

(European Commission Decision C(2019) 4904 of 2 July 2019)

ERC Work Programme 2020



European Research Council

Established by the European Commission

Notice: Please note that until the UK leaves the EU, EU law continues to apply to and within the UK, when it comes to rights and obligations; this includes the eligibility of UK legal entities to fully participate and receive funding in Horizon 2020 actions such as those called for in this work programme. Please be aware however that the eligibility criteria must be complied with for the entire duration of the grant. If the UK withdraws from the EU during the grant period without concluding an agreement with the EU ensuring in particular that British applicants continue to be eligible, they will no longer be eligible to receive EU funding and their participation may be terminated on the basis of Article 50 of the grant agreement.

Who should read this document?

This document is the annual Work Programme for the European Research Council funded by the European Union's Horizon 2020 Framework Programme for Research and Innovation. It is the legal document which sets out how the ERC will allocate its funding for the corresponding year. It is established by the Scientific Council of the ERC and subsequently adopted by the European Commission.

Principal Investigators who wish to apply to one of the ERC's calls will need to apply through the EU Funding & Tenders Portal. This contains all the information necessary for applying to each ERC call as well as details of your National Contact Point who can provide information and personalised support in your native language at:

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

Potential applicants, and those interested in more information on the ERC in general can find out more, including the background to the ERC's mission and organisation, a description of the main funding schemes, a step by step guide to applying to the ERC and details of funded projects here:

<http://erc.europa.eu/>

Summary of main features in 2020

The four main ERC frontier research grants will be available under Work Programme 2020: Starting; Consolidator; Advanced; and Synergy Grants. ERC Principal Investigators will continue to be able to apply for Proof of Concept Grants.

Work Programme 2020 will continue to pilot the award of Proof of Concept grants on the basis of a lump sum of EUR 150 000.

Restrictions on applications will apply to the 2020 calls based on the outcome of the evaluation of previous calls – see restrictions on submission of proposals under “Eligibility criteria”.

Indicative summary of main calls from the 2020 budget¹

| | <i>Starting Grant</i> | <i>Consolidator Grant</i> | <i>Advanced Grant</i> | <i>Synergy Grant</i> | <i>Proof of Concept Grant</i> |
|--|-----------------------|---------------------------|-----------------------|----------------------|--|
| <i>Call identifier</i> | ERC-2020-StG | ERC-2020-CoG | ERC-2020-AdG | ERC-2020-SyG | ERC-2020-PoC |
| <i>Call Opens</i> | 17/07/2019 | 24/10/2019 | 14/05/2020 | 18/07/2019 | 15/10/2019 |
| <i>Call closes (cut-off dates for PoC)</i> | 16/10/2019 | 04/02/2020 | 26/08/2020 | 05/11/2019 | 21/01/2020 23/04/2020 17/09/2020 |

¹These opening dates and cut-off dates are indicative. The Director of the European Research Council Executive Agency may open it up to one month prior to or after the envisaged opening date. The Director may delay the envisaged deadline by up to two months. The budget amounts for 2020 are subject to the availability of the appropriations provided for in the draft budget for 2020 after the adoption of the budget for 2020 by the budgetary authority or if the budget is not adopted as provided for in the system of provisional twelfths.

| | <i>Starting Grant</i> | <i>Consolidator Grant</i> | <i>Advanced Grant</i> | <i>Synergy Grant</i> | <i>Proof of Concept Grant</i> |
|--|--------------------------|---------------------------|--------------------------|--|--|
| <i>Budget million EUR (estimated number of grants)</i> | 677 (455) | 657(343) | 492 (209) | 350 (39) | 25 (167) |
| <i>Planned dates to inform applicants (after each step or cut-off date)</i> | 20/05/2020 07/08/2020 | 17/07/2020 11/12/2020 | 25/01/2021 23/04/2021 | 20/04/2020 17/08/2020 09/11/2020 | 02/05/2020 31/07/2020 18/12/2020 |
| <i>Indicative date for signature of grant agreements (by cut-off date for PoC)</i> | 05/12/2020 | 03/04/2021 | 21/08/2021 | 19/03/2021 | 30/08/2020 28/11/2020 17/04/2021 |

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Objectives and Principles of ERC Funding

The fundamental activity of the ERC is to provide attractive, long-term funding to support excellent investigators and their research teams to pursue ground-breaking, high-gain/high-risk research.

Research funded by the ERC is expected to lead to advances at the frontiers of knowledge and to set a clear and inspirational target for frontier research across Europe.

Scientific excellence is the sole criterion on the basis of which ERC frontier research grants are awarded

The evaluation of ERC grant applications is conducted by peer review panels composed of renowned scientists and scholars selected by the ERC Scientific Council. The panels may be assisted by independent experts working remotely.

The ERC's peer review evaluation process has been carefully designed to identify scientific excellence irrespective of the gender, age, nationality or institution of the Principal Investigator and other potential biases, and to take career breaks, as well as unconventional research career paths, into account. The evaluations are monitored to guarantee transparency, fairness and impartiality in the treatment of proposals. ERC calls are expected to be competitive.

Applications can be made in any field of research

The ERC's frontier research grants operate on a 'bottom-up' basis without predetermined priorities.

The ERC puts particular emphasis on the frontiers of science, scholarship and engineering. In particular, it encourages proposals of a multi- or interdisciplinary nature which cross the boundaries between different fields of research, pioneering proposals addressing new and emerging fields of research or proposals introducing unconventional, innovative approaches and scientific inventions.

Independent researchers of any age and career stage can apply for attractive long-term funding

The ERC awards funding to excellent investigators looking to set up or consolidate their own independent research team or programme, as well as to already established research leaders.

The ERC awards flexible, long-term funding for a period of up to five years for the Starting, Consolidator and Advanced Grants and up to six years for the Synergy Grants. The Scientific Council will review funding conditions regularly to make sure that grants remain competitive both at European and international level.

The maximum grant varies by grant type. An ERC grant can cover up to 100% of the total eligible direct costs of the research plus a contribution towards indirect costs.

ERC grants are portable² as described in the ERC Model Grant Agreement.

² *Portability* means that Principal Investigators may request to transfer their entire grant or part of it to a new beneficiary, under specific conditions included in the ERC Model Grant Agreement. These

The ERC aims to use procedures that maintain the focus on excellence, encourage initiative and combine simplicity and flexibility with accountability. The ERC is continuously looking for further ways to improve its procedures in order to ensure that these principles are met.

Principal Investigators from anywhere in the world can apply for an ERC grant

ERC grants are open to researchers of any nationality who may reside in any country in the world at the time of the application.

The ERC is particularly keen to encourage excellent proposals from Principal Investigators based outside Europe who wish to carry out a project with a host institution in the EU or in one of the Associated Countries.

The host institution must be established in an EU Member State or Associated Country, although the team members of any Principal Investigator, as well as one of the Principal Investigators in a Synergy Grant Group³ may be based outside of the EU or an Associated Country (see “Eligible host institution”).

conditions may include provisions for the transfer of equipment purchased and used exclusively for the implementation of the project.

³ See "Profile of the Synergy Grant Group".

The ERC frontier research grants aim to empower individual researchers and provide the best settings to foster their creativity

The Starting, Consolidator and Advanced Grants will support projects carried out by individual teams which are headed by a single Principal Investigator. ERC Synergy Grants will support small groups of two to four Principal Investigators and their teams with a designated Corresponding Principal Investigator. The constitution of the research teams is flexible. Depending on the nature of a project the research team may involve team members from other research organisations situated in the same or a different country (see "Eligible host institution"). ERC Synergy Grant Groups are neither networks nor consortia of undertakings, universities, research centres or other legal entities (see "Profile of the Synergy Grant Group").

The ERC supports individual Principal Investigators. Support for consortia is provided by other calls under Horizon 2020.

Host institutions must provide appropriate conditions for the Principal Investigator(s) to independently direct the research and manage its funding

An ERC grant is awarded to the institution that engages and hosts the Principal

Investigator(s)⁴. Grants are awarded to the host institution with the explicit commitment that this institution offers appropriate conditions for the Principal Investigator(s) to independently manage the ERC funded research. It is expected that Principal Investigators will be able to start their project within six months of receiving an invitation letter from the ERC.

In the case of Synergy Grants, where the different Principal Investigators may be hosted by more than one host institution, each of the host institutions shall offer their support to the Principal Investigator(s) hosted by them for the duration of the grant. The host institutions must engage the Principal Investigators for at least the duration of the grant.

The conditions⁵ offered by the host institution or institutions, including the '*portability*' of the grant, are the subject of a supplementary agreement between the Principal Investigator(s) and the host institution(s)⁶ and must ensure that the Principal Investigator is able to:

- apply for funding independently;

⁴ Normally the Principal Investigator will be employed by the Host Institution, but cases where, for duly justified reasons, the Principal Investigator's employer cannot become the host institution, or where the Principal Investigator is self-employed, can be accommodated. The specific conditions of engagement will be subject to clarification and approval during the granting procedure or during the amendment procedure for a change of host institution.

⁵ These conditions are consistent with "The European Charter for Researchers" and "The Code of Conduct for the Recruitment of Researchers".

⁶ This is supplementary to the ERC Grant Agreement and is described in the ERC Model Grant Agreement.

- manage the research and the funding for the project and make appropriate resource allocation decisions;
- publish independently as main author and include as co-authors only those who have contributed substantially to the reported work;
- supervise the work of the team members, including doctoral candidates or others;
- have access to appropriate space and facilities for conducting the research
- meet the time commitments described in the grant agreement⁷.

Public or private institutions, including universities, research organisations and undertakings can host the Principal Investigator and his or her team as long as the principles indicated above are respected and the Principal Investigator is not constrained by the research strategy of the entity.

⁷ Time commitments will be monitored, and in cases where the actual commitment is below the minimum levels set out in this Work Programme (see "Minimum Time Commitment"), or the levels indicated in the grant agreement (see "Proposal description" in the section "ERC Frontier Research Grants"), appropriate measures may be taken, up to and including grant reduction, suspension or termination in accordance with the grant agreement.

*The ERC welcomes applications from Principal Investigators **hosted by private for-profit research centres, including industrial laboratories.***

Host institutions are expected to make all appropriate efforts to provide the conditions to attract and retain scientists and scholars of the calibre to be awarded an ERC grant, within the framework provided by the ERC Model Grant Agreement and any other available administrative and legal possibilities.

Open access

The ERC supports the principle of open access to the published output of research, including in particular peer-reviewed articles and monographs, as a fundamental part of its mission. It also supports the basic principle of open access to research data and data related products such as computer code. The ERC considers that providing free online access to all these materials can be the most effective way of ensuring that the fruits of the research it funds can be accessed, read and used as the basis for further research.

Under Horizon 2020, beneficiaries of ERC grants must ensure open access to all peer-reviewed scientific publications⁸ relating to their results as set out in Article 29.2 of the ERC Model Grant Agreement.

⁸ This includes peer-reviewed long-text publications such as monographs, book chapters, edited collections, critical editions, scholarly exhibition catalogues, or PhD theses.

In addition, beneficiaries of ERC frontier research grants funded under this Work Programme will automatically be covered by the provisions on research data sharing as set out in Article 29.3 of the ERC Model Grant Agreement unless they specifically decide to opt-out. In particular, beneficiaries that do not opt-out will be required to submit a data management plan within the first six months of project implementation. These provisions are designed to facilitate access, re-use and preservation of the research data generated during the ERC funded research work.

Beneficiaries should carefully check the additional obligations related to open research data contained in Article 29.3. They may opt-out of the provisions of the previous paragraph at any stage, thereby freeing themselves retroactively from the associated obligations.

Gender Balance

Under Horizon 2020, beneficiaries of ERC grants must take all measures to promote equal opportunities between men and women in the implementation of the action and aim for a gender balance at all levels of personnel assigned to the action, as set out in the Horizon 2020 ERC Model Grant Agreement. ERC Principal Investigators should also determine the relevance of integrating sex and gender analysis into their research. Specific activities promoting equal opportunities or gender balance or covering the gender dimension of research funded by the ERC can be considered as eligible costs where

these costs are necessary for the implementation of the action.

Ethical principles

The proposed research and innovation activities shall comply with ethical principles and relevant national, Union and international legislation, including the Charter of Fundamental Rights of the European Union and the European Convention on Human Rights and its Supplementary Protocols. Particular attention shall be paid to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of a person, the right to non-discrimination and the need to ensure high levels of human health protection. The proposed research and innovation activities shall have an exclusive focus on civil applications.

Funding of human embryonic stem cell research is possible within the ethical framework defined in the Horizon 2020 Framework Programme for Research and Innovation 2014 – 2020⁹.

Research Integrity

It is essential to maintain and promote a culture of research integrity at all stages of the evaluation and granting process to make ERC competitions fair and efficient and to maintain the trust of both the scientific community and society as a whole.

Cases of scientific misconduct such as fabrication, falsification, plagiarism or misrepresentation of data that may arise during the evaluation or throughout the life cycle of an ERC funded project will be addressed vigorously by the ERC within the applicable legal and procedural framework. Any breach of research integrity by Principal Investigators or beneficiaries may be sanctioned by measures such as the rejection of proposals from evaluation, requests for measures to be taken by the host institution, reduction of the grant and suspension or termination of grants.

However, the host institutions that engage and host ERC Principal Investigators have the primary responsibility for the detection of scientific misconduct and for the investigation, and adjudication of any breaches of research integrity that may arise. Therefore host institutions are expected to have working structures in place to uphold research integrity and to make all appropriate efforts to verify that no allegations of scientific misconduct are pending against any Principal Investigator applying for or participating in an ERC grant and to bring to the attention of the ERC any such allegations or cases of scientific misconduct.

The ERC applies the same rigour to ensuring that its evaluation process is governed by principles of research integrity, in particular through rules on confidentiality and conflict of interest.

⁹ As set out in Commission Declaration 2013/C 373/02 of 20 December 2013.

ERC Frontier Research Grants

Funding rates

Maximum size of grant and grant assessment

The maximum grant varies by grant type (see "Grants").

During the peer review evaluation, evaluation panels will assess the funding requested by the applicant, including any request for additional funding (see "Objectives, maximum size and duration of the awards"), against the needs of the project before making any recommendation for funding.

The funding requested must be fully justified by an estimation of the real project cost. The panels may suggest modifications to the indicative budgetary breakdown in the application, particularly where they consider funding requests to be not properly justified. In such cases they shall explain in writing any such suggested modification.

The Principal Investigator will have the freedom to modify the budgetary breakdown during the course of the project. Requests to modify the budgetary breakdown of additional funding¹⁰ may be accepted only provided that such modifications remain within the objectives for which the additional funding was awarded.

¹⁰ As defined in the section "Objectives, maximum size and duration of the awards".

Union Contribution

The Union financial contribution will take the form of the reimbursement of up to 100% of the total eligible and approved direct costs and of flat-rate financing of indirect costs on the basis of 25% of the total eligible direct costs¹¹. The level of the awarded grant represents a maximum overall figure – the final amount to be paid must be justified on the basis of the costs actually incurred for the project.

Call budgets

For the Starting, Consolidator, Advanced and Synergy Grant calls an indicative budget will be allocated to each panel in proportion to the budgetary demand of its assigned proposals.

¹¹ Excluding the direct costs for subcontracting and the costs of resources made available by third parties which are not used on the premises of the host institution.

Eligibility criteria

Eligible proposals

All proposals must be complete and submitted by eligible Principal Investigators as defined below before the relevant call deadline. A complete proposal needs to include all parts or sections (see “Proposal submission and description”). Incomplete proposals may be declared ineligible.

The content of the proposal must relate to the objectives and to the grant type set out in the call, as defined in this Work Programme. A proposal will only be deemed ineligible on grounds of ‘scope’ in clear-cut cases.

Applications where the Principal Investigator proposes to commit less time in the EU or an Associated Country or to the project than the minimum percentages set out in the section “Minimum time commitment” will be declared ineligible.

If it becomes clear before, during or after the peer review evaluation phase, that one or more of the eligibility criteria have not been met, the proposal will be declared ineligible and not considered any further.

Where there is a doubt on the eligibility of a proposal, the peer review evaluation

may proceed pending a decision following an eligibility review committee¹².

Eligible Scientific Fields

All scientific fields are eligible for ERC funding¹³.

Eligible Principal Investigator(s)

The ERC actions are open to researchers of any nationality who intend to conduct their research activity in any Member State or Associated Country. Principal Investigators may be of any age and nationality and may reside in any country in the world at the time of the application.

Starting, Consolidator, Advanced and Synergy Grant proposals are submitted by the Principal Investigator(s) taking scientific responsibility for the project, on behalf of the host institution. There are specific eligibility criteria for a Principal Investigator applying to the Starting or Consolidator Grants based on the date of award of his or her first PhD (or equivalent doctoral degree¹⁴) as set out in the table below. This “streaming” allows applicants

¹² For further information see applicable ERC rules for submission and evaluation which can be found on the EU Funding & Tenders Portal.

¹³ Research proposals within the scope of Annex I to the Euratom Treaty, namely those directed towards nuclear energy applications, shall be submitted to relevant calls under the Euratom Framework Programme.

¹⁴ See ERC Scientific Council's note on 'PhD and Equivalent Doctoral Degrees' at Annex 2, including specific provisions for holders of medical degrees.

to be compared with researchers at a similar career stage.

Groups of Principal Investigators applying for the ERC Synergy Grant must fulfill the

conditions specified under "Profile of the ERC Synergy Grant Group".

| Eligibility period: Principal Investigator shall have been awarded his or her first PhD | | | |
|---|--|-------------------------|-------------------------|
| Starting Grant | Consolidator Grant | Advanced Grant | Synergy Grant |
| > 2 and ≤ 7 years prior to 1 January 2020 Cut-off dates: PhD awarded from 1 January 2013 to 31 December 2017 (inclusive) | > 7 and ≤ 12 years prior to 1 January 2020 Cut-off dates: PhD awarded from 1 January 2008 to 31 December 2012 (inclusive) | No specific criteria | No specific criteria |

The date of the first PhD considered for the calculation of the eligibility period shall be the date of the actual award according to the national rules of the country where the degree was awarded.

The eligibility periods set out in the table above can be extended beyond 7 and 12 years for the Starting and Consolidator Grants respectively for the following properly documented circumstances¹⁵, provided they started before the call deadline:

*- **Maternity**: 18 months extension for each child born before or after the PhD award. If the applicant can document a longer maternity leave, the eligibility period will be extended by the documented amount of actual leave taken until the call deadline.*

*- **Paternity**: extension by the documented time of paternity leave taken until the call deadline for each child born before or after the PhD award.*

*- **Long-term illness¹⁶ or national service**: extension by the documented amount of leave taken by the Principal Investigator until the call deadline for each incident which occurred after the PhD award date.*

*- **Clinical training**: extension by the documented amount of clinical training received by the Principal Investigator **after** the award of the first eligible degree and until the call deadline, **up to a maximum of 4 years.***

¹⁵ For applicants whose first eligible degree is their medical degree such incidents can be considered from the date of completion of their medical degree.

¹⁶ Over ninety days for the Principal Investigator or a close family member (child, spouse, parent or sibling).

Minimum time commitment

Principal Investigators funded through the ERC frontier research grants shall spend a minimum percentage of their working

time on the ERC project and a minimum percentage of their working time in an EU Member State or Associated Country as set out in the table below.

| Minimum percentage of the working time of a Principal Investigator that shall be spent | Starting Grant | Consolidator Grant | Advanced Grant | Synergy Grant |
|---|-----------------------|---------------------------|-----------------------|--|
| On the ERC project | 50% | 40% | 30% | 30% for each Principal Investigator |
| In an EU Member State or Associated Country¹⁷ | 50% | 50% | 50% | 50% for each Principal Investigator engaged and hosted by an institution in the EU or Associated Countries |

¹⁷ See section "Eligible Host Institutions" regarding field work.

Eligible Host Institution

The host institution (Applicant Legal Entity¹⁸) must engage and host¹⁹ the Principal Investigator for at least the duration of the project, as defined in the grant agreement. It must either be established in an EU Member State or Associated Country as a legal entity created under national law, or it may be an International European Interest Organisation (such as CERN, EMBL, etc.), the European Commission's Joint Research Centre (JRC) or any other entity created under EU law. Any type of legal entity, public or private, including universities, research organisations and undertakings can host Principal Investigators and their teams.

It is expected that the research project will be implemented within the territory of the Member States or Associated Countries²⁰. This does not exclude field work or other research activities in cases where these must necessarily be conducted outside the European Union or the Associated Countries in order to achieve the scientific objectives of the project/activity²¹.

¹⁸ Please see important information on possible registration of economic operators in the Commission's Early Detection and Exclusion System (EDES) on final page.

¹⁹ See footnote 4 above.

²⁰ With the exception of Synergy Grant projects when a Principal Investigator is hosted or engaged by an institution outside of the EU or Associated Countries (see "Profile of the ERC Synergy Grant Group").

²¹ Time spent on such field work or other research activities may count as time spent in the EU or the Associated Countries for the purpose of the Principal Investigator's time commitments.

It is also expected that the host institution will be the only participating legal entity in the case of a Starting, Consolidator or Advanced Grant. In a Synergy Grant up to four Host Institutions could engage Principal Investigators, and one of these Host Institutions at any one time may be a legal entity established outside the European Union or Associated Countries or an international organisation.

Where they bring scientific added value to the project, additional team members may also be hosted by additional legal entities²² which may be established anywhere, including outside the European Union or Associated Countries, or international organisations.

Legal entities established outside the European Union or Associated Countries shall be eligible for funding when they are one of the host institutions in a Synergy Grant at any one time²³, or when they host additional team members, provided that they are not covered by Council sanctions as set in Annex 3 to this Work Programme.

Other legal entities established outside the European Union or Associated Countries shall be eligible for funding provided that their participation is deemed essential for carrying out the action and that they are not covered by Council sanctions as set in Annex 3 to this Work Programme.

²² Consortia agreements are not required for ERC multi-beneficiary grants.

²³ See "Profile of the ERC Synergy Grant Group".

Please also refer to Annex 3 - Countries Associated to Horizon 2020 and Restrictions Applying to Some Legal Entities Established in Certain Third Countries.

Restrictions on submission of proposals

The ERC calls are highly competitive. Thousands of high quality proposals are received each year and only outstanding proposals are likely to be funded. In order to maintain the quality and integrity of ERC's evaluation process the Scientific Council decided to introduce restrictions on applications from 2009. These restrictions were extended from 2015.

The following restrictions apply:

- A researcher may participate as Principal Investigator²⁴ in only one ERC frontier research project at any one time²⁵;
- A researcher participating as Principal Investigator in an ERC frontier research project may not submit a proposal for another ERC frontier research grant, unless the existing project ends²⁶ no more than two years after the call deadline;

²⁴ Including all Principal Investigators supported under the Synergy Grant.

²⁵ A new frontier research project can only start after the duration of the project fixed in a previous frontier research ERC grant agreement has ended.

²⁶ According to the duration of the project fixed in the previous frontier research grant agreement.

- A Principal Investigator who is a serving Panel Member for a 2020 ERC call or who served as a Panel Member for a 2018 ERC call may not apply to a 2020 ERC call for the same type of grant²⁷;
- A Principal Investigator may submit proposals to different ERC frontier research grant calls published under the same Work Programme, but only the first eligible proposal will be evaluated.

Further restrictions for submission under the ERC Work Programme 2020 are set out in the table below. **The Scientific Council may decide in the light of experience that different or comparable restrictions will apply in subsequent years.**

The restrictions related to the outcome of the evaluation in previous calls are designed to allow unsuccessful Principal Investigators the time necessary to develop a stronger proposal.

The year of an ERC call for proposals refers to the Work Programme under which the call was published and can be established by its call identifier. A 2019 ERC call for proposals is therefore one that was published under the Work Programme 2019 and will have 2019 in the call identifier (for example ERC-2019-StG).

²⁷ The members of the ERC panels alternate to allow panel members to apply to the ERC calls in alternate years.

Ineligible or withdrawn proposals do not count against any of the restrictions in the table below.

| Call to which the Principal Investigator applied under previous ERC Work Programmes and proposal evaluation outcome | | 2020 ERC calls to which a Principal Investigator is <u>not</u> eligible |
|---|---|---|
| 2018 and 2019 Starting, Consolidator, Advanced Grant or Synergy | Rejected on the grounds of a breach of research integrity | Starting, Consolidator, Advanced and Synergy |
| 2018 Starting, Consolidator, or Advanced Grant | C at Step 1 | Starting, Consolidator and Advanced |
| 2018 Synergy Grant | A, or B at Step 3 | No restriction |
| | B at Step 1 or 2 | No restriction |
| | C at Step 1 | Advanced and Synergy Grant |
| 2019 Starting, Consolidator, or Advanced Grant | A, or B at Step 2 | No restriction |
| | B, or C at Step 1 | Starting, Consolidator and Advanced Grant |
| 2019 Synergy Grant | A, or B at Step 3 | No restriction |
| | B at Step 2 | No restriction |
| | B at Step 1 | Synergy |
| | C at Step 1 | Advanced and Synergy Grant |

Grants

Objectives, maximum size and duration

The objectives, maximum size and durations of the frontier research grants awarded by the ERC are given in the table below.

The maximum size of the awards is reduced *pro rata temporis* for projects of a shorter duration²⁸.

Additional funding up to the amounts set out in the table below can be requested in the proposal to cover the following eligible costs when these are necessary to carry out the proposed work: (a) "start-up" costs for Principal Investigators moving to the EU or an Associated Country from elsewhere as a consequence of receiving the ERC grant and/or (b) the purchase of major equipment and/or (c) access to large facilities and/or (d) other major experimental and field work costs, excluding personnel costs.

Additional funding is not subject to *pro rata temporis* reduction for projects of shorter duration.

All funding requested is assessed during evaluation.

The profiles expected of applicant Principal Investigators for each frontier research grant are described below.

²⁸ This does not apply to ongoing projects.

| Grant | Objectives | Maximum size and duration of the award |
|---------------------------|---|--|
| Starting Grant | <p>Support for excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme.</p> <p>Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.</p> | <p>Up to EUR 1 500 000 for a period of 5 years.</p> <p>Additional funding up to EUR 1 000 000.</p> |
| Consolidator Grant | <p>Support for excellent Principal Investigators at the career stage at which they may still be consolidating their own independent research team or programme.</p> <p>Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.</p> | <p>Up to EUR 2 000 000 for a period of 5 years.</p> <p>Additional funding up to EUR 1 000 000.</p> |
| Advanced Grant | <p>Support for excellent Principal Investigators at the career stage at which they are already established research leaders with a recognised track record of research achievements.</p> <p>Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal.</p> | <p>Up to EUR 2 500 000 for a period of 5 years.</p> <p>Additional funding up to EUR 1 000 000.</p> |
| Synergy Grant | <p>Support for a small group of two to four Principal Investigators to jointly address ambitious research problems that could not be addressed by the individual Principal Investigators and their teams working alone. Synergy projects should enable substantial advances at the frontiers of knowledge, stemming, for example, from the cross-fertilization of scientific fields, from new productive lines of enquiry, or new methods and techniques, including unconventional approaches and investigations at the interface between established disciplines. The transformative research funded by Synergy Grants should have the potential of becoming a benchmark on a global scale.</p> <p>Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their scientific proposal. Principal Investigators must also demonstrate that their group can successfully bring together the scientific elements necessary to address the scope and complexity of the proposed research question.</p> | <p>Up to EUR 10 000 000 for a period of 6 years.</p> <p>Additional funding up to EUR 4 000 000.</p> |

Profile of the ERC Starting Grant Principal Investigator

A competitive Starting Grant Principal Investigator must have already shown the potential for research independence and evidence of maturity, for example by having produced **at least one important publication as main author or without the participation of their PhD supervisor.**

Applicant Principal Investigators should also be able to demonstrate a promising

track record of early achievements appropriate to their research field and career stage, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field. They may also demonstrate a record of invited presentations in well-established international conferences, granted patents, awards, prizes, etc.

Early achievements track record

In the Track record (see “Proposal description”) the applicant Principal Investigator should list (if applicable):

- 1. Up to five publications in major international peer-reviewed multi-disciplinary scientific journals and/or in the leading international peer-reviewed journals, peer-reviewed conferences proceedings and/or monographs of their respective research fields, highlighting those as main author or without the presence as co-author of their PhD supervisor (properly referenced, field relevant bibliometric indicators may also be included); preprints may be included, if freely available from a preprint server (preprints should be properly referenced and either a link to the preprint or a DOI should be provided).***
- 2. Research monographs and any translations thereof;***
- 3. Granted patent(s);***
- 4. Invited presentations to internationally established conferences and/or international advanced schools;***
- 5. Prizes, awards, academy memberships.***

Profile of the ERC Consolidator Grant Principal Investigator

A competitive Consolidator Grant Principal Investigator must have already shown research independence and evidence of maturity, for example by having produced **several important publications as main author or without the participation of their PhD supervisor**. Applicant Principal Investigators should also be able to demonstrate a promising track record of early achievements appropriate to their

research field and career stage, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field. They may also demonstrate a record of invited presentations in well-established international conferences, granted patents, awards, prizes, etc.

Early achievements track record

In the Track Record (see “Proposal description”) the applicant Principal Investigator should list (if applicable):

- 1. Up to ten publications in major international peer-reviewed multi-disciplinary scientific journals and/or in the leading international peer-reviewed journals, peer-reviewed conferences proceedings and/or monographs of their respective research fields, highlighting those as main author or without the presence as co-author of their PhD supervisor (properly referenced, field relevant bibliometric indicators may also be included); preprints may be included, if freely available from a preprint server (preprints should be properly referenced and either a link to the preprint or a DOI should be provided).**
- 2. Research monographs and any translations thereof;**
- 3. Granted patent(s);**
- 4. Invited presentations to internationally established conferences and/or international advanced schools;**
- 5. Prizes, awards, academy memberships**

Profile of the ERC Advanced Grant Principal Investigator

ERC Advanced Grant Principal Investigators are expected to be active researchers and to have a track record of significant research achievements **in the last 10 years** which must be presented in the application.

A competitive Advanced Grant Principal Investigator must have already shown a record which identifies them as an exceptional leader in terms of originality and significance of their research contributions.

Thus, in most fields, Principal Investigators of Advanced Grant proposals will be expected to demonstrate a record of achievements appropriate to the field and at least matching one or more of the following benchmarks:

- 10 publications as main author (or in those fields where alphabetic order of authorship is the norm, joint author) in major international peer-reviewed multidisciplinary scientific journals, and/or in the leading international peer-reviewed journals and peer-reviewed conferences proceedings of their respective field;
- 3 major research monographs. This benchmark is relevant to research fields where publication of monographs is the norm.

Other alternative benchmarks that may be considered (individually or in combination)

as indicative of an exceptional record and recognition in the last 10 years:

- 5 granted patents;
- 10 invited presentations in well-established internationally organised conferences and advanced schools;
- 3 research expeditions led by the applicant Principal Investigator;
- 3 well-established international conferences or congresses where the applicant was involved as a member of the steering and/or organising committee;
- International recognition through scientific or artistic prizes/awards or membership in well-regarded Academies or artefact with documented use (for example, architectural or engineering design, methods or tools);
- Major contributions to launching the careers of outstanding researchers;
- Recognised leadership in industrial innovation.

If a Principal Investigator so chooses, his or her achievements over a longer period than the past ten years can be considered in the following circumstances which should be highlighted in the CV.

For maternity, the track record considered can be extended by 18 months, or if longer by the amount of leave actually taken until the call deadline, for each child

born **before or during** the last ten years. For paternity leave, the track record considered can be extended by the amount of paternity leave actually taken until the call deadline for each child born **before or during** the last ten years. For long-term illness²⁹,

clinical qualification or national service the track record considered can be extended by the amount of leave actually taken until the call deadline and clearly explained in the career break section of their CV for each incident which occurred **during** the last ten years.

²⁹ Over ninety days for the Principal Investigator or a close family member (child, spouse, parent or sibling).

Ten-year track record

In the Track Record (see “Proposal description”) the applicant Principal Investigator should list (if applicable):

- 1. **Up to ten representative publications, from the last ten years, as main author (or in those fields where alphabetic order of authorship is the norm, joint author) in **major international peer-reviewed multi-disciplinary scientific journals and/or in the leading international peer-reviewed journals and peer-reviewed conference proceedings** of their respective research fields (properly referenced, field relevant bibliometric indicators may also be included); preprints may be included, if freely available from a preprint server (preprints should be properly referenced and either a link to the preprint or a DOI should be provided).***
- 2. **Research monographs and any translations thereof;***
- 3. **Granted patents;***
- 4. **Invited presentations to internationally established conferences and/or international advanced schools;***
- 5. **Research expeditions that the applicant Principal Investigator has led;***
- 6. **Organisation of international conferences in the field of the applicant (membership in the steering and/or organising committee);***
- 7. **Prizes, awards, academy memberships;***
- 8. **Major contributions to the early careers of excellent researchers;***
- 9. **Examples of leadership in industrial innovation or design.***

Profile of the ERC Synergy Grant Group

Applications are expected from a group of a minimum of two and a maximum of four innovative and active Principal Investigators, referred to as 'Synergy Grant Group', with competitive track records as appropriate to their career stage. Each Principal Investigator must present as part of the proposal an early achievement track-record or a 10-year track-record whichever is most appropriate for their career stage (see the profiles of the Starting, Consolidator and Advanced Grant Principal Investigators and the section "Proposal description").

Synergy Grant Groups are expected to demonstrate that they can successfully bring together those elements – such as skills, knowledge, experience, expertise, disciplines, methods, approaches, teams, access to infrastructures – necessary to

address the scope and complexity of the proposed research question. Applicants are expected to describe the contribution of each PI, their team and resources to achieving the objectives proposed.

One of the Principal Investigators must be designated as the Corresponding Principal Investigator.

At any one time, one Principal Investigator per Synergy Grant Group except the Corresponding one can be hosted or engaged by an institution outside of the EU or Associated Countries.

The ERC expects the composition of a Synergy Grant Group to remain unchanged throughout the lifetime of the grant. If a Principal Investigator leaves a Synergy Grant Group, the grant may be continued only exceptionally, contingent on scientific evaluation and provided that all eligibility criteria will continue to be met.

Proposal submission and description

Proposal Submission

Starting, Consolidator and Advanced Grant proposals are submitted by the Principal Investigator who has scientific responsibility for the project, on behalf of the host institution.

Synergy Grant proposals are submitted by a Corresponding Principal Investigator who will be the administrative contact point on behalf of the group. Together all the Principal Investigators have scientific responsibility for the group's project on behalf of the host institution or host institutions which are the applicant legal entities.

Proposal submission is made electronically. Early registration and submission is strongly recommended and should be done as early as possible in advance of the call deadline.

For each call, Information for Applicants³⁰ is published on the ERC website and EU Funding & Tenders Portal, which describes in detail how the electronic forms should be completed.

³⁰ As well as other relevant documents, including the ERC rules for submission and evaluation.

Proposal description

A complete proposal shall consist of the following elements, with the following page limits³¹.

Extended Synopsis: 5 pages

Curriculum Vitae: 2 pages for each Principal Investigator

Track Record: 2 pages for each Principal Investigator

Scientific Proposal: 15 pages

Host Institution Binding Statement of Support

Ethics Review Table

PhD record and supporting documentation for eligibility checking (for Starting and Consolidator Grants only).

Only the material that is presented within these limits will be evaluated (peer reviewers will only be asked to read, and will be under no obligation to read beyond, the material presented within the page limits).

³¹ Incomplete proposals may be declared ineligible, see "Eligibility criteria". References and the funding ID section are not counted towards these page limits. For Synergy Grant applications only, the resources section that is included in the Scientific Proposal is not counted towards the 15 page limit.

The host institution must confirm its association with and its support to the project and the Principal Investigator(s). As part of the application, the institution must provide a binding statement that the conditions of independence are already fulfilled or will be provided to the Principal Investigator(s) if the application is successful, according to the template provided in the Information for Applicants. Proposals that do not include this institutional statement may be declared ineligible.

Extended Synopsis: This should be a concise presentation of the full scientific proposal, with particular attention to the ground-breaking nature of the research project and the feasibility of the outlined scientific approach. At step 1 the full scientific proposal is not assessed so all essential information must be covered in the synopsis. The applicant will choose a primary evaluation panel and may also indicate a secondary evaluation panel. The applicant should indicate when he or she believes that the proposal is of a cross-panel or cross-domain nature. In the case of Synergy Grant applications only keywords, and not panels should be indicated.

Curriculum Vitae: The CV should include the standard academic and research record as well as a succinct "funding ID"

which must specify any current research grants and their subject, and any on-going application for work related to the proposal. Any research career gaps and/or unconventional paths should be clearly explained so that they can be fairly assessed by the evaluation panels.

Track Record: Each of the Principal Investigator must provide a list of achievements reflecting his or her track record. The type of achievements expected for Starting, Consolidator and Advanced Grant applicant Principal Investigators are set out in the relevant profiles above. Principal Investigators applying to the Synergy Grant call can be at any of these career stages.

Scientific Proposal: Description of the scientific and technical aspects of the project, demonstrating the ground-breaking nature of the research, its potential impact and research methodology. The proposal should also clearly specify the percentage of the applicant's working time that will be spent in the EU or an Associated Country and the percentage of the applicant's working time that will be devoted to the project, as well as a full estimation of the real project cost.

For Synergy Grants the research methodology section should also describe and justify the collaborative arrangements enabling the Synergy Grant Group to carry out the joint work being proposed. Each Principal Investigator shall present their estimation of the real project cost.

Evaluation procedure and criteria

Evaluation procedure

For Starting, Consolidator and Advanced Grants

A **single submission of the full proposal** will be followed by a **two-step evaluation**. The evaluation will be conducted by means of a structure of high level peer review panels as listed in Annex 1. The panels may be assisted by independent experts working remotely.

The applicant Principal Investigator can request during the electronic proposal submission that up to three specific persons should not act as an evaluator in the evaluation of their proposal³².

At step 1, the extended synopsis and the Principal Investigator's track record and CV will be assessed (and **not** the full scientific proposal). Proposals will be retained for step 2 based on the outcome of the evaluation at step 1 and a budgetary cut-off level of up to three times the panel's indicative budget.

At step 2 the complete version of the retained proposals will be assessed (including the full scientific proposal).

The allocation of the proposals to the various panels will be based on the expressed preference of the applicant Principal Investigator (see "Proposal

description" above). Proposals may be allocated to a different panel with the agreement of both Panel Chairs concerned.

The panel to which a proposal is allocated may request additional reviews by appropriate members of other panel(s) or additional remote evaluators.

*The ERC strongly encourages **multi and interdisciplinary research proposals**. Proposals of this type are evaluated by ERC's regular panels with the appropriate external expertise.*

Principal Investigators whose proposals are retained for step 2 of the evaluation for the Starting and Consolidator Grants will be invited for an interview to present their project to the evaluation panel, meeting in Brussels.

³² The persons identified may be excluded from the evaluation of the proposal concerned, as long as it remains possible to have the proposal evaluated.

For Synergy Grants

A **single submission of the full proposal** will be followed by a **three-step evaluation**, including interviews. The evaluation will be conducted by means of a structure of dedicated panels. The panels may be assisted by independent experts working remotely.

The applicant Corresponding Principal Investigator can request on behalf of the group during the electronic proposal submission that up to four specific persons should not act as an evaluator in the evaluation of their proposal

At step 1, the extended synopsis of the scientific proposal and the Principal Investigators' track records and CVs will be assessed (and not the full scientific proposal). Proposals will be retained for step 2 based on the outcome of the evaluation at step 1 and a budgetary cut-off level of up to seven times the panel's indicative budget.

At step 2, the complete version of the retained proposals will be assessed (including the full scientific proposal). Proposals will be retained for step 3 based on the outcome of the evaluation at step 2 and a budgetary cut-off level of up to three times the panel's indicative budget.

At step 3, the most competitive of the retained proposals will be identified and their Principal Investigators will be invited for an interview to present their project to a panel meeting in Brussels.

The structure and membership of the panels at each step is not predefined but will be decided dynamically in relation to

the proposals received. Step 1 panels will be formed from approximately 85 panel members and chairs. Five step 2 panels will be formed after the step 1 filtering to ensure the best expertise for a group of proposals. The five step 2 panels will be composed using the step 1 panel members, grouping them into panels of around 17 experts each. In step 3, the interview panels may be reconfigured to ensure the best expertise for the proposals.

Evaluation criteria

For all ERC frontier research grants, **scientific excellence is the sole criterion of evaluation**. It will be applied in conjunction to the evaluation of both: the ground-breaking nature, ambition and feasibility of the research project; and the intellectual capacity, creativity and commitment of the Principal Investigator.

In the case of a Synergy Grant application the peer reviewers will need to see that the collaborative working arrangements between the Principal Investigators described as part of the research methodology can ensure scientific excellence.

During the evaluation, the phase of the Principal Investigator's transition to independence, possible breaks in the research career of the applicant and/or unconventional research career paths should be taken into account. Synergy

Grant Principal Investigators applying as part of a group for a Synergy Grant will be evaluated according to their individual career stage.

In general, projects wholly or largely consisting in the collation and compilation of existing material in new databases, editions or collections are unlikely to constitute ground-breaking or "frontier" research in themselves, however useful such resources might be to subsequent original research. Such projects are therefore unlikely to be recommended for funding by the ERC's panels.

Plagiarism detection software may be used to analyse proposals submitted to the ERC.

The detailed evaluation elements applying to the excellence of the research project and the Principal Investigator are set out below.

1. Research Project

Ground-breaking nature, ambition and feasibility

Starting, Consolidator, Advanced and Synergy

Ground-breaking nature and potential impact of the research project

To what extent does the proposed research address important challenges?

To what extent are the objectives ambitious and beyond the state of the art (e.g. novel concepts and approaches or development between or across disciplines)?

To what extent is the proposed research high risk-high gain (i.e. if successful the payoffs will be very significant, but there is a high risk that the research project does not entirely fulfil its aims)?

Scientific Approach

To what extent is the outlined scientific approach feasible bearing in mind the extent that the proposed research is high risk/high gain (based on the Extended Synopsis)?

*To what extent does the proposal go beyond what the individual Principal Investigators could achieve alone (**for Synergy Grants**, based on the Extended Synopsis)?*

*To what extent is the combination of scientific elements put forward in the proposal crucial to address the scope and complexity of the research question (**for Synergy Grants**, based on the Extended Synopsis)?*

To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project (based on the full Scientific Proposal)?

To what extent does the proposal involve the development of novel methodology (based on the full Scientific Proposal)?

To what extent are the proposed timescales, resources and PI commitment adequate and properly justified (based on the full Scientific Proposal)?

2. Principal Investigator(s)

Intellectual capacity and creativity

Starting and Consolidator

To what extent has the PI demonstrated the ability to conduct ground-breaking research?

To what extent does the PI provide evidence of creative independent thinking?

To what extent does the PI have the required scientific expertise and capacity to successfully execute the project?

Intellectual capacity and creativity

Advanced and Synergy

To what extent has/have the PI(s) demonstrated the ability to conduct ground-breaking research?

To what extent does/do the PI(s) has/have the required scientific expertise and capacity to successfully execute the project?

*To what extent has the PI demonstrated sound leadership in the training and advancement of young scientists (**for Advanced Grant applicants**)?*

Synergy Grant Group

Synergy

*To what extent does the Synergy Grant Group successfully demonstrate in the proposal that it brings together the elements – such as skills, knowledge, experience, expertise, disciplines, methods, approaches, teams – necessary to address the proposed research question (**for Synergy Grants, based on the full Scientific Proposal**)?*

Evaluation outcome

For Starting, Consolidator and Advanced Grants

At each evaluation step, each proposal will be evaluated and marked for each of the two main elements of the proposal: the ground-breaking nature, ambition and feasibility of the research project; and the intellectual capacity, creativity and commitment of the Principal Investigator.

At the end of each evaluation step, the proposals will be ranked by the panels on the basis of the panels' overall appreciation of their strengths and weaknesses taking into account the marks they have received.

At the end of **step 1** of the evaluation the proposal will receive one of the following scores:

- A. is of sufficient quality to pass to step 2 of the evaluation;
- B. is of high quality but not sufficient to pass to step 2 of the evaluation;
- C. is not of sufficient quality to pass to step 2 of the evaluation.

At the end of **step 2** of the evaluation the proposal will receive one of the following scores:

- A. fully meets the ERC's excellence criterion and is recommended for funding **if sufficient funds are available**;
- B. meets some but not all elements of the ERC's excellence criterion and will not be funded.

For Synergy Grants

At the end of **step 1** of the evaluation the proposal will receive one of the following scores:

- A. is of sufficient quality to pass to step 2 of the evaluation;
- B. is of high quality but not sufficient to pass to step 2 of the evaluation;
- C. is not of sufficient quality to pass to step 2 of the evaluation.

At the end of **step 2** of the evaluation the proposal will receive one of the following scores:

- A. is of sufficient quality to pass to step 3 of the evaluation;
- B. is of high quality but not sufficient to pass to step 3 of the evaluation;

At the end of **step 3** of the evaluation the proposal will receive one of the following scores:

- A. fully meets the ERC's excellence criterion and is recommended for funding **if sufficient funds are available**;
- B. meets some but not all elements of the ERC's excellence criterion and will not be funded.

Once the evaluation of their proposal has been completed, applicants to all schemes will receive an evaluation report which will include the ranking range of their proposal among the proposals evaluated by the panel.

Projects recommended for funding will be funded by the ERC if sufficient funds are available. Proposals will be funded in priority order based on their rank.

Applicants may also be subject to restrictions on submitting proposals to

future ERC calls based on the outcome of the evaluation. Applicants will need to check the restrictions in place for each call (for 2020 calls see restrictions on submission of proposals under “Eligibility criteria”).

Proof of Concept Grant

**for Principal Investigators of
ERC frontier research grants**

Objectives

Frontier research often generates unexpected or new opportunities for commercial or societal applications. The ERC Proof of Concept Grants aim to maximise the value of the excellent research that the ERC funds, by funding further work (i.e. activities which were not scheduled to be funded by the original ERC frontier research grant) to verify the innovation potential of ideas arising from ERC funded projects. Proof of Concept Grants are therefore on offer only to Principal Investigators whose proposals draw substantially on their ERC funded research.

Ethical Principles

All proposals will be subject to ethics review as with proposals for the ERC's frontier research grants.

Eligibility Criteria

Eligible Principal Investigator

All Principal Investigators in an ERC frontier research project, that is either ongoing or has ended³³ less than 12 months before 1 January 2020, are eligible to participate and apply for an ERC Proof of Concept Grant.

Principal Investigators may submit only one proposal under Work Programme 2020. If multiple submissions are made at different cut-off dates under the Work

Programme 2020 only the first eligible proposal will be considered.

A Principal Investigator whose proposal was rejected on the grounds of a breach of research integrity in the calls for proposals under Work Programmes 2018 or 2019 may not submit a proposal to the calls for proposals made under Work Programme 2020.

Eligible projects

All proposals must be complete and be submitted before the relevant call deadline. Incomplete proposals may be declared ineligible (See ERC Proof of Concept Grant proposal submission and description below).

The content of the proposal must relate to the objectives and to the grant type set out in the call, as defined in this work programme. A proposal will only be deemed ineligible on grounds of 'scope' in clear-cut cases.

Where there is a doubt on the eligibility of a proposal, the evaluation may proceed pending a decision following an eligibility review committee. If it becomes clear before, during or after the evaluation phase, that one or more of the eligibility criteria have not been met, the proposal will be declared ineligible and not considered any further.

Applicants will need to demonstrate the relation between the idea to be taken to proof of concept and the ERC frontier research project (Starting, Consolidator, Advanced or Synergy) in question.

³³ Where the duration of the project fixed in the ERC grant agreement has ended.

More than one Proof of Concept Grant may be awarded per ERC funded frontier research project but only one Proof of Concept project may be running at any one time for the same ERC frontier research project³⁴.

Eligible Host Institution

The host institution (Applicant Legal Entity³⁵) must engage the Principal Investigator for at least the duration of the proof of concept project as defined in the grant agreement and must be established in a Member State or an Associated Country as a legal entity created under national law³⁶.

Please also refer to Annex 3 - Countries Associated to Horizon 2020 and Restrictions Applying to Some Legal Entities Established in Certain Third Countries.

Maximum size of grant and grant assessment

The financial contribution will be awarded as a lump sum of **EUR 150 000**³⁷ for a period of **18 months**. The ERC expects that

³⁴ This limit also applies to Synergy projects.

³⁵ Please see important information on possible registration of economic operators in the Commission's Early Detection and Exclusion System (EDES) on final page.

³⁶ It may also be an International European Interest Organisation (such as CERN, EMBL, etc.), the European Commission's Joint Research Centre (JRC), or an entity created under EU law. Any type of legal entity, public or private, including universities, research organisations as well as undertakings can host the Principal Investigator and their team.

³⁷ In accordance with Commission Decision C(2018) 5960 of 18 September 2018.

normally proof of concept projects should be completed within 12 months. However, to allow for those projects that require more preparation time, projects will be signed for 18 months. Given this initial flexibility, extensions of the duration of proof of concept projects may be granted only exceptionally.

The lump sum offered will cover the beneficiaries' direct and indirect eligible costs for the project: if the project is implemented properly the amounts will be paid regardless of the costs actually incurred. Specifically, the lump sum has been designed to cover 100% of the eligible direct costs and indirect costs calculated by applying a flat-rate of 25% to the direct cost categories.

The indicative budget for this call for 2020 is **EUR 25 000 000** (approximately one-third of which will be for each of the three evaluation rounds following three specific cut-off dates - proposals submitted before each cut-off date will be evaluated with the proposals submitted before the same cut-off date).

ERC Proof of Concept Grant proposal submission and description

Proposal Submission

Funding for the Proof of Concept Grant will be awarded through a call for proposals. Proposals are submitted by a single Principal Investigator, who has responsibility for the proposed activities, on behalf of the host institution which is the applicant legal entity.

Applications can be submitted at any time from the opening date of the call until the final deadline and will be evaluated and selected in three rounds, based on three specific cut-off dates. A Principal Investigator may submit only one application per call. Ineligible or withdrawn proposals do not count against this limit.

*Proposal submission is made electronically. **Early registration and submission is strongly recommended and should be done as early as possible in advance of the call deadline.***

Proposal description

The proposal will provide detailed descriptions of the project, its objectives, planning, execution, and required resources. It will comprise the following required elements:

- A short **description of the idea** to be taken to proof of concept. This should include an indication of the ERC-funded project from which the idea is substantially drawn and briefly demonstrate the relation between the idea and the ERC-funded project in question.
- Outline the **innovation potential of** the idea to be taken to proof of concept. This should include a clear description of how the proof of concept activities will lead to a commercial or social innovation.
- Outline the **economic and/or societal impact** expected from the

project, including the identification of customer and societal benefits; definition of the process to be followed leading to concrete application; initial steps of analysis of the advantages of the project's outcomes over existing products, policies, or processes; and, where applicable, brief explanation of the activities to be undertaken in terms of clarification of IPR position and strategy, testing in real world contexts, plans for contacts with commercial and/or societal partners.

- Outline a reasonable and plausible **plan of the activities** proposed for establishing the feasibility of the project, including a description of the resources planned for the implementation of the proposed project.
- **Host Institution Binding Statement of Support.**
- **Ethics Review** table.

The host institution must confirm its association with and its support to the project and the Principal Investigator. As part of the application, the institution must provide a binding statement that the conditions of independence are already fulfilled or will be provided to the Principal Investigator if the application is successful, according to the template provided in the Information for Applicants. Proposals that do not include this institutional statement may be declared ineligible.

*In fairness to all applicants a **strict limit of seven pages** will be applied to the length of proposals. Only the material that is presented within this limit will be evaluated (reviewers will only be asked to evaluate, and will be under no obligation to read beyond, the material presented within the page limit).*

ERC Proof of Concept Grant evaluation

A single-stage submission and single-step evaluation procedure will be used. The evaluation will be conducted by independent experts. These experts may work remotely and may if necessary meet as an evaluation panel as set out below on the application of the evaluation criteria.

Evaluation criteria

Proof of Concept Grants are awarded in relation to an existing ERC-funded project.

The activities to be funded shall draw substantially on this scientifically excellent ERC-funded research. However the additional funding is not aimed at extending the original research.

The funding will cover activities at the very early stage of turning research outputs into a commercial or socially valuable proposition, i.e. the initial steps of pre-competitive development.

The evaluation criteria for selection of proposals for Proof of Concept Grants are excellence in innovation potential, impact and quality and efficiency of the implementation as below:

1. Excellence in Innovation potential

Does the proposed proof of concept activity greatly help move the output of research towards the initial steps of a process leading to a commercial or social innovation?

The proposal should include plans for an analysis of whether the project's expected outcomes are innovative or distinctive compared to existing solutions.

2. Impact

2.1 Is the project to be taken to proof of concept expected to generate any effect or benefit to the economy, society, culture, public policy or services and are these appropriately identified in the proposal?

2.2 Does the proposal provide a suitable outline of how the commercialisation or the generation of the above listed benefits will be achieved?

The proposal should include:

- plans to assess and validate the effectiveness of the project's outcomes;*
- plans to clarify the IPR position and strategy³⁸ or knowledge transfer strategy;*
- plans for setting up contacts with industry partners, societal or cultural organisations, policymakers or any other potential 'end users' of the projects' results.*

3. Quality and efficiency of the implementation (Quality of the proof of concept plan)

Does the proposal provide a reasonable and acceptable plan of activities against clearly identified objectives and towards establishing the feasibility of the project?

This should include:

- a sound project-management plan, including appropriate risk and contingency planning;*
- demonstration that the activities will be conducted by persons well qualified for the purpose;*
- demonstration that the resources described in the proposal are appropriate for the implementation of the project.*

³⁸ Any application for funding of IPR activities under the ERC Proof of Concept will not discharge beneficiaries from their prior obligations under their pre-existing ERC grant agreement in respect of protecting IPR capable of industrial or commercial application. If any foreground was potentially protectable in the pre-existing ERC project, beneficiaries had the legal obligation to seek for adequate and effective protection according to Regulation (EU) No 1290/2013 ('Horizon 2020 rules for participation and dissemination') and the ERC Model Grant Agreement.

Evaluation outcome

Reviewers will evaluate independently each eligible proposal and mark it as "very good", "good" or "fail" for each of the three evaluation criteria.

In order to be considered for funding, proposals will have to be awarded a pass mark ("very good" or "good") by a majority of reviewers on each of the three evaluation criteria. A proposal which fails one or more of the criteria will not be ranked and will not be funded.

If there is not enough budget to fund all the proposals which pass all three evaluation criteria, those proposals which pass all three evaluation criteria will be ranked according to the marks which they received from reviewers sorted by the order in which the evaluation criteria appear above. Proposals will be funded in order of this ranking.

If necessary, the reviewers will meet as an evaluation panel in order to determine a priority order for proposals which have the same ranking.

Other Actions

The different actions described in this chapter aim to allow the Scientific Council of the ERC to carry out its duties and mandate, including its obligations to establish the ERC's overall strategy and to monitor and quality control the programme's implementation from the scientific perspective.

Support to call and programme monitoring, and evaluation

1. Qualitative evaluation of frontier nature of ERC funded research

The ERC will continue the work carried out under Work Programmes 2015 - 2019 to analyse the scientific output of its funded projects with a particular focus on the frontier nature of the research, and any potential research breakthroughs and discoveries. During this analysis the ERC will be assisted by experts.

Type of action: Experts.

Indicative budget: EUR 500 000 from the 2020 budget.

2. Evaluation of proposals and project monitoring

The ERC uses appointed independent experts during the evaluation of proposals and the preparation of the ERC calls, for ethics review and for the monitoring of ongoing projects. The ERC also reimburses the costs of Principal Investigators invited to attend interviews during the evaluation of their proposals.

Type of action: Experts.

Indicative budget: EUR 17 975 422 from the 2020 budget.

Support to open access

3. Support to the Europe PMC initiative

[Europe PMC](#) is a repository for publications in the life sciences and adjacent areas run by the European Bioinformatics Institute (EMBL-EBI). Working in close partnership with PubMed Central (at the National Institutes of Health, USA), Europe PMC provides free, global access to around 35 million abstracts and more than 5 million full text articles. In addition, Europe PMC also ingests preprints metadata and curates a database of about 70 000 grants awarded by the Europe PMC funders. All content in Europe PMC is enriched with research funding data, ORCID persistent digital identifiers for authors, links to experimental data and text-mined keywords, and is made available transparently on the Europe PMC website and via several rich and heavily-used programmatic services. Europe PMC is directly accessed by more than 1.2 million IP addresses per month.

The Europe PMC initiative is currently financed by a group of 29 funding bodies from across Europe, including the ERC. The amount of each funder's contribution is calculated based on the proportion of their annual research spend in the life sciences domain. The main contributor is the Wellcome Trust, which is leading the initiative. The ERC has been supporting the initiative since 2013 in order to enable ERC-funded researchers to use the Europe PMC repository for their manuscripts in the life sciences, as recommended in the

'Open Access Guidelines for researchers funded by the ERC'³⁹.

Since its inception in 2006, the technical aspects of the Europe PMC initiative have been developed by the European Bioinformatics Institute (EMBL-EBI). EMBL-EBI is an academic research institute located on the Wellcome Trust Genome Campus near Cambridge (UK), and is part of the European Molecular Biology Laboratory (EMBL). Building on more than 25 years' experience in bioinformatics, the EMBL-EBI maintains the world's most comprehensive range of molecular databases.

Based on the unique expertise and experience that EMBL-EBI offers, the funding bodies represented in the Europe PMC initiative intend to continue to provide financial support to EMBL-EBI to fund this activity after April 2021, which is when the current funding expires. For this purpose, the ERC Executive Agency will provide a grant to the Wellcome Trust, whose sole objective will be to provide financial support to EMBL-EBI as a third party⁴⁰, to:

- support the maintenance and operation of the Europe PMC repository and its further development as a key resource for researchers in the life sciences.

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https://erc.europa.eu/sites/default/files/document/file/ERC_Open_Access_Guidelines-revised_feb_2016.pdf

⁴⁰ In line with the provisions of Art. 204 of Regulation (EU, Euratom) No 1046/2018 ('the Financial Regulation') and Article 15(1) of the general Model Grant Agreement for Horizon 2020.

This will entail providing a rich suite of services to help researchers discover relevant research and the data that underpin it, the further development of the manuscript submission system such that researchers can share their accepted manuscripts in line with Open Access-related funder requirements, and the provision of programmatic access to ensure that other services can make full use of this content, including the ERC Executive Agency in the context of its monitoring and evaluation activities;

- refine workflows to create rich quality-assured metadata (including funder-attribution metadata), and develop services to ensure that Europe PMC is fully compliant with OpenAire's 'Guidelines for Literature Repositories'⁴¹. Tools will be developed to support the monitoring of and compliance with funders' Open Access mandates. Furthermore, workflows will be set up to ensure that content published on high quality open access publishing platforms such as the Open Research Europe platform announced by the European Commission can be ingested into Europe PMC and

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<https://guidelines.openaire.eu/en/latest/literature/index.html>

integrated with underlying data archives.

Based on the ERC's research spend in the life sciences in 2017, the funding rate of the financial support to EMBL-EBI, which should correspond to the sole eligible cost for the Wellcome Trust, will be 13.8%, amounting to a maximum of EUR 1 000 000.

The maximum duration of the grant will be 60 months.

Type of action: Grant to an identified beneficiary – Coordination and Support Action

Legal entity: The Wellcome Trust Limited, Euston Road, London, UK⁴²

Indicative budget: Up to EUR 1 000 000 from the 2020 budget

4. Support to the OAPEN initiative

The ERC supports the principle of open access to the published output of research as a fundamental part of its mission. This requirement includes monographs, book chapters and other long-text publications, which are particularly important in the Humanities and Social Sciences. The ERC Scientific Council recommends the use of the [OAPEN Library](#) as repository for this kind of publications, as indicated in its

⁴² This grant will be awarded without call for proposals in line with Article 195(e) of Regulation (EU, Euratom) No 1046/2018 (the 'Financial Regulation') and Article 11(2) of Regulation (EU) No 1290/2013 ('Horizon 2020 rules for participation and dissemination').

'Open Access Guidelines for research results funded by the ERC'⁴³.

In February 2016, the ERC and the OAPEN Foundation announced their cooperation in furthering open access to academic books and book chapters. Within the context of this cooperation, OAPEN has developed a tailor-made deposit service for long-text publications based on ERC funded research. OAPEN also provides hands-on support to ERC grantees and their team members who want to use the OAPEN Library to provide open access to their publications.

The ERC currently supports the OAPEN initiative through a low value grant covering the period up to and including December 2019.

OAPEN was chosen by the ERC due to its central position as a service provider for open access to long-text publications, and monographs in particular.

The OAPEN Library holds a collection of 8 750 Open Access books and chapters from 235 publishers worldwide, and has generated over 7.5 million downloads since 2013. It hosts books for most of the main Open Access publishers. A substantial further expansion of this library is planned.

In addition, OAPEN works directly with publishers and funders in order to provide a unique combination of services to support open access to long text

⁴³ https://erc.europa.eu/sites/default/files/document/file/ERC_Open_Access_Guidelines-revised_feb_2016.pdf

publications: a repository for the deposit of books and chapters by researchers seeking to comply with funders' Open Access mandates; the active dissemination of its collection by providing feeds in multiple formats to libraries and their intermediaries; quality assurance on its collection; Open Access guidance for authors.

The ERC therefore intends to continue its cooperation with the OAPEN Foundation beyond the duration of the current funding in order to support the maintenance and further improvement of the existing services and infrastructure, and to help OAPEN strengthen its engagement with publishers and with researchers in support of the ERC's Open Access strategy.

Engagement with publishers is expected to result in:

- an increased number of publishers complying with the Open Access requirements of the ERC in relation to monographs and books;
- the provision of green Open Access options by a larger range of publishers to allow the opening up of closed content with minimal technical hurdles, including in particular long-text publications from FP7 ERC projects that are not yet available in open access;
- the development of efficient workflows to aggregate Open Access books and chapters supported by the ERC;
- enhanced publisher support for the deposit of publications by ERC-

funded authors in the OAPEN library.

Engagement with researchers is expected to result in:

- increased awareness of the ERC Open Access requirements for long-text publications;
- increased number of books and chapters by ERC-funded authors deposited in the OAPEN library;
- continued support for the uptake of good practices by ERC-funded researchers, including by issuing relevant guidelines.

For these reasons the ERC will provide a further low value grant of EUR 60 000 to the OAPEN Foundation.

The maximum duration of this grant will be 24 months.

Type of action: Grant to an identified beneficiary – Coordination and Support Action.

Legal entity: Stichting OAPEN (OAPEN Foundation), Prins Willem-Alexanderhof 5, 2595 BE The Hague, The Netherlands⁴⁴.

Indicative budget: EUR 60 000 from the 2020 budget.

5. Support to the SciPost initiative

[SciPost](#) is a non-profit foundation dedicated to reforming scientific

⁴⁴ This grant will be awarded without call for proposals in line with Article 195(e) of Regulation (EU, Euratom) No 1046/2018 (the 'Financial Regulation') and Article 11(2) of Regulation (EU) No 1290/2013 ('Horizon 2020 rules for participation and dissemination').

publishing by providing an Open Access publishing platform that allows authors to publish their work free of charge ('platinum open access').

The platform employs strict peer review with open reports, as well as post-publication commenting. Authors retain their copyright and articles are published under an open licence⁴⁵. SciPost is currently active in all areas of physics, but is planning to extend its activities also to other scientific fields.

As part of its publishing workflow, SciPost implements high-quality extended metadata acquisition, deposit and curation, which is of particular value for funders such as the ERC in the context of their monitoring and evaluation activities.

SciPost currently provides a publicly-accessible, editorially-curated and interlinked ontology of research terms; an administrative-level grants database allowing to link funding acknowledgements to funder instances; publicly-viewable citation statistics; a publicly-accessible organisations database relating published material and contributors to their affiliations, granting agencies etc.; and an administrative-level database with information enabling the apportioning of credit for a publication's research support between the organisations involved.

The combination of publishing features provided or currently under development by SciPost, together with its transparency

⁴⁵ Such as CC BY, CC BY-SA or the public domain waiver CCO.

in financial accounting, is unique among Open Access publishing platforms. Such combination has the potential to serve as best practice example by setting high standards in the Open Access publishing community in line with ERC Open Access policy. The ERC will therefore provide a low value grant of EUR 60 000 to the SciPost Foundation to support the operation, expansion and further development of the SciPost publishing services (including the development of programmatic tools for authors, funders and other users) and the further enhancement of the scope and user base of the extended metadata facilities at SciPost.

The maximum duration of this grant will be 24 months.

Type of action: Grant to an identified beneficiary – Coordination and Support Action

Legal entity: SciPost Foundation, c/o Prof. J.-S. Caux, Institute of Physics, University of Amsterdam, Science Park 904, Postbus 94485, 1090 GL Amsterdam, The Netherlands⁴⁶

Indicative budget: EUR 60 000 from the 2020 budget

⁴⁶ This grant will be awarded without call for proposals in line with Article 195(e) of Regulation (EU, Euratom) No 1046/2018 (the 'Financial Regulation') and Article 11(2) of Regulation (EU) No 1290/2013 ('Horizon 2020 rules for participation and dissemination').

Support to the ERC Scientific Council

6. Support for the identification of potential independent experts for the evaluation of proposals

The ERC Scientific Council is tasked with proposing the appointment of independent experts for the peer review evaluation of frontier research projects. The Scientific Council is equally responsible for ensuring the quality of the ERC's scientific operations by establishing positions on the selection of experts. The Scientific Council directly proposes the appointment of panel members, while the identification of independent experts assisting the panels by working remotely has been delegated to Panel Chairs. Each year, about 25 000 independent experts are selected to take part in the evaluation of proposals.

The increasing availability of Open Access publications and latest developments in machine learning algorithms and semantic technologies can now be harnessed to improve the efficiency and effectiveness of this identification process. The Artificial Intelligence service to be contracted will support semantic text analysis of proposals and publications in all scientific domains, and expertise identification based on publication records and expertise matching. The support is independent from existing publishers and journals.

The objective is to assist the Scientific Council and the Panel Chairs with the identification of potential independent experts with suitable expertise profiles.

The expected outcome is the implementation, provision and maintenance of the IT system allowing for the definition of expertise profiles, based on panel recruitment needs and on submitted proposals, and for the system to provide lists of potential experts⁴⁷ matching the specified expertise profiles.

Type of action: Public procurement

Indicative budget: EUR 125 000 from the 2020 budget.

7. ERC Scientific Council Standing Identification Committee

Future members of the Scientific Council shall be appointed by the Commission following an independent and transparent procedure for their identification agreed with the Scientific Council, including a consultation of the scientific community and a report to the European Parliament and the Council. For this purpose, a high level standing Identification Committee of independent experts has been set up as a special expert group with special allowances of EUR 450 per day charged to the operational budget allocated to the ERC.

Type of action: Experts. This activity will be directly implemented by the Commission services (DG RTD).

Indicative budget: EUR 40 000 from the 2020 budget.

⁴⁷ Any personal data will be processed under the principles and safeguards set by Regulation No 2018/1725.

8. Support to the Vice-Chairs

Support will be provided to the three Vice-Chairs of the Scientific Council to ensure adequate local administrative assistance at their home institutes for their tasks of assisting the President of the ERC in representing the ERC and organising its work. For this purpose, the ERC Executive Agency will provide a grant to an identified beneficiary.

Type of action: Grant to an identified beneficiary.

Legal entity: Università degli Studi di Padova, Dipartimento di Fisica e Astronomia "G. Galilei" – DFA, Via Marzolo 8, 35131 Padova, Italy⁴⁸

Indicative budget: EUR 300 000 from the 2020 budget.

9. Honoraria and meeting expenses for Scientific Council members

In recognition of their personal commitment, the Scientific Council members shall be compensated for the tasks they perform by means of an honorarium for their attendance at Scientific Council plenary meetings, reflecting their responsibilities and benchmarked against similar provisions in similar entities and Member States. The honoraria and those travel and subsistence expenses related to the performance of tasks of the Scientific

⁴⁸ This grant will be awarded without call for proposals in line with Article 195(e) of Regulation (EU, Euratom) No 1046/2018 (the 'Financial Regulation') and Article 11(2) of Regulation (EU) No 1290/2013 ('Horizon 2020 rules for participation and dissemination').

Council shall be charged to the operational budget allocated to the ERC.

Type of action: Experts.

Indicative budget: EUR 555 000 from the 2020 budget.

Union Contribution

The Union financial contribution will take the form of the reimbursement of up to 100% of the total eligible and approved direct costs and of flat-rate financing of indirect costs on the basis of 25% of the total eligible direct costs⁴⁹. The level of the awarded grant represents a maximum overall figure – the final amount to be paid must be justified on the basis of the costs actually incurred for the project.

Proposal Evaluation

Proposals for grants under this part will be evaluated as follows.

Eligibility Criteria

Proposals under this part must be focused on requirements specified in the work programme and/or call for proposals.

Actions under this part are open to legal entities⁵⁰ established in a Member State or an Associated Country as a legal entity created under national law, International

⁴⁹ Excluding the direct costs for subcontracting, the costs for financial support to third parties and the costs of resources made available by third parties which are not used on the premises of the host institution.

⁵⁰ Please see important information on possible registration of economic operators in the Commission's Early Detection and Exclusion System (EDES) on final page.

European Interest Organisations (such as CERN, EMBL, etc.), the European Commission's Joint Research Centre (JRC) or an entity created under EU law. Legal entities established in countries outside the EU or Associated Countries and international organisations are also eligible.

Please also refer to Annex 3 - Countries Associated to Horizon 2020 and Restrictions Applying to Some Legal Entities Established in Certain Third Countries.

All proposals must be complete and be submitted before the relevant deadline. A complete proposal entails all requested elements. Incomplete proposals may be declared ineligible.

Evaluation Criteria

1. Excellence related to the objectives of the grant and/or call for proposals

Are the objectives of the proposed project consistent with the requirements specified in the work programme and/or call for proposals? Do they, where appropriate, correspond to, or go beyond, best current practice?

2. Impact

Will the project have a substantial impact in the context of the ERC objectives?

3. Quality and efficiency of the implementation

Is the proposed methodology and work plan effective in reaching the goals of the project? Do they ensure the highest quality and/or utility of results?

Application of Evaluation Criteria

Each evaluation criterion will be marked on a scale of 0 to 5 and an overall quality threshold of 80% will be used to establish the retained list of proposals which will be ranked in order of priority for funding.

The content of the proposal must relate to the objectives of the grant and/or call for proposals, as defined in this work programme and/or call. A proposal will only be deemed ineligible on grounds of 'scope' in clear-cut cases.

Where there is a doubt on the eligibility of a proposal, the evaluation may proceed pending a decision following an eligibility review committee. If it becomes clear before, during or after the evaluation phase, that one or more of the eligibility criteria has not been met, the proposal will be declared ineligible and not considered any further.

Indicative Budget

| | <i>2020 budget in EUR million (rounded)</i> |
|------------------------------------|---|
| Main Calls | |
| ERC-2020-StG | 677 |
| ERC-2020-CoG | 657 |
| ERC-2020-AdG | 492 |
| ERC-2020-SyG | 350 |
| ERC-2020-PoC | 25 |
| Other Actions | |
| Experts | 19.1 ⁵¹ |
| Grants to identified beneficiaries | 1.4 |
| Other calls for proposals | - |
| Public procurements | 0.1 |
| Estimated total budget | 2221.6 |

The budget amounts for 2020 are subject to the availability of the appropriations provided for in the draft budget for 2020 after the adoption of the budget for 2020 by the budgetary authority or if the

budget is not adopted as provided for in the system of provisional twelfths.

Budgetary figures given in this work programme are indicative. Unless otherwise stated, final budgets may vary

⁵¹ EUR 17.975 million of this amount corresponds to the cost of experts involved in the evaluation of proposals, project monitoring and the reimbursement of costs incurred by applicants invited by evaluation panels for interviews.

following the evaluation of proposals. The final figures may vary by up to 20% with respect to those indicated in this work programme for the following budgeted activities:

- Total expenditure for each call for proposals;
- Any repartition of the call budget within a call, up to 20% of the total expenditure of the call;
- Evaluation and monitoring, up to 20% of the total expenditure for all these activities;

- Each other individual action not implemented through calls for proposals.

If additional credits become available the Scientific Council shall set the rules by which they will be allocated to the calls based on a judgement of the scientific need, number of applications and predicted success rates of the calls.

The budget figures given in this table are rounded to two decimal points.

Annexes

Annex 1

Primary panel structure and description

Physical Sciences & Engineering

PE1 Mathematics

All areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics.

PE2 Fundamental Constituents of Matter

Particle, nuclear, plasma, atomic, molecular, gas, and optical physics.

PE3 Condensed Matter Physics

Structure, electronic properties, fluids, nanosciences, biological physics.

PE4 Physical and Analytical Chemical Sciences

Analytical chemistry, chemical theory, physical chemistry/chemical physics.

PE5 Synthetic Chemistry and Materials

Materials synthesis, structure-properties relations, functional and advanced materials, molecular architecture, organic chemistry.

PE6 Computer Science and Informatics

Informatics and information systems, computer science, scientific computing, intelligent systems.

PE7 Systems and Communication Engineering

Electrical, electronic, communication, optical and systems engineering.

PE8 Products and Processes Engineering

Product design, process design and control, construction methods, civil engineering, energy processes, material engineering.

PE9 Universe Sciences

Astro-physics/chemistry/biology; solar system; stellar, galactic and extragalactic astronomy, planetary systems, cosmology, space science, instrumentation.

PE10 Earth System Science

Physical geography, geology, geophysics, atmospheric sciences, oceanography, climatology, cryology, ecology, global environmental change, biogeochemical cycles, natural resources management.

Life Sciences

LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics

Molecular synthesis, modification, mechanisms and interactions, biochemistry, structural biology, molecular biophysics, metabolism, signalling pathways.

LS2 Genetics, 'Omics', Bioinformatics and Systems Biology

Molecular genetics, quantitative genetics, genetic epidemiology, epigenetics, genomics, metagenomics, transcriptomics, proteomics, metabolomics, glycomics, bioinformatics, computational biology, biostatistics, systems biology.

LS3 Cellular and Developmental Biology

Cell biology, cell physiology, signal transduction, organogenesis, developmental genetics, pattern formation, stem cell biology, in plants and animals, or, where appropriate, in micro-organisms.

LS4 Physiology, Pathophysiology and Endocrinology

Organ physiology, pathophysiology, endocrinology, metabolism, ageing, tumorigenesis, cardiovascular diseases, metabolic syndromes.

LS5 Neuroscience and Neural Disorders

Neural cell function and signalling, systems neuroscience, neural bases of cognitive and behavioural processes, neurological and psychiatric disorders.

LS6 Immunity and Infection

The immune system and related disorders, biology of infectious agents and infection, biological basis of prevention and treatment of infectious diseases

LS7 Applied Medical Technologies, Diagnostics, Therapies and Public Health

Development of tools for diagnosis, monitoring and treatment of diseases, pharmacology, clinical medicine, regenerative medicine, epidemiology and public health.

LS8 Ecology, Evolution and Environmental Biology

Population, community and ecosystem ecology, evolutionary biology, behavioural ecology, microbial ecology.

LS9 Applied Life Sciences, Biotechnology, and Molecular and Biosystems Engineering

Applied plant and animal sciences, forestry, food sciences, applied biotechnology, environmental and marine biotechnology, applied bioengineering, biomass and biofuels, biohazards.

Social Sciences & Humanities

SH1 Individuals, Markets and Organisations

Economics, finance and management.

SH2 Institutions, Values, Environment and Space

Political science, law, sustainability science, geography, regional studies and planning.

SH3 The Social World, Diversity, Population

Sociology, social psychology, social anthropology, demography, education, communication.

SH4 The Human Mind and Its Complexity

Cognitive science, psychology, linguistics, philosophy of mind.

SH5 Cultures and Cultural Production

Literature, philology, cultural studies, study of the arts, philosophy.

SH6 The Study of the Human Past

Archaeology and history.

Annex 2

ERC policy on PhD and equivalent doctoral degrees

1. The necessity of ascertaining PhD equivalence

In order to be eligible to apply to the ERC Starting or Consolidator Grant a Principal Investigator must have been awarded a PhD or equivalent doctoral degree. First-professional degrees will not be considered in themselves as PhD-equivalent, even if recipients carry the title "Doctor". See below for further guidelines on PhD degree equivalency.

2. PhD Degrees

The research doctorate is the highest earned academic degree. It is always awarded for **independent research** at a professional level in either academic disciplines or professional fields.

Regardless of the entry point, doctoral studies involve several stages of academic work. These may include the completion of preliminary course, seminar, and laboratory studies and/or the passing of a battery of written examinations. The PhD candidate selects an academic adviser and a subject for the dissertation, is assigned a dissertation committee, and designs his or her research (some educators call the doctoral thesis a dissertation to distinguish it from lesser theses). The dissertation committee consists usually of 3-5 faculty members in the candidate's research field, including the adviser.

3. Independent research

Conducting the research and writing the dissertation usually requires one to several years depending upon the topic selected and the research work necessary to prepare the dissertation. In defending his or her thesis, **the PhD candidate must establish mastery of the subject matter, explain and justify his or her research findings, and answer all questions put by the committee.** A successful defence results in the award of the PhD degree.

4. Degrees equivalent to the PhD:

It is recognised that there are some other doctoral titles that enjoy the same status and represent variants of the PhD in certain fields. All of them **have similar content requirements.** Potential applicants are invited to consult the following for useful references on degrees that will be considered equivalent to the PhD:

- EURYDICE: "Examinations, qualifications and titles - Second edition, Volume 1, European glossary on education" published in 2004⁵². Please note that some titles that belong to the same

⁵² <http://bookshop.europa.eu/en/european-glossary-on-education-pbEC3212292/>

category with doctoral degrees (ISCED 6 – 1997 classification or ISCED 8 – 2011 classification⁵³) may correspond to the intermediate steps towards the completion of doctoral education and they should not be therefore considered as PhD-equivalent.

- List of research doctorate titles awarded in the United States that enjoy the same status and represent variants of the PhD within certain fields. These doctorate titles are also recognised as PhD-equivalent by the U.S. National Science Foundation (NSF)⁵⁴.

5. First Professional Degrees (for applicants holding a degree in medicine please see below):

It is important to recognise that the initial professional degrees in various fields are **first degrees, not graduate research degrees**. Several degree titles in such fields include the term "Doctor", **but they are neither research doctorates nor equivalent to the PhD**.

6. Applicants holding a degree in medicine:

A first degree in medicine will not be accepted by itself as equivalent to a PhD award. To be considered an eligible Principal Investigator, applicants holding a degree in medicine need to provide **the certificates of both the medical degree and the PhD or proof of an appointment that requires doctoral equivalency** (e.g. post-doctoral fellowship, professorship appointment). Additionally, candidates must also provide information on their research experience (including peer reviewed publications) in order to further substantiate the equivalence of their overall training to a PhD.

In these cases, the certified date of the medical degree completion plus two years is the reference date of the actual award used for the calculation of the eligibility period established for Starting and Consolidator Grants in the section "Eligible Principal Investigator(s)".

For applicants holding both a degree in medicine and a PhD, **the date used for the calculation of the eligibility period** (i.e. medical degree plus two years or PhD award date) **is the date of the earliest degree that makes the applicant eligible**.

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<http://uis.unesco.org/sites/default/files/documents/international-standard-classification-of-education-isced-2011-en.pdf>

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<http://www2.ed.gov/about/offices/list/ous/international/usnei/us/edlite-structure-us.html>

Annex 3

Countries associated to Horizon 2020 and restrictions applying to some legal entities established in certain third countries

Please check the online manual for up-to-date information on the current position for Associated Countries⁵⁵.

The eligibility criteria formulated in Commission Notice Nr. 2013/C- 205/05 (OJEU C-205 of 19.07.2013) shall apply for all actions under this Work Programme, including with respect to third parties receiving financial support in the cases where the respective action involves financial support to third parties by grant beneficiaries in accordance with article 204 of the EU's Financial Regulation.

Some entities from third countries are covered by the Council sanctions in place and are not eligible to participate in Union programmes. Please see: the consolidated list of persons, groups and entities subject to EU financial sanctions⁵⁶.

Given that the EU does not recognise the illegal annexation of Crimea and Sevastopol, legal persons established in the Autonomous Republic of Crimea or the city of Sevastopol are not eligible to participate in any capacity. This criterion

also applies in cases where the respective action involves financial support given by grant beneficiaries to third parties established in the Autonomous Republic of Crimea or the city of Sevastopol in accordance with Article 204 of the EU's Financial Regulation. Should the illegal annexation of the Autonomous Republic of Crimea and the City of Sevastopol end, this Work Programme shall be revised.

⁵⁵

http://ec.europa.eu/research/participants/docs/h2020-funding-guide/cross-cutting-issues/international-cooperation_en.htm

⁵⁶

<https://webgate.ec.europa.eu/europeaid/fsd/fsf>

Prior Information of Candidates, Tenderers, Grant Applicants and remunerated experts - registration of information in the Early Detection and Exclusion System (EDES).

The Commission operates the EDES, a system established under Articles 135, 142 and 143 of the Regulation (EU, Euratom) No 1046/2018⁵⁷ ('the Financial Regulation'). The EDES is used for the early detection of risks related to candidates, tenderers, grant applicants, beneficiaries of contracts and grants and linked third parties, as well as remunerated external experts, with a view to protecting the EU's financial interests.

Candidates, tenderers, grant applicants, remunerated external experts and, if they are legal entities, persons who have powers of representation, decision or control over them, are informed that, should they be in one of the situations mentioned in Article 136(1) of the Financial Regulation, their personal details (name, given name if natural person, address, legal form and name and given name of the persons with powers of representation, decision-making or control, if legal person) may be registered in the EDES, and communicated to the persons and entities referred to in Article 142 (1), (2), (4) and (5) of the Financial Regulation, in relation to the award or the execution of a procurement contract, a grant agreement or an expert contract.

NB: The EDES has replaced the Early Warning System (EWS) and the Central Exclusion Database (CED) as of 1 January 2016.

⁵⁷ Regulation (EU, Euratom) No 1046/2018 of the European Parliament and of the Council of 18 July 2018 on the financial rules applicable to the general budget of the Union, amending Regulations (EU) No 1296/2013, (EU) No 1301/2013, (EU) No 1303/2013, (EU) No 1304/2013, (EU) No 1309/2013, (EU) No 1316/2013, (EU) No 223/2014, (EU) No 283/2014, and Decision No 541/2014/EU and repealing Regulation (EU, Euratom) No 966/2012, OJ L 193, 30.7.2018, p. 1.