

# Information for Applicants to the Synergy Grant 2020 Call



**European Research Council**  
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**for Research & Innovation**

## European Research Council (ERC) Frontier Research Grants

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This document is published by the ERC Scientific Council on the [ERC website](#). It can also be downloaded from the [Funding & tender opportunities](#) portal (F&T portal).

## IMPORTANT TO NOTE

The present document is based on the legal documents setting the rules and conditions for the ERC frontier research grants, in particular:

- the [ERC Work Programme 2020](#)<sup>1</sup>,
- the revised ERC Rules for the submission of proposals and the related evaluation, selection and award procedures relevant to the Specific Programme of H2020 – the Framework programme for Research and Innovation (2014-2020)<sup>2</sup> (hereinafter [ERC Rules for Submission](#)), and
- the [ERC Model Grant Agreement](#).

This document does not supersede the afore-mentioned documents, which are legally binding.

Should there be any discrepancies between the aforementioned legal documents and this document, the former will prevail.

The European Commission, the ERC Executive Agency or any person or body acting on their behalf cannot be held responsible for the use made of this document.

The [Guide for ERC Peer Reviewers](#) – applicable to Synergy Grants, provides practical information on the evaluation process

National Contact Points (ERC NCPs) have been set up across Europe<sup>3</sup> by the national governments to provide information and personalised support to ERC applicants in their native language. The mission of the ERC NCPs is to raise awareness, inform and advise on ERC funding opportunities as well as to support potential applicants in the preparation, submission and follow-up of ERC grant applications. For details on the ERC NCP in your country please consult the [ERC website](#) or the [Funding & tender opportunities](#) portal.

## Abbreviations

**AC** – [Associated Country](#)

**ADG** - [Advanced Grant](#)

**cHI** – corresponding Host Institution

**COG** - [Consolidator Grant](#)

**cPI** – corresponding Principal Investigator

**EU MS** - [EU Member States](#)

**ERC WP** - [ERC Work Programme 2020](#)

**ERC panel** – ERC peer review evaluation panels

**ERC NCP** – [ERC National Contact Points](#)

**ERCEA** – [European Research Council Executive Agency](#)

**F&T portal** – [Funding & tender opportunities](#) (Single Electronic Data Interchange Area (SEDIA))

**H2020** – [Horizon 2020 Framework Programme](#)

**HI** – Host Institution

**PI** – Principal Investigator

**PM** – Panel Member

**PEV** – Panel Evaluator

**PIC** – [Participant Identification Code](#)

**POC** – [Proof of Concept Grant](#)

**SEP** – Submission and Evaluation of Proposals

**STG** – [Starting Grant](#)

**SYG** – [Synergy Grant](#)

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<sup>1</sup> European Commission C(2019) 4904 of 2 July 2019.

<sup>2</sup> C(2017)4750 of 17 July 2017.

<sup>3</sup> This applies to EU Member States and Associated Countries. Some other countries also provide this service.

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# 1. ERC SYNERGY GRANT 2020

## 1.1 ERC FUNDING PRINCIPLES

The ERC Synergy Grant is part of the main ERC frontier research grants 2019 funded by the European Union's Horizon 2020 Framework Programme for Research and Innovation.

The ERC's frontier research grants aim to empower individual researchers and provide the best settings to foster their creativity. **Scientific excellence** is the sole criterion of evaluation in all ERC frontier research grants; however, in the ERC Synergy Grant, scientific excellence takes on an additional meaning: its intrinsic **synergetic effect**.



### Objectives

ERC Synergy Grants are intended to enable minimum two to maximum four Principal Investigators (PIs) and their teams<sup>4</sup> to bring together complementary skills, knowledge, and resources, to jointly address ambitious research questions. 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. Applicant PIs therefore must demonstrate that only with the added value of the synergetic team could the proposed research lead to breakthroughs that would not be possible by the individual PIs working alone.

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.

### Principal Investigators and the Synergy group

One of the Principal Investigators must be designated as the corresponding Principal Investigator (cPI). At any one time, one Principal Investigator per Synergy Grant Group, except the corresponding PI, can be hosted or engaged by an institution outside of the EU or [Associated Countries](#).

Researchers of any age and career stage can apply for up to six years funding. No specific eligibility criteria regarding the academic training are foreseen for PIs applying for ERC Synergy Grants. The Principal Investigators must present an early achievement track-record or a ten-year track-record, whichever is most appropriate for their career stage (see Starting, Consolidator and Advanced Grant profiles sections in the [ERC Work Programme 2020](#)). There is little prospect of an application succeeding in the absence of such a track-record. Applicants are encouraged to evaluate their track-records against the benchmarks described in the various profiles to decide for themselves their likelihood for success, thus avoiding investing effort in proposals that are very unlikely to succeed.

<sup>4</sup>Where research is often performed individually in certain fields (e.g. in the humanities and mathematics), the 'team' may consist solely of the Principal Investigator.

The applicant PIs do not need to be based in the same Host Institution; any group that can demonstrate the need for synergy to promote key research advances will be considered.

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.

Examples of Synergy projects funded in the previous calls can be found on the ERC website: [Synergy grants](#)

### **Research fields – no predetermined priorities**

The ERC's frontier research grants operate on a 'bottom-up' basis and applications can be made in any field of research with an emphasis on the frontiers of science, scholarship and engineering<sup>5</sup>. In particular, proposals of an interdisciplinary nature, proposals addressing new and emerging fields of research and proposals introducing unconventional or innovative approaches and scientific inventions are encouraged. This has the potential to enable transformative research that could become benchmarks on a global scale. Careful consideration should be given so to propose truly novel ideas not just continuations of ongoing work or existing collaboration.

### **Synergetic aspects**

It is of utmost importance not to confuse the term 'synergy' and its requirements with the concepts and the terminology of other parts of the H2020 Framework Programme. Proposals perceived as mere loose cooperation or networking are unlikely to be recommended for funding by the ERC Synergy panels. Synergy projects should generally involve composite teams that are capable of tackling bold new research themes that require novel approaches. Such teams are typically characterised by exceptional combinations of knowledge and skills, in which the Principal Investigators hold a central role. A project that involves the simple passing of data or information from one team to another would not satisfy the integrative features of a Synergy project. A Synergy project could incorporate novel multi- or trans-disciplinary approaches or innovative combinations of knowledge and skills in a single discipline or research field. Each Synergy proposal must demonstrate that its objectives can only be achieved through the specific combination of knowledge and skills brought together by the participating PIs. In other words, a major scientific question of pressing significance, an integrated team and the transformative scientific potential are crucial elements in conceiving a Synergy proposal.

True to its bottom-up approach the Scientific Council remains open to what applicants choose as the best ways of working together. Nevertheless, the applicants are expected to explain the feasibility and appropriateness of the working arrangements by coming up with ideas on how to spend time together in ways that best suit the aims and goals of their research in order to convince the reviewing panels (or reviewers) about the outstanding and exceptional work together.

As with any other frontier research funded by the ERC, research proposals are expected to be risky. It remains important, however, that the risk and how it will be managed is well thought through and explained in the proposal.

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<sup>5</sup> Research proposals within the scope of Annex I to the Euratom Treaty, namely those directed towards nuclear energy applications, shall not be submitted to ERC calls but to relevant calls under the Euratom Framework Programme.

## Evaluation and Peer Review

The ERC's evaluation process is conducted by peer review panels composed of renowned scientists and scholars. The panels may be assisted by independent experts working remotely. The panel chairs and members have been selected by the ERC Scientific Council on the basis of their scientific merits.

The peer reviewers are asked to look at the **quality of the science proposed, the synergy, working arrangements and risk** when assessing the excellence of the proposal.

## Open Access

The ERC supports the principle of open access to the published output of research, including research data and data related products. Applicants should be aware that it is mandatory to provide Open Access (free of charge, online access for any user) to all peer-reviewed scientific publications relating to results from ERC projects funded through this call. In addition, the ERC recommends that all funded researchers follow best practice by retaining files of research data produced and used, and are prepared to share these data with other researchers when not bound by copyright restrictions, confidentiality requirements, or contractual clauses.

## Funding

Synergy Grant can be up to a maximum of EUR 10 000 000 for a period of 6 years. For projects of shorter duration the maximum award is reduced *pro rata*.

However, up to an additional EUR 4 000 000 can be requested to cover<sup>6</sup>:

- (a) "start-up" costs for PIs 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.

The total requested grant should reflect a realistic estimation of the project needs and should not be unnecessarily inflated to reach the maximum grant level. The evaluation panels will review the requested grant and recommend the total amount to be awarded on the basis of the needs of the project, using rounded figures. The panels may also suggest a modification to the indicative budgetary breakdown in the application but the PIs have the freedom to re-budget during the course of the project.

The ERC reimburses up to 100% of the total eligible and approved direct costs and a flat-rate of indirect costs corresponding to 25% of the total eligible direct costs<sup>7</sup>.

## Research integrity

Cases of scientific misconduct such as fabrication, falsification, plagiarism or misrepresentation of data<sup>8</sup> may result in the rejection of proposals in accordance with section 3.11 of the [ERC Rules for Submission](#). Please also note that plagiarism detection software is used to analyse all submitted proposals to detect similar proposals submitted by different PIs. A procedure has been put in place to assess alleged or suspected cases of scientific misconduct. Scientific misconduct may result in the rejection of the proposal from the current call and in a possible restriction on submission of proposals to future calls, as provided in the relevant ERC Work Programme.

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<sup>6</sup> As any additional funding is to cover major one-off costs it is not subject to pro-rata reduction for projects of shorter duration. All funding requested is assessed during evaluation.

<sup>7</sup> 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.

<sup>8</sup> For example if in the list of publications, the order of authors does not appear as indicated in the original publications.

## 1.2 ELIGIBILITY

### Eligible proposals

All proposals must be complete and submitted by eligible Principal Investigators before the foreseen call deadline, 5 November 2019. Please see [section 2.1](#) for an overview of a complete ERC proposal. All scientific fields are eligible for ERC funding<sup>5</sup>.

All applications and the related supporting information are reviewed to ensure that all eligibility criteria are met. The proposal's content should be related to the objectives of the ERC Synergy call and must meet all its eligibility requirements. Where there is a doubt about the eligibility of a proposal, the peer review evaluation may proceed pending a final decision by the eligibility review committee. The fact that a proposal is evaluated in such circumstances does not constitute proof of its eligibility. If it becomes clear before, during or after the peer review evaluation phase, that one or more of the eligibility criteria has not been met (for example, due to incorrect or misleading information), the proposal will be declared ineligible and not considered any further.

### Host institution

ERC grants are open to researchers of any nationality who intend to conduct their research activity in any EU MS or an AC. Up to four Host institutions could engage a Principal Investigator, and one of these Host Institutions, with the exception of the corresponding Host institution, at any one time, may be a legal entity established outside the European Union or Associated Countries or an international organisation.

The corresponding Principal Investigator will be the administrative contact point on behalf of the cHI, other PIs as well as other HIs. 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.

In case of Synergy Grants, 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. At submission stage, **all** Host Institutions must provide the host support letter for their Principal Investigator(s). The Host Institutions must engage the Principal Investigators for at least the duration of the grant. PIs do not need to be employed by the cHI or HI at the time when the proposal is submitted.

The corresponding HI and the other HIs must either be established as a legal entity created under national law, or 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. The ERC welcomes applications from Principal Investigators hosted by private for-profit research centres, including industrial laboratories.

Normally the PI will be employed by the HI, but cases where, for duly justified reasons, the PI's employer cannot become the HI, or where the PI 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 HI.

### Expected time commitment

PIs will be expected to spend as a minimum 30% of their working time on the ERC project and a minimum of 50% of their working time in an EU MS or AC, with the exception of the PI hosted or engaged by an institution outside of the EU or AC, if any.

PIs shall ensure a sufficient time commitment and presence throughout the course of the project to guarantee its proper execution. The time commitment will be monitored, and in cases where the actual commitment is below the minimum levels set out above, or the levels indicated in the proposal, appropriate measures may be taken, up to and including reduction of the grant and suspension or termination of the grant in accordance with the grant agreement.

It is also expected that PIs will be able to start their project within six months of receiving an invitation letter from the ERC.

### **Submission restrictions**

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, restrictions on applications have been put in place.

The following general restrictions apply:

- A researcher may participate as PI in only one ERC project at a time<sup>9</sup>. An ERC project can only start after the duration of the project fixed in a previous grant agreement has ended.
- A researcher participating as PI in an ERC project may not submit a proposal for another ERC grant, unless the existing project ends no more than two years after the call deadline<sup>10</sup> (i.e. before 5 November 2021 for Synergy applications).
- A PI 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 grant<sup>11</sup>.
- A PI may submit proposals to different ERC grant calls published under the same Work Programme, but only the first eligible proposal will be evaluated.

Additional restrictions are related to the outcome of the evaluation in previous calls (see table below). They are designed to allow unsuccessful PIs the time necessary to develop a stronger proposal. Ineligible or withdrawn proposals do not count against any of the restrictions listed below.

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<sup>9</sup> Including all PIs supported under the Synergy Grant.

<sup>10</sup> According to the duration of the project fixed in the previous frontier research grant agreement.

<sup>11</sup> The members of the ERC panels alternate to allow panel members to apply to the ERC calls in alternate years.

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 <i>not</i> eligible	
<b>2018 and 2019 Starting, Consolidator, Advanced, or Synergy Grant</b>	Rejected on the grounds of a breach of research integrity	Starting, Consolidator, Advanced and Synergy
<b>2018 Starting, Consolidator, or Advanced Grant</b>	C at step 1	Starting, Consolidator and Advanced
<b>2018 Synergy Grant</b>	A, or B at step 3	No restriction
	B at step 1 or 2	No restriction
	C at step 1	Advanced and Synergy Grant
<b>2019 Starting, Consolidator, or Advanced Grant</b>	A, or B at step 2	No restriction
	B or C at step 1	Starting, Consolidator and Advanced Grant
<b>2019 Synergy Grant</b>	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

The year of an ERC call refers to the WP under which the call was published and can be established by its call identifier. A 2020 ERC call is therefore one that was published under the WP 2020 and will have 2020 in the call identifier (for example ERC-2020-SyG).

### 1.3 EVALUATION PROCESS

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 panels. The panels will be assisted by independent experts working remotely. These ERC panels assess and score the proposals on the basis of the individual evaluations and on the panel discussion which follows them. The panels are not predefined at the beginning of the evaluation. The panel members and the proposals belong to a single panel. The composition of the panels at step 2 and step 3 is by nature multi-disciplinary to accommodate a proper evaluation of multidisciplinary and complex proposals.

As there are no predefined panels, and to facilitate the allocation of proposals to the right experts, the applicant corresponding PI (cPI) has to indicate between four and six fixed keywords. These keywords are the same as the ones used in the ERC Starting, Consolidator and Advanced Grants and given in [Annex 4.1](#) of this guide. There is no hierarchical order of the selected keywords. The fixed keywords and free keywords and the abstract of the proposal are analysed together to ensure the best expertise for each proposal. It is the corresponding PI's responsibility to choose and indicate the most relevant keywords for the evaluation of the proposed research. The allocation of the proposals to the various panels in step 2 and step 3 will be done by grouping proposals based on their research areas and the expertise of the panel members.

The names of the five panel chairs are published on the ERC website before the deadline of the call, while the names of panel members are published only after the evaluation process is concluded.

#### **No Contact allowed with Peer Reviewers**

Please, note that in accordance with section 3.2 of the ERC Rules for Submission, any direct or indirect contact about the ERC peer review evaluation between an applicant legal entity or a PI submitting a proposal on behalf of an applicant legal entity, and any independent expert involved in the peer review evaluation under the same call, in view of attempting to influence the evaluation process, is strictly forbidden. Such contact can constitute an exclusion situation and, if this situation is established in accordance with Article 136(2) of the Financial Regulation, will result in the decision to reject the proposal concerned from the call in question.

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

**Step 1:** The extended synopsis and the Principal Investigators' track records and CVs will be assessed (Part B1 only, and not the full scientific proposal) by the whole pool of panel members in one panel from a generalist perspective. After a remote evaluation phase in which each proposal is reviewed by minimum three reviewers, the panel chairs and vice chairs meet in Brussels to discuss all proposals submitted to the Synergy Grant call and to select those passing to step 2. 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. In this first step the panel's indicative budget corresponds to the call's budget of EUR 350 Million for the Synergy 2020 call.

**Step 2:** The complete version of the retained proposals will be assessed (Parts B1 and B2). Five panels will be formed right after the step 1 filtering to ensure the best expertise using the whole pool of the step 1 panel members. External specialized reviews will complement the generalist reviews of the panelists. The five panels will have around 15-18 experts in each panel (roughly 2 physical Sciences, 2 Life sciences, 1 Social sciences and humanities oriented panels). At the end of the remote individual assessment the five panels meet in Brussels. Proposals will be retained for step 3 based on the outcome of the evaluation at step 2 and on a budgetary cut-off level of up to three times the panel's indicative budget. An indicative budget in step 2 is allocated to each panel in proportion to the budgetary demand of its assigned proposals.

**Step 3:** Following the step 2 evaluation the applicants will receive an invitation letter detailing the format and the length of the interview. All Principal Investigators of the proposals selected for interviews will be invited to present their proposal to the interview panel in Brussels. A minimum of three and a maximum of five panels would interview the applicants in parallel. The composition of the panels might be different from the panels at step 2. These panels may not be the same panels as in step 2. The interview details will depend on the decision of the panels: interviews can last around 45 minutes in total. The panel may ask the applicants to give, a 10-15 minute presentation on the proposed research project. The remaining time may be devoted to questions and answers on the scientific content and implementation of the project, modalities of collaboration among the principal investigators and the project's budget and resources, and so on. The presentation is an opportunity to elaborate on the synergies that the project aims to create. The interviews are planned for the second week of September 2020 (7 to 10). Please check the ERC website for any changes.

The resources requested by the applicants will be scrutinized and can be adjusted if not sufficiently justified. 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.

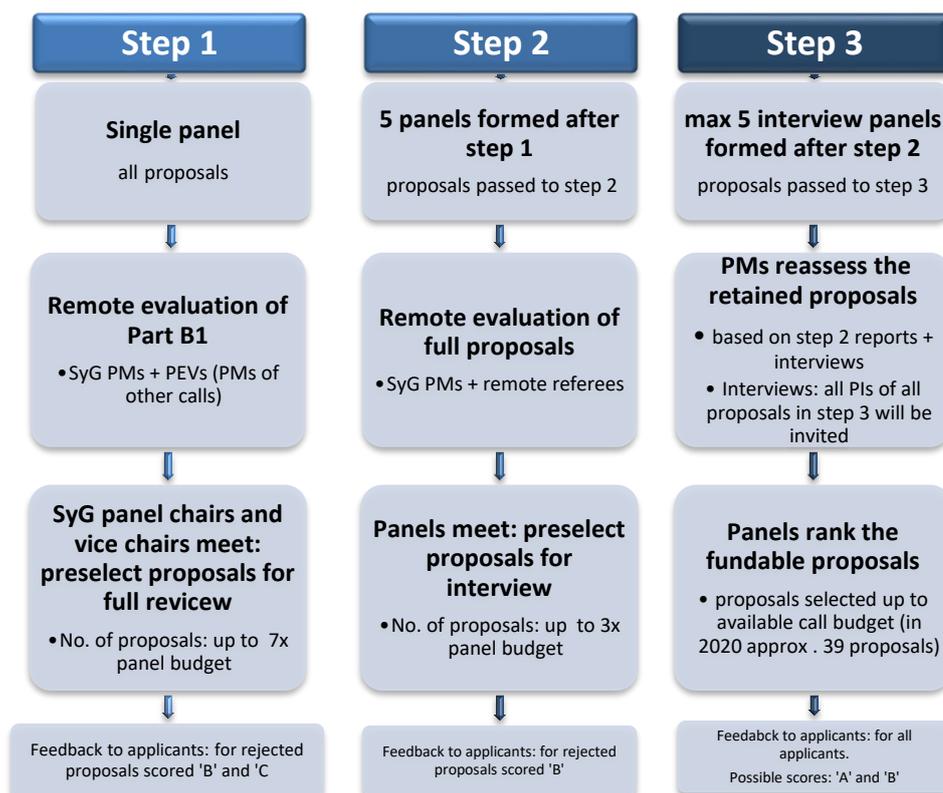
**All Principal Investigators should be present at the interview.** If, in very exceptional cases, a Principal Investigator from the group is unable to attend the interview (e.g. pregnancy, immobility due to illness, expedition), two alternatives for a remote interview are offered:

- Video-conference: A video-conference room has been booked for the duration of the interviews and can be used by panels provided the interviewee also has access to a matching facility. A specific schedule will be established depending on the needs.
- Telephone-conference: A telephone (with loudspeaker) will be available in each meeting room to ensure the possibility of a telephone interview.

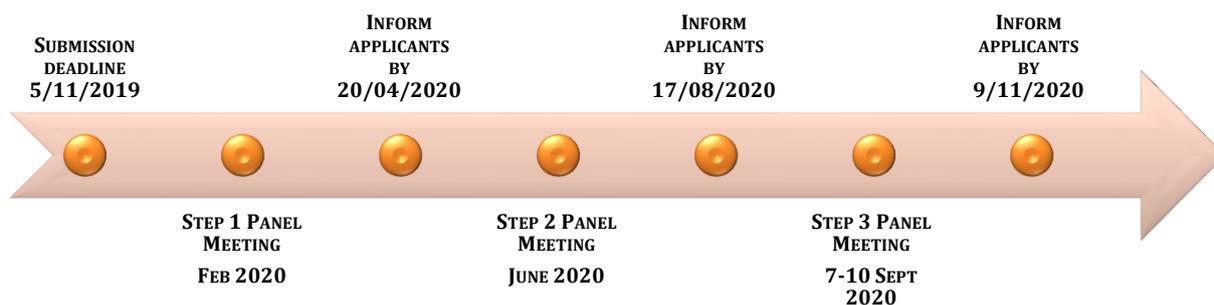
Note that it is difficult to accommodate a preference for a particular day within the panel meeting week. The schedules of the interviews in all the panels are interconnected, which limits the possibility of any change.

If experts are unable to attend the interview in person, subject to technical feasibility, they may participate in the panel meeting by electronic means (video-conferencing or telephone-conferencing).

In view of the confidentiality of the evaluation process, applicants invited to a step 3 interview should not share the identity of panel members within their scientific communities until their names have been published on the ERC website.



**Figure 1** shows the schematic representation of the 2020 evaluation process. PM: panel member; PEV: panel evaluator. PEV is an ERC term used for panel members of the other ERC frontier calls reviewing ERC SyG proposals.



**Figure 2:** Timeline of the Synergy 2020 evaluation. The time to inform the applicants corresponds to indicative dates when the applicants receive the evaluation report.

### Outcome of evaluation and feedback to applicants

At each evaluation step, the reviewers will evaluate the quality of the research project and the Synergy group. The panels will look into the ground-breaking nature, the synergetic aspects, ambition and feasibility of the research project; and the intellectual capacity, creativity and commitment of the Principal Investigators (see the evaluation criteria below). Following the timeline described above, the ERCEA provides feedback on the final decision of the evaluation through an 'Information letter' to the PIs and the Host Institutions (applicant legal entities) via the EU Login secured web-mail account accessible on the [F & T](#) portal. Besides the information letter, an evaluation report will be provided to all PIs and all HIs' contact person(s). This indicates whether the proposal meets the quality threshold and is retained, and provides the score, ranking range and corresponding comment given by the panel as well as the comments given by the individual reviewers.

Please note that the comments by the individual reviewers may not necessarily be convergent – controversy and differences of opinions about the merits of a scientific proposal are part of scientific debate and are legitimate.

Furthermore, the ERC panel may take a position that is different from what could be inferred from the comments of the individual reviewers. This is the case for example, if the panel discussion reveals an important weakness in a proposal that had not been identified by the individual reviewers. The panel comment reflects the consensus decision taken by the panel as a whole based on prior remote individual assessments from independent reviewers, which can be remote referees as well as panel members, and on a thorough discussion as well as on the ranking against other proposals during the panel meeting.

At the end of each step the proposal will receive one of the following scores:

#### Step 1

**A score** - is of sufficient quality to pass to step 2 of the evaluation,

**B score** - is of high quality but not sufficient to pass to step 2 of the evaluation<sup>12</sup>,

**C score** - is not of sufficient quality to pass to step 2 of the evaluation (see footnote 12).

Only the applicants not retained for step 2 receive the evaluation results including an evaluation report.

<sup>12</sup> The applicants may 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.

## Step 2

**A score** - is of sufficient quality to pass to step 3 of the evaluation,

**B score** - is of high quality but not sufficient to pass to step 3 of the evaluation (*see footnote 12*)

Applicants who receive an A score are invited for an interview to present their project at the step 3 panel meeting in Brussels<sup>13</sup>. The rejected applicants will receive the evaluation results, including an evaluation report. The passed applicants will receive two notifications: the first one that they have passed to step 3 and a second one specifying the interview requirements.

## Step 3

**A score** - fully meets the ERC's excellence criterion and is recommended for funding if sufficient funds are available;

**B score** - meets some but not all elements of the ERC's excellence criterion and will not be funded.

The step 3 evaluation outcome is provided to all applicants through an information letter together with an evaluation report. It includes the final score, the panel ranking range of their proposal, the panel comment explaining the panel decision as well as the individual comments prepared by each reviewer in the remote phase of step 2.

## Evaluation criteria

Excellence is the sole criterion of evaluation. It will be applied to the evaluation of both the Principal Investigators and the group's research project.

### 1. Research Project - Ground-breaking nature, ambition and feasibility

#### ***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 higher-than-normal 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 at step 1]?*
- *To what extent does the proposal go beyond what the individual Principal Investigators could achieve alone [based on the Extended Synopsis at step 1]?*
- *To what extent is the combination of scientific elements put forward in the proposal crucial to address the scope and complexity of the research questions [based on the Extended Synopsis at step 1]?*
- *To what extent are the proposed research methodology and working arrangements appropriate to achieve the goals of the project [to be assessed at step 2 and step 3 based on Parts B1 and B2]?*
- *To what extent does the proposal involve the development of novel methodology [to be assessed at step 2 and step 3 based on Parts B1 and B2]?*

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<sup>13</sup> Please note that the ERC will reimburse the PIs' travel expenditures for the interview in Brussels (see Commission Decision C(2007) 5858). Should a planned interview not be possible for reasons beyond the control of the ERCEA, the panel will have to take its decision based on the information made available to it.

- *To what extent are the proposed timescales, resources and PI commitments adequate and properly justified [to be assessed at step 2 and step 3 based on Parts B1 and B2]?*

## **2. Principal Investigator - Intellectual capacity and creativity**

### ***Intellectual capacity and creativity***

- *To what extent have the PIs demonstrated the ability to propose and conduct ground-breaking research?*
- *To what extent do the PIs have the required scientific expertise and capacity to successfully execute the project?*
- *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 [to be assessed at step 2 and step 3 based on Parts B1 and B2]?*

## **1.4 ETHICS REVIEW**

Please see Annex A to [the ERC Rules for Submission](#) for a detailed description of the ERC Ethics Review procedure. Ethics assessment is independent of the evaluation procedure and the evaluation panels do not have access to the ethics documents.

The ethics review process concerns all projects funded by the ERC in Horizon 2020. The applicants should pay particular attention to the ethical aspects of the proposed work and should submit all ethics documentation available for their proposal.

The process is aimed at ensuring that the Article 19 of [Horizon 2020 Framework Programme](#), and Articles 13 and 14 of the [Rules for Participation](#) are implemented and, in particular, that all the research and innovation activities under Horizon 2020 comply with ethics 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.

The main areas that are addressed during the ethics review process include:

1. Human protection (including study participants and researchers)
2. Animal protection and welfare
3. Data protection and privacy
4. Environment protection
5. Participation of non-EU countries
6. Malevolent use of research results

When submitting their proposal, applicants must complete the Ethics Issues Table which is section 4 of the online proposal submission forms and submit an ethics self-assessment (separate annex) if they answer yes to one or several questions in the Ethics Issues Table. Please see [Ethics Self-assessment step by step](#) document for guidance.

If the proposal is retained for funding, further to the outcome of the ethics review process, the Host Institutions and the Principal Investigators receive a copy of the ethics report (the document is unsigned so as to preserve the anonymity of the experts).

Please include any supporting documentation, such as any authorisation you may already have. This will allow a more effective ethics clearance and an accelerated granting process<sup>14</sup>. Please upload any related documents or annexes in the submission system as specified in section 2.4 of this document.

**Applicants should be aware that no grant agreement can be signed by ERCEA prior to a satisfactory conclusion of the ethics review procedure.**

If a proposal is rejected because of ethics considerations, the applicants are informed of the grounds for such a decision and the means to address enquiries and complaints.

The European Commission has set up a [dedicated website](#) that aims to provide helpful information on ethics issues.

## 1.5 MEANS OF COMPLAINT

Please see the section 3.9 of the [ERC Rules for Submission](#) for a detailed description of the enquiries and complaints and evaluation review procedures.

Upon reception of the information letter with the evaluation report or with the results of the eligibility review, the corresponding PI and/or the corresponding HI (corresponding applicant legal entity) may introduce a **complaint against the rejection on the grounds of ineligibility or a request for an evaluation review**, if there is an indication that the results of the eligibility checks were incorrect or that there has been a procedural shortcoming or a manifest error of assessment.

A complaint can be made if the PIs and/or the HI consider that the assessment of the eligibility and/or evaluation of their proposal has not been carried out in accordance with the procedures set out in the Rules for Participation, the relevant ERC Work Programme, call for proposals or the ERC Rules for Submission. The evaluation review procedure is not meant to call into question the scientific judgement made by the peer review panel. It will look into procedural shortcomings and – in rare cases – into factual errors.

The information letter will provide a link to be used by the cPI and/or the cHI to introduce a complaint. The letter will specify a deadline for the receipt of any such complaints, which will be 30 days from the date of receiving the information letter.

Complaints must be:

- Related to the evaluation process, or eligibility checks, for the call and grants in question;
- Set out using the online form, including a clear description of the grounds for complaint;
- Received within the time limit specified in the information letter;
- Sent by the corresponding PI and/or the corresponding HI.

An acknowledgment of receipt will be sent to complainants no later than two weeks after the deadline for submitting the complaint. This acknowledgement of receipt will indicate the estimated date of a definitive reply.

A redress committee may be convened to examine the eligibility or evaluation process for the complaint. The redress committee will bring together staff of the ERC Executive Agency with the requisite scientific, technical and legal expertise. The committee's role is to ensure a coherent interpretation of requests, and fair and equal treatment of applicants. During the evaluation review procedure, the committee itself, however, does not re-evaluate the proposal. Depending on the nature of the complaint, the committee may review the evaluation report, the individual comments and examine the CVs of the experts. The committee will not call into question the scientific judgement of appropriately qualified panels of experts. In the light of its review, the committee will

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<sup>14</sup> A full description of the Ethics Review is provided in the [ERC Rules for the submission](#) of proposals and the related evaluation, selection and award procedures relevant to the H2020 Specific Programme.

recommend a course of action. If there is clear evidence of a shortcoming that could affect the eventual funding decision, it is possible that all or part of the proposal will be re-evaluated.

Please note:

- A re-evaluation will only be carried out if there is evidence of a shortcoming that affects the quality assessment of a proposal. This means, for example, that a problem relating to one evaluation criterion will not lead to a re-evaluation if a proposal has failed anyway on the other criteria.
- The evaluation score following any re-evaluation will be regarded as definitive. It may be lower than the original score.
- Only one request at a time for evaluation review per proposal will be considered by the committee.
- All requests for evaluation review will be treated in confidence.

The above procedure does not prevent the applicants from resorting to any other means of seeking redress such as lodging an appeal to the Commission in accordance with Article 22<sup>15</sup> of Council Regulation 58/2003, or filing an action for annulment under Article 263<sup>16</sup> of the Treaty on the Functioning of the European Union (TFEU) before the Court of Justice of the European Union for a decision affecting a person or legal entity. PIs and applicant legal entities will have to choose either one or several of these means of redress, and they are not obliged to pursue one before another. These channels are also available to applicants who wish to register a complaint after the deadline mentioned above.

Applicants are asked not to take more than one formal action at a time. They are asked to wait for the final decision of the Agency/Commission before taking any further action. Deadlines for further action will start to run from when applicants receive the reply to their complaint (final decision)<sup>17</sup>.

## 1.6 QUESTIONS RELATED TO THE CALL

An extended set of Frequently Asked Questions (FAQs) for the ERC calls is available at the [ERC website](#). They can be filtered by calls or categories, and answers the most common questions for how to prepare and submit an ERC application.

For additional questions related to the call, please contact the relevant Call coordination team:

[ERC-SYG-APPLICANTS@ec.europa.eu](mailto:ERC-SYG-APPLICANTS@ec.europa.eu)

For questions related to the compilation of the Ethics issues of the proposal, please contact the Ethics Support team: [ERC-ETHICS-REVIEW@ec.europa.eu](mailto:ERC-ETHICS-REVIEW@ec.europa.eu)

For questions on Open Access please see Article 29.2 of the [ERC Model Grant Agreement](#) or contact [ERC-OPEN-ACCESS@ec.europa.eu](mailto:ERC-OPEN-ACCESS@ec.europa.eu).

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<sup>15</sup> Council Regulation (EC) No 58/2003 of 19 December 2002 laying down the statute for executive agencies to be entrusted with certain tasks in the management of Community programmes (OJ L 11, 16.01.2003, p. 1)

<sup>16</sup> Treaty on the Functioning of the European Union (OJ C 326, 26.10.2012, p. 47–390).

<sup>17</sup> Please be aware that, as per Article 22 of Regulation 58/2003, reaching a final decision on an Article 22 request may generally take more than 30 days. Therefore if you first file an Article 22 request you may not be able to submit afterwards an evaluation review request within the 30 days deadline

## 2. COMPLETING AN APPLICATION

**A single submission deadline is foreseen:**

**ERC-2020-SYG: 05 November 2019, 17:00.00 (Brussels local time)**

Please note that the foreseen submission deadline could be modified after the publication of the call. You are therefore invited to periodically consult the [F & T](#) portal where any modifications of the submission deadline is indicated.

### 2.1 OVERVIEW OF AN ERC APPLICATION

An ERC application is composed of

- The administrative form (Part A),
- The research proposal (Parts B1 and B2),
- Supporting documentation ( HI support letter(s) and ethics issues)

### 2.2 THE SUBMISSION FORM

The online submission form is accessed via the call submission link in the [F & T](#) portal. The electronic form has 5 sections (approximately 15 pages in total), which need to be completed before a submission can take place. Many fields are mandatory and specific to the ERC calls and we therefore advise you to create your draft proposal well in advance of the submission deadline. **All mandatory fields are marked in red if left empty. Failure to fill in any mandatory field will block submission.**

**1 – General Information** contains information about the research proposal, including the project duration, title, acronym and abstract. Furthermore, in this section you will select the four to six ERC keywords which you believe best fit to the scientific proposal. **There is no hierarchical order of the selected keywords and they are not linked to predefined panels, i.e. keyword 1 is equally weighted with keywords 2 to 6. The keywords are used to best allocate proposals to experts.** The abstract should provide a clear understanding of the objectives of the research proposal and how they will be achieved. The abstract will be used as a short description of your research proposal in the evaluation process. Please note that in case your proposal is funded this abstract will be published. It must therefore be short and precise and should not contain confidential information. This section also contains general declarations related to the proposal and participation in H2020<sup>18</sup>.

**2 – Participants & contacts** contains information about the PIs and the HIs. Separate sections will appear for each Principal Investigator and beneficiary. The name and e-mail of contact persons including the PIs and HIs contacts are **read-only in the forms**. To give access rights to the proposal and change contact persons, the form needs to be closed and the guidance of the online submission system to be followed. Further details such as ORCID number, researcher ID, other ID, last name at birth, gender, nationality etc., should be filled for the PIs as well as the address and telephone number of each contact person. The PIs mobile number is an essential information for the step 3 interview logistics.

**3 – Budget** contains a summary of the total estimated project costs and the requested EU contribution for the project. The costs are given in whole Euros (not kilo Euros). The figures should match the corresponding figures in the detailed Part B2 budget table. Note that in the administrative form the budget lines appear by beneficiary organisation. Only in part B2 it is possible to detail the budget for each PI. As the project costs and the ERC contribution request is specified both in the

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<sup>18</sup> Please note that we may request the corresponding Principal Investigator to provide the written consent of all participants in the proposal at any time during the evaluation process. These consents should however not be submitted with the application, but should be have been obtained before the call closure.

Administrative form and in Part B2, please make sure that the figures in both places are aligned. Please refer to [section 2.3](#) below for further instruction on how to draw up the budget. **Please ensure that all costs are given in whole Euros (integer), not thousands of Euros.**

**4 – Ethics issues** serves to identify any ethical aspects of the proposed work. This table has to be completed even if there are no issues (simply confirm that none of the ethical issues apply to the proposal). Please note that, in case the answer is YES to any of the questions, you are requested to provide an Ethics Self-Assessment and additional ethics documentation, if applicable, as detailed in the [Ethics Self-assessment step by step](#) Please refer to [section 1.4](#) for further details.

**5 – Call-specific questions** contains declarations related to eligibility, and permission statements on data-related questions (the data-related consents are entirely voluntary). As established in section 3.3 of the [ERC Rules for Submission](#), an applicant cPI can request on behalf of the group up to four reviewers to be excluded from the evaluation of their proposal.

## 2.3 THE RESEARCH PROPOSAL

The research proposal (Part B) consists of Part B1 and Part B2. The templates are provided in the submission system and their use is **strongly recommended**. Each proposal page **shall** carry a **header** presenting the **corresponding PI's last name**, the **acronym of the proposal**, and the reference to the respective proposal section (**Part B1** or **Part B2**).

The following parameters **must** be respected for the layout:

Page Format	Font Type	Font Size	Line Spacing	Margins
A4	Times New Roman Arial or similar	At least 11	Single	2 cm side 1.5 bottom

In fairness to all applicants, the **page limits will be strictly applied**. Only the material that is presented within these limits will be evaluated. Peer reviewers will only be asked to read the material presented within the page limits, and will be under no obligation to read beyond them<sup>19</sup>.

Please be aware that at step 1 of the evaluation only Part B1 is evaluated by the panel members, while at step 2 and 3 both Parts B1 and B2 are evaluated.

When drafting Part B1, PIs should pay particular attention to the extended synopsis (section a) and should not consider it as simply complementing Part B2. It is important that the extended synopsis contains all relevant information including the **feasibility of the scientific proposal and synergetic aspects**, since the panel will only evaluate Part B1 at step 1, without access to Part B2.

The panel members are asked to act as generalists when evaluating the proposals at step 1. Thus, their expertise will have to cover a wide range of proposals within a research field. For this reason and the fact that panel members evaluate only Part B1 at step 1, PIs should ensure that Part B1 is as complete and detailed as possible. In addition to the panel members, the ERC evaluations rely on input from remote referees. They are scientists and scholars who bring in the necessary specialised expertise. Remote referees work remotely and deliver their individual assessments by electronic means. They do not participate in panel meetings and normally their involvement is limited to step 2 of the evaluation process.

<sup>19</sup> The working language of the ERC evaluation panels is English. Please note that accordingly, the evaluation reports will be available in English only. If the proposal is not in English, the ERCEA will provide a version of the proposal translated using computer-aided technology. An English translation of the abstract must be included in the proposal.

## Part B1

### Cover page:

Proposal full title

Proposal short name (acronym)

Name of the corresponding PI (cPI)

Name of the corresponding Host institution (cHI)

List of the other participating PIs, indicating their respective Host Institutions

Proposal duration in months

Proposal abstract (half page, must be a copy/paste of the abstract from the administrative form section 1)

### The Research Proposal: Part B1 – section a, b and c:

**a. *Extended Synopsis of the scientific proposal* (max. 5 pages) - References should be included; they do not count towards the page limits.**

The Extended Synopsis should give a concise presentation of the scientific proposal, with particular attention to the ground-breaking nature of the research project and the feasibility of the outlined scientific approach. Describe the proposed work in the context of the state of the art of the field. References to literature should also be included. **It is important that this extended synopsis contains all relevant information including synergetic aspects, some details about working arrangements to be able to assess the feasibility of the scientific proposal since the panel will only evaluate Part B1 at step 1.**

#### The Principal Investigators

**Each of the Principal Investigators must provide a list reflecting their track record.** This can be either an 'early achievement track-record' (for PIs within 2-7 and 7- 12 years after their PhD) or a '**10-year track-record**' (for advanced researchers) chosen by the applicants based on which is most appropriate for their career stage.

The evaluation experts will be instructed to judge each PI against the benchmarks relevant to their career stage.

**b. Curriculum Vitae (max. 2 pages for each PI):**

The CV **should include the standard academic and research record.** A suggested outline is available in the Part B1 downloadable template. **The structure of the CV may be modified,** but the ERC recommends the use of the provided template. If applicable, please make sure that any research career gaps and/or unconventional paths which might have influenced your track record are clearly explained in the career break section of your CV so that this can be fairly assessed by the evaluation panels.

The succinct '**funding ID**', **to be completed by each PI,** which must specify any current research grants and their subject, and any on-going and submitted applications for work related to the proposal **must follow the table format indicated in the Part B1 template.** The funding ID **will not count towards the page limits** and needs to be completed with the following information for on-going grants and applications:

**Project Title, Funding source, Amount, Period, Role of the PI, Relation to ERC project** (describe any potential overlap)

**c. Track record (max. 2 pages for each PI)<sup>20</sup>:**

Each Principal Investigator is required to include, depending on their career stage, either an 'Early achievements track-record' or a '10-year track record'.

'Early achievements track-record'. Each applicant PI should list (if applicable):

1. **Publications (up to five for Starting Grant and up to ten for Consolidator Grant profile) 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 and including all authors; 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.**

'10-year track record'. Each PI must provide a list of achievements in the last 10 years (as applicable below):

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 conferences 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.***

**Part B2 sections a, b and c (max. 15 pages. References should be included –they do not count towards the page limit):**

**This part of the proposal is evaluated only in step 2 and step 3 of the peer review evaluation.**

Please use the Word-template provided online in the F & T portal Submission Page for the call. References do not count towards the page limit.

Describe in more detail the scientific, technical, and/or scholarly aspects of the project demonstrating the ground-breaking nature of the research, its potential impact and research methodology. Describe the significant synergies, complementarity and added value of the group

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<sup>20</sup> As described in the [ERC Work Programme 2020](#) sections on the profiles of the ERC Starting/Consolidator/Advanced Grant PI.

beyond the current work of the PIs to enable it to jointly achieve the project's objectives. At step 2 and 3 of the evaluation process Part B2 is evaluated together with Part B1.

**a. State of the art and objectives:** Specify clearly the objectives of the proposal, in the context of the state of the art in the field. When describing the envisaged research it should be indicated how and why the proposed work is important for the field, and what impact it will have if successful, such as how it may open up new horizons or opportunities for science, technology or scholarship. Specify any particularly challenging or unconventional aspects of the proposal, including multi - or interdisciplinary aspects.

**b. Methodology**

Describe the proposed methodology in detail including, as appropriate, key intermediate goals. Explain and justify the methodology in relation to the state of the art, including any particularly novel or unconventional aspects addressing 'high-risk/high-gain' balance. Highlight any intermediate stages where results may require adjustments to the project planning. In case it is proposed that team members engaged by other organisations than the Host Institution(s) participate in the project, their participation has to be fully justified. This should be done emphasizing the scientific added value they bring to the project.

**c. Resources** (incl. project costs) – this section does not count towards the page limit.

**It is strongly recommended to describe adequately the resources needed for each PI and to use the budget table template included in Part B2** to facilitate the assessment of resources by the panels. For detailed information on eligible- and non-eligible direct and indirect costs as well as the different cost categories applicants should consult the H2020 ERC Model Grant Agreement and the H2020 ERC Annotated Model Grant Agreement Please use whole euro integers only when preparing the budget table.

State the amount of funding considered necessary to fulfil the objectives for the duration of the project. **The resources requested should be reasonable and fully justified in the proposal.** The requested grant should be in proportion to the actual needs to fulfil the objectives of the project.

Specify briefly the commitment of each PI to the project and how much time each PI is willing to devote to the proposed project. Please note that each PI is expected to devote at least 30% of their working time to the ERC-funded project.

Describe the size and nature of the Synergy group, indicating, where appropriate, the key team members and their roles. The participation of team members engaged by another institution should be justified in relation to the additional financial cost this may impose to the project. Take into account the percentage of each PI's dedicated time to run the ERC funded activity when calculating the personnel costs.

Specify any existing resources that will contribute to the project. Describe other necessary resources, such as infrastructure and equipment. It is advisable to include a short technical description of the equipment requested, a justification of its need as well as the intensity of its planned use. When estimating the costs for travel, please also consider participation of the PIs and team members in conferences and dissemination events.

The terms and conditions laid down in the article 29.2 of the ERC Annotated Model Grant Agreement address how scientific publications must be made available through Open Access. Applicants should be aware that it will be mandatory to provide **Open Access** (free of charge, online access for any user) to all peer-reviewed scientific publications resulting from ERC projects funded through this call. Open Access can be ensured through green or gold Open Access-routes, and Open Access must in any case be ensured through a repository at the latest 6 months after publication (12 months for publications from the Social Sciences and Humanities). Please see Article 29.2 of the H2020 ERC Model Grant Agreement for more details, or contact [ERC-OPEN-ACCESS@ec.europa.eu](mailto:ERC-OPEN-ACCESS@ec.europa.eu).

Costs for providing immediate Open Access to publications (article processing charges) are eligible and can be charged against the ERC grant if they are incurred during the lifetime of the project. When drafting the budget, it is highly advisable to consider the need to include such expenditure, and if that is the case, to make a realistic estimation of the amount needed. In addition, the ERC recommends that all funded researchers follow best practice by retaining files of research data produced and used, and are prepared to share these data with other researchers when not bound by copyright restrictions, confidentiality requirements, or contractual clauses.

Costs related to data management can also be eligible.

**Budget tables.** Please use the budget table template provided in part B2 form. The ERC funds up to 100% of the total eligible costs. **The costs are given for the full project duration**<sup>21</sup>. Each PI is required to fill in their budget breakdown. Include the direct costs of the project plus a flat-rate financing of indirect costs calculated as 25% of the total eligible direct costs (excluding subcontracting) towards overheads. Furthermore, include a breakdown of the budget subdivided in personnel costs, travel, equipment, consumables, publication costs (including any costs related to Open Access), other direct costs, and any envisaged subcontracting costs.

If additional funding, above the normal (EUR 10 000 000), is requested for (a) covering eligible 'start-up' costs for a PI moving from another country to the EU or an Associated Country (*see footnote 3*) as a consequence of receiving an 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, then this also needs to be fully justified. Please note that any additional funding request under (a), (b) or (d) may be subject to 25% overhead. The request of additional funding under (c) to access facilities owned by a third party<sup>22</sup> and not used on the premises of the beneficiaries should be listed in cost category 'C2. Other Direct Costs with no overheads'. Include the additional costs in the budget tables as well.

The costs are given for the full duration. A breakdown by reporting period is not requested for the evaluation process. The 'Total estimated eligible costs' as well as the 'Total requested grant' figures should be equal to those inserted in the online proposal submission forms (section 3 – Budget). In case the total costs differ from the requested grant, it should be specified on the proposal what exactly is funded from other sources.

**The project cost estimation should be as accurate as possible. The evaluation panels assess the estimated costs carefully; unjustified budgets will be consequently reduced.**

For more information on eligible- and non-eligible direct and indirect costs as well as the different cost categories, applicants should consult the [H2020 ERC Model Grant Agreement](#) and the [H2020 ERC Annotated Model Grant Agreement](#)<sup>23</sup>

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<sup>21</sup> The maximum award is reduced pro rata *temporis* for projects of a shorter duration than 72 months (e.g. for a project of 60 months duration the maximum requested EU contribution allowed is EUR 8 333 333). Additional funding to cover major one-off costs is not subject to pro-rata *temporis* reduction for projects of shorter duration (e.g. with additional funding it is possible to request a maximum EU contribution of EUR 12 333 333 million for a project of 60 months duration).

<sup>22</sup> Please consult the [H2020 ERC Model Grant Agreement](#) – Article 11 and 12

<sup>23</sup> Applicants should pay special attention to the cost category 'Direct costing for Large Research Infrastructures'. The cost category will only be applicable for PIs who are hosted by institutions with Large Research Infrastructures of a value of at least EUR 20 million and **only** after having received a positive ex-ante assessment from the Commission's services. This cost category should only be used for costs to access large research infrastructures inside the premises of and owned by the participating organisations. Please refer to the [ERC Model Grant Agreement](#), pp. 92 to 102.

## 2.4 SUPPORTING DOCUMENTATION

A scanned copy of the following supporting documentation needs to be submitted with the proposal by uploading electronically in PPSS in PDF format (they do not count towards the page limits):

- **Host Institution support letter(s):** Each Host Institution (applicant legal entity) must confirm its association with and its support to the project and the Principal Investigator(s) it intends to host. As part of the application each Host Institution must provide a binding statement that the conditions of independence are already fulfilled or will be provided to their PIs, if the application is successful. The Host Institution support letter (template available in the submission system or please see [Annex 4.2](#) to this document) needs to be printed on the official letterhead of the HI, originally signed, stamped and dated by the institution's legal representative. Proposals that do not include this institutional statement may be declared ineligible.
- Documents related to the ethics review (i.e. **ethical self-assessment** and supporting documentation). Where necessary, the beneficiary(ies) shall provide a written confirmation that it has received (a) favourable opinion(s) of the relevant ethics committee(s) and, if applicable, the regulatory approval(s) of the competent national or local authority(ies) in the country in which the research is to be carried out. Such documentation must be provided to the ERCEA at the latest during the ethics review. If such documentation is available and provided with the application at submission stage, it may help speed up the ethics review process following evaluation

Copies of official documents can be submitted in any of the EU official languages. **Document(s) in any other language must be provided together with a certified translation into English or in any other official EU language.**

Please provide only the Host Institution support letter(s) and documents relating to ethics review as requested above. They should be uploaded in the submission system as separate pdf documents. These annexes do not count towards the maximum page limits for the proposal. Unless specified in the call, any hyperlinks to other documents, embedded material, and any other documents (company brochures, supporting documentation, reports, audio, video, multimedia etc.) will be disregarded. Experts will not have access to any supporting documentation during the evaluation.

## 3. SUBMITTING AN APPLICATION

### 3.1 IMPORTANT INFORMATION BEFORE YOU BEGIN

- Regularly consult the F & T portal call page for updated information on the calls.
- Make sure that the personal information added in the Submission form is accurate as this information is used to personalise the communications to applicants and the Evaluation Reports.
- In case of technical problems with the submission system please contact **DIGIT-EFP7-SEP-SUPPORT@ec.europa.eu** or get in touch with the **SEP helpdesk** directly on **+32 (2) 29 92222** to receive immediate assistance.
- Registration and submission via the F&T portal submission system should be done as early as possible and well in advance of the call deadline. Applicants, who wait until shortly before the close of the call to start uploading their proposal, take a serious risk that the uploading will not be concluded in time and thus the 'SUBMIT' button will not be active anymore in order to conclude the submission process.
- **Only the person starting the proposal will have the right to manage the access rights of other people to the proposal.** The person who creates the proposal will be able to modify any parts of the proposal and to submit it. Further contacts will only be able to edit the parts related to their personal data.
- Be aware that **only one person should work on the forms at any given time.** If two persons work on the forms at the same time, in case of a save conflict, the last save wins, which means that you risk overwriting changes made by another contact person if you are working in parallel. We therefore recommend that you give 'read-only' access to your fellow PIs/partners/additional contact persons (other contacts) unless it is absolutely necessary to grant full access. Please remember that the Main administrative contact person has full access – it is not possible to grant them 'read-only access'.
- **Up to the call deadline it is possible to re-edit, download or withdraw a proposal. The last version of your proposal submitted before the deadline is the one which will be evaluated;** no later version can be accepted and no earlier version can be recovered from the submission system. Once the deadline has passed, no further additions, corrections or resubmissions are accepted. However, a read-only access to the submitted proposal is available for 90 days after the call deadline.
- **Do submit your proposal as early as possible** (at least 48 hours prior to the deadline of the call) to avoid being confronted with last issues shortly before the call deadline. There is no reason in delaying the submission for confidentiality concerns as the system does not allow any access to the proposals before call deadline (other than to selected data that is part of the Submission and Evaluation of Proposals Assent Disclaimer).
- In some rare occasions the proposal may be altered while converted into a PDF file. Before uploading the file, please check that everything is correct. Additionally, please download and verify all uploaded files in due time before the submission deadline.
- Submission is deemed to occur only if the submission sequence described in Section 3 .2. of this document has been followed and not when the applicant starts uploading the proposal.

### 3.2 HOW TO APPLY

ERC grant applications can only be submitted in response to a 'call for proposals' and only via the Electronic Submission Service. Calls announced in the ERC Work Programme 2020 are published on the [ERC website](#), the [F & T](#) portal, and in the [Official Journal](#) of the European Union.

## USER GUIDANCE

- proposals must be submitted electronically using the electronic submission system of the web-based [F & T](#) portal<sup>24</sup>;
- the [user guide](#) of the Submission Service is available online;
- the '[IT HOW TO](#)' wiki site provides an online IT manual with screenshots;
- the F & T portal H2020 [Online Manual](#) describes the standard process of proposal submission.

The submission of a proposal includes 6 steps. For each submission step please find below links to a short guide including a quick demo<sup>25</sup>.

### Step 1 and 2 – Logging in and Selecting a Topic

To be able to submit a proposal and, in general to login to the F & T portal, you must first register an EU Login account (Step 1). Each time you access the proposal for editing, this user ID is requested. The same user ID is used for all later interactions with the ERCEA, including notification of the results of the evaluation<sup>26</sup>. Under 'Search Topics' you may search for 'ERC' to select an open ERC call (step 2). Soon after the opening of the call you may access the Electronic Submission Service via the F & T portal call page. The 'Start Submission' button is available in the 'Submission Service' section of the call. When you click 'Start Submission' and confirm the call selection, you arrive to step 3 – Create a Draft proposal.

### Step 3 – Create a draft proposal

At this step, you fill in pre-registration data for the proposal. These details will be used by the ERCEA in order to plan the evaluation. You will not have access to this page again once it is completed and you have progressed to Step 4, but certain data, such as Acronym and Short Summary (abstract) can be modified at a later stage (at step 5, when editing the administrative form). **Be careful to choose the correct Participant Identification Code (PIC) number for your corresponding Host Institution.** An [online tool](#) is available to search for existing PICs and the related organisations. Organisations not yet having a PIC must self-register (via the same page) before submitting the proposal.

When registering, please select carefully the type of contact person you are:

Corresponding Principal Investigator, Main Administrative Contact person, Principal Investigator or Contact person (e.g. additional contact person or team-member) can be chosen.

**We advise that either the corresponding Principal Investigator or the Main Administrative contact person (the administrative person on behalf of the corresponding Host Institution) start creating a proposal.**

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<sup>24</sup> In duly justified exceptional circumstances the ERCEA may authorise submission on paper.

<sup>25</sup> The Electronic Submission Service is used across all the funding schemes of the European Commission, thus the guidelines provided may contain a nomenclature which is not specific for the ERC funding schemes (e.g. there is no such a thing as 'Consortium' in any of the ERC grants funding schemes). Thus for the correct nomenclature, please refer to this document.

<sup>26</sup> Further details are available here: <https://webgate.ec.europa.eu/cas/eim/external/help.cgi>

**Your Role**

Please indicate your role in this proposal

Corresponding Principal Investigator

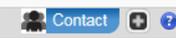
Main Administrative contact person

Principal Investigator

Contact person

**The person who starts drafting the proposal will have an influence on the subsequent steps. Only the person starting the proposal will have the right to manage the access rights of other people to the proposal at Step 4. The person who creates the proposal will have the 'coordinating' role, and alongside other people at the corresponding Host Institution with a designated coordinating role, will be able to modify any parts of the proposal and to submit it. Further contacts or PIs at other Host Institution will only be able to edit the parts related to their personal data or their Host Institution (have 'full access' rights to their parts).**

#### Step 4 – Manage your related parties and/or Edit contact details

Here you define the Host Institutions and, if applicable, you may add additional partner organisations. After defining a Host Institution by clicking on the  button you identify the Principal Investigators linked to it and the administrative contact person(s). You can see the name and details of the corresponding Host Institution (always participant number '1') and the name of the person who created the draft proposal. At this step, you can:

- **add the Main administrative contact person name** (for the corresponding Host Institution) **or the corresponding Principal Investigator** (if not done yet) **and e-mail;**
- **add further Principal Investigators hosted at the corresponding HI** (full access or read-only access);
- **add further Principal Investigators hosted at other Host Institutions;**
- **give access to one or more 'Contact person(s)'** (full access or read-only access);
- **add additional organisations** ('Add Partner Organisations (no PI)'): to add team members hosted in other organisations than the Host Institutions.

**Note that only one PI can apply with a Host Institution outside of the EU or Associated Countries. No such restrictions apply to partner organisations hosting additional team members.** A partner organisation hosts only additional team members not belonging to a HI, a PI should not be added as a contact.

**Be careful to type the correct e-mail address of the PIs and all contact persons at this step.** Please note that if the Principal Investigator and the administrative contact person **is the same person** (e.g. because the PI is self-employed), you must use two different e-mail addresses as the system does not allow two identical e-mail addresses to be entered.

**Organisations** must be identified by their nine-digit PIC numbers. A search function is provided in the system to facilitate the search for partners (if any). If you realise that you have made a mistake in selecting the organisation, you can use the 'Change Organisation' button.



For each contact person the **role within the project** must be defined. When giving access rights to **contact persons**, the e-mail address of the person serves as the main identifier. You must define the level of access rights for each contact person:

- **Coordinator contact (full access):** corresponding Principal Investigator level of rights is named 'Coordinator contact' in submission system. The Coordinator contact/cPI, the Main administrative contact of the corresponding HI or another PI with full access at the corresponding HI has the right to edit all parts of the proposal, upload documents, submit, and withdraw the proposal.
- **Participant contact (full access):** PIs at other HIs and their administrative contacts have full access to their parts, but have only read-only rights to other institutions parts, and cannot submit the proposal.
- **Team member (read-only rights):** The persons identified with read-only rights cannot edit or submit the proposal.

Please also be aware that only one person should work on the forms at any given time. If two persons work on the forms at the same time, in case of a save conflict, the last save wins, which means that you risk overwriting changes made by another contact person if you are working in parallel. We therefore recommend that you give 'read-only' access to your partner organisations/additional contact persons (other contacts) unless it is absolutely necessary to grant full access. Please remember that the Main administrative contact person has full access – it is not possible to grant them 'read-only access'.

For the Principal Investigators and the Host Institution contact persons full details will be required later in the administrative forms (section 2). **Please be aware that you MUST enter the details of the PIs and the Host Institution contact persons at Step 4 before going further, since these fields are not-editable in Step 5 in the forms.** You may at any point return to Step 4 of the submission to add or delete any contact person or to change the access rights. If you have made an error in adding a person/contact to an organisation, first delete the person from the unwanted entry, save it and only afterwards enter the name in the contact details of the wanted organisation. **Remember to save your data before leaving Step 4 otherwise you will be prevented from submitting the proposal.**

You may also add the LEAR as a contact person (e.g. as a team member with read-only rights) to the proposal at Step 4 of the application.

Once the coordinator (corresponding PI or corresponding HI main administrative contact) saves the changes, an **automatic invitation** is sent to all contacts' e-mail addresses. The invited persons can **access the proposal** after logging in to the F & T portal - with the EU Login account linked to the given e-mail address – under the 'My Proposals' tab. **In case you encounter difficulties, please contact the submission system's Service Desk at [DIGIT-EFP7-SEP-SUPPORT@ec.europa.eu](mailto:DIGIT-EFP7-SEP-SUPPORT@ec.europa.eu) or +32 (2) 29 92222.**

### **Step 5 – Edit and complete the proposal**

This step is the core of the submission process, as from this step, you **can edit the online administrative proposal submission forms**, view the history, print the draft proposal, **download templates, upload files** and **submit** the proposal by clicking on the relevant buttons.

Guidance on how to fill in the administrative forms is provided directly in the form as ghost text for the single entries or as additional help text hidden behind question-marks . Some parts of the form will be prefilled based on the data entered at pre-registration or in the Beneficiary Register.

Please use the functionality '**Validate form**' button to check the validity and completeness of your data. Any warning or error will be listed at the end of the validated form.

Further information on the preparation of the application (the online administrative forms and Proposal Parts B1 and B2) is given in sections 2.2 and 2.3 of this document.

- **All files must be uploaded in the submission system as PDF (Portable document format). Other file formats will not be accepted by the system.** Irrespective of any page limits specified in this document, there is an **overall limit of 10 Mbytes to the size of each uploaded document (Part B1, B2, and supporting documentation)**. However, it is advised to limit the size of Parts B1 and B2 to 2 Mbytes each.
- Unless specified in the call, embedded material and any other documents (company brochures, scientific papers, reports, audio, video, multimedia, etc.) sent electronically outside of the submission system or within it or by post will be disregarded.
- There are also restrictions to the name given to the Part B files: use alphanumeric characters; special characters and spaces must be avoided.

**Completing the Proposal submission forms in the submission system and uploading all the necessary files does not yet mean that your proposal is submitted (mandatory files: Part B1, Part B2, Host Institution support letter and – if applicable: Ethical Self-assessment and supporting documentation for ethics issues).** Once there is a consolidated version of the proposal, **the ‘SUBMIT’ button must be pressed.** The system performs a limited automatic validation of the proposal. A list of any problems such as missing data, wrong file format or excessive file size will then appear on the screen. You will see a list of warnings and/or errors. You may submit your proposal with warnings (marked in yellow) but **submission is blocked until all errors marked in red are corrected.** However, the electronic checks by the submission system do not replace the formal eligibility review described in section 1.2 of this document and cannot guarantee that the contents of these files respond to the requirements of the call.

#### **Step 6 – The Proposal Submitted page**

Reaching this step means that the proposal is submitted (i.e. sent to the ERCEA for evaluation). It does not mean that the proposal is valid, complete and eligible in all respects. Within a few minutes of submission your proposal will be available for download with an e-receipt in the system. You will receive a confirmation e-mail with the summary data of the submitted proposal. The mail can end up in the spam folder or be blocked by the anti-spam system of your organisation. This automatic message is not the official acknowledgement of receipt.

In Step 6 you can re-edit the proposal, going back to Step 5. **You may continue to modify the proposal and submit revised versions overwriting the previous one right up until the deadline.** The sequence above must be repeated each time. The last version of your proposal submitted before the deadline is the one which will be evaluated; no later version can be substituted and no earlier version can be recovered.

**Check if the proposal is complete.** Once submitted, it is recommended to verify the proposal and its content by downloading all the submitted files. We strongly advise that you submit a first version of your proposal at least 24 hours in advance of the call deadline. Incomplete proposals (where parts or sections of the proposal and/or the host institution's commitment statement are missing) may be declared ineligible and will not be evaluated<sup>27</sup>. The proposal must be submitted **before the relevant deadline of the call.**

**Warning: Please note that in the last hours prior to call closure, the download option of checking your submitted proposal may be disabled due to a high pressure on the system.** In this case the ERCEA will inform the applicants via the call page on the [F & T portal](#) (under 'call summary') that the function has been disabled.

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<sup>27</sup> See also section 2.4 'eligibility check' in the [ERC Rules for Submission](#) and in the section "Proposal submission and description" of the [ERC Work Programme 2020](#).

**If the e-receipt and download option have been disabled, you may review your submitted proposal by going back to Step 5 to check the data in the administrative forms and click on 'View History' to verify which attachments have been uploaded.**

### 3.3 HOW TO WITHDRAW A PROPOSAL

To withdraw a proposal **before the call deadline** use the "withdraw proposal" button from the 'My proposals' tab when logged in at the F & T portal. After the call deadline proposals may be withdrawn at any moment **until the day preceding the panel meetings** where a final decision on the outcome of the evaluation of the proposal is established. A withdrawn proposal will not be considered for evaluation nor count against possible re-application restrictions as set out in the ERC Work Programme 2020.

To withdraw a proposal **after the call deadline**, please send an e-mail to the call-specific mailbox [ERC-SYG-APPLICANTS@ec.europa.eu](mailto:ERC-SYG-APPLICANTS@ec.europa.eu) and include a signed scanned letter requesting the formal withdrawal.

A PI can be part of only one proposal submitted for the same call and even for any call published under the ERC Work Programme 2020. In the case of two or more proposals submitted by the same PI, even if they are part of a different group of PIs, the ERCEA services may ask the corresponding PI to withdraw one or more of those proposals. In the case of absence of reaction by the corresponding PI to this request, only the first eligible proposal will be considered.

## 4. ANNEXES

### 4.1 ERC KEYWORDS

For proposal submission and for evaluation of Synergy grant proposals, the following keywords will be used. Applicants should choose between 4 and 6 keywords from the list below. There is no hierarchical ordering of the keywords.

#### Physical Sciences and Engineering

##### **PE1 Mathematics**

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

- PE1\_1 Logic and foundations
- PE1\_2 Algebra
- PE1\_3 Number theory
- PE1\_4 Algebraic and complex geometry
- PE1\_5 Lie groups, Lie algebras
- PE1\_6 Geometry and Global Analysis
- PE1\_7 Topology
- PE1\_8 Analysis
- PE1\_9 Operator algebras and functional analysis
- PE1\_10 ODE and dynamical systems
- PE1\_11 Theoretical aspects of partial differential equations
- PE1\_12 Mathematical physics
- PE1\_13 Probability
- PE1\_14 Statistics
- PE1\_15 Discrete mathematics and combinatorics
- PE1\_16 Mathematical aspects of computer science
- PE1\_17 Numerical analysis
- PE1\_18 Scientific computing and data processing
- PE1\_19 Control theory and optimisation
- PE1\_20 Application of mathematics in sciences
- PE1\_21 Application of mathematics in industry and society

##### **PE2 Fundamental Constituents of Matter**

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

- PE2\_1 Fundamental interactions and fields
- PE2\_2 Particle physics
- PE2\_3 Nuclear physics
- PE2\_4 Nuclear astrophysics
- PE2\_5 Gas and plasma physics
- PE2\_6 Electromagnetism
- PE2\_7 Atomic, molecular physics
- PE2\_8 Ultra-cold atoms and molecules
- PE2\_9 Optics, non-linear optics and nano-optics
- PE2\_10 Quantum optics and quantum information
- PE2\_11 Lasers, ultra-short lasers and laser physics
- PE2\_12 Relativity
- PE2\_13 Thermodynamics
- PE2\_14 Non-linear physics
- PE2\_15 Metrology and measurement
- PE2\_16 Statistical physics (gases)

### **PE3 Condensed Matter Physics**

Structure, electronic properties, fluids, nanosciences, biological physics

- PE3\_1 Structure of solids, material growth and characterisation
- PE3\_2 Mechanical and acoustical properties of condensed matter, Lattice dynamics
- PE3\_3 Transport properties of condensed matter
- PE3\_4 Electronic properties of materials, surfaces, interfaces, nanostructures, etc.
- PE3\_5 Physical properties of semiconductors and insulators
- PE3\_6 Macroscopic quantum phenomena: superconductivity, superfluidity, etc.
- PE3\_7 Spintronics
- PE3\_8 Magnetism and strongly correlated systems
- PE3\_9 Condensed matter – beam interactions (photons, electrons, etc.)
- PE3\_10 Nanophysics: nanoelectronics, nanophotonics, nanomagnetism, nanoelectromechanics, etc.
- PE3\_11 Mesoscopic physics
- PE3\_12 Molecular electronics
- PE3\_13 Structure and dynamics of disordered systems: soft matter (gels, colloids, liquid crystals, etc.), liquids, glasses, defects, etc.
- PE3\_14 Fluid dynamics (physics)
- PE3\_15 Statistical physics: phase transitions, noise and fluctuations, models of complex systems, etc.
- PE3\_16 Physics of biological systems

### **PE4 Physical and Analytical Chemical Sciences**

Analytical chemistry, chemical theory, physical chemistry/chemical physics

- PE4\_1 Physical chemistry
- PE4\_2 Spectroscopic and spectrometric techniques
- PE4\_3 Molecular architecture and Structure
- PE4\_4 Surface science and nanostructures
- PE4\_5 Analytical chemistry
- PE4\_6 Chemical physics
- PE4\_7 Chemical instrumentation
- PE4\_8 Electrochemistry, electrodialysis, microfluidics, sensors
- PE4\_9 Method development in chemistry
- PE4\_10 Heterogeneous catalysis
- PE4\_11 Physical chemistry of biological systems
- PE4\_12 Chemical reactions: mechanisms, dynamics, kinetics and catalytic reactions
- PE4\_13 Theoretical and computational chemistry
- PE4\_14 Radiation and Nuclear chemistry
- PE4\_15 Photochemistry
- PE4\_16 Corrosion
- PE4\_17 Characterisation methods of materials
- PE4\_18 Environment chemistry

### **PE5 Synthetic Chemistry and Materials**

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

- PE5\_1 Structural properties of materials
- PE5\_2 Solid state materials
- PE5\_3 Surface modification
- PE5\_4 Thin films
- PE5\_5 Ionic liquids
- PE5\_6 New materials: oxides, alloys, composite, organic-inorganic hybrid, nanoparticles
- PE5\_7 Biomaterials, biomaterials synthesis
- PE5\_8 Intelligent materials – self assembled materials

- PE5\_9 Coordination chemistry
- PE5\_10 Colloid chemistry
- PE5\_11 Biological chemistry
- PE5\_12 Chemistry of condensed matter
- PE5\_13 Homogeneous catalysis
- PE5\_14 Macromolecular chemistry
- PE5\_15 Polymer chemistry
- PE5\_16 Supramolecular chemistry
- PE5\_17 Organic chemistry
- PE5\_18 Medicinal chemistry

## **PE6 Computer Science and Informatics**

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

- PE6\_1 Computer architecture, pervasive computing, ubiquitous computing
- PE6\_2 Computer systems, parallel/distributed systems, sensor networks, embedded systems, cyber-physical systems
- PE6\_3 Software engineering, operating systems, computer languages
- PE6\_4 Theoretical computer science, formal methods, and quantum computing
- PE6\_5 Cryptology, security, privacy, quantum cryptography
- PE6\_6 Algorithms, distributed, parallel and network algorithms, algorithmic game theory
- PE6\_7 Artificial intelligence, intelligent systems, multi agent systems
- PE6\_8 Computer graphics, computer vision, multi media, computer games
- PE6\_9 Human computer interaction and interface, visualisation and natural language processing
- PE6\_10 Web and information systems, database systems, information retrieval and digital libraries, data fusion
- PE6\_11 Machine learning, statistical data processing and applications using signal processing (e.g. speech, image, video)
- PE6\_12 Scientific computing, simulation and modelling tools
- PE6\_13 Bioinformatics, biocomputing, and DNA and molecular computation

## **PE7 Systems and Communication Engineering**

Electrical, electronic, communication, optical and systems engineering

- PE7\_1 Control engineering
- PE7\_2 Electrical engineering: power components and/or systems
- PE7\_3 Simulation engineering and modelling
- PE7\_4 (Micro- and nano-) systems engineering
- PE7\_5 (Micro- and nano-) electronic, optoelectronic and photonic components
- PE7\_6 Communication technology, high-frequency technology
- PE7\_7 Signal processing
- PE7\_8 Networks (communication networks, sensor networks, networks of robots, etc.)
- PE7\_9 Man-machine interfaces
- PE7\_10 Robotics
- PE7\_11 Components and systems for applications (in e.g. medicine, biology, environment)
- PE7\_12 Electrical energy production, distribution, application

## **PE8 Products and Processes Engineering**

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

- PE8\_1 Aerospace engineering
- PE8\_2 Chemical engineering, technical chemistry
- PE8\_3 Civil engineering, architecture, maritime/hydraulic engineering, geotechnics, waste treatment

- PE8\_4 Computational engineering
- PE8\_5 Fluid mechanics, hydraulic-, turbo-, and piston- engines
- PE8\_6 Energy processes engineering
- PE8\_7 Mechanical and manufacturing engineering (shaping, mounting, joining, separation)
- PE8\_8 Materials engineering (biomaterials, metals, ceramics, polymers, composites, etc.)
- PE8\_9 Production technology, process engineering
- PE8\_10 Industrial design (product design, ergonomics, man-machine interfaces, etc.)
- PE8\_11 Sustainable design (for recycling, for environment, eco-design)
- PE8\_12 Lightweight construction, textile technology
- PE8\_13 Industrial bioengineering

## **PE9 Universe Sciences**

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

- PE9\_1 Solar and interplanetary physics
- PE9\_2 Planetary systems sciences
- PE9\_3 Interstellar medium
- PE9\_4 Formation of stars and planets
- PE9\_5 Astrobiology
- PE9\_6 Stars and stellar systems
- PE9\_7 The Galaxy
- PE9\_8 Formation and evolution of galaxies
- PE9\_9 Clusters of galaxies and large scale structures
- PE9\_10 High energy and particles astronomy – X-rays, cosmic rays, gamma rays, neutrinos
- PE9\_11 Relativistic astrophysics
- PE9\_12 Dark matter, dark energy
- PE9\_13 Gravitational astronomy
- PE9\_14 Cosmology
- PE9\_15 Space Sciences
- PE9\_16 Very large data bases: archiving, handling and analysis
- PE9\_17 Instrumentation - telescopes, detectors and techniques

## **PE10 Earth System Science**

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

- PE10\_1 Atmospheric chemistry, atmospheric composition, air pollution
- PE10\_2 Meteorology, atmospheric physics and dynamics
- PE10\_3 Climatology and climate change
- PE10\_4 Terrestrial ecology, land cover change
- PE10\_5 Geology, tectonics, volcanology
- PE10\_6 Palaeoclimatology, palaeoecology
- PE10\_7 Physics of earth's interior, seismology, geodynamics
- PE10\_8 Oceanography (physical, chemical, biological, geological)
- PE10\_9 Biogeochemistry, biogeochemical cycles, environmental chemistry
- PE10\_10 Mineralogy, petrology, igneous petrology, metamorphic petrology
- PE10\_11 Geochemistry, cosmochemistry, crystal chemistry, isotope geochemistry, thermodynamics
- PE10\_12 Sedimentology, soil science, palaeontology, earth evolution
- PE10\_13 Physical geography, geomorphology
- PE10\_14 Earth observations from space/remote sensing
- PE10\_15 Geomagnetism, palaeomagnetism
- PE10\_16 Ozone, upper atmosphere, ionosphere
- PE10\_17 Hydrology, hydrogeology, engineering and environmental geology, water and soil pollution

PE10\_18 Cryosphere, dynamics of snow and ice cover, sea ice, permafrosts and ice sheets  
PE10\_19 Planetary geology and geophysics  
PE10\_20 Geohazards: earthquakes, landslides, tsunamis and other ground instabilities

## Life Sciences

### **LS1 Molecular Biology, Biochemistry, Structural Biology and Molecular Biophysics**

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

- LS1\_1 Macromolecular complexes including interactions involving nucleic acids, proteins, lipids and carbohydrates
- LS1\_2 Biochemistry
- LS1\_3 DNA synthesis, modification, repair, recombination, degradation
- LS1\_4 RNA synthesis, processing, modification, degradation
- LS1\_5 Protein synthesis, modification, turnover
- LS1\_6 Lipid biology
- LS1\_7 Glycobiology
- LS1\_8 Molecular biophysics (e.g. single-molecule approaches, bioenergetics, fluorescence)
- LS1\_9 Structural biology and its methodologies (e.g. crystallography, cryo-EM, NMR and new technologies)
- LS1\_10 Molecular mechanisms of signalling pathways
- LS1\_11 Fundamental aspects of synthetic biology and chemical biology

### **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

- LS2\_1 Molecular genetics, reverse genetics, forward genetics, genome editing
- LS2\_2 Non-coding RNAs
- LS2\_3 Quantitative genetics
- LS2\_4 Genetic epidemiology
- LS2\_5 Epigenetics and gene regulation
- LS2\_6 Genomics (e.g. comparative genomics, functional genomics)
- LS2\_7 Metagenomics
- LS2\_8 Transcriptomics
- LS2\_9 Proteomics
- LS2\_10 Metabolomics
- LS2\_11 Glycomics/Lipidomics
- LS2\_12 Bioinformatics
- LS2\_13 Computational biology
- LS2\_14 Biostatistics
- LS2\_15 Systems biology

### **LS3 Cellular and Developmental Biology**

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

- LS3\_1 Morphology and functional imaging of cells and tissues
- LS3\_2 Cytoskeleton and cell behaviour (e.g. control of cell shape, cell migration and cellular mechanosensing)
- LS3\_3 Organelle biology and trafficking
- LS3\_4 Cell junctions, cell adhesion, cell communication and the extracellular matrix
- LS3\_5 Cell signalling and signal transduction

- LS3\_6 Cell cycle, division and growth
- LS3\_7 Cell death (including senescence) and autophagy
- LS3\_8 Cell differentiation, physiology and dynamics
- LS3\_9 Developmental genetics in animals and plants
- LS3\_10 Embryology and pattern formation in animals and plants
- LS3\_11 Tissue organisation and morphogenesis in animals and plants (including biophysical approaches)
- LS3\_12 Stem cell biology in development, tissue regeneration and ageing, and fundamental aspects of stem cell-based therapies

#### **LS4 Physiology, Pathophysiology and Endocrinology**

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

- LS4\_1 Organ physiology and pathophysiology
- LS4\_2 Comparative physiology and pathophysiology
- LS4\_3 Molecular aspects of endocrinology
- LS4\_4 Fundamental mechanisms underlying ageing
- LS4\_5 Metabolism, biological basis of metabolism-related disorders
- LS4\_6 Fundamental mechanisms underlying cancer
- LS4\_7 Fundamental mechanisms underlying cardiovascular diseases
- LS4\_8 Non-communicable diseases (except for neural/psychiatric and immunity-related diseases)

#### **LS5 Neuroscience and Neural Disorders**

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

- LS5\_1 Neural cell function, communication and signalling, neurotransmission in neuronal and/or glial cells
- LS5\_2 Systems neuroscience and computational neuroscience (e.g. neural networks, neural modelling)
- LS5\_3 Neuronal development, plasticity and regeneration
- LS5\_4 Sensation and perception (e.g. sensory systems, sensory processing, pain)
- LS5\_5 Neural bases of cognitive processes (e.g. memory, learning, attention)
- LS5\_6 Neural bases of behaviour (e.g. sleep, consciousness, addiction)
- LS5\_7 Neurological disorders (e.g. neurodegenerative diseases, seizures)
- LS5\_8 Psychiatric disorders (e.g. affective and anxiety disorders, autism, psychotic disorders)
- LS5\_9 Neurotrauma and neurovascular conditions (including injury, blood-brain barrier, stroke, neurorehabilitation)

#### **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

- LS6\_1 Innate immunity in animals and plants
- LS6\_2 Adaptive immunity
- LS6\_3 Regulation and effector functions of the immune response (e.g. cytokines, interferons and chemokines, inflammation, immune signalling, helper T cells, immunological memory, immunological tolerance, cell-mediated cytotoxicity, complement)
- LS6\_4 Immunological mechanisms in disease (e.g. autoimmunity, allergy, transplantation immunology, tumour immunology)
- LS6\_5 Biology of pathogens (e.g. bacteria, viruses, parasites, fungi)
- LS6\_6 Mechanisms of infection (e.g. transmission, virulence factors, host defences, immunity to pathogens, molecular pathogenesis)
- LS6\_7 Biological basis of prevention and treatment of infection (e.g. infection natural cycle, reservoirs, vectors, vaccines, antimicrobials)

LS6\_8 Infectious diseases in animals and plants

### **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

- LS7\_1 Imaging for medical diagnosis
- LS7\_2 Genetic tools for medical diagnosis
- LS7\_3 Other medical technologies for diagnosis and monitoring of diseases
- LS7\_4 Pharmacology and pharmacogenomics (including drug discovery and design, drug delivery and therapy, toxicology)
- LS7\_5 Applied gene and cell therapies, regenerative medicine
- LS7\_6 Radiation therapy
- LS7\_7 Analgesia and surgery
- LS7\_8 Epidemiology and public health
- LS7\_9 Environmental health, occupational medicine
- LS7\_10 Health services, health care research, medical ethics

### **LS8 Ecology, Evolution and Environmental Biology**

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

- LS8\_1 Ecosystem and community ecology, macroecology
- LS8\_2 Biodiversity, conservation biology, conservation genetics
- LS8\_3 Population biology, population dynamics, population genetics
- LS8\_4 Evolutionary ecology
- LS8\_5 Evolutionary genetics
- LS8\_6 Phylogenetics, systematics, comparative biology
- LS8\_7 Macroevolution, paleobiology
- LS8\_8 Coevolution, biological mechanisms and ecology of species interactions (e.g. symbiosis, parasitism, mutualism, food-webs)
- LS8\_9 Behavioural ecology and evolution
- LS8\_10 Microbial ecology and evolution
- LS8\_11 Marine biology and 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

- LS9\_1 Applied biotechnology (including transgenic organisms, applied genetics and genomics, biosensors, bioreactors, microbiology, bioactive compounds)
- LS9\_2 Applied bioengineering, synthetic biology, chemical biology, nanobiotechnology, metabolic engineering, protein and glyco-engineering, tissue engineering, biocatalysis, biomimetics
- LS9\_3 Applied animal sciences (including animal breeding, veterinary sciences, animal husbandry, animal welfare, aquaculture, fisheries, insect gene drive)
- LS9\_4 Applied plant sciences (including crop production, plant breeding, agroecology, forestry, soil biology)
- LS9\_5 Food sciences (including food technology, food safety, nutrition)
- LS9\_6 Biomass production and utilisation, biofuels
- LS9\_7 Environmental biotechnology (including bioindicators, bioremediation, biodegradation)
- LS9\_8 Biohazards (including biological containment, biosafety, biosecurity)
- LS9\_9 Marine biotechnology (including marine bioproducts, feed resources, genome mining)

## Social Sciences and Humanities

### SH1 Individuals, Markets and Organisations

Economics, finance and management

- SH1\_1 Macroeconomics; monetary economics; economic growth
- SH1\_2 International management; international trade; international business; spatial economics
- SH1\_3 Development economics, health economics, education economics
- SH1\_4 Financial economics; banking; corporate finance; international finance; accounting; auditing; insurance
- SH1\_5 Labour and demographic economics; human resource management
- SH1\_6 Econometrics; operations research
- SH1\_7 Behavioural economics; experimental economics; neuro-economics
- SH1\_8 Microeconomics; game theory
- SH1\_9 Industrial organisation; strategy; entrepreneurship
- SH1\_10 Management; marketing; organisational behaviour; operations management
- SH1\_11 Technological change, innovation, research & development
- SH1\_12 Agricultural economics; energy economics; environmental economics
- SH1\_13 Public economics; political economics; law and economics
- SH1\_14 Competition law, contract law, trade law, Intellectual Property Rights
- SH1\_15 Quantitative economic history and history of economics; institutional economics; economic systems

### SH2 Institutions, Values, Environment and Space

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

- SH2\_1 Political systems, governance
- SH2\_2 Democratisation and social movements
- SH2\_3 Conflict resolution, war, peace building
- SH2\_4 Constitutions, human rights, comparative law, humanitarian law, anti-discrimination law
- SH2\_5 International relations, global and transnational governance
- SH2\_6 Sustainability sciences, environment and resources
- SH2\_7 Environmental and climate change, societal impact and policy
- SH2\_8 Energy, transportation and mobility
- SH2\_9 Urban, regional and rural studies
- SH2\_10 Land use and regional planning
- SH2\_11 Human, economic and social geography
- SH2\_12 GIS, spatial analysis; big data in political, geographical and legal studies

### SH3 The Social World, Diversity, Population

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

- SH3\_1 Social structure, social mobility
- SH3\_2 Inequalities, discrimination, prejudice, aggression and violence, antisocial behaviour
- SH3\_3 Social integration, exclusion, prosocial behaviour
- SH3\_4 Attitudes and beliefs
- SH3\_5 Social influence; power and group behaviour
- SH3\_6 Kinship; diversity and identities, gender, interethnic relations
- SH3\_7 Social policies, welfare
- SH3\_8 Population dynamics; households, family and fertility
- SH3\_9 Health, ageing and society
- SH3\_10 Religious studies, ritual; symbolic representation
- SH3\_11 Social aspects of learning, curriculum studies, educational policies
- SH3\_12 Communication and information, networks, media
- SH3\_13 Digital social research
- SH3\_14 Science and technology studies

#### **SH4 The Human Mind and Its Complexity**

Cognitive science, psychology, linguistics, philosophy of mind

- SH4\_1 Cognitive basis of human development and education, developmental disorders; comparative cognition
- SH4\_2 Personality and social cognition; emotion
- SH4\_3 Clinical and health psychology
- SH4\_4 Neuropsychology
- SH4\_5 Attention, perception, action, consciousness
- SH4\_6 Learning, memory; cognition in ageing
- SH4\_7 Reasoning, decision-making; intelligence
- SH4\_8 Language learning and processing (first and second languages)
- SH4\_9 Theoretical linguistics; computational linguistics
- SH4\_10 Language typology; historical linguistics
- SH4\_11 Pragmatics, sociolinguistics, linguistic anthropology, discourse analysis
- SH4\_12 Philosophy of mind, philosophy of language
- SH4\_13 Philosophy of science, epistemology, logic

#### **SH5 Cultures and Cultural Production**

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

- SH5\_1 Classics, ancient literature and art
- SH5\_2 Theory and history of literature, comparative literature
- SH5\_3 Philology and palaeography
- SH5\_4 Visual and performing arts, film, design
- SH5\_5 Music and musicology; history of music
- SH5\_6 History of art and architecture, arts-based research
- SH5\_7 Museums, exhibitions, conservation and restoration
- SH5\_8 Cultural studies, cultural identities and memories, cultural heritage
- SH5\_9 Metaphysics, philosophical anthropology; aesthetics
- SH5\_10 Ethics; social and political philosophy
- SH5\_11 History of philosophy
- SH5\_12 Computational modelling and digitisation in the cultural sphere

#### **SH6 The Study of the Human Past**

Archaeology and history

- SH6\_1 Historiography, theory and methods in history, including the analysis of digital data
- SH6\_2 Classical archaeology, history of archaeology
- SH6\_3 General archaeology, archaeometry, landscape archaeology
- SH6\_4 Prehistory, palaeoanthropology, palaeodemography, protohistory
- SH6\_5 Ancient history
- SH6\_6 Medieval history
- SH6\_7 Early modern history
- SH6\_8 Modern and contemporary history
- SH6\_9 Colonial and post-colonial history
- SH6\_10 Global history, transnational history, comparative history, entangled histories
- SH6\_11 Social and economic history
- SH6\_12 Gender history; cultural history; history of collective identities and memories
- SH6\_13 History of ideas, intellectual history, history of economic thought
- SH6\_14 History of science, medicine and technologies

## 4.2 HOST INSTITUTION SUPPORT LETTER TEMPLATE 2020

**Print on paper bearing the official letterhead of the institution. Each Institution is required to provide a separate support letter listing the PI(s) who will be engaged by them.**

### **Commitment of the Host Institution for the ERC Synergy Call 2020<sup>28, 29, 30</sup>**

The <<please fill in here the name of the legal entity that is associated to the proposal and may host the Principal Investigator and the project in case the application is successful>>, which is the applicant legal entity, confirms its intention to sign a supplementary agreement with

<< please fill in here the name of the Principal Investigator(s) who will be engaged by the Host Institution >><sup>31</sup>,

in which the obligations listed below will be addressed should the proposal entitled

<<acronym>> : <<title of the proposal>>

be retained.

The applicant legal entity confirms that it is aware that the Synergy project will involve the following Principal Investigators (PIs):

<<Please enter below the names of all Principal Investigators participating in the project.>>

Corresponding PI: .....

PI 2: .....

PI 3 (if applicable): .....

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<sup>28</sup> A scanned copy of the signed statement should be uploaded electronically via the Funding & Tenders Portal Submission Service in PDF format.

<sup>29</sup> The statement of commitment of the host institution refers to most obligations of the host institution, which are stated in the [H2020 ERC Model Grant Agreement](#) (MGA). The H2020 ERC MGA is available on the [Funding & tender](#) portal. The reference to the time commitment of the Principal Investigator is stated in the ERC Work Programme 2020.

<sup>30</sup> This statement (on letterhead paper) shall be dated, stamped and signed by the institution's legal representative, stating their name, function, email address.

<sup>31</sup> Please insert the names only of those Principal Investigators that will be engaged by the host institution.

PI 4 (if applicable):

The fact that the applicant legal entity confirms its awareness of the group's Synergy project does not imply an obligation to contractually engage all of the Principal Investigators.

Performance obligations of the applicant legal entity that will become the beneficiary of the H2020 ERC Grant Agreement (hereafter referred to as the Agreement), should the proposal be retained and the preparation of the Agreement be successfully concluded:

*The following obligations apply only to the Principal Investigators, hereinafter referred as the PI(s), who will be engaged by the applicant legal entity signing this letter.*

The applicant legal entity commits itself to hosting and engaging the *PI(s)* for the duration of the grant to:

- a) ensure that the work will be performed under the scientific guidance of the *PI(s)* who are expected to devote *at least 30% of their working time* to the ERC-funded project (action);
- b) spend at least 50% of their working time in an EU Member State or Associated Country (except for a PI hosted or engaged by an institution outside of the EU or Associated Country);
- c) carry out the work to be performed, as it will be identified in Annex 1 of the Agreement, taking into consideration the specific role of the *PI(s)*;
- d) enter — before signature of the Agreement — into a '*supplementary agreement*' with the *PI(s)*, that specifies the obligation of the *applicant legal entity* to meet its obligations under the Agreement;
- e) provide *the PI(s)* with a copy of the signed Agreement;
- f) guarantee the *PI(s)* scientific independence, in particular for the:
  - i) use of the budget to achieve the scientific objectives;
  - ii) authority to publish as senior author and invite as co-authors those who have contributed substantially to the work;
  - iii) preparation of scientific reports for the project (action);
  - iv) selection and supervision of the other *team members* (hosted *and engaged* by the corresponding *applicant legal entity* or other legal entities), in line with the profiles needed to conduct the research and in accordance with the corresponding *applicant legal entity's* usual management practices;
  - v) possibility to apply independently for funding;
  - vi) access to appropriate space and facilities for conducting the research;

- g) provide — during the implementation of the project (action) — research support to the *PI(s)* and the team members (regarding infrastructure, equipment, access rights, products and other services necessary for conducting the research);
- h) support the *PI(s)* and provide administrative assistance, in particular for the:
  - i) general management of the work and their team;
  - ii) scientific reporting, especially ensuring that the team members send their scientific results to the *PI(s)*;
  - iii) financial reporting, especially providing timely and clear financial information;
  - iv) application of the corresponding applicant legal entity's usual management practices;
  - v) general logistics of the project (action);
  - vi) access to the electronic exchange system (see Article 52 of the Agreement);
- i) inform the *PI(s)* immediately in writing of any events or circumstances likely to affect the Agreement (see Article 17 of the Agreement);
- j) ensure that the *PI(s)* enjoys adequate:
  - i) conditions for annual, sickness and parental leave;
  - ii) occupational health and safety standards;
  - iii) insurance under the general social security scheme, such as pension rights;
- k) allow the transfer of the Agreement to a new beneficiary ('portability'; see Article 56a of the Agreement);
- l) take all measures to implement the principles set out in the Commission Recommendation on the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers<sup>32</sup> - in particular regarding working conditions, transparent recruitment processes based on merit and career development - and ensure that the *PI(s)*, researchers and third parties involved in the project (action) are aware of them.
- m) respect the fundamental principle of research integrity and ensure that persons carrying out research tasks follow the good research practices and refrain from the research integrity violations described in the European Code of Conduct for Research Integrity<sup>33</sup>. If any such violations or allegations occur, verify and pursue them and bring them to the attention of the Agency.

**For the host institution (applicant legal entity):**

Date

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<sup>32</sup> [Commission Recommendation 2005/251/EC of 11 March 2005](#) on the European Charter for Researchers and on a Code of Conduct for the Recruitment of Researchers (OJ L 75, 22.3.2005, p. 67).

<sup>33</sup> [The European Code of Conduct for Research Integrity](#) of ALLEA (All European Academies) and ESF (European Science Foundation) of March 2011.

Name and Function

\_\_\_\_\_ ; \_\_\_\_\_

E-mail and Signature of legal representative

\_\_\_\_\_ ; \_\_\_\_\_

Stamp of the host institution (applicant legal entity)

**IMPORTANT NOTE:** In order to be complete all the above mentioned points are mandatory and shall be included in the commitment of the host institution. The highlighted fields should be filled in.