a coaching service with best practice examples and guidance for individual HEIs as well as alliances of HEIs, aligned with the common transformation agenda, facilitating access to funds from various sources, including financial instruments.
- Implementation of a cascade funding mechanism, providing seed funding to HEIs or alliances of universities, based on an independent assessment of proposed transformation strategies against Horizon Europe quality criteria
- Monitoring of progress of the users of the acceleration services regarding the implementation of the chosen areas of the transformation agenda.
- Policy feedback to the European Commission and Member States on the acceleration services, and widespread dissemination of the pilot results to other target groups

Scope: Higher Education Institutions (HEI), including universities, are crucial drivers of knowledge ecosystems, and increasingly also of innovation ecosystems. The European Research Area is expected to strengthen the R&I dimension of HEIs through a comprehensive transformation agenda in synergy with the European Education Area, reinforcing their role as drivers of change, fostering their recovery, enabling shared objectives between the EU and Member States' initiatives to support higher education institutions in their efforts to transform on their education, research, innovation and service to society missions.

Projects should build on the results of previous analyses that set out a framework for empowering HEIs across Europe in their research and innovation mission, facilitating ongoing transformation processes based on universities' needs (*"Towards a 2030 Vision on the Future of Universities in the field of research and innovation in Europe"*, Summer 2020, and *"Knowledge ecosystems in the new ERA: a comprehensive analysis of the state of play, the design of monitoring mechanisms, and creation of a toolbox of support measures"*, 2020-2021).

The transformation agenda for HEIs to be co-created with stakeholders and Member States needs to take into account the most important challenges that HEIs meet including

(trans)national cooperation with other HEIs, and the growing importance of engagement with a broad range of sectors and societal actors inherent to the multiple missions of HEI (education, research, innovation, service to society). The transformation agenda includes in the field of R&I, areas such as: (a) empower HEIs towards developing shared R&I strategies that deliver on Europe's challenges with critical mass; (b) facilitate the sharing of capacity, infrastructure and resources through collaborative settings, such as the European Universities initiative; (c) improve the attractiveness of researchers' careers, including through reform of the career assessment and incentives regimes; (d) facilitate co-operation with surrounding R&I ecosystem actors; (e) support the transition to knowledge- and digitally-driven HEIs that embrace Open Science; (f) engage citizens in solving societal challenges. This transformation agenda can already build on the experiences of the selected European Universities, supported under Erasmus+ and Horizon2020.

Projects should aim at developing, testing and fully deploying a methodology for acceleration services that can help HEIs or alliances of universities in pursuing institutional transformations. The acceleration services portfolio should be built along the transformation agenda. Concretely, acceleration services consist of a group of experts or consultant services of different profiles that match with the areas from the common transformation agenda, which the project puts at the disposal of individual HEIs or alliances of universities in need of institutional transformation in the field of R&I. The acceleration services will include strategy development, roadmap development, and mapping of required support resources, in the areas chosen by the HEI client.

To deliver on the transformation agenda for HEIs, as proposed in the revitalised European Research Area and the European Education Area, a large-scale concerted action in support of the institutional transformation efforts of HEIs will be required, including a standard methodology to develop roadmaps of EU, national and regional actions and investment measures for institutions or alliances: (a) adequate R&I indicators to monitor public investments from Member States, including the share of Structural Funds; (b) synergetic action through the different strands of Horizon Europe that target HEIs; (c) synergies between Union programmes including Horizon Europe, Erasmus, ESF and ERDF and alignment of national programmes, notably in the context of the European University initiative; (d) pooling of resources to leverage business R&I investments, notably through the policy windows of the InvestEU programme.

Projects will build on an initial roadmap for investments in academic sector, the outcome and recommendations of the study "Knowledge ecosystems in the new ERA: a comprehensive analysis of the state of play, the design of monitoring mechanisms, and creation of a toolbox of support measures" (2020-2021). The methodology should in particular build on the previous mapping exercises of supporting funding for universities from EU, national, and regional level, leading to a standard methodology to develop specific investment agendas for individual institutions or alliances that consists of different funding and financial instrument branches, aligned with the priorities and areas of the common transformation agenda, and realising concerted support to the institutional transformation efforts universities want to engage in.

The focus will in particular be on the creation of a coaching service with (i) best practice examples, (ii) guidance for HEIs, aligned with the common transformation agenda, (iii) support to access funds, including financial instruments, (iv) methodology to monitor progress of institutional transformation at individual HEI or network level. The methodology should include support and access to financial instruments like InvestEU for excellent research and innovation capacity, and support for disruptive innovation from academic sector, incl. spin-offs from universities and public research organisations, and cooperation agreements between academic and business sector.

The acceleration services should be piloted together with user groups (HEIs, networks of universities and surrounding ecosystem actors) before full deployment, and progress of the users in the implementation of the chosen areas of the transformation agenda should be measured.

Actions should include an evaluation mechanism that enables to assess the strategies from individual HEIs or alliances of universities, pursuing institutional transformation towards universities of the future, for instance under supervision of an ‘acceleration board’ of independent experts. The evaluation mechanism should monitor progress of the HEIs in the implementation of the chosen areas from the transformation agenda.

On the basis of the assessment, the ‘acceleration board’ will provide seed funding to the clients to initiate the effective transformation, depending on the chosen areas and up to a maximum of EUR XX per client. The seed funding should be matched with institutional, regional, or national funding, and should lead to measurable progress in the deployment of the strategy developed by the acceleration services.

ERA-D3-01-4-1-2021: Evidences on the impacts of open science practice

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.

<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to [all/some] of the following:

- Consolidated evidence on scientific, societal and economic impacts of open science practice, complemented by those necessary new methods for measuring impacts.
- Better knowledge on how impacts develop and how a diversity of benefits can be achieved at scientific, economic and societal levels.
- Better understanding on how the practice of open science can contribute to improved reproducibility of research results.

These targeted outcomes in turn contribute to medium and long-term impacts:

- Contributions to the prioritisation of policy actions for open science, and improved policy making on open science.
- Maximised impact of open science.
- Improved capacities within the EU R&I system to conduct open science.

Scope: Open science consists in the sharing of knowledge and data as early as possible in the research process, in open collaboration with all relevant knowledge actors, including citizens. The mainstreaming of open science practice¹⁷ is motivated by: (i) expected impacts on the research system, e.g. increased efficiency, better reliability, and better responsiveness towards societal challenges; (ii) expected impacts on the innovation system, e.g. faster innovations when results are shared earlier, and innovations more directed towards societal challenges; (iii) expected impacts on the interface between science and society, e.g. more productive interactions among academia and other knowledge actors, and more trust of society in the science system when both researchers and citizens are engaged. A number of projects have

¹⁷ Open science practices may include: providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); early and open sharing of research (for example through preregistration, registered reports, pre-prints, crowd-sourcing of solutions to a specific problem); participation in open peer-review; measures to ensure reproducibility of results; and involving citizens, civil society and end-users in the co-creation of R&I agendas and content, including citizen science.

begun the process of building an evidence base, but evidence remains diverse, fragmented and far from complete. A broad and comprehensive evidence base would help defining new policies for open science, as well as communicate on open science.

This action is expected to review the existing literature and evidence for impacts of open science practice, including potential legal and licensing issues, to identify potential drawbacks from the practice of open science, and to test and evaluate how robust and meaningful the existing evidence are. The action will complement existing evidence and develop integrated scientific methodologies for capturing impacts, notably socio-economic, environmental and public health impacts. It is in particular expected to develop and implement methods for measuring the contribution of open science practice to the reproducibility of research results. The action will also perform cost/benefit analyses of open science practice and will conduct research to identify by which causality/mechanisms the impacts develop.

ERA-D3-01-4-2-2021: Supporting the development of aligned policies for open access books and monographs

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.

<i>Procedure</i>	The procedure is described in General Annex F.
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Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Improve the understanding of the current landscape of scientific books and monographs, in particular the bottlenecks in strategies and policies for their open access.
- Support funder and institutional policies for open access monographs and books within the open science culture in the European Research Area and facilitate their coordination
- These targeted outcomes in turn contribute to medium and long-term impacts:
 - Address and increase equity, diversity and inclusivity in open science practices¹⁸ inside the European Research Area.
 - Improve overall capacities within the EU R&I system to conduct open science and implement it as a *modus operandi* of modern science.

Scope: Monographs, books and other types of long-text formats are very important outputs in some disciplines, such as for example in the Social Sciences and the Humanities. Whilst many disciplines rely nearly exclusively on the production of articles, professional advancement requirements, as well as the nature of the research and the writing process in some disciplines, result in the unwavering significance of long-text formats and monographs, both in the digital and in the print formats.

Open access for monographs and other long-text formats has been a slow process in multiple aspects. This is likely because of the higher costs and business models of book publishing, as well as a hesitancy on the side of researcher to trust important parts of their work in terms of volume to the new open access publishing environment. Additionally, funder policies and strategies focus a lot less on monographs than on journal articles, and they are often recommendations and not requirements.

This call aims to support the development of aligned institutional and funder policies and strategies regarding open access to books and monographs in Europe. In this context the topic will support: 1. activities that foster the greater understanding of bottlenecks in the development of policies and strategies for open access to books and monographs by institutions and funders; 2. the coordination of policies amongst funders and research institutions, and the sharing of good practices in policies and strategies for open access to books and monographs; 3. actionable

¹⁸ Open science practices may include: providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); early and open sharing of research (for example through preregistration, registered reports, pre-prints, crowd-sourcing of solutions to a specific problem); participation in open peer-review; measures to ensure reproducibility of results; and involving citizens, civil society and end-users in the co-creation of R&I agendas and content, including citizen science.

and evidence-based recommendations and resources for comprehensive institutional and funder policies for open access to books and monographs.

The action should be no longer than 24 months.

ERA-D3-01-4-3-2021: Supporting the transition to Open Access of publishing activities of scholarly societies

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- An effective number of societies (case studies) with publishing activities experimenting with transitioning to open access business models and implementing it.
- Coordination and knowledge exchange between learned societies on transitioning to open access publishing models.

- Support to research communities in transitioning to open science practices¹⁹.

These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased equity, diversity and inclusivity in open science practices inside the European Research Area.
- Improved overall capacities within the EU R&I system to conduct open science and implement it as a *modus operandi* of modern science.

Scope: Learned societies have for at least the past two centuries been crucibles for researcher communities in all disciplines. They have helped shape disciplinary practices and standards, including also policies and practices for open access and open science. Beyond this, learned/scholarly societies, be it national, European, or international in nature, are often also the publishers of influential journals in their respective fields and academic publishing is often at the core of their activities. In fact, for many scholarly societies, proceeds from academic publishing serve systematically to fund other important activities, such as education, fellowships, outreach, among others. In many cases, large societies have partnered with commercial publishers in these publishing activities. In recent times, with the pressing need for open access and the relevant funder mandates, scholarly societies have been hesitant to transition to open access models in the fear of losing precious income. Some of the societies partnering with commercial publishers have experimented with open access via hybrid journals, and indeed many societies now use this model. Various models for transitioning to new and open access business models have been identified, most recently in a report and toolkit focusing on this topic.²⁰

The present call aims at supporting an effective number of learned societies of European remit in various disciplines to experiment with transitioning their flagship publishing activities (journal(s)) from a subscription model to an open access model with view to sustainability. It also aims at facilitating coordination and knowledge exchange between learned societies on such efforts for transition and creating a body of relevant knowledge available to all in open access. Proposals should cover a minimum number of learned societies spanning at least three different Fields of Science and Technology according to the Frascati Manual Classification (<http://www.oecd.org/sti/inno/38235147.pdf>). It should also include societies that are different in size (small and large societies) and national or European in nature.

The call will fund activities that will: 1. Experiment and implement with transitioning the main publishing activities of at least three learned societies from subscription or subscription-related models (e.g. hybrid) to purely open access business models on the basis of recent research, existing models and prior efforts, 2. Propose coordination activities intended to diffuse the

¹⁹ Open science practices may include: providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); early and open sharing of research (for example through preregistration, registered reports, pre-prints, crowd-sourcing of solutions to a specific problem); participation in open peer-review; measures to ensure reproducibility of results; and involving citizens, civil society and end-users in the co-creation of R&I agendas and content, including citizen science.

²⁰ A [recent report and a toolkit on transitioning society publishing activity](#) that UKRI and the Wellcome Trust commissioned to the company *Information Power* are available for societies to experiment with.

knowledge and experience learnt, 3. Create a body of knowledge that can be used by other scholarly societies of similar characteristics also to try and transition to open access publishing business models.

Duration: The action should be no longer than 36 months.

ERA-D3-01-4-4-2021: Global cooperation on open science policy and implementation, such as for the FAIRness of data & digital objects in a discipline specific manner

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- data & digital objects.
- Connection of fragmented initiatives (across borders and disciplines) on good data management and stewardship practices and FAIR as enablers of open science policies.
- FAIR data sharing within and across scientific disciplines.

These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased interdisciplinary research, to better address current societal challenges.
- Streamlined research practices by increasing the reproducibility of research and minimizing the duplication of effort.
- Better informed citizens and society about the results and value of research, through thorough description and availability of data sets and increased citizen involvement and participation in tackling societal challenges through science.
- Improved the quality of R&I within the EU.
- Contributions to growth and accelerating innovation in a global digital economy.

Scope: Technological advancements have made science more data intensive and interconnected, with researchers producing and sharing increasing volumes of research data. In their effort to produce high quality research data, researchers have to follow good data management and data stewardship practices. Beyond proper collection, annotation and archival, good data management and stewardship include the notion of long-term care of valuable digital assets, either alone or in combination with newly generated data. To maximise the value of science, research data should have four foundational characteristics; they should be Findable, Accessible, Interoperable and Reusable. The FAIR principles were introduced in 2014 to define a minimal set of community-agreed guiding principles and practices that allow both machines and humans to find, access, interoperate and re-use research data. It is recognised that FAIR data play an essential role in the objectives of Open Science to improve and accelerate scientific research, to increase the engagement of society, and to contribute significantly to economic growth. Accordingly, the Open Science agenda contains the ambition to make FAIR data sharing the default for scientific research and this can be accelerated by focusing on specific scientific disciplines. Although the FAIR principles were initially applied to research data, their coverage has been extended to all digital objects that are essential to the practice of research (e.g. algorithms, models, tools, workflows) as well as to data produced or managed by the public sector. However, initiatives for good data management and stewardship practices and FAIR practice remain fragmented across borders and disciplines. In addition, out of the four elements comprising the acronym FAIR, interoperability remains, to date, the least developed. Interoperability standards, at discipline-level first, and then across disciplines, are an essential catalyst to foster interdisciplinary science to tackle the global societal challenges of our age.

This action will support international cooperation for the FAIRness of data & digital objects in a discipline specific manner. It will map current initiatives and best practices, globally, within the scientific disciplines that are more mature in making data FAIR, and will facilitate exchange of best practices across disciplines. This action is expected to support case studies and pilots to implement both domain-specific and domain-independent recommendations in FAIR practice (from the Research Data Alliance –RDA-, the Committee on Data of the International Science Council -CODATA-, etc.). It will develop interoperability standards and guidelines for increasing the FAIRness of data in specific scientific disciplines, and across different

disciplines. This action will also develop assessment and evaluation methodologies to appraise the FAIRness of data within disciplines and to develop domain-specific benchmarks.

ERA-D3-01-4-5-2021: Support to changes in the assessment of research and researchers to reward the practice of open science

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Consolidated information on initiatives for reforming the assessment of research and researchers, taking better account of open science practice²¹.

²¹ Open science practices may include: providing open access to research outputs (such as publications, data, software, models, algorithms, and workflows); early and open sharing of research (for example through preregistration, registered reports, pre-prints, crowd-sourcing of solutions to a specific problem); participation in open peer-review; measures to ensure reproducibility of results; and involving citizens, civil society and end-users in the co-creation of R&I agendas and content, including citizen science.

- Connection of existing initiatives at European level, facilitate mutual learning, and stimulate consensus building among the stakeholders.
- Pilots on new metrics, methods and institutional changes for reforming the assessment of research and researchers, that lead to better rewarding the practice of open science.

These targeted outcomes in turn contribute to medium and long-term impacts:

- Researchers incentivised to practice open science.
- Maximised impact of open science.
- Improved overall capacities within the EU R&I system to conduct open science and implement it as a *modus operandi* of modern science.

Scope: The current evaluation and funding system of research and researchers is limiting open science practice, as it still is very much based on inappropriate indicators, favouring quantity of results of individual researchers rather than quality of (collaborative) open research practice as well as socio-economic impact of research. For the focus to shift to quality over quantity, and to more efficient and impactful research, changes are required in the institutions performing and funding research and innovation. One way of doing this is to develop and implement strategies and policies, by research funding and performing organisations, that reward the practice of open science in the evaluation of research and researchers.

Few institutions in Europe, including some universities, are currently taking steps to reward the practice of open science, by reforming the assessment system of their research and researchers. The proposed action will build on these various institutional initiatives, on already funded projects, as well as on policy work conducted by the Open Science Policy Platform and by several umbrella organization of research performing and research funding organisations. The action is expected to support the sharing of information at European-level across institutions and umbrella organisations, to identify good practices, and to develop guidance and recommendations on institutional changes. The action will also pilot the development, implementation and monitoring of new methods, associated metrics, strategies and policies, by clusters of funders and/or research performing organizations, for research and research career assessment that integrates open science practices.

ERA-D3-01-4-6-2021: Doctoral training for an open and responsible practice of research and innovation

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na

<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Consolidate information, and exchange knowledge and material, about doctoral training on open and responsible research and innovation.
- Connect diverse doctoral training initiatives.
- Integrate good practices into doctoral training.
- Implement new doctoral training activities on open and responsible research and innovation²².

These targeted outcomes in turn contribute to medium and long-term impacts:

- Raise awareness and skills for open and responsible research and innovation.
- Increase skills leading to improved employability and career prospects.

²² Responsible research and innovation involves multi-actor and public engagement in research and innovation, easier access to scientific results, the take up of gender and ethics in the research and innovation content and process, and formal and informal science education.

- Enhance the implementation of the European Charter and Code and the EU Principles for Innovative Doctoral Training.
- Improve the quality of R&I within the EU.
- Increase the impact of EU R&I outputs and the conversion of knowledge and ideas into products and services.

Scope: In order to ensure the excellence of EU research and innovation (R&I), researchers are expected to acquire the necessary skills for integrity, strong research methods, avoidance of various forms of bias, non-discrimination and inclusion, FAIR data management, dissemination and exploitation of results, collaboration, interdisciplinary research, outreach and engagement with society. These skills for an open and responsible practice of research and innovation are essential for building an efficient R&I system, inclusive towards and trusted by society, and which delivers reproducible and robust results. These skills are needed at all stages of researchers' careers. Doctoral training, performed mainly at universities, represents a key activity for acquiring these skills.

This action is expected to deliver consolidated evidence on doctoral training practice related to open and responsible research and innovation. The action is expected to first map, analyse and evaluate current practice, notably from the beneficiaries and activities already supported by the EU²³, and from other stakeholders such as university associations. Good practice in the EU will be identified. EU practice will be benchmarked to approaches outside the EU. The action will identify potential gaps in doctoral training on open and responsible research and innovation, guidance and recommendations. The action will establish a platform to exchange knowledge, good practices, and training content, notably through workshops and mutual learning activities. The action will also investigate plans for long-term sustainability of such knowledge platform.

ERA-D3-01-7-1-2021: A capacity-building and brokering network to make citizen science an integral part of the European Research Area

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

²³ Particularly relevant activities to build upon were supported by: the Horizon 2020 projects derived from topics SEAC-2-2014 and topic SwafS-08-2019-2020 under the part for Science with and for Society; the Horizon 2020 Innovative Training Networks derived from the MSCA-ITN topics under the Marie Skłodowska-Curie Actions; and the Erasmus+ European University Alliances and Horizon 2020 top-up pilot.

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Strengthened links and collaboration between citizen science initiatives and other research and innovation actors
- Increased capacity to conduct excellent research and innovation through citizen science, while maximising other potential benefits of citizen science
- Data infrastructures better aligned to the needs of citizen science, and improved data practices employed by citizen science initiatives
- Europe positioned as a leader in citizen science throughout the entire research and innovation system with flourishing and mutually beneficial global collaborations

These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased engagement of citizens in research and innovation
- Increased public trust in research and innovation
- Improved capacities within the EU research and innovation system to conduct open science
- Increased openness of the EU research and innovation system

Scope: Citizen Science is a rapidly emerging mode of research and innovation that shows huge promise in terms of collecting new qualities and quantities of data, harnessing collective intelligence, improving science-society literacy, and improving the relationship between science and society. However, it is only lightly institutionally embedded, at an early stage of developing data infrastructures, and lacks the capacities and sustainable resourcing required for it to live up to its potentials.

This action will become a central point of exchange between citizen science in Horizon 2020, Horizon Europe, and other EU-level and (sub-) national programmes and initiatives. It will amplify significant outcomes of citizen science in areas such as Horizon Europe's missions and clusters, the Sustainable Development Goals, and the Green Deal, across all parts of the research and innovation system. It will provide up-to-date repositories of initiatives, good practices and tools, and become a stage for discussion and collaboration.

It will offer extensive *in situ* brokering, skills, training, and capacity building services to citizen science practitioners, civil society, public authorities, businesses/SMEs, formal and informal education establishments, and research funding and performing organisations, with a view to raising their awareness, knowledge and skills to collaborate with, support, and implement citizen science.

Co-ordination and support on the issue of FAIR data and infrastructures should cut across all activities. The action should aim to become a key interlocutor between citizen science initiatives and thematic databases and infrastructures, helping citizen science move towards open science as its *modus operandi*.

Underlying these activities will be attempts to reduce disparities in attention to - and actual practice of - citizen science in the ERA (e.g. at regional, national and EU levels). Moreover, significant efforts will be made to initiate sustainable international collaborations that promise tangible scientific, societal or policy impacts; international mutual learning activities should be envisaged.

The action will build on and valorise the outcomes and results of earlier projects, and will aim to provide a seamless transition between previous supporting actions and this new action.

The action should be no shorter than 3 years.

ERA-D3-01-7-2-2021: Kick-starting and making citizen science initiatives sustainable in the European Research Area

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Significant number of experimental citizen science initiatives kick-started
 - Significant number of citizen science initiatives supported to become sustainable
 - Significant number of newcomers to the Framework Programme and a significant number of citizens involved in co-producing scientific knowledge
 - Improved evidence base for making policy on citizen science
 -
- These targeted outcomes in turn contribute to medium and long-term impacts:
- Increased engagement of citizens with science
 - Increased public trust in science
 - Improved capacities within the EU R&I system to conduct open science
 - Increased openness of the EU R&I system

Scope: Citizen Science is a rapidly emerging mode of research and innovation that shows huge promise in terms of collecting new qualities and quantities of data, harnessing collective intelligence, improving science-society literacy, and improving the relationship between science and society. However, financial support is not well adapted to the needs of small-scale and experimental citizen science, and many citizen science initiatives that have proven their worth fail to sustain over the longer term, to the detriment of science and society.

In order to help remedy this weakness in the European research and innovation system, this action will launch two open calls for proposals through cascading grant mechanism:

- *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 established 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 potential to scale up across member states or the ERA.

The action may launch the two calls over one or more waves but it should not be necessary to be supported by the ‘kick-starting’ call to apply for ‘sustainable’ call.

This action will support citizen science across all areas of research and innovation – from Horizon Europe’s missions and clusters to the humanities and emergent technologies – and take into account all of the different forms of participation that citizen science can entail without prejudice to any. The supported activities under both calls need to be inclusive in terms of gender, ethnicity, socio-economic background, etc.

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. The action should develop policy recommendations, policy briefs, and engage in advocacy activities based on its experiences and learning.

Close collaboration should be pursued with relevant projects supported by Horizon 2020’s Science with and for Society programme, and Horizon Europe’s Reforming and Enhancing the European R&I system programme. Moreover, the action should build on projects that have launched open calls for citizen science-related initiatives.

The project should last a minimum of 4 years.

ERA-D3-01-7-3-2021: Trust of society in science, research and innovation

Conditions related to this topic	
Opening date	na

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Policy recommendations tailored to policy makers, research funding and performing organisations including universities and other research and innovation actors for tackling societal mistrust in science, research and innovation;
- Recommendations for strengthening the co-creation of R&I contents by society, and for the spreading of good practices and evidence of their effects.

Scope: Societal confidence in the research system and in its outcomes is vital to: ensuring the EU's contribution to the Sustainable Development Goals and achieving the European Green Deal targets; for the uptake of innovation in society; and for continued public investment in R&I.

Trustworthiness depends on scientists and engineers demonstrating high standards of research integrity, an ethical mind-set, critical thinking and rigorous exploration of ideas in an open, transparent manner; and a desire to maximise the social relevance, robustness and overall quality of outcomes. This, in turn, is fostered by supportive institutional and policy environments. In addition, citizen and civil society's involvement in co-creating R&I agendas

and contents makes research more relevant and responsive to society and strengthens co-ownership and trust in scientific evidence and innovation.

However, not all research is conducted in line with these high standards. Rules and guidelines may be missing or ignored, research protocols and raw data are not always published, methodological limitations may be inadequately addressed, inappropriate statistical analyses may lead to exaggeration of conclusions, papers are generally only published when significant results are obtained, and self-interest may interfere in peer-review processes. A significant part of research cannot be reproduced and therefore cannot be relied upon to build a solid base for policy or innovation, and this leads in turn to a decrease in societal trust in research and innovation. Compounding this, research often addresses issues of limited direct relevance to end-users, or comes to conclusions that are wildly out of step with societal needs and values, because societal input to setting the research agenda and taking part in research is often treated as an afterthought – after innovations and research trajectories have been decided.

To better understand the nature and scale of the sources and consequences of mistrust of society in science and the challenges of science-society co-creation, a series of expert workshop, small-scale studies and participatory research actions will take into account existing knowledge (including from projects funded under previous Framework Programmes) and will lead to new and robust evidence and analysis, as a basis for further policy action. Evidence from relevant Eurobarometers will in particular form an important input to this action.

The action should develop policy guidance and recommendations, organise events, and implement other innovative means of disseminating the findings and messages and involve a broad range of potential users and stakeholders and the general public in co-creation. As such, Responsible Research and Innovation could be a relevant research approach. Close co-operation should be sought with relevant projects to encourage uptake and early sharing of knowledge and evidence.

ERA-D3-01-7-4-2021: Developing a STE(A)M roadmap for Science Education in Horizon Europe

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million
<i>Type of Action</i>	Coordination and Support Actions

<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to [all/some] of the following expected outcomes:

- Better knowledge on policy deficiencies and better understanding of needs;
- Identified synergies between second and third level education, and between education and business;
- Contributions to future Policy actions;
- Promoting an integrated learning continuum between second and third level education and between education and business;
- Convince students and citizens about the opportunities within policy areas such as the Green Deal, Digitisation and Health.

Scope: Europe needs more scientists and Europe needs a science literate society. The COVID-19 pandemic demonstrated the importance of Europe's scientists and medics in keeping our society safe and healthy. The comprehensive recovery package to help the EU rebuild highlights the importance and necessity of major EU policies on the European Green Deal, the Digital transition and Health, all of which call for more highly educated European scientists.

In order to increase the uptake in science careers, to feed the talent pipeline, a plan of action is needed to encourage more interest in STE(A)M for young and old alike. Convince students and citizens of the importance of policies such as the Green Deal and Digitisation and the opportunities that exist within these areas. Science is not just about hard science; it encompasses a world of technology not always obvious to the student and undergraduate. It is important to align industry needs to education and to develop work ready students and graduates. Introduce the concept of open schooling. Support formal, informal and non-formal science education initiatives, in synergy with the European Education Area.

This action will develop and deliver a STEAM roadmap for Science Education in Horizon Europe, in synergy with Erasmus. The action should develop strategies to increase the uptake of science careers to feed the talent pipeline, demonstrate the breadth of content available for consideration, align the needs of society and industry with education to prepare students to become active citizens and ready for the world of work, develop synergies between second and third level education and promote science education mainstreaming in funded projects.

The action should consider current policy initiatives and identify gaps and overlaps or duplication of effort. Reference and consideration should be given to previously funded projects. Applicants should develop links with Scientix and consider links with other policy domains.

ERA-D3-01-8-1-2021: Centre of excellence on inclusive gender equality in Research & Innovation

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Advancement of knowledge, policy and practice on inclusive gender equality in research and innovation institutions across Europe, with an intersectional approach.
- Reduced disparities across Member States and strengthening of the European Research Area and its inclusiveness objective.

Scope: As having a Gender Equality Plan (GEP) in place is becoming an eligibility criterion for legal entities applying to Horizon Europe, and as the new European Research Area Communication of 30 September 2020 is foreseeing stronger measures to promote inclusive gender equality plans, there is a strong need for expert policy and knowledge support for inclusive GEP implementation in research and innovation (R&I) organisations (including research funding and performing organisations incl. companies and SMEs) across EU Member States. In order to adapt to different national and local situations, and help foster effective transformation in countries and institutions less advanced in the field of gender equality in R&I, a first European centre of excellence on inclusive gender equality in R&I will be created.

Building on projects and actions supported through Horizon 2020 including projects ACT, GE Academy, GENDERACTION, and the pilot European knowledge and support facility for fostering institutional change through gender equality plans funded under the SwafS work programme 2020, as well as on initiatives developed by existing national or regional centers of excellence and knowledge centres on gender equality in R&I in Europe, and by European R&I stakeholder umbrella organisations, proposals are expected to cover the following:

- Establish a sustainable European Center of Excellence and think tank to advance and disseminate knowledge on inclusive gender equality policies in R&I, addressing intersecting social categories such as ethnicity (including migration and refugees), disability, sexual orientation and gender identity (LGBTI+ issues) or else social origin. This Center could work as a single entity or as core center and network of hubs in different Member States, and should involve experts from different Member States, including widening countries.
- Provide expertise and support to Member States and R&I organisations in the implementation of institutional change through inclusive gender equality plans, including through the design and delivery of tailored training activities on inclusive gender equality in R&I, and the development of an enhanced Community of Practice on gender equality and diversity in R&I organisations.
- Provide expert support for the collection of pan-European data on gender equality in R&I and the development of new indicators, including on intersectionality.

ERA-D3-01-8-2-2021: Policy coordination to advance the implementation of the era gender equality and inclusiveness objectives within member states

Conditions related to this topic

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Development of a consistent and sustainable coordination network of national representatives on gender equality and inclusiveness in support of the implementation of the ERA Communication policy objectives, leading to better coordination of Member States' efforts;

Scope: The new European Research Area (Communication of 30 September 2020 on “A new ERA for Research and Innovation”) is foreseeing strong measures to promote inclusive gender equality plans in Research and Innovation (R&I) organisations, in line with the European Strategy for Gender Equality for the period 2020-2025, to which R&I, and Horizon Europe, must contribute actively. As the new ERA Communication underlines, there is a need for policy coordination to advance the implementation of the ERA gender equality and inclusiveness objectives within the Member States. Ensuring the active promotion of equal opportunities for all includes opening up gender equality policies in R&I to diversity, and more specifically to social categories and grounds for discrimination intersecting with gender, such as ethnicity,

disability, sexual orientation or else socio-economic status. This new inclusive, intersectional, approach to gender equality is a focus area of the new EC Gender Equality Strategy.

The action focuses on the establishment of a sustainable network of national representatives from the EU Member States and Associated Countries to support the implementation of the gender equality and inclusiveness objectives of the ERA. During its time course, the action should develop various innovative and engagement activities, connect citizens, experts and policy makers, as well as contribute to policy making at national and European administration level. Providing support and advancing the knowledge of representatives of widening countries is of particular importance. The action should also develop knowledge and build capacities, competences and expertise for gender equality and mainstreaming in R&I with a variety of European and national stakeholders. Special consideration will be given to mutual learning exercises to enhance the competence of national gender representatives, including helping less experienced national gender representatives to acquire expertise. The work by this action should be performed in coordination with ERA-related official groups.

The consortium should be composed of national representatives of all the EU Member States. The participation of national representatives of Associated Countries is welcome. The relevant national authorities shall officially appoint national representatives from the EU Member States and Associated Countries, and the appointment letters should be provided in the proposal. The consortium should have a good representation of experienced and less experienced gender representatives.

ERA-D3-01-8-3-2021: Enhanced partnership with R&I funding organisations to promote gender-inclusive policies and programmes

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.

<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Promotion of a gender-inclusive culture change in research and innovation institutions across Europe through the coordinated action of funding organisations.
- Enhancement of the European research & innovation system.

Scope: The involvement of European Research and innovation funding organisations (RFOs) in joint activities and programming is a pillar of the European Research Area. RFOs are key national and regional agents which shape R&I priorities and influence R&I careers in every country. They have a core responsibility in addressing gender inequalities in and through their funding programmes, and a crucial role to play in fostering gender equality in research and innovation (R&I) performing organisations.

Building on projects involving funding organisations supported through Horizon 2020, including GENDER-NET Plus, GRANTeD, GENDERACTION and ACT, as well as on joint initiatives and commitments by umbrella organisations such as Science Europe and the Global Research Council, this action shall establish a formal transnational Community of Practice of R&I funding organisations. Linked through a Memorandum of Understanding (MoU), these RFOs will commit to addressing the following activities in the timeframe of the action, and sustaining their commitment beyond the life of the project:

- Developing and implementing effective policies promoting gender equality in access to funding and in grant management, as well as the crosscutting integration of the gender dimension into all relevant funded R&I content, with an opening to intersectionality with other diversity dimensions, such as ethnicity, sexual orientation and gender identity. Specific attention should be paid to providing eligibility requirements and/or incentives prompting research performing organisations (RPOs) including universities into adopting and implementing gender equality plans (GEPs), as well as in establishing a zero-tolerance policy on gender-based violence including sexual harassment addressed to funded organisations and individuals.
- Broadening the starting Community of Practice to include RFOs from across the ERA, particularly from the widening countries, with a target of at least 15 countries represented among the MoU signatories.

- Devising a concept for a sustainable partnership between RFOs and the European Commission to promote inclusive gender equality across the ERA through research and innovation funding.

ERA-D3-01-8-4-2021: Support to national expertise on the integration of gender dimension in Horizon Europe

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to [all/some] of the following expected outcomes:

- Developing advanced knowledge and expertise in gender equality in R&I among national contact points, who will then be able to provide tailored support to legal entities, applying for Horizon Europe funding, on setting up and implementing Gender Equality Plans (GEPs).

- Ensuring the integration of the gender dimension in R&I content, to increase societal relevance and excellent research performed throughout Horizon Europe projects.

Scope: Horizon Europe places strong emphasis on maximising its impact through Research and Innovation (R&I) and untangling gender stereotypes in all social, economic and cultural domains, supporting the development of unbiased, evidence-based policies. In the field of R&I, new measures will strengthen gender equality in Horizon Europe. The gender dimension in research content constitutes a cross-cutting issue and a criterion of excellence. Additionally, having a Gender Equality Plan (GEP) in place is becoming an eligibility criterion for legal entities to apply for Horizon Europe funding. Consequently, there is a need for developing gender expertise at national level to 1) support the integration of the gender dimension across Horizon Europe projects and 2) ensure national contact points and applicants to Horizon Europe funding are aware of the policy landscape and requirements on GEPs.

In more detail, the action should:

- Develop knowledge and build expertise on the integration of gender dimension in Horizon Europe projects, following an intersectional approach (considering intersecting social categories and identities – e.g., ethnicity, disability, sexual orientation and gender identity - as well as unconscious/implicit biases and gender stereotypes);
- Develop in-depth knowledge on setting up and implementing Gender Equality Plans (GEPs) as a means of applying for Horizon Europe funding;
- Organise tailored training, workshops, brokerage events, ensuring networking and knowledge exchange among national contact points that might have an advanced or less advanced level of gender expertise.

This action aims to develop an advanced level of gender expertise among national contact points across all the EU Member States and Associated Countries, and contribute to the implementation of institutional change on gender equality and gender mainstreaming in R&I. Additionally, the action will promote and achieve the integration of the gender dimension in research content. Participation of a variety of European and national stakeholders is recommended. Particular focus will be given to mutual learning exercises to enhance the competence of national contact points to acquire gender expertise. The consortium should include gender experts from different Member States including widening countries, implement the activities as mentioned above, and support representatives of national contact points for a period of 4 years. Extending the activities to national contact points in Associated Countries is recommended.

ERA-D3-01-9-1-2021: The challenges of research ethics and integrity in response to crisis: the coronavirus pandemic and beyond

Conditions related to this topic	
Opening date	na

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

Crises and in particular health related ones, have become a new concrete and dramatic reality for the EU and globally since the beginning of the coronavirus pandemic. Scientific knowledge focuses the attention, as it is a key element to address the urgency of the situation in an effective way and improve preparedness for the future. The extremely heavy human, social and economic consequences associated with the time pressure sets exceptional conditions calling for an adaptation of the way and procedures to work, and decide and prioritise which inevitably raises associated ethical questions. Some research topics intrinsically also have a complex ethics dimension for example research on imposing protection measures and on the impact on family life

In this context, the activity proposed is expected to propose an operational ethics and integrity framework, which preserves the key ethics principles while supporting a rapid and effective response to a crisis and improving overall preparedness.

Scope: The first priority is to analyse what characterise from an ethics perspective a crisis of a global nature like the Covid-19 pandemic and isolate what are the related ethics and integrity challenges as regards the production and use of scientific knowledge in designing and implementing responses as well as in anticipating future global urgencies.

Derogations of human rights, albeit in the interests of the public good must be temporary, and critically there must be clear transparent criteria for their suspension e.g. in the form of sunset clauses to emergency legislation. The greatest danger – during and after the end of any formal ‘state of emergency’ – is a ‘new normal’ of eroded rights and liberties.²⁴ For example, the pressing need to collect large amounts of personal data raises important questions regarding the preservation of privacy.

An important element that characterises major crises is that they go beyond the impact on the well-being of persons and touches the society more globally notably in terms of solidarity and social justice. Mid and long-term socio-economic consequences are also more prominent in these unusual research contexts. The issues related to the role of ethics and integrity experts (as advisors, for example), informed consent, undue inducement, the right to know, and to opt out should be among the elements to tackle.

Based on this analysis, the action should draw the lessons and examine how to adapt processes followed under normal conditions (e.g. for informed consent, regulatory approvals etc.).

The scope should also cover the ethics of the scientific work on public health measures (behavioural studies, communication strategies etc.), including those aiming at an increased preparedness. The objective is to cover emerging ethics issues related to new concepts like “immunisation certification” that are at the centre of vivid debates involving fundamental values.

The action should clearly highlight what cannot be accepted or neglected in the name of coping with the urgency and the magnitude of the impact of a crisis (including the moral distress of the front line personnel). Another important example is the need to always conduct, prior to the start of a research, an independent ethical review, which remains a necessary safeguard for the individuals involved and enhance the trust from the impacted communities and the society as a whole. Emergency needs adaptation but should not lower ethics and integrity standards.

The work should be based on existing know how and identification of preparedness need. In a bottom-up approach, involving all relevant stakeholders (e.g. researchers, research funders, policy-makers, publishers and citizens) through the organisation of participatory events (workshops, consultations, ‘town hall’ meetings) the activities should propose ways and means to encourage changes in the research culture, and promote openness, communication and dialogue. This should be done in cooperation with ENRIO (European Network of Research Integrity Offices)²⁵ and ENERI (European Network of Research Ethics Committees and Research Integrity Offices)²⁶

The action should result in (A) the identification of policy options at EU level (including those to address possible legislation gaps) and practical ways to support the work of relevant

²⁴ Statement on European Solidarity and the Protection of Fundamental Rights in the COVID-19 Pandemic, European Group on Ethics in Science and New Technologies
https://ec.europa.eu/info/sites/info/files/research_and_innovation/egge/ec_rtd_egge-statement-covid-19.pdf

²⁵ <http://www.enrio.eu/>

²⁶ <http://eneri.eu/>

stakeholders notably the ethics committees and integrity bodies. The European code of conduct for research integrity²⁷ will be a main reference.

The work undertaken should also result in (B) operational (“how-to”) guidelines to support the work of research teams.

The need to complement the European Code with specific guidelines should be assessed and a proposal (C) for short documents complementing the Code should be made, focusing for example on fast track processes (ethics review, publication etc.).

In addition, this action should produce (D) traditional and online training material (reflecting the guidelines) for students, early career and experienced researchers. The material has to be made available on the e-platform Embassy of Good Science²⁸

Although the main focus will be on the recent Covid-19 pandemic, it is also important to have in mind the wider objective of addressing the ethics of global crisis (manmade or not). The action should in this regard present a generalised version of the produced recommendations and guidelines and training material.

It is essential to ensure that the publicly available results from relevant EU funded research projects²⁹ (e.g. SHERPA, SIENNA, Panelfit, SOP4RI) are taken into account. Structured cooperation with existing European Networks such as ENERI, with clear attribution of research ethics and research integrity responsibilities are necessary.

ERA-D3-01-9-2-2021: Ensuring reliability and trust in quality of Research Ethics expertise in the context of new/emerging technologies

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%

²⁷ http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf

²⁸ www.embassy.science

²⁹ Detailed information of the mentioned EU funded projects can be found on CORDIS web site (<https://cordis.europa.eu/>)

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to [all/some] of the following expected outcomes:

- Ensuring the adherence to the highest standards of research ethics is a key element of national and EU research policy. Because of its universal impact on our society and its primary role in innovation, the need for ethics rigour, the pillar of public trust in the scientific endeavour, is essential. Overall, research ethics is the foundation of high quality research and a prerequisite for achieving excellence in research and innovation in Europe and beyond.
In order to ensure that the research activities meet these expectations, they need to comply with the relevant legislations (e.g. on personal data protection, clinical trials, animal research etc.) and ethics principles. Assessing the compatibility with ethics principles requires the involvement of ethics experts that usually provide, as an ethics committee/panel an opinion or an approval. These experts, including early career researchers, come from all disciplines in science, from the public and private sector, as well as from citizens associations and NGOs.
Reliability and trust in the quality and expertise of the ethics experts is therefore key. This requires beyond the questions related to the independence and the possible conflicts of interest, that the experts have the necessary knowledge and understanding of the issues at stake to be able to assess the activity under review.
The recent rapid development of new technologies with high potential socio-economic impact (gene editing, artificial intelligence, organoids, human enhancement, etc.) constitutes in this regard an important challenge. Because of the continuous globalisation of the research activities, the risk of ethics dumping, the exportation of unacceptable practices outside the EU is also a growing concern.
The action proposed should address these issues in mobilising the research ethics community and develop the necessary education, awareness and training actions as well as propose possible adaptation of the ethics review process.

Scope: The first objective should be to identify the main ethics challenges resulting from the most impactful new and emerging technologies as well as from the conduct of research outside the EU.

From this analysis, the action must develop education, awareness actions and trainings for research ethics experts. This should be done by involving the key stakeholders and in cooperation with EU funded network ENERI (European Network of Research Ethics Committees and Research Integrity Offices)³⁰. The material produced should be made available in the platform Embassy of Good Science³¹, a one stop shop for all EC produced ethics and research integrity reference materials and trainings, which can be readily used by all members states and beyond.

The action should be based itself on the results coming from projects funded by the EU³² on the ethics dimension of new technologies and other relevant domains (notably SIENNA, PANELFIT, SHERPA, I-CONSENT, ENERI, and TRUST) as well as benefit from the work of the project SOP4RI, working on standard operating procedures and VIRT2UE working on a train-the-trainer programme. For the ongoing projects, cooperation and synergies will be established, via a dedicated horizontal coordination work package. This work package should also pay particular attention to the cooperation with the projects resulting from call SwafS-28-2020, SwafS-29-2020 and SwafS-30-2020. The involvement of the stakeholders such as ENERI, should also be used to launch a debate on the impact of the new ethics challenges on the ethics review process to determine how its role and working practices could evolve to maintain effectiveness.

In addition, this cooperation with the main actors should aim at disseminating widely the material produced. The action should in this context foresee the training of the 250-300 Horizon Europe ethics appraisal scheme experts and make use of their feedback to improve the trainings. More largely, the institutions organising ethics reviews (universities, research centres etc.) should be invited to ensure that the experts they rely on are also trained, as part of their quality process and standard operating procedures.

Finally, the action should aim at valorising the work produced beyond the community of ethics and integrity experts and in particular by promoting its use for the students and young researchers that will constitute the next generation of ethics experts and reviewers. In this perspective, cooperation should be sought with large university/research networks (such as EUA, YERUN, LERU, CESAER, EARMA etc.) in order to enrich the relevant ethics related curriculum with the material produced by the action.

³⁰ <http://eneri.eu/>

³¹ www.embassy.science

³² Detailed information of the mentioned EU funded projects can be found on CORDIS web site (<https://cordis.europa.eu/>)

Call - REFORMING AND ENHANCING THE EU RESEARCH AND INNOVATION SYSTEM

HE-ERA-D3-01-2022

Conditions for the Call

Indicative budget(s)³³

Topics	Type of Action	Budgets (EUR million)	Expected EU contribution per project (EUR million)	Number of projects expected to be funded
Opening: na				
ERA-D3-01-10-1-2022 Innowwide Bridging Facility	CSA	N/A - N/A	N/A	
ERA-D3-01-14-1-2022 An experimentation space for the uptake and use of R&I results for EU Resilience and future preparedness	CSA	N/A - N/A	N/A	
ERA-D3-01-3-1-2022 Support for policy makers – Programme level collaboration between national R&I programmes	CSA	N/A - N/A	N/A	
ERA-D3-01-4-1-2022 Supporting scientific disciplines in their policies and strategies for open science	CSA	N/A - N/A	N/A	
ERA-D3-01-4-2-2022 Capacity-building in institutional open access publishing across Europe	CSA	N/A - N/A	N/A	
ERA-D3-01-4-3-2022 Stepping-up institutional and territorial changes towards open and responsible research and innovation	CSA	N/A - N/A	N/A	

³³ The Director-General responsible for the call may decide to open the call up to one month prior to or after the envisaged date(s) of opening.
The Director-General responsible may delay the deadline(s) by up to two months.
All deadlines are at 17.00.00 Brussels local time.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

ERA-D3-01-4-4-2022 Increasing the reproducibility of research results	RIA	N/A N/A	-	N/A	
ERA-D3-01-6-1-2022 Testing of the ERA Hub concept – pilot phase	CSA	N/A N/A	-	N/A	
ERA-D3-01-6-2-2022 Developing an effective ERA talent pipeline	CSA	N/A N/A	-	N/A	
ERA-D3-01-6-3-2022 Acceleration Services in support of the institutional transformation of Higher Education Institutions	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-1-2022 Developing and piloting researcher training on science communication, public engagement, and citizen science	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-2-2022 The European Union Recognition Prize for Citizen Science	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-3-2022 Consolidating the evidence base on science communication	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-4-2022 The European competence centre for effective science communication	CSA	N/A N/A	-	N/A	
ERA-D3-01-7-5-2022 Open schooling for science education and a learning continuum for all	CSA	N/A N/A	-	N/A	
ERA-D3-01-8-1-2022 Living Lab for gender-responsive innovation	RIA	N/A N/A	-	N/A	
ERA-D3-01-8-2-2022 Inclusion schemes linking leading research institutions in terms of gender equality plan implementation to less advanced research organisations	CSA	N/A N/A	-	N/A	
ERA-D3-01-9-1-2022 The Ethics of Environmental Research	CSA	N/A N/A	-	N/A	
ERA-D3-01-9-2-2022 The empirical and behavioural approach to research ethics and integrity	CSA	N/A N/A	-	N/A	
Overall indicative budget					

Prioritizing investment and reform

Proposals are invited against the following topic(s):

ERA-D3-01-3-1-2022: Support for policy makers – Programme level collaboration between national R&I programmes

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

The actions funded under this topic will coordinate national and regional R&I programmes by pooling national resources and contributing to the alignment of national research and innovation policies. The expected outcomes:

- Identification of common research and innovation priorities agreed among the participating national and regional R&I programmes, taking into account international developments where relevant;
- Implementation of multiannual joint calls, resulting in the funding of transnational collaborative R&I projects;
- Implementation of other joint activities supporting the market, regulatory or societal uptake of results;
- Contribution to participating states meeting Global Challenges, including relevant contribution to the SDGs.

Scope: Since the introduction of the European Research Area (ERA) and starting with FP6 the Programme level collaboration among Member States and their research and innovation programmes has become a cornerstone of ERA, with annual investment from Member States in excess of € 800 million per year. More than 250 networks among research funders have been created over time, serving different research needs but always coordinating public research investments across borders and allowing researchers to apply calls for transnational research projects funded by the participating states.

The new policy approach to European Partnerships limits co-funding to Member State collaboration to Union and Horizon Europe priorities. Therefore, the ERA part of the Horizon Europe provides the possibility for Member States, Associated Countries and civil society organisations such as foundations, to maintain existing and established new collaborations on priorities of their choice.

The successful proposal should align national, regional research funding programmes on agreed common priorities and implement joint calls for transnational R&I projects as well as other joint. Proposers have to demonstrate clear commitments from participating programmes to pool resources and ensure complementarity between activities and policies with those of the Framework Programme and relevant European Partnership Initiatives.

Proposals should pool the necessary resources from the participating national (or regional) research programmes as well, where appropriate, leverage resources from pertinent foundations, charities and transnational initiatives, with a view to implementing calls for proposals resulting in grants to third parties with EU co-funding in this area.

The proposal should also demonstrate potential impact at national, regional and transnational research and innovation. The proposal should demonstrate that activities exclude any overlaps with on-going actions co-funded by the EU under Horizon 2020 or Horizon Europe.

Participation of legal entities from third countries, and/or regions including those not automatically eligible for funding in accordance with General Annex A, is encouraged. Participants from countries not listed in General Annex [insert] are eligible for EU funding under this topic

The actions should envisage a duration that is appropriate to the ambition and complexity of the proposed topic.

Translating R&I results into the economy

Proposals are invited against the following topic(s):

ERA-D3-01-6-1-2022: Testing of the ERA Hub concept – pilot phase

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following outcomes:

- Test the new ERA Hubs concept across different geographies and structures in Europe, based on common compliance criteria; The process can act as an incentive for advanced ecosystems to seek recognition, and for less advanced ecosystems to reach the criteria and be able to receive instruments from European, national and regional level.

- Better coordinate relationships between the European Research Area and relevant national or regional stakeholders in order to ensure the smart directionality introduced in the new ERA.
- Develop a common platform for collaboration and best practice sharing across borders, sectors and disciplines on knowledge production, circulation and use, and facilitate cross-fertilisation and smart directionality among ecosystem actors to achieve transformative changes and advance Europe together.
- A solid and interconnected ecosystem across Europe facilitating the creation, circulation, diffusion and take up of knowledge will provide an opportunity to balance competition and collaboration and ensure that different strengths of the regions and countries complement each other and trigger through synergies a synchronised co-evolution across the whole continent. Increase both the interoperability of the European ecosystems and the intra-operability within each territorial ecosystem, aiming to improve coordination, and foster excellence.
- Facilitate a better circulation and absorption of talents in countries/regions, as well as improve knowledge circulation and uptake of research results;
- Improve the framework conditions for researchers, innovators, industry and institutions across Europe;

Scope: A vibrant ecosystem is an essential condition for growth. In order to take full advantage of possible synergies and complementarities between the EU and national and regional ecosystems for knowledge production, circulation and use, there is a need to make compatible and interoperable the policy frameworks that govern existing structures for knowledge transfer and sharing, and address common criteria for assessing work, processes and outputs. Reinforcing the networking interconnecting geographically or thematically, the ecosystem actors on the basis of smart specialisation and other strategic considerations, such as value chains, will consequently stimulate excellence and complete the coverage across Europe.

This action will build on the preparatory work of the previous Work Programme, in particular, the study on knowledge ecosystems, which provided among others a mapping of existing ecosystem actors engaged in knowledge production, circulation and use across Europe, as well as designed the ERA Hubs concept as a toolbox of pre-defined common standards of work, processes and outputs, as well as key performance indicators on operational, programme and strategic impacts. The concept can be tested on structures bringing together ecosystem actors and networking those structures in a coordinated approach, common agenda and compliance criteria. The rollout of the concept across Europe could support and coordinate the efforts at local and regional level for the implementation of a pan-European ERA Hubs initiative.

The scope of this action is to provide a testbed for a pilot project with limited scope related to the ERA Hub concept testing through implementation in countries and regions where compliant structures already exist or an integrated place-based approach is missing. The main goal of the action will be to fine-tune through experimentation the designed concept of ERA Hubs and its

technical specifications and compliance criteria, as well as provide a toolkit of best practices and activities that could ensure a strong basis for a potential scale-up in different geographies across the EU territory in the next phase.

Projects will be assigned to structures taking the coordinating role in orchestrating the ecosystem actors to implement the ERA Hubs concept in pursue of intra-operability with the territorial ecosystem and a common agenda supporting the economic transitions and smart specialisation strategies of a country or region. These structures could be entities that have the competences and/or the willingness to become pioneers, benchmarks and ambassadors of the new concept and could include universities, research institutes, business schools, private companies, not for profit organisations, or entities already part of pan-European networks or coming from different funding communities, in order to better connect those communities.

An independent evaluation mechanism will assess the projects and further monitor the progress of the ecosystem actors engaged in a common agenda and implementation of the ERA Hubs concept in a dedicated country or region.

On the basis of the assessment, a funding contribution will be provided to initiate the effective implementation of the ERA Hubs concept. Depending on the agenda, up to a maximum of EUR XXX is foreseen per project. The funding contribution will need to be matched with institutional, regional, or national funding, and it should lead to considerable progress in the deployment of the ERA Hubs initiative in the respective country or region.

ERA-D3-01-10-1-2022: Innnowwide Bridging Facility

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.

<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Enhancing the role of the geopolitical Commission
- Economic growths and job creation in the EU and in third countries, contributing to the Agenda 2030 and relevant EU policies, and enhancing the visibility of EU R&I at the international scene

Scope:

- Supporting the transfer and internationalisation of demonstrated technologies and know-how, both to and from the country/region;
- Launching local market development programmes to deploy European technology; Communicating worldwide S&T EU success stories, its tangible and intangible assets and how EU science help finding solutions to challenges;
- Undertake technical, market, legal and socioeconomic assessments intended to validate the viability of innovative business solutions along emerging global value chains
- Identify and assess key framework conditions that may favour or impede the effective deployment of collaborative solutions and models in third countries and propose relevant solutions, aiming to improve the business environments and proposing relevant EU policy dialogue initiatives;

ERA-D3-01-14-1-2022: An experimentation space for the uptake and use of R&I results for EU Resilience and future preparedness

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.

<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- A methodology and toolbox to design and implement testing of policy relevant findings stemming from European R&I that can contribute to EU resilience and future preparedness.
- A knowledge base of EU research findings, with high capacity to inform policy and engage citizens and research communities, that are tested, including the methodologies for testing (small scale experiments, randomised control trials etc.).
- Lessons learned to enhance the use of R&I results to enable fast response in the face of future crises and strengthen economic and social resilience, for example through supporting policy reforms, new regulation, social innovation, behavioural change, new technology adoption.

Scope: R&I results and new scientific knowledge can inform policy making and help address societal challenges through new technological and societal solutions, as well as through providing policy recommendations and policy options with a proper (scientific) understanding of the underlying conditions. Testing policy recommendations and findings of scientific research through experiments and novel methodologies increases understanding of the implications, risks and opportunities of possible new solutions, enabling societies to respond faster and more effectively to crises and built resilience and social cohesion.

This action aims at increasing the visibility and fostering the use of R&I results with high policy relevance to contribute to the recovery and resilience of Europe, while engaging research

communities and citizens in an “experimentation space” for new, science based, socially inclusive policy initiatives and solutions.

The action will match policy relevant findings for EU resilience stemming from research (such as from EU H2020, HE and previous programmes as well as other EU programmes, and national level publicly funded research) with national, regional and local needs, and carry out the experimentation phase in co-creation with the research communities and citizens. At the core of the action is the design of appropriate trial mechanisms that will test research findings which can be translated to policy and new societal solutions, and thereby provide policy makers and citizens with a high degree of confidence and trust in responding to new challenges.

Beneficiaries may provide financial support to third parties. The maximum amount to be granted to each third party is EUR XX. The respective options of the model grant agreement will be applied.

Deepening the European Research Area

Proposals are invited against the following topic(s):

ERA-D3-01-6-2-2022: Developing an effective ERA talent pipeline

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.

<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Several projects may work in parallel and contribute to several of the following expected outcomes:

- Creation of a common academic researchers' career structure, taking into account new developments and diversification of careers in academia, based on practices in Member States, linking it to the European Skills Competences and Occupations (ESCO) framework
- Enabling widespread recognition of the ESCO qualifications profile, more precisely the competences that PhD trainees and postdocs in various stages of their careers have obtained, both within and outside academia and regardless of sector, discipline or location
- Mainstreaming of tenure track like systems, as an attempt to improve career development and solve part of the precarity of research careers in academia
- Mainstreaming practices for higher education institutions to involve non-academic sector from the onset in training & career development of PhD students
- Mainstreaming value creation and intersectoral mobility schemes within higher education institutions to promote jobs and growth.

Scope: The European Research and Innovation system needs to optimise its support to the constant flow-through of highly skilled talents as well as supplying it to the society and economy matching the demand. Establishing an enhanced framework for researchers' careers within the EU towards a pipeline of highly skilled, creative, and resilient talents will accelerate the achievement of a knowledge-based society and economy.

The talent pipeline's main initiator remains the curiosity-driven approach to science, delivering creative and resilient individuals that can cope with change, for the benefit of society as a whole. The autonomy of organisations that are at the basis of the talent pipeline is an additional essential success factor for the ERA to provide visible value through excellence in research and innovation.

The framework aims at addressing: (i) the recognition of the research profession and PhD qualifications in- and outside academia, the structuring of the researcher scientific career (i.e. to improve interoperability between academic and other employers), (ii) the diversification of the careers of talents trained as researcher, and (iii) solutions to the precariousness of researchers' careers in academia including a model tenure-track system accompanied by possible standard principles.

The common framework for research careers will be based on dynamic competence profiles of researchers in various stages of their diverse careers in order to enable widespread recognition of the competences that PhD trainees and postdocs have obtained, both in- and outside academia and independent of sector or discipline and geographical location. It will be translated in the new European competence framework which will need to be mainstreamed across Europe.

We expect projects to take measures to improve flow-through of talent within academia and to and from the non-academic sector or to other highly needed positions in academia, to (i) improve transferable skills training, involving non-academic actors from the very onset in education and training of scientists, (ii) improve talent transfer to actors in the surrounding ecosystem, (iii) improve value creation practices among higher education institutions, (iv) communicate about the competences and qualifications of team and its talents to society and economy, (v) initiatives enabling the sustainable and dynamic interaction within and between the of ecosystem actors for knowledge production, circulation and use, and stimulating career fluidity through inter-institutional and inter-sectoral mobility (bi-directionally), (v) embed additional elements in the assessment schemes for both organisations and individuals at all career stages.

Activities may include the establishment of national or local Talent Management Centres and training hubs that strengthen involvement of the non-academic sector in defining the priorities of researchers' training and lifelong learning upskilling.

ERA-D3-01-6-3-2022: Acceleration Services in support of the institutional transformation of Higher Education Institutions

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.

<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: The acceleration services will consist of (i) a support mechanism for higher education institutions (HEI) to pursue institutional transformations, (ii) an investment agenda to support higher education institutions and surrounding ecosystem to deliver on the transformations, (iii) a monitoring mechanism to assess progress in the transformation efforts. Projects are invited to address either all three aspects or a subset while enabling close collaboration with the complementary projects in the portfolio.

Projects are expected to contribute to the following outcomes in relation to acceleration services in support of institutional transformation of higher education institutions (HEI):

- Development of a methodology towards acceleration services that can help universities or alliances or networks of HEI in pursuing institutional transformations, including a monitoring mechanism to assess quality of the delivered services, the overall aim of the HEI acceleration services being 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.
- Deployment of acceleration services with user groups (HEI, alliances of universities and surrounding ecosystem actors), supporting HEI or alliances of HEIs in pursuing institutional transformations in the field of R&I, including a monitoring mechanism to assess quality of the delivered services.
- Creation of a coaching service with best practice examples and guidance for individual HEIs as well as alliances of HEIs, aligned with the common transformation agenda, facilitating access to funds from various sources, including financial instruments.
- Implementation of a cascade funding mechanism, providing seed funding to HEIs or alliances of universities, based on an independent assessment of proposed transformation strategies against Horizon Europe quality criteria
- Monitoring of progress of the users of the acceleration services regarding the implementation of the chosen areas of the transformation agenda.
- Policy feedback to the European Commission and Member States on the acceleration services, and widespread dissemination of the pilot results to other target groups

Scope: Higher Education Institutions (HEI), including universities, are crucial drivers of knowledge ecosystems, and increasingly also of innovation ecosystems. The European Research Area is expected to strengthen the R&I dimension of HEIs through a comprehensive transformation agenda in synergy with the European Education Area, reinforcing their role as drivers of change, fostering their recovery, enabling shared objectives between the EU and Member States' initiatives to support higher education institutions in their efforts to transform on their education, research, innovation and service to society missions.

Projects should build on the results of previous analyses that set out a framework for empowering HEIs across Europe in their research and innovation mission, facilitating ongoing transformation processes based on universities' needs (*"Towards a 2030 Vision on the Future of Universities in the field of research and innovation in Europe"*, Summer 2020, and *"Knowledge ecosystems in the new ERA: a comprehensive analysis of the state of play, the design of monitoring mechanisms, and creation of a toolbox of support measures"*, 2020-2021).

The transformation agenda for HEIs to be co-created with stakeholders and Member States needs to take into account the most important challenges that HEIs meet including (trans)national cooperation with other HEIs, and the growing importance of engagement with a broad range of sectors and societal actors inherent to the multiple missions of HEI (education, research, innovation, service to society). The transformation agenda includes in the field of R&I, areas such as: (a) empower HEIs towards developing shared R&I strategies that deliver on Europe's challenges with critical mass; (b) facilitate the sharing of capacity, infrastructure and resources through collaborative settings, such as the European Universities initiative; (c) improve the attractiveness of researchers' careers, including through reform of the career assessment and incentives regimes; (d) facilitate co-operation with surrounding R&I ecosystem actors; (e) support the transition to knowledge- and digitally-driven HEIs that embrace Open Science; (f) engage citizens in solving societal challenges. This transformation agenda can already build on the experiences of the selected European Universities, supported under Erasmus+ and Horizon2020.

Projects should aim at developing, testing and fully deploying a methodology for acceleration services that can help HEIs or alliances of universities in pursuing institutional transformations. The acceleration services portfolio should be built along the transformation agenda. Concretely, acceleration services consist of a group of experts or consultant services of different profiles that match with the areas from the common transformation agenda, which the project puts at the disposal of individual HEIs or alliances of universities in need of institutional transformation in the field of R&I. The acceleration services will include strategy development, roadmap development, and mapping of required support resources, in the areas chosen by the HEI client.

To deliver on the transformation agenda for HEIs, as proposed in the revitalised European Research Area and the European Education Area, a large-scale concerted action in support of the institutional transformation efforts of HEIs will be required, including a standard methodology to develop roadmaps of EU, national and regional actions and investment measures for institutions or alliances: (a) adequate R&I indicators to monitor public investments

from Member States, including the share of Structural Funds; (b) synergetic action through the different strands of Horizon Europe that target HEIs; (c) synergies between Union programmes including Horizon Europe, Erasmus, ESF and ERDF and alignment of national programmes, notably in the context of the European University initiative; (d) pooling of resources to leverage business R&I investments, notably through the policy windows of the InvestEU programme.

Projects will build on an initial roadmap for investments in academic sector, the outcome and recommendations of the study “Knowledge ecosystems in the new ERA: a comprehensive analysis of the state of play, the design of monitoring mechanisms, and creation of a toolbox of support measures” (2020-2021). The methodology should in particular build on the previous mapping exercises of supporting funding for universities from EU, national, and regional level, leading to a standard methodology to develop specific investment agendas for individual institutions or alliances that consists of different funding and financial instrument branches, aligned with the priorities and areas of the common transformation agenda, and realising concerted support to the institutional transformation efforts universities want to engage in.

The focus will in particular be on the creation of a coaching service with (i) best practice examples, (ii) guidance for HEIs, aligned with the common transformation agenda, (iii) support to access funds, including financial instruments, (iv) methodology to monitor progress of institutional transformation at individual HEI or network level. The methodology should include support and access to financial instruments like InvestEU for excellent research and innovation capacity, and support for disruptive innovation from academic sector, incl. spin-offs from universities and public research organisations, and cooperation agreements between academic and business sector.

The acceleration services should be piloted together with user groups (HEIs, networks of universities and surrounding ecosystem actors) before full deployment, and progress of the users in the implementation of the chosen areas of the transformation agenda should be measured.

Actions should include an evaluation mechanism that enables to assess the strategies from individual HEIs or alliances of universities, pursuing institutional transformation towards universities of the future, for instance under supervision of an ‘acceleration board’ of independent experts. The evaluation mechanism should monitor progress of the HEIs in the implementation of the chosen areas from the transformation agenda.

On the basis of the assessment, the ‘acceleration board’ will provide seed funding to the clients to initiate the effective transformation, depending on the chosen areas and up to a maximum of EUR XX per client. The seed funding should be matched with institutional, regional, or national funding, and should lead to measurable progress in the deployment of the strategy developed by the acceleration services.

ERA-D3-01-4-1-2022: Supporting scientific disciplines in their policies and strategies for open science

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Fit-for-purpose policies and strategies for open science by research communities at the European level (scholarly associations, learned societies).
- Support to research communities in transitioning to open science practices³⁴.
- Enhanced interdisciplinary by supporting collaboration in policy development and open science practices

- These targeted outcomes in turn contribute to medium and long-term impacts:
- Increased equity, diversity and inclusivity in open science practices inside the European Research Area.
- Improved overall capacities within the EU R&I system to conduct open science and implement it as a *modus operandi* of modern science

Scope: Open science is an approach based on open cooperative work and the systematic sharing of knowledge as early and widely as possible. Although funder and institutional requirements for open access has led to increased awareness and practice, nonetheless, different disciplines move towards open science at different and unequal paces, owing to set practices and disciplinary cultures.

This call aims at supporting different research communities across Europe to develop policies and strategies for open science that are tailored to their discipline. The call will fund activities undertaken by European research associations, learned societies and similar entities with a disciplinary focus and a European remit. Proposals should focus on a minimum of three research communities without formal or well-defined open science policies/strategies/guidelines belonging to at least three different Fields of Science and Technology according to the Frascati Manual Classification (<http://www.oecd.org/sti/inno/38235147.pdf>).

The call will fund activities that will: 1. Develop policies and strategies for open science practices for the chosen disciplines to be adopted in the procedures and bylaws of the research communities; 2. Develop support for the uptake of such policies and strategies by researcher communities and for transitioning to open science; 3. Propose coordination activities across the disciplines and lessons learnt for relevant policy-making.

Duration: The action should be no longer than 24 months.

ERA-D3-01-4-2-2022: Capacity-building in institutional open access publishing across Europe

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.

<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Improved understanding of the current landscape in institutional publishing activities across Europe.
- Facilitated coordination amongst institutional publishing services and initiatives across Europe at the non-technical level and improve their overall service efficiency, in particular in a multilingual environment.
- Actionable recommendations for strategies regarding institutional publishing in research performing organisations across the European Research Area.

These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased equity, diversity and inclusivity in open science practices³⁵ inside the European Research Area.
- Improved overall capacities within the EU R&I system to conduct open science and implement it as a *modus operandi* of modern science.

Scope: Recent years have witnessed a sharp increase in open access publishing activities. Commercial publishers and other service providers have turned their attention to open access publishing, responding to an increased demand for open access by funders and research performing organisations. Research institutions themselves also develop their own open access publishing activities and services. These are either new and born open access, or are existing publishing activities transitioning into the new digital and open access environment. Libraries are often involved in such initiatives, while new types of mission-driven open access university

presses also emerge in Europe and beyond. Such initiatives do not require article fees for publishing, and are often supported by their institutions. They enable open access publishing of journals and other types of outcomes in various languages and are important in supporting multilingualism in Europe. At the same time, they often lack the prestige bestowed to established publishing venues, usually produced in collaboration with well-established scientific publishers. Moreover, institutional publishing in the social sciences and the humanities is often in non-English language, which constitutes at the same time an asset and a limitation.

This call aims to support institutional publishing initiatives across Europe in improving the quality of their services to researchers and overcoming fragmentation. To this end, the topic will support: 1. Activities that improve the understanding of the current landscape of institutional publishing activities across Europe through the collection of evidence, identifying service provision mechanisms, funding processes, gaps, among other things; 2. Activities that improve the coordination and quality of existing and substantial in capacity open access publishing services in numerous European countries, and in particular establishing minimum shared standards for non-technological services, such as developing high quality journal policies and procedures to make services more efficient and more attractive for researchers (including editorial scopes, peer-review policies, organization of editorial and publishing business processes, translation, among others); 3. Explicit and actionable recommendations for strategies and policies to be adopted by research institutions in view of supporting the further flourishing of such their mission-driven, open access publishing activities in a coordinated fashion across Europe.

Duration: The action should be no longer than 36 months

ERA-D3-01-4-3-2022: Stepping-up institutional and territorial changes towards open and responsible research and innovation

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%

<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Consolidated evidence base on sustainable institutional and territorial changes towards open and responsible research and innovation
 - A central point of expertise providing services and support for research and innovation institutions, and territories, to open up to society
 - Significant number of institutions and territories in the ERA become more porous to society, align with the needs, values and expectations of society, improve the excellence of their research and innovation, promote gender equality, and reduce instances of ethical misconduct
 - Reduction in disparities between institutions and territories in terms of their attention to open and responsible research and innovation
 -
- These targeted outcomes in turn contribute to medium and long-term impacts:
- Open and responsible research and innovation practices mainstreamed in territorial and institutional settings
 - Increased impact of EU R&I outputs and the conversion of knowledge and ideas into products and services

Scope: Expected outcomes:

- Consolidated evidence base on sustainable institutional and territorial changes towards open and responsible research and innovation
- A central point of expertise providing services and support for research and innovation institutions, and territories, to open up to society

- Significant number of institutions and territories in the ERA become more porous to society, align with the needs, values and expectations of society, improve the excellence of their research and innovation, promote gender equality, and reduce instances of ethical misconduct
- Reduction in disparities between institutions and territories in terms of their attention to open and responsible research and innovation

These targeted outcomes in turn contribute to medium and long-term impacts:

- Open and responsible research and innovation practices mainstreamed in territorial and institutional settings
- Increased impact of EU R&I outputs and the conversion of knowledge and ideas into products and services

Scope:

Research and innovation institutions play a key role in creating an enabling environment for opening research and innovation towards society, sharing research outputs, improving research integrity and gender equality, and promoting science education and societal engagement and two-way science communication. At territorial level, interactions between different institutions from across the quadruple helix and including societal actors are essential to ensuring that the processes and outcomes of research and innovation are aligned with the needs, values and expectations of society.

However, European research and innovation actors lack a consolidated evidence base and guidance based on EU investments in this area to date³⁶ to support them, there are significant differences in attention to different aspects of responsibility and openness between institutions and territories, rewards and incentives at the workforce and institutional level are often misaligned or even disfavour openness to society, and there is no central point of reference or provider of services and expertise to turn to.

This action consists of three strands:

The first involves consolidating the evidence base and develop innovative guidance and other materials, so as to support institutions and territories to implement sustainable institutional changes and open up to society³⁷. It will take into account and build on the learning and

³⁶ For instance, in Horizon 2020's Science with and for Society programme.

³⁷ Sustainable institutional changes are changes to how a beneficiary governs/structures itself, are expected to have meaningful impact within the institution concerned, and are expected to last beyond the lifetime of EC support. They should be in one or more of the following five dimensions: open access/open data, ethics, public engagement, science education, and gender equality, or can take the form of an overall "Responsible Research and Innovation" package of changes.

knowledge developed by Horizon 2020's Science with and for Society programme³⁸ and potentially other sources of knowledge.

The second strand involves launching 'cascading grant' call(s) to support institutions and territories from across the ERA to implement sustainable institutional changes³⁹ towards open and responsible research and innovation. This will require consultancy or other kinds of support services and products to be developed and rolled out to successful institutions. A significant number of institutional changes (e.g. 70-100 individual institutional changes) should be expected in beneficiary organisations and territories. One or more call(s) for proposals should be launched, which could focus on specific disciplines, MoRRI country clusters⁴⁰, or other pertinent criteria, but with the underlying goal of reducing disparities between institutions and territories in terms of their attention to different dimensions of openness and responsibility.

The third strand involves acting a central point of expertise and support services on open and responsible research and innovation for institutions and projects under Horizon Europe and within the European Research Area. This point of expertise should have appropriate high-level visibility, and the ability to interact and support all parts of the research and innovation system (all parts of quadruple helix, disciplines, sectors). Extensive international networking will be initiated, to support co-operation and collaboration on the issue of open and responsible research and innovation at global level.

The action will evaluate its impacts and develop recommendations useful to policy makers and those responsible for the governance of research and innovation institutions. The action will raise awareness of the benefits of open and responsible research and innovation to organisations across the ERA. It will develop close co-operation with other relevant projects, with a view to fostering collaboration and the early sharing of knowledge and evidence.

ERA-D3-01-4-4-2022: Increasing the reproducibility of research results

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed

³⁸ Particularly relevant projects to build upon were supported by: ISSI-5-2014, GARRI-1-2014, ISSI-5-2015, SwafS-04-2016, SwafS-05-2017, SwafS-05-2018-2019, SwafS-14-2018-2020, SwafS-23-2020. Moreover, this action will build on the evidence base for benefits developed by the MoRRI and Super_MoRRI projects. Projects focused on implementing Gender Equality Plans under SwafS (including those supported by topics GERI-4-2014, SwafS-03-2016-2017, SwafS-09-2018-2020) will also be of relevance.

³⁹ Institutional changes are characterised as: 1) a change to how the institution governs/structures itself, 2) expected to have meaningful impact within the institution concerned, 3) intended to last beyond the lifetime of funding (i.e. not one-off activities). See <https://op.europa.eu/s/olV2>.

⁴⁰ <https://op.europa.eu/s/olV4>

	appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Increased understanding of the underlying drivers and possible, effective funding and policy actions to increase reproducibility of research results;
- Greater collaboration, alignment of practices and joint action by stakeholders to increase reproducibility, including but not limited in relation to training, specialized careers and guidelines for best practice;
- Tested concrete solutions to increase reproducibility of research results in funding programmes and in the dissemination of scientific results.

These targeted outcomes in turn contribute to medium and long-term impacts:

Increased rate of reproducible results from publicly funded research; Increased re-use of scientific results for science and innovation; Greater quality of the scientific production.

Scope: Reproducibility refers to the possibility for the scientific community, to obtain the same results as the originators of some specific findings. As such, reproducibility is a core element of scientific progress. There is debate on whether there is an actual crisis of reproducibility in contemporary science. On the one hand, there is a need to address inefficiencies of the research process, to avoid useless and costly repetition, to maximise return on investment in R&D&I, to prevent the propagation of mistakes, and to facilitate the translation of results into innovations.

On the other hand, there is a perceived carelessness in scientific production due to competitive pressures of increasingly fast, professional science.

At a time when funding levels for R&I are under scrutiny globally, and when citizens question scientists to an unprecedented degree, it is necessary 1) to determine how increased reproducibility of scientific results generates gains and savings in the research process and improve overall research performance - alongside the already demonstrated, positive effects of reproducibility on the quality, integrity and trust-worthiness of research. And 2), to find, experiment and mainstream concrete solutions and best-practices that aim to increase the reproducibility of research funded with European taxpayers' money.

The topic aims to fund activities in three main lines of work that will promote reproducibility by: 1) greater understanding of its drivers and solutions; 2) greater collaboration and increased alignment in the 'research result pipeline'; 3) the development of practices and practical tools for funders, publishers and scientists.

ERA-D3-01-7-1-2022: Developing and piloting researcher training on science communication, public engagement, and citizen science

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.

<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Significant number of researchers trained through pilot activities on science communication, public engagement and citizen science, and consequently more likely to engage in these activities in the future.
- Evidence-based training for researchers at all stages of their careers that is ready for wider deployment at the end of the project.
- These targeted outcomes in turn contribute to medium and long-term impacts:
- High-quality training rolled out at wide scale to researchers across all disciplines on science communication, public engagement and citizen science.
- Higher levels of engagement with citizen scientists and the public and better science communication by researchers in the EU R&I system.
- Improvements in the excellence of the science conducted, improved capacity within the European Research Area to tackle societal challenges, greater interaction between science and society, improved overall effectiveness of EU research and innovation funding.

Scope: Scope:

It is widely acknowledged that researchers need to engage, involve and communicate with society to foster trust in science, draw on the collective intelligence of society in research, and align research with the needs, values and expectations of society. This includes communicating and discussing results with the general public in two-way dialogue, to foster learning and mutual understanding; involving the general public in different aspects of research such as the development of research agenda and examination of ethical and other issues of societal importance; working in multi-actor collaborations covering all parts of the quadruple helix; and actively involving citizens in research activities such as citizen science.

Considerable resources have been invested in responsible research and innovation, citizen science, public engagement, and science communication over recent years, which have collectively suggested means for researchers to move towards more open forms of research. Nevertheless, 1) researchers continue to lack the confidence and skillsets required to engage with society, and 2) trainings based on state-of-the-art approaches have not been sufficiently developed, rolled out and embedded within research organisations across the ERA.

This action will consolidate existing evidence⁴¹ to develop training activities and pilot these for a significant number of researchers at all stages of their careers (i.e. from undergraduate onwards) at research performing organisations across Europe. The action will evaluate its activities, in particular the learning outcomes from the pilot trainings with a view to refining the training ready for more widespread deployment (for instance in MSCA actions, or at national or institutional levels). It will also develop policy recommendations aimed at governance levels responsible for research training and career development. The action will work closely with relevant on-going actions and quadruple helix stakeholders throughout its activities and aim to have its outcomes taken up in relevant EU initiatives and projects.

ERA-D3-01-7-2-2022: The European Union Recognition Prize for Citizen Science

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

⁴¹ In addition to relevant national-level initiatives, or even initiatives outside the EU, this includes EU support to relevant actions in MSCA and Horizon 2020's Science with and for Society programmes.

- Increased recognition of excellent citizen science initiatives throughout the EU
- Increased recognition of the role that can be played by citizen science in EU research and innovation stakeholders
- Increased awareness of the EU's support for citizen science

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These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased engagement of researchers with citizens and citizens with science
- Increased public trust in science
- A more open EU research and innovation system

Scope: Targeted outcomes:

- Increased recognition of excellent citizen science initiatives throughout the EU
- Increased recognition of the role that can be played by citizen science in EU research and innovation stakeholders
- Increased awareness of the EU's support for citizen science

These targeted outcomes in turn contribute to medium and long-term impacts:

- Increased engagement of researchers with citizens and citizens with science
- Increased public trust in science
- A more open EU research and innovation system

Scope: Citizen science is a rapidly emerging mode of research and innovation that shows huge promise in terms of collecting new qualities and quantities of data, harnessing collective intelligence, improving science-society literacy, and improving the relationship between science and society. It is blooming across scientific disciplines and the humanities and can bring a wide variety of benefits to science, policy, and society.

At the same time, citizen science is under-recognised for its role in bridging between science and society, under-utilised where it is needed, such as in relation to the Green Deal and the Sustainable Development Goals, and practitioners of citizen science are insufficiently recognised within the EU research and innovation system as conducting high-quality activities that can have numerous side-benefits.

This action will launch the European Union Recognition Prize for Citizen Science. It will launch a contest open to all citizen science initiatives in the European Union, covering all areas of scientific enquiry, all areas of research and innovation, and taking into account all of the

different kinds of activities and levels of participation that citizen science can entail without prejudice to any.

The action will publicise and launch the competition and organise a high-profile award ceremony that showcases the breadth and scope of excellent citizen science activities throughout the European Union. Innovative forms of public participation in the contest could be envisaged, for instance to democratise the process of choosing the winners.

In close liaison with the EC throughout the entire project duration, the action should describe the panel of experts that will evaluate the contestants, the conditions for participation and the award criteria that enable identification of excellent/best-in-class examples of citizen science in terms of their contribution to the scientific evidence base and/or other benefits (e.g. societal, economic, democratic). The action should include organisations that are well established in the field, with connections to projects, associations and networks across Europe. Prizes shall be in the range of EUR XX - XX.

ERA-D3-01-7-3-2022: Consolidating the evidence base on science communication

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.

<i>Procedure</i>	The procedure is described in General Annex F.
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Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Recommendations, guidelines, and innovative strategies to improve science communication for all research and innovation actors
- Concrete tools like open source software, toolkits, platforms, re-usable canvas, infographics and visuals to improve the ways in which science is communicated

Scope: Science communication is a scientific discipline, an activity conducted by career scientists, and also a specific career pathway followed by journalists. Due to the digitalisation process, science communication is undergoing radical changes, opening up opportunities but also posing new challenges. For instance, traditional media are increasingly being superseded by social media with more user-edited content, and rapid diffusion of open access or even pre-peer review papers gives the general public access to papers that were previously locked behind paywalls. However, this raises new risks in relation to the communication and perception of scientific knowledge.

Science Communication, as a part of Open Science, has the potential to increase the transparency of science, build trust in the process and outcomes of science, and raise scientific literacy. Effective science communication should also focus on the importance of the relationship between science and society in the uptake (or otherwise) of science by society and policy making.

This action will consolidate the evidence base from on-going and past projects and initiatives⁴² to develop recommendations, guidelines and innovative strategies to improve science communication across all research and innovation actors. Efforts should be made to work with all parts of the quadruple helix, to ensure that the outcomes are usable in different contexts and for different purposes, and considerable efforts to disseminate the findings across the European Union should be undertaken. Moreover, particular attention will be paid to contextual issues (geography, gender, age, socio-economic status, etc.) that affect the uptake or effectiveness of science communication.

Close co-collaboration will be sought, in particular, with the actions supported by *[/XXXX mention here the pilot training action, and the consolidation of the evidence base topics]* to ensure complementarity and avoid overlap. Moreover, an important outcome should be publication of one or more user-friendly handbook(s) for effective science communication, backed by an interactive and pedagogical online toolkit, for use by future Horizon Europe projects.

⁴² In particular, but not limited to, projects supported by Horizon 2020's SwafS-19-2018-2019-2020 topic.

ERA-D3-01-7-4-2022: The European competence centre for effective science communication

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Establishment of a European competence centre for science communication, sustained beyond the lifetime of funding
- Increased networking, sharing of good practices, higher quality and more effective science communication by R&I projects, national authorities, businesses, civil society organisations and other stakeholders

Scope: The covid-19 pandemic has highlighted the importance of communicating scientific knowledge and recommendations to respond to a fast-moving and critical threat to public health. A variety of approaches have been taken, primarily by public authorities but also by businesses and other stakeholders, to reach different target groups to explain the rationale

behind public health policies or emerging knowledge about the virus itself, and these approaches developed over time and across Europe. It is important to learn from this and other experiences where science communication has been essential to conveying scientific knowledge and recommendations on critical issues, build capacities and strengthen networks, and to ensure greater ability in the future to react rapidly and effectively to future pandemics or other critical situations. Particular attention need to be paid to contextual issues (geography, gender, age, socio-economic status, etc.) that affect the uptake or effectiveness of science communication.

This topic will establish a centre of knowledge, expertise, advice, resources, and tools on science communication in Europe that promotes state-of-the-art science communication, resonating and finding traction across society. It will act as a centre of expertise and applied practice in science communication, and will aim to become a central point in the European Research Area, linking existing initiatives and similar centres of expertise with the goal of improving co-ordination and mutual learning between them. It will provide services to potential client and user groups including R&I projects, public authorities including government agencies, the private sector, and civil society organisations.

The centre will work towards the sustainability of its activities beyond the lifetime of funding, including through the provision of a basket of services and other activities that have market value; a business plan should therefore be elaborated from the very earliest stages of the project.

The action should build on the knowledge, networks and capacities developed by Horizon 2020⁴³ and ensure close working relationships with topics [XXXX mention here the pilot training action, and the consolidation of the evidence base topics]. A minimum project duration of 48 months should be envisaged.

ERA-D3-01-7-5-2022: Open schooling for science education and a learning continuum for all

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions

⁴³ Including topic SwafS-19-2018-2019-2020.

<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to [all/some] of the following expected outcomes:

TBD

Scope: TBD

ERA-D3-01-8-1-2022: Living Lab for gender-responsive innovation

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Research and Innovation Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.

<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to the following expected outcomes:

- Advancement of knowledge and practice on gender-responsive innovation in Europe
- Strengthening of the innovation and inclusiveness dimensions of the European Research Area.

Scope: Women remain disproportionately under-represented among innovators and start-up entrepreneurs and hold less than 10% of patent applications⁴⁴, while the integration of the gender dimension into product design, technologies and innovations in general, remains very limited despite its potential for opening new markets and its core importance for solving global challenges and European priorities. Moreover, a positive correlation between the European Innovation Scoreboard and the Gender Equality Index has been reported, and a higher proportion of research organisations with a gender equality plan in a given country is similarly correlated with a higher Innovation Score⁴⁵.

A “Living Lab” will be put in place, gathering innovators as well as social science and gender scholars to investigate and generate new and disruptive ideas to promote women innovators and develop gender-responsive innovation. This novel knowledge and collaboration scheme will build on projects and actions supported under Horizon 2020, including the EU Prize for Women Innovators and its network of awardees, project GENDERACTION, recommendations from the Horizon 2020 Expert Group to update and expand “Gendered Innovations/Innovation through Gender” and outputs of the project funded under the 2020 “Innovators of the future: bridging the gender gap” topic. It will also complement initiatives led by the European Innovation Council, including the TechStart Women initiative, as well as EIT-led activities aimed at supporting women-led innovation.

Proposals are expected to address the following:

⁴⁴ She Figures 2018, DG Research and Innovation, European Commission: https://ec.europa.eu/info/publications/she-figures-2018_en

⁴⁵ <https://genderaction.eu/the-higher-a-country-scores-on-gender-equality-the-higher-its-innovation-potential/>

- Establish a sustainable learning and collaboration hub between various innovation ecosystem actors, including, e.g., women innovators, education institutions, science and technology museums, foundations, start-ups and larger companies, as well as social science researchers and gender scholars from a variety of scientific disciplines.
- Develop real-life action research with above-mentioned stakeholders, based on the co-development and testing of user-centred and open innovation processes promoting gender equal participation, as well as integrating the gender dimension into their contents, with an opening to intersectional approaches, and with a special focus on information technology and AI-related fields and Commission priorities such as the European Green Deal and the preparedness and response to future pandemics.
- Propose concrete new methods and solutions for the development of gender-responsive innovation in Europe.

ERA-D3-01-8-2-2022: Inclusion schemes linking leading research institutions in terms of gender equality plan implementation to less advanced research organisations

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.

<i>Procedure</i>	The procedure is described in General Annex F.
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Expected Outcome: Projects are expected to contribute to the following expected outcomes:

- Enhance the reputation, attractiveness, inclusiveness and research excellence of less advanced institutions as a result of implementing comprehensive gender equality plans.
- Transform institutions to advance gender equality within the European Research Area (ERA).

Scope: The institutional change strategy implemented through gender equality plans has had very positive impacts in many research organisations and been a catalyser at national and EU level, as the latest ERA progress report has shown. However, there is a heterogeneity in the implementation of Gender Equality Plans across the EU, and persisting structural barriers in R&I institutions which must be addressed, through a renewed approach

The inclusion scheme aims to strengthen and go beyond the minimum requirements for a Gender Equality Plan (GEP) as defined in Horizon Europe eligibility criteria.

The scheme will involve at least a leading university or research organisation in gender equality and at least three less advanced institutions from Widening Member States or Associated Countries.

Actions should clearly outline the approach for boosting gender equality strategies, including new areas such as intersectionality and diversity, outreach beyond the organisation, gender budgeting or gender and innovation among others. Advanced organisations will mentor on best practices, processes, monitoring and actions to undertake in GEPs.

Proposals are expected to address the following:

- Methods for exchanging and implementing good practices and materials., tailored to individual organisation's needs;
- Support for reinforcing its networking in the area of gender equality, especially with already existing Communities of Practice;
- Activities such as on-site visits, on-site or virtual training; workshops; dissemination and outreach and capacity building activities.

The partners involved in the twinning exercise are expected to revolve either around a specific thematic area or have widening partners with similar national/regional background for a better contextualization.

ERA-D3-01-9-1-2022: The Ethics of Environmental Research

Conditions related to this topic	
<i>Opening date</i>	na

Horizon Europe - Work Programme 2021-2022
Widening participation and strengthening the European Research Area

<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR XX million.
<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome: Projects are expected to contribute to [all/some] of the following expected outcomes:

Environmental preoccupations are now at the centre of the EU strategy. Becoming the world's first climate-neutral continent by 2050 is the greatest challenge and opportunity of our times. For this reason, the European Commission adopted the European Green Deal, the most ambitious package of measures that should enable European citizens and businesses to benefit from sustainable green transition. Measures accompanied with an initial roadmap of key policies range from ambitiously cutting emissions, to investing in cutting-edge research and innovation, to preserving Europe's natural environment.

The high magnitude and multi-fold nature of the consequences that we would face if we were pursuing with our current policy models calls for rapid, drastic changes. There is a need to adapt the way we work, protect the world scarce resources and decide on policy priorities. This inevitably raises important ethical questions and dilemmas.

In our modern society, scientific knowledge is a key element to tackle the situation in an effective way as well as to reconcile the economic, social and ecological dimensions.

In this context, the activity proposed is expected to design an operational ethics and integrity, framework, which preserves the key ethics principles while supporting a rapid and effective green transition in the EU. This action should also aim to promote environmental awareness.

Scope: The first priority is to analyse (1) what characterises the different dimensions and concepts associated with environmental ethics as well as (2) identify the ethics and integrity challenges related to the production and use of scientific knowledge in designing and implementing responses to the global environmental challenge facing the EU and the Planet.

Some research topics intrinsically also have a complex environmental and ecological ethics dimension including for example the research and innovation in the field of electro-magnetic fields and the high frequency communication systems that are necessary to achieve a European gigabit society.

In addition, pursuing actively the preservation of the environment can, in some cases, lead to some tensions between the pure environmental objective and the protection of human rights. This is in particular the case when the implementation of anthropomorphic models give to natural elements the same status than human beings.

An important element that characterises global challenges is that they, by nature, go beyond the well-being of persons and touch the whole society notably in terms of solidarity and social justice. Mid and long-term socio-economic consequences are also more prominent in these complex research contexts. The issues related to the role of ethics and integrity experts (as advisors, for example), informed consent of communities and individuals, undue inducement and to opt out should be among the elements to tackle.

The action should clearly highlight what cannot be accepted or neglected in the name of addressing environmental issues. This notably include the need to always conduct, prior to the start a research, an independent ethical review, which remains a necessary safeguard for the individuals involved and enhance the trust from the impacted communities and the society as a whole. Environmental concerns justify immediate actions and should not lower ethics and integrity standards.

In addition, issues related refining environmental risk assessment in various fields of research and innovation should be addressed. The action should explore also how the quality of data estimating environmental impact is assessed and fed back in policy design.

Overall, the work should be based on existing know how and have a bottom-up approach, involving all relevant stakeholders (e.g. researchers, research funders, policy-makers, publishers, citizens, civil society organisations) through the organisation of participatory events (workshops, consultations, ‘town hall’ meetings). The activities should propose ways and means to encourage changes in the research culture, and promote openness, communication and dialogue. This should be done in cooperation with ENERI (European Network of Research Ethics Committees and Research Integrity Offices)⁴⁶

⁴⁶ <http://eneri.eu/>

The action should result in (A) enhancing the policy priorities at EU level (including those to address possible legislative/normative gaps based on a widely agreed set of principles emulating, for example, the Oviedo convention) and practical ways to support the work of relevant stakeholders such as the ethics committee members, ethics and integrity experts etc. The European Code of Conduct for Research Integrity⁴⁷ (covering both public and private research) will be a main reference.

The work undertaken should also result in (B) operational (“how-to”) guidelines to support the work of research teams, taking into account the concept of intergenerational justice. The guidelines should include, among others, clear guidance for the application of the precautionary approach in different fields of research and innovation.

The need to complement the European Code with specific guidelines should be assessed and a proposal (C) for short documents complementing the Code should be made, focusing on the need to ensure an “inclusive and just transition that leaves no one behind”⁴⁸

In addition, this action should produce (D) traditional and online training material (reflecting the guidelines) for students, early career and experienced researchers. The material has to be made available on the e-platform Embassy of Good Science⁴⁹

It is essential to ensure that the publicly available results from relevant EU funded research projects⁵⁰ (e.g. SOP4RI, SIENNA, Integrity, PRO-Ethics, TRUST, PRO-RES, Path2Integrity) are taken into account. Structured cooperation with existing European Networks such as ENERI, with clear attribution of research ethics and research integrity responsibilities are necessary. International Cooperation is necessary, especially with Countries and Regions that are involved in cooperation dialogue with the EU in the relevant areas.

ERA-D3-01-9-2-2022: The empirical and behavioural approach to research ethics and integrity

Conditions related to this topic	
<i>Opening date</i>	na
<i>Deadline</i>	na
<i>Expected EU contribution per project</i>	The EU estimates that an EU contribution of between EUR N/A and N/A million(s) would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
<i>Indicative budget</i>	The total indicative budget for the topic is EUR million.

⁴⁷ http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf

⁴⁸ https://ec.europa.eu/info/sites/info/files/european-green-deal-communication_en.pdf

⁴⁹ www.embassy.science

⁵⁰ Detailed information of the mentioned EU funded projects can be found on CORDIS web site (<https://cordis.europa.eu/>)

<i>Type of Action</i>	Coordination and Support Actions
<i>Funding rate</i>	na%
<i>Admissibility conditions</i>	The conditions are described in General Annex A.
<i>Eligibility conditions</i>	The conditions are described in General Annex B.
<i>Award criteria</i>	The criteria are described in General Annex D.
<i>Legal and financial set-up for grants</i>	The rules are described in General Annex G.
<i>Financial and operational capacity and exclusion</i>	The criteria are described in General Annex C.
<i>Procedure</i>	The procedure is described in General Annex F.

Expected Outcome:

Projects are expected to contribute to [all/some] of the following expected outcomes:

Research integrity is multi-dimensional and calls for respect of the highest ethical standards in all stages of the research process. Breach of research ethics and integrity standards undermine public trust in research and may amount to severe socio-economic consequences.

Several factors may lead researchers to commit research misconduct and engage in questionable research practices. While some of these factors are systemic and institutional, individual factors may contribute to researchers' behaviours within the institutional environments in which they operate. What is more, while researchers mostly act ethically, they sometimes (and often unintentionally) end up engaging in questionable practices that could lead to major transgressions, engulfing research teams, departments, institutions and on rare occasions, national research systems. In order to develop a comprehensive preventive policy and thus facilitate the upholding of the highest standards of research ethics and integrity, there is a need to explore in depth the behavioural factors (including organizational) that may contribute to questionable practices and misconduct and develop methodologies in order to address them.

This action aims to improve the understanding of researchers' behaviours and incorporate this knowledge in measures aiming at enhancing promotion of ethics and integrity principles through shared responsibility (individual and institutional), improved education and training processes and qualified mentoring and support. Guaranteeing a generalised and consistently high level of research ethics and integrity, could drastically improve the relevance, robustness, accessibility and dissemination of research results and enhance societal trust in the scientific process.

Scope: In order to elucidate behavioural factors that may lead researchers to breach standards of research ethics and integrity, this action will perform a literature review, mapping the existing knowledge on behavioural ethics and moral psychology and identifying research outcomes and possible research needs. Topics to be examined include (but not limited to) the development of responsibility and accountability (individual and organizational), the culture of rationalization, entitlement, incrementalism, research culture, participation and ownership of processes etc.

Based on the results of the literature review the action should develop a casuistry-based methodology on how to address cases of research misconduct. This methodology should also take into account personal and institutional responsibilities for the promotion of research integrity including the research and efforts on of rehabilitation and reintegration of researchers. Based on the results of the literature review, the action will proceed on a public consultation process with all involved stakeholders, giving emphasis to the full participation of young students and early carrier researchers. The literature review and the consultation process should also incorporate real life experiences from researchers, members of ethics and misconduct committees, Integrity and Ethics officers (and the local and national level). Participation of the private sector is necessary, especially since behavioural studies on ethical conduct in industry are been widely published and discussed. Participation of international partners is necessary, particularly from regions and countries that have established or are establishing cooperation with the EU in the area of research and innovation. The action should develop:

- i) An identification of current needs in improving institutional research culture,
- ii) Specific course material to enhance and supplement current efforts that stem from (but not limited to) EU-funded projects (see <https://www.embassy.science/>),
- iii) Guidelines to facilitate adoption of the gained knowledge in host institutions - as a supplement to existing Standard Operating procedures (see SOP4RI, <https://www.sops4ri.eu/>). These guidelines should also cover responsible mentoring, supervision and role modelling;
- iv) Methodologies for measuring the short-, medium- and long-term impact of ethics and integrity trainings in the attitudes and behaviours of students and researchers and their ethical conduct in research and innovation; and
- v) A best practice manual based on real case lessons learnt at the individual and institutional levels.

All outputs of the action must be available at the Embassy of Good Science web site (<https://www.embassy.science/>)

Other actions not subject for call for proposals (related to destination 3)

Grant to identified beneficiaries

Prioritizing investment and reform

1. Implementation of the OECD - European Commission collaboration

The Commission and the OECD will exploit synergies between their respective strands of work on monitoring and analysing R&I funding, policies and their impact. The collaboration includes a number of priority areas. The first part of the grant will broaden the evidence and understanding of the lifecycle of start-ups (including the role of public research) and analyse the innovative start up landscape in the context of COVID-19.

The second part will support further analytical work on public support for innovation. This will produce key evidence to underpin further EU policies in these areas.

Legal entities:

OECD, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

2. Implementation and analysis of the joint Commission-OECD international survey on STI policies

Since 2015, the Commission and the OECD conduct a joint international survey on Science, Technology and Innovation (STI) policies that has reduced substantially the reporting burden on EU Member States. The STIP Survey and Compass intend to become the international reference for collecting and displaying STI policies.

This action will continue to support the roll-out of the joint STIP survey, make refinements to the infrastructure underpinning the survey and boost the analysis of the information gathered through the survey, in order to underpin further policy development related to the priorities of the von der Leyen Commission.

Legal entities:

OECD, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Indicative budget: EUR million from the 2022 budget

3. Horizontal support to European Partnerships (ERA-LEARN)

TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: Q2 2022

Improving access to excellence

1. Analysing the R&I productivity-inequality nexus

Analysis of reasons behind productivity paradox to better understand the differences in productivity and employment growth and how these further link to business dynamism, technology diffusion, quality of jobs and sustainability. The project should deepen the understanding of widely discussed phenomena such as increase in concentration and mark-ups as well as use the collected data to examine new trends in employment and linkages between productivity and sustainable production.

Legal entities:

OECD, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Translating R&I results into the economy

1. Development of indicators & econometric analysis on R&I performance

Regular production and update of composite indicators on R&I and 3P Dashboard, including methodological revisions to address technical issues and adapt to the new policy priorities. Econometric and economic analysis to address innovation policy challenges using among others, company level data and linking information from various sources.

Legal entities:

JRC, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Indicative budget: EUR million from the 2022 budget

Deepening the European Research Area

1. Support to RESAVER Pension Fund

RESAVER Pension Fund is the first multi-country, multi-employers pension fund that enables mobile employees of the research institutions to remain affiliated to the same supplementary pension fund (2nd pillar and 3rd pillar) when moving between different countries and changing jobs.

The pension fund is based on the IORP directive ((2003/41/EC) Institutions for Occupational Retirement Provision) which provides a framework for institutions providing occupational pensions in all EU countries. The pension fund complies with national social and labour law and does not interfere with Member States prerogative in the area of 1st pillar pension.

The purpose of the grant is to provide financial support towards the functioning of the RESAVER pension fund in its core activities - over a period that is equivalent to its two accounting years - in order to carry out a set of activities detailed in a work programme.

Legal entities:

'RESAVER Pension Fund OFF' (Retirement Savings Vehicle for European Research Institutions), 22, Rue de Pascale, 1040 Brussels. Belgium

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: Q4 2021

Indicative budget: EUR million from the 2021 budget

2. ERA Talent Platform (the new phase of EURAXESS Services Network, EURAXESS TOP V)

Expected outcome:

- Reform and expand EURAXESS into an agile and digital network that can act as a comprehensive platform with a pan-European dimension of services, portals and tools addressing both researchers and institutions.
- Optimize the talent base through one-stop-shop dedicated structures within the network at national and regional level that support researchers on social-cultural and labour integration services, as well as provide career orientation and career development assistance with a view to improve employability and talent absorption in countries/regions;
- Foster collaboration across R&I employers and funders and ensure sharing of best practices on human resources and talent management processes, aiming to improve the overall attractiveness of research environment and careers.
- Revamp the EURAXESS national portals and contribute to the development of the ERA Talent Platform as a recruitment, career development and social networking website designed for talented research professionals and R&I employers and funders.

Scope:

This action will support activities of the EURAXESS Service Network represented by Bridgehead Organisations with a view to address strategic issues related to the support, optimization and development of services portfolio within the network, to better respond to researchers and current R&I labour market needs.

The scope of the action is to further intensify the services provided by the EURAXESS network, by reforming its structure and expanding its mandate towards taking care of the career development of researchers in Europe, with particular focus on talented researchers and opening new career trajectories for them in academia, industry and business. This is expected to happen through the set-up of dedicated physical and/or virtual centers affiliated to the existing network, acting as one-stop-shops based on multidisciplinary teams and cross-country and cross-border coordinated structures on a common agenda and standards for talent management services.

The support for the career development of talented researchers needs to take into account different layers of specialization, such as a basic career orientation service or more advanced services, consisting in personalized assistance, such as organization of trainings and providing access to career advisor, mentoring and coaching sessions. The advanced services need to be empowered with competences drawn from or accessed through EURAXESS centers' partnerships with multiplier and enabler organizations.

The centers to be specialized in talent management services will also assist institutions and will have within their portfolio the organization of networking activities to connect researchers with employers and the local/regional R&I community. Additional services for institutions will include, among others, the creation of communities of practice on the sub-processes of talent management (recruitment, selection, onboarding, rewards and skills, recognition and motivation of high-potential researchers, etc.). Such centers will facilitate best practice sharing

and will keep their R&I communities informed and engaged on new ERA policy measures in the respective areas.

The support for talented researchers will be complemented by enhanced services for the social-cultural and labour integration of researchers and their families in the host country.

The reform and expansion of the services will be reflected on the EURAXESS portal and national portals, which will develop into a Talent Platform addressing both researchers and institutions, including newly designed sections, tools and training materials making EURAXESS a recruitment, career development and social networking website, designed for research professionals.

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

3. European Union Contest for Young Scientists (EUCYS) 2022

The European Union Contest for Young Scientists brings together first prize winners of national contests for pre-Higher Education Institution school science projects to compete for prizes and awards. The EU Contest takes place each year in a different location. This Contest provides additional stimulus to young people who have already demonstrated that they are applying science to solve problems. Many go on to become successful scientists. It attracts a considerable level of co-funding in the host country, and high levels of international media attention. International research organisations and similar bodies donate many of the non-monetary prizes

Legal entities:

TBD, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: Q1 2022

Indicative budget: EUR million from the 2022 budget

4. EU Gender Equality Knowledge Facility

TBD

Legal entities:

TBD, TBD

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Horizontal and supporting actions

1. Science Advice for Policy by European Academies

Since 2015, the Commission and the OECD conduct a joint international survey on Science, Technology and Innovation (STI) policies that has reduced substantially the reporting burden on EU Member States. The STIP Survey and Compass intend to become the international reference for collecting and displaying STI policies.

This action will continue to support the roll-out of the joint STIP survey, make refinements to the infrastructure underpinning the survey and boost the analysis of the information gathered through the survey, in order to underpin further policy development related to the priorities of the von der Leyen Commission.

Legal entities:

Academia Europaea, Room 251, Senate House, University of London, Malet Street, London WC1E 7HU, United Kingdom

Acatech (Deutsche Akademie der Technikwissenschaften), Unter den Linden 14, 10117 Berlin, Germany

ALLEA, c/o Berlin-Brandenburg Academy of Sciences and Humanities, Jägerstrasse 22/23, 10117 Berlin, Germany

German National Academy of Sciences Leopoldina, Jägerberg 1, 06108 Halle (Saale), Germany

Euro-CASE, Grand Palais des Champs-Élysées | Porte C, Avenue Franklin D. Roosevelt, 75008 Paris, France. 6

Federation of European Academies of Medicine, Palais des Académies, Rue Ducale 1, 1000 Brussels, Belgium

Form of Funding: Grants not subject to calls for proposals

Type of Action: Grant to identified beneficiary according to Financial Regulation Article 195 - Coordination and support action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

Expert contract actions

Translating R&I results into the economy

1. Support for a transformative research and innovation policy (reports)

Experts will provide intelligence on how Research and Innovation (R&I) policy can support the recovery and enable and drive the economic, ecological, and societal transitions towards sustainable development. Among others, they will contribute to the analysis supporting the Science, Research and Innovation Performance of the EU Report, as well as to its overall quality assurance.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

2. Support for a transformative EU research and innovation policy (ESIR)

The ESIR 2 Expert Group will support the Commission with strategic advice on how to develop an evidence-based, transformative research and innovation policy that drives the sustainability transitions in Europe. The experts will cover sustainability subjects from various angles such as social and ecologic transitions, citizens' engagement, sustainable development measurement, higher education, youth, digitalisation, circular economy and governance issues. The group will engage and co-create with relevant stakeholders to establish an 'ESIR Community'. The group will produce policy briefs, organise outreach activities, foster policy experimentation and propose solution-oriented policy initiatives based on a demand-driven approach.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2022 budget

3. External expertise for ad hoc tasks related to the implementation of the European Valorisation strategy

This action will support the use of independent experts to advice on or assist with the implementation of the European Valorisation strategy.

Since the above tasks require specialized knowledge in R&I Valorisation, intellectual property management, exploitation and dissemination of research results etc., a special allowance of

EUR 450/day will be paid to the experts appointed in their personal capacity who act independently and in the public interest.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

4. Expert group with Member States to prepare ERA common industrial technology roadmaps

This action is a key element to implement priority action 5 under ERA with which the Commission will work with Member States to develop by end of 2022 common industrial technology roadmaps which ensure a better transfer of R&I into the real economy and make EU industry more competitive.

The group will have to address R&I for the development of key industrial technology roadmaps across Horizon Europe clusters, ranging from circular industries over health equipment to clean transport and social innovation.

Experts from national authorities will need to be able to contribute to the development of specific industrial technology roadmaps from a political and technical point of view.

The preparation of roadmaps within the deadline stipulated by ERA will require 4-5 meetings. Travel costs in case of physical meetings shall be reimbursed for two experts per Member States. There will be a need to cater for meeting venue and administrative support

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

5. Roadmap roundtable with industry and other stakeholders to prepare ERA common industrial technology roadmaps

This action is a key element to implement priority action 5 under ERA with which the Commission will work with stakeholders from relevant industries to develop by end of 2022 common industrial technology roadmaps which ensure a better transfer of R&I into the real economy and make EU industry more competitive.

The group will have to address R&I for the development of key industrial technology roadmaps across Horizon Europe clusters, ranging from circular industries over health equipment to clean transport and social innovation.

Representatives from industrial companies and other stakeholders will be selected from main companies and SMEs active in the development and/or use of relevant industrial technologies (e.g. from EU Industrial R&D Investment Scoreboard. Experts need to be able to contribute to the development of specific industrial technology roadmaps from a business and technical point of view.

The preparation of roadmaps within the deadline stipulated by ERA will require 4-5 meetings. Travel costs in case of physical meetings shall be reimbursed for one representative per company/stakeholder organisation. The roundtable should gather max. 30 representatives. There will be a need to cater for meeting venue and administrative support

Form of Funding: Other budget implementation instruments

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

Deepening the European Research Area

1. Development of the ERA Scoreboard

The ERA Scoreboard will provide internationally comparable quantitative data and indicators to monitor progress at EU and national level, revise priorities and actions in the ERA Roadmap and provide evidence and analysis for the European Semester. The Scoreboard will be issued on an annual basis.

Form of funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

2. Mapping out and monitoring of academic freedom

Academic freedom is a prerequisite for scientific excellence and for fostering strong collaborative links between researchers, international partners, scientific organisations and businesses. Academic freedom and the values that it encompasses lead to the creation of resilient R&I ecosystems that cherish, among others, openness, freedom of discussion, autonomy by engaging into open science, peer reviews, research verifiability and replicability, autonomous research agenda setting.

Under this action, an expert group will be tasked with the mapping out of the academic freedom landscape in Europe and with devising an appropriate system for monitoring its development.

In the framework of the new ERA Communication, this action can complement and reinforce the European *Pact for Research and Innovation*, which aims at deepening the implementation of the new ERA's objectives, setting out commonly agreed values and principles and indicating the areas where Member States will jointly develop priority actions.

Form of funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

3. Experts for researcher services: HR, legal, services (on careers, remuneration, working conditions, etc.)

The European Commission will create a pool of experts for consultation processes to improve the evidence base or collect advice on various aspects related to the Reforming and Enhancing the EU Research and Innovation System and the pursued of the revitalised European Research Area. This will notably include experts on Human Resources and researchers' careers, experts on services for researchers such as those of the EURAXESS services network, social security and remuneration experts, experts in legal matters related to employment contracts and related to trans-national cooperation.

In the frame of the implementation of the "European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers" (C&C), the European Commission currently relies on a pool of external experts to perform the peer review assessments on which the continuous monitoring mechanism for the HRS4R award and renewal is based. An enlargement of the expert pool will be envisaged in dimensions and scope. This would allow the definition of a wider and more efficient frame of intervention. The creation of a single larger pool of experts including legal, HR, social security, remuneration and employment contracts experts, would allow larger flexibility and crossed interactions between various intervention fields, including legal, technical, and operational ones.

Such an enlarged pool will need gather sufficiently flexible expertise and competence to tackle a wide range of activities, ranging from researchers' mobility, improvement of the attractiveness of researchers' work conditions, careers, and remuneration. Such an encompassing approach would enable a variety of project such as Euraxess, HRS4R (including the actions on the revision of the C&C), and RESAVER to tap into the competences and the resources of a single expert pool, thus avoiding unnecessary multiplication of roles and dispersion of financial and organizational resources. In addition, experts in trans-national cooperation and person mobility will allow gathering evidence and advice to facilitate cross-border cooperation between universities and between universities and other actors of the ecosystem, as well as facilitate circulation of talents.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR XX million from the 2021 budget and EUR XX million from the 2022 budget

Horizontal and supporting actions

1. Expert groups to provide recommendations on ERA related policy developments

The aim is to provide policy recommendations to support further ERA related policy making and to support the implementation of the actions proposed in the ERA Communication.

Form of Funding: Other budget implementation instruments

Type of Action: Expert contract action

Indicative timetable: TBD

Indicative budget: EUR XX million from the 2021 budget and EUR XX million from the 2022 budget

Prize

Deepening the European Research Area

1. EU Award/Certification for (Academic) Gender Equality Champions

Expected Outcomes:

- Enable the creation of a European community of academic and research champions in institutional transformation towards inclusive gender equality.
- Strengthening of the inclusiveness and connectivity objectives under the new European Research Area.

Essential award criteria:

Award and certification schemes implemented in different countries, in the EU and beyond, have been shown to be useful tools for advancing gender equality in academic, research and innovation organisations, with some awarding schemes effectively being used as drivers for competition in attracting students and researchers and/or as prerequisite for having access to funding. Building on the feasibility study for a European award/certification system for gender equality in research organisations, including universities, carried out by Horizon 2020 project CASPER, an Award/Certification scheme is established. The “EU Award/Certification for (Academic) Gender Equality Champions” is meant as a booster and complement to the requirement for all legal entities applying to Horizon Europe to have in place a Gender Equality

Plan (GEP) in place, and as an enabler for the transformation agenda of universities set in the new European Research Area in synergy with the European Education Area. The Award will be awarded to up to four academic or research organisations, which will have either:

- demonstrated the most progress in the implementation of their GEP and its achieved results;
- developed the most innovative inclusive GEP addressing intersections with other social categories such as ethnicity, social origin, sexual orientation and gender identity (LGBTI+) or disability.

Two prizes of EUR 0.1 million each for each category: EUR 0.4 million from the 2022 budget.

The specific rules of the contest will be published each year by the European Commission (on the [Participant Portal](#) but also actively publicised elsewhere to maximise participation), which will directly launch and manage the contest and award the prize based on the judgement of independent experts.

Essential award criteria:

Eligible applications will be evaluated by a High-Level Jury. The High-Level Jury will consist of a group of independent experts, with expertise on gender equality plan implementation and intersectional approaches in research and higher education institutions, appointed by the Commission.

The prize will be awarded, after closure of the contest, to the contestants who in the opinion of the jury best address as set of cumulative criteria set for each of the two prize categories.

Eligibility criteria:

The contestant must be a university, higher education institution, or research organisation (public or private) located in an EU Member State or a country associated to Horizon Europe.

The contestant will have to provide proof of eligibility and a written presentation of their achievements, as well as support their applications with a link to a video. The submission consists of a complete application.

For the common Rules of Contest for Prizes please see General Annex XX of the work programme.

Expected results: The prizes will boost public awareness of the importance of addressing gender equality in academic and research organisations through institutional change, incentivise a high degree of commitment to the implementation of inclusive GEPs, and create a community of champions inspiring other academic and research organisations into become gender equality champions themselves.

Indicative timetable of contest(s):

Stages	Date and time or indicative period
Opening of the contest	TBD
Deadline for submission of application	TBD
Evaluation and solutions demonstration (if applicable)	TBD
Award of the prize	TBD

Form of Funding: Prizes

Type of Action: Recognition Prize

Indicative timetable: TBD

Indicative budget: EUR million from the 2022 budget

2. Prize for dissemination, exploitation and valorisation of research results

TBD

Indicative timetable of contest(s):

Stages	Date and time or indicative period
Opening of the contest	TBD
Deadline for submission of application	TBD
Evaluation and solutions demonstration (if applicable)	TBD
Award of the prize	TBD

Form of Funding: Prizes

Type of Action: Recognition Prize

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

Public procurement

Prioritizing investment and reform

1. Support for policy makers – Horizontal support to the Strategic Coordinating Process for partnerships

TBD

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: Q3/2022

Translating R&I results into the economy

1. Development of the European Innovation Scoreboard

This action will support the continuation and enhancement of the European Innovation Scoreboard, which provides a comparative analysis of innovation performance in EU countries, other European countries, and regional neighbours.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

2. Support for a stronger quantitative evidence to EU policy in the field of research and innovation

The action will provide indicators to supplement official statistics in monitoring research and innovation activities and their outputs across all Member States, Associated Countries and other selected countries. The action is the follow up of an ongoing study and it will ensure the continuation of indicators currently used for analysis and monitoring of R&I systems but it will also encompass new indicators to reflect the role of R&I in the achievement of the Sustainable Development Goals. Economic analysis will allow better understanding of the trends relating to R&I performance of the EU and its main competitors.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

3. Support for dissemination, exploitation and valorisation of research results: part to go to the PORTAL

Maximising the impacts of the research we fund requires better dissemination and exploitation of the results. Improving knowledge flows and spillovers is fundamental to ensure that researchers build on the latest available knowledge and thus build “on the shoulders of giants”. Moreover, the exploitation of research results and the creation of value for our economy and society, many times depend on the skills and abilities of the beneficiaries to present and connect to those stakeholders that can help them take the results into the next level. Many times, the beneficiaries lack sufficient information, skills or connections to the right stakeholders and these gaps can jeopardise their ability to maximise the potential value of their results.

Against this backdrop, we want to create an ecosystem supporting our beneficiaries towards the maximum dissemination and exploitation of their results. This includes innovations that can translate into / contribute to new products and services that create economic or social value, more efficient production or distribution processes; results that can feed into policymaking and help public authorities; and results that can contribute to building / evolving standards.

This is a crosscutting activity. Most of Horizon Europe is in its scope. The D&E integrated support ecosystem supports up to 40,000 Research and Innovation projects simultaneously.

The dissemination of research results will include an array of editorial services to better target the content to different audiences as well as outreach activities through a variety of channels, e.g. websites, magazines or targeted dissemination events, including those organised by National Contact Points. They will support the creation, curation and actual dissemination of information about the projects and their results- either presented individually or clustered to maximise the joint impact, in multiple languages, including previous Framework Programmes.

Expected outcome: The general outcome of the activities implemented in the context of the Dissemination and Exploitation (D&E) Strategy is a set of coherent and integrated actions supporting our beneficiaries to better valorise their research results.

More specifically, the expected outcomes are:

- (1) Guidelines and educational/inspirational material to incite our beneficiaries to achieve higher impact, including outreach events.
- (2) Supporting services to help the beneficiaries disseminate their results in a targeted way exploit them or find 3rd parties to exploit them, and increase, where appropriate, their market readiness (e.g. boosters, tailored support, coaching, training, etc.).
- (3) Services to help the beneficiaries connect to the right stakeholders, including presentation and networking events (e.g. marketplace activities, link with investors platforms, local, national, European policymakers, etc.)

(4) Services to the Commission entities to help clustering and analysing research results and integrate them, when and if needed, with other material to reach out targeted audiences and contribute to feedback to policy.

(5) The Horizon Result Platform and its associated services, offering all beneficiaries the opportunity to describe their results, needs, etc. The Horizon Result Platform is also the base for analysing the results, their objectives, needs and maturity, and propose their owners the most appropriate support action. It will also feature opening to VC/BA/Investors networks.

(6) Recognition prize for the most impactful results.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

Deepening the European Research Area

1. Development of the ERA Talent Platform: website, proof of concept, online services, design, maintenance, communication

EURAXESS is one of the key initiatives enhancing researcher careers and, as such, is one of the operational instruments of the European Research Area (ERA). It particularly contributes to removing the barriers to mobility and making Europe more attractive to researchers. The EURAXESS Portal provides access to a complete range of information and support services for European and non-European researchers wishing to pursue research careers in Europe. It offers access to the job market; assists researchers in advancing their careers in another European country and supports research organisations in their search for outstanding research talent.

After the launch of a new portal in autumn 2016, it is of utmost importance to revamp it and to maintain it relevant to policy objectives and the research community, in terms of design, features and user-friendliness. As an ERA implementation measure, the EURAXESS portal and instruments under its umbrella will be expanded towards a comprehensive recruitment, career development and social networking web-platform - ERA Talent Platform, dedicated to researchers and institutions seeking for R&I talent or willing to improve their institutional talent management policies and practices.

This action will build on the preparatory work under the previous Work Programme, in particular the Study on ERA Priority 3. The newly designed portal will support institutional transformations on recruitment, working conditions and career development of researchers, and it will be aligned to the reviewed European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers, as well as the updated Skills Agenda. It will also need to be interoperable with other European websites and platforms such as EURES and the new Europass, as well as adopt new functionalities required in line with the European Skills,

Competences Qualifications and Occupations (ESCO), the enhanced framework of research careers, ERC panel descriptors, etc.

The primary purpose of the ERA Talent Platform is to create a virtual hub for researchers and institutions, R&I employers and funders. The newly designed EURAXESS website shall be seen as an interface that facilitates matching between researchers and employers, candidates and jobs, beneficiaries and benefits, research and funding. It will combine internal and external sources of the highly relevant information for facilitating every aspect of the research career, including access to scientific information, funding sources, networking and cooperation tools, development of skills, mobility and career development etc. It will provide a consistent user experience of tailor-made services dedicated to the researchers' community, as a single access point service to any person performing research or interested in attracting, retaining, motivating and rewarding talented researchers. The action will also develop activities to provide a new facelift to sections of the website and the instruments under its umbrella, *inter alia* additional modules for RESAVER and the upgrade of the Human Resources Strategy for Researchers (HRS4R) e-tool based on the Charter and Code future revisions and developments. The ERA Talent Platform will also integrate an additional online instrument - a portal gathering EU and national programmes and schemes for intersectoral mobility, which will provide easy access for individuals who want to engage into intersectoral mobility or want to be employed as intermediate between academic and non-academic sector, notably businesses. The portal will stimulate career fluidity across borders and sectors, thereby improving the local/regional matching of the demand for and supply of talent, and stimulating the absorption of talent and talent flow-through under ERA.

The secondary purpose of the newly designed website is to create tools that facilitate automatized data gathering on researchers, research careers, and institutions (R&I employers and funders), in order to allow the Commission to produce high quality data and evidence in support of future ERA policy developments, relevant legislation and actions.

This action requires collaboration with a large group of stakeholders, including EURAXESS Bridgehead Organisations/ National Coordinators, national portal administrators and EURAXESS Worldwide. It will encompass different activities, such as the development of a proof of concept with the re-conceptualisation of the EURAXESS portal and associated national portals and tools under its umbrella, graphical and functional enhancements, as well as technical development and maintenance. Activities also include services by external information system provider(s) who, on the basis of inputs provided by the responsible Commission services, guarantee the smooth running of the platform. This includes IS management, web-content management and social media promotion, provision of user information to researchers and institutions, liaison with the technical team, etc.

Web communication and online promotion activities with stakeholders related to the rollout of the newly designed platform and the portals and tools under its umbrella shall be also foreseen part of this action.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: Q2 2021 and Q2 3023

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

2. Technical support to Retirement Savings Vehicle for European Research Institutions and research performing individuals (RESAVER)

As asserted in Article 22 of the Universal Declaration of Human Rights, everyone, as a member of society, has the right to social security and is entitled to realization, through national effort and international co-operation and in accordance with the organization and resources of each State, of the economic, social and cultural rights indispensable for his dignity and the free development of his personality. Nevertheless, social security in most member states is under pressure and mobile employees, researchers in particular, experience additional obstacles in accumulating an adequate amount of pension provisions. Most prominent issues experienced by mobile researchers in relation to accumulation of occupational pensions (second pillar) are the vesting period, transferability of assets and administrative burden during accumulation phase and at retirement.

RESAVER Pension Fund has been created with the ambition to tackle the issues listed above by facilitating free circulation of researchers and removing pension as an obstacle to mobility which corresponds to the strategic objectives of the Union policy as stipulated in Article 179 TFEU on the establishment of a European Research Area.

RESAVER Occupational fund became operational in May 2017 and since then the fund has welcomed research organisations from Hungary, Austria, Netherlands, Italy and Cyprus. In parallel with geographical expansion, RESAVER has the ambition to engage in mutually beneficial collaborations with local occupational pension funds for the benefit of mobile employees. In order to answer to the needs of mobile researchers that do not receive occupational pension employee benefits, or receive an insufficient level of contributions, a personal pension product will be developed that will utilise the existing structure to the extent possible. In addition, investment strategy is fine-tuned continuously in order to correspond to the specific needs of researchers and research performing organisations.

In this context following technical support is needed: pension fund management, implementation of additional countries and organisations in the pension fund, providing advice to the board concerning the legal framework, coordinate the development of a third pillar product, support the project in ad hoc tasks, contribute to the establishment of partnerships with local pension funds and coordination of investment strategy adjustments.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

3. Observatory on Knowledge Ecosystems

This action will build on the preparatory work of the previous Work Program, in particular the study on knowledge ecosystems. It will contribute to the understanding of successful knowledge ecosystems across Europe through a recurrent monitoring process and development of an interactive online platform as an Observatory on Knowledge Ecosystems and ERA Hubs testing, endorsing and implementing structures. The observatory will integrate, analyse and map data related to the emergence of ecosystem actors engaged in knowledge production, circulation and use and will reflect how they interact, network and coordinate each other on common agendas, smart specialization strategies, value chains, etc.

Three main targets are foreseen:

- Single institutions
- Ecosystems
- ERA Hubs, and how it helps the ecosystems to work better

This action will ensure a recurrent stock taking exercise of existing knowledge ecosystems, including but not limited to ERA Hubs endorsing and implementing structures at European, national and regional level, based on surveys, data collection processes and tools, and analysis that will provide quantitative and qualitative high-level insights, such as on the available types of structures, functions, expertise, the geographical coverage and gaps in the territory, the broader context in which they are functioning, including framework conditions, investment and key operational characteristics.

The Observatory will function as an online platform and real-time assessment of the state of play, reflecting the inventory of knowledge ecosystem actors according to predefined criteria. It will also propose a forward-looking perspective to complement and reinforce the ecosystem landscape and maximize its impact. It will identify challenges and needs to address in order to fill in the gaps in the territory, any white space where no such capacities are currently active, and the gaps in expertise and best practices with a view to mainstream them. Benchmarking in the broader geopolitical context (e.g. Silicon Valley) will be also provided.

Expected impact: Actions are expected to contribute to the following outcomes:

- Provide evidence-based policy support through recurrent monitoring, data collection and analysis on knowledge ecosystem actors across Europe through dedicated processes and tools.
- Gain insight into the dynamics and evolution of the knowledge ecosystems across Europe and measure progress in terms of geographical coverage, patterns of cooperation, interaction, networking and functioning at European, national and regional level;
- Measure progress of testing and implementing the ERA Hubs concept, as well as identify gaps in the territory where such actions could be further needed and stimulated.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: Q1 2022

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

4. Monitoring and evaluating the Horizon 2020 complementary support for the European Universities initiative

The European Universities initiative piloted under Erasmus and Horizon 2020 offers a test for the common transformation agenda to support modernisation of universities, and explore new integrated ways of cooperation between universities and with other actors in their surrounding ecosystem. In view of the full deployment of the initiative as of 2023, the Commission will monitor progress and identify and address remaining barriers to the transformation agenda.

This action will focus on the R&I dimension of the pilot projects and needs to be implemented in synergy with a similar exercise for the education dimension.

The analysis should include progress made by the project portfolio in the transformation agenda, and in implementing measures for borderless cooperation and circulation of knowledge and talents. Projects are expected to provide recommendations to developing future effective synergies with the Erasmus programme and with national or regional funding mechanisms.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: Q2 2021 and Q2 2022

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

5. Monitoring gender equality in Research and Innovation - Development, implementation and dissemination of indicators (She Figures)'

The European Commission, in cooperation with the Member States, will continue collecting sex-disaggregated data and monitoring with appropriate indicators, the implementation of gender policies, objectives, guiding targets and actions at institutional, national and EU level. The study will update data and indicators on human resources in Science and Technology, Research & Development personnel, seniority grades, education, work-life balance, the inclusion of the gender dimension in research and innovation content, boards' composition, funds, institutional change, gender and innovation, collected insofar.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

6. Impact of the COVID-19 pandemic on gender equality in EU R&I

The Expert Group/contractor will deliver a study on the consequences of the COVID-19 crisis and the pandemic containment measures put in place at institutional, national and EU level, on the work and productivity of women researchers and on gender equality in the EU R&I system in general.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

Horizontal and supporting actions

1. European Data for R&I policy and Data Activities

Overall, the setup of an initiative to allow MS and the European Commission to share microdata related to R&I projects, and the progressive integration of R&I project data with other sources of related data, are fundamental to strengthen ERA and reinforce our research and innovation systems by informing better evidence based policy making. The main tasks are: (1) Data sharing and interoperability of different sources of competitive or non-competitive Research and Innovation funding in Europe, and integration with relevant external data sources; (2) Digital enabling infrastructure; (3) Data analysis and visualisation tools (The EU Dashboard); (4) Capacity building. These activities will be complemented with other data activities aimed at acquiring, interlinking and visualising R&I related data.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

2. Foresights activities

Foresight activities will support the future orientations of EU policy, to anticipate trends and developments and analyse their implications in coordination, engagement and cooperation with national agencies, experts, stakeholders and citizens.

Future orientations of EU R&I policy will be supported through horizon scanning, strategic intelligence, sense-making, and scenario building bringing together and building upon existing forward looking activities in the EU with regard to R&I priority setting.

Further analyses of foresight knowledge and anticipatory intelligence will be carried out to strengthen the use of R&I evidence in EU and national policies across the board.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

3. Policy experimentation

This action will address the need for more experimentation in the design and implementation of R&I policies in Europe to accelerate the recovery and sustainability transitions. The activity will build upon ESIR 2 group reflections and SRIP evidence to attest and suggest novel approaches in order to build a transformative R&I policy across all levels of government in Europe (local, regional, national and European). It will support the identification of concrete areas for experimentation within the Horizon Europe programme and provide evidence and suggestions for potential plans for implementation.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget

4. Implementation of the Horizon Policy Support Facility

In order to make research and innovation deliver on their full potential to be the key drivers of economic growth and of the transition towards a sustainable society, ambitious policy reforms of national R&I systems are necessary. Through the Policy Support Facility (PSF), the Commission assists Member States and countries associated to Horizon in developing and implementing those reforms. It offers, on a voluntary basis, high-level expertise and tailor-made advice to national public authorities. An overview of past activities can be found at <https://rio.jrc.ec.europa.eu/en/policy-support-facility>. The PSF has demonstrated that it serves as enabler for concrete policy changes.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

5. Service Facility in Support of the Strategic Development of International Cooperation in Research and Innovation

TBD

Form of Funding: Procurements

Type of Action: Public procurement

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

6. Studies and communication

Activities shall support the implementation of the ERA strategy and may include studies, support and communication activities that are needed to analyse and enhance the EU space R&I environment, for example

- higher education in the EU versus needs of the space R&I community;
- dissemination of scientific results;
- analysis of the portfolio of EU-funded projects in the field of research careers, universities, research assessment, researcher mobility;
- collection of project feedback, in particular with respect to key exploitable results;
- organisational support for consulting the R&I stakeholders community on R&I needs;
- production and dissemination of communication material and the organisation of events related the ERA, synergies with the EEA, European R&I agendas and Horizon Europe.

Activities may include surveys as appropriate implemented through public procurement, and/or appointing (groups of) independent experts. These limited numbers of contracts may be implemented on the basis of framework contracts, in order to further ensure that the Commission is provided with appropriate and timely analyses, which in turn will facilitate the proper integration of policy studies into the preparation of new policy initiatives.

Cooperation with the presidencies of the Council of the European Union and stakeholders is envisaged and could include direct support to ERA related presidency events.

Form of Funding: Procurements

Type of Action: Public procurement

Indicative timetable: TBD

Indicative budget: EUR million from the 2021 budget and EUR million from the 2022 budget

Budget⁵¹

	Budget line(s)	2021 Budget (EUR million)	2022 Budget (EUR million)
Calls			
HE-ERA-D3-01-2021			
HE-ERA-D3-01-2022			
Other actions			
Grant to identified beneficiary according to Financial Regulation Article 195			
Expert contract action			
Prize			
Public procurement			
Estimated total budget			

⁵¹ The budget figures given in this table are rounded to two decimal places.
The budget amounts are subject to the availability of the appropriations provided for in the general budget of the Union for years 2021 and 2022.