

# European Research Council

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# The European Research Council in Horizon 2020

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# ERC in Horizon 2020

“The ERC shall provide attractive and flexible funding to enable talented and creative individual researchers and their teams to pursue the most promising avenues at the frontier of science..... scientific excellence shall be the sole criterion on which ERC grants are awarded. The ERC shall operate on a ‘bottom-up’ basis without predetermined priorities”.

*Horizon 2020 proposal text*

# ERC in Horizon 2020 – What can be funded?

- ▶ The ERC seeks to fund the best ‘frontier research’ proposals submitted by excellent researchers in the area of their choice.
- ▶ Will fund projects led by a Principal Investigator, if necessary supported by a research team (no requirement for collaboration or forming consortia across different EU countries).
- ▶ 25 panels in 3 domains which proposals can be submitted to:
  - Physical Sciences and Engineering (PE)
  - Life Sciences (LS)
  - Social Sciences and Humanities (SH)

# ERC in Horizon 2020– Five Schemes

**Starting Grants** (for PIs 2-7 years since PhD, up to €2 million for 5 years)

**Consolidator Grants** (for PIs 7-12 years since PhD, up to €2.75 million for 5 years)

**Advanced Grants** (for leading researchers, up to €3.5 million for 5 years)

**Synergy Grants** (for 2 to 4 PIs, up to €15 million for 6 years)

**Proof of Concept** (for ERC grant holders only, up to €150,000 for 1 year)

# ERC in H2020– Continuity with FP7

## Starting Grants

## Consolidator Grants

- Aim to support excellent researchers at the stage of starting or consolidating their own independent research team or programme.
- Eligibility windows for PIs are expected to be (same as for 2013 calls):
  - **Starting Grants:** 2 to 7 years after the PhD award
  - **Consolidator Grants:** 7 to 12 years after the PhD award
- This is measured from the publication date of the call, and extensions are permitted only in a few strict cases (parental leave, long-term illness, etc).

# ERC in H2020– Continuity with FP7

Starting Grants

Consolidator Grants

**Both schemes aim to:**

- Improve opportunities and independence at the start of a research career
- Provide structure for transition from working under a supervisor to independent research
- Enable PIs to create excellent new teams to bring new ideas to their disciplines

# ERC in H2020– Continuity with FP7

## Advanced Grants

- Aims to support excellent, leading researchers to pursue groundbreaking research which opens up new directions in the field of their choice.
- Aims to “encourage substantial advances at the frontier of knowledge; as well as new productive lines of enquiry, methods and techniques”.
- No eligibility requirement concerning a PhD, but the PI must have an excellent track record of research achievements during the last 10 years.



# ERC in H2020– Continuity with FP7

## Synergy Grants

- Pilot scheme which funds ambitious, groundbreaking proposals submitted by a group of between 2 to 4 PIs (and their teams).
- Very low success rate for first call in 2012, and the 2013 call results expected to be announced in late 2013.
- No call is expected to be launched in 2014.....
- But the scheme could continue within Horizon 2020, as a limited part of the ERC's portfolio of schemes (*tbc*)

# ERC in H2020– Continuity with FP7

## Proof of Concept

- Scheme for ERC grant holders to undertake further work to establish the innovation potential of an idea developed during the course of an ERC-funded project.
- Maximum grant: €150,000
- Project duration: up to 18 months
- Original ERC grant must be either ongoing or have ended less than 1 year before the publication date of the call.

# ERC in Horizon 2020 – What type of research projects can be funded?

Proposals evaluated solely on the basis of excellence (excellence of the PI and of the research project), and should address:

## Extended Synopsis (5 pages)

- To what extent does the proposed research address important challenges?
- To what extent are the objectives ambitious and beyond the state of the art?
- How much is the proposed research high risk/high gain?
- To what extent is the outlined scientific approach feasible?

## Scientific Proposal (15 pages)

- To what extent is the proposed research methodology appropriate to achieve the goals of the project?
- To what extent does the proposal involve developing novel methodology?
- To what extent are the proposed timescales and resources necessary and properly justified?

# ERC in Horizon 2020 – What type of researcher are the ERC targeting?

## Starting Grants and Consolidator Grants

- The ERC panel will evaluate the PI's "intellectual capacity, creativity and commitment". This includes:
  - ability to propose and conduct ground-breaking research and achievements going beyond the state-of-the-art.
  - abundant evidence of creative independent thinking.
  - the ERC grant would contribute significantly to the establishment and/or further consolidation of the PI's independence.
  - commitment to the project (minimum 50% of the PI's total working time).

*\* please note that this is the wording from the 2013 ERC calls*

# ERC in Horizon 2020 – What type of researcher are the ERC targeting?

## Advanced Grants

- The ERC panel will evaluate the PI's "intellectual capacity, creativity and commitment" and their track record should be characterised by:
  - groundbreaking research & achievements going beyond the state-of-the-art
  - abundant evidence of creative independent thinking
  - sound leadership in the training and advancement of young scientists
  - commitment to the project (minimum 30% of the PI's total working time)

*\* please note that this is the wording from the 2013 ERC calls*

# ERC in Horizon 2020 – should I apply?

## Starting Grants

*Who is a competitive candidate?*

Must be able to show potential for excellence and evidence of maturity:

- expectation for at least **one** important publication without the participation of the PhD supervisor
- promising track record of early achievements appropriate to field and career stage, including:
  - significant publications (as main author) in major international peer-reviewed journals
  - and/or monographs
  - invited presentations, granted patents, awards, prizes etc
- good leadership potential and must convince the ERC panel that the PI will be able to lead an ambitious ‘frontier research’ project

# ERC in Horizon 2020 – should I apply?

## Consolidator Grants

*Who is a competitive candidate?*

Must be able to show potential for excellence and evidence of maturity:

- it is expected that applicants will have produced at least **several** important publications without the participation of their PhD supervisor
- promising track record of early achievements appropriate to field and career stage, including:
  - significant publications (as main author) in major international peer-reviewed major scientific journals
  - and/or monographs
  - invited presentations, granted patents, awards, prizes etc
- good leadership potential and must convince the ERC panel that you will be able to lead an ambitious ‘frontier research’ project

# ERC in Horizon 2020 – should I apply?

## Advanced Grants

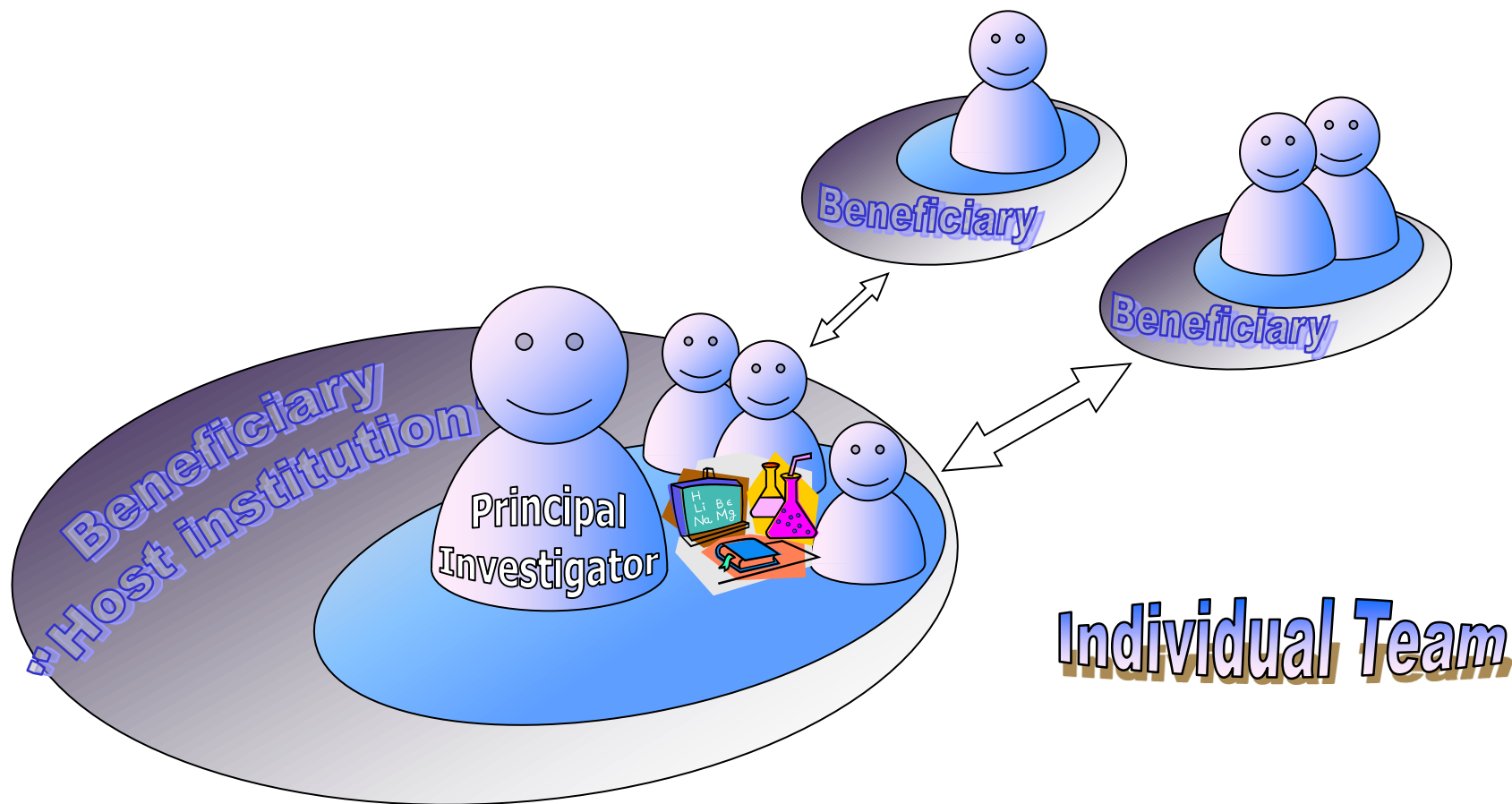
*Who is a competitive candidate?*

- **track record of significant achievements in last 10 years:**
  - 10 publications (as senior author) in major international journals
  - or 3 major research monographs
- **if appropriate to the research field, also:**
  - granted patents
  - invited presentations
  - led expeditions
  - organised international conferences
  - international recognition (awards, prizes)
  - contributions to launching the careers of outstanding researchers
- an “exceptional leader in terms of originality and significance of research contribution, with international recognition”

*\* please note that this the wording from the 2013 ERC calls*



# 'Individual Team' Concept Overview



# Principal Investigator (PI)

- ▶ Central to the grant and review criteria
- ▶ Must have the potential to be a future independent research leader in their own right...
- ▶ Has the power to assemble a research group of team members & freedom to choose the research topic
- ▶ Expected to lead their team and be fully engaged in the running of the grant
- ▶ Can be of any age, nationality or current location

# Principal Investigator continued

- ▶ Expected to spend **a minimum 50% of total working time** on the ERC project and a **minimum of 50% of total working time in an EU Member State or Associated Country** (this does not exclude fieldwork/research outside Europe needed to achieve research objectives)
- ▶ Chooses a host institution in EU Member State or Associated Country (or an 'International European Interest Organisation')
- ▶ Applies in conjunction with host institution and, if funded, signs 'supplementary agreement' with the host
- ▶ Resubmission rules apply to PI only (not to team members)

## PI's Host Institution

- Can be any type of legal entity
- Must be based in the territory of an EU Member State or Associated Country
- The PI does not have to be based there at the time of application
- Has the infrastructure and capacity to carry out frontier research project
- Must not constrain the PI to the research strategy of the institution
- Normally employs the PI

## PI's Host Institution

- Must provide appropriate conditions for the PI to direct independently the research and manage the ERC funding
- Not assessed as a separate criterion during Peer Review
- Is the 'applicant legal entity'
- Signs a Supporting Statement as part of application
- If funded signs up to the Grant Agreement
- If funded, signs a 'Supplementary Agreement' with the PI
- Host institution should not really be changed during review process but researchers can move once funded

# Team Members

- PI has freedom to choose appropriate 'team members' (the ERC's term)
- Constitution of individual research team is flexible (senior research staff, post-docs, PhDs, non academic staff, etc...)
- PI's host institution normally the only institution; could have team members from other institutions in the same or different countries (institutions will sign Grant Agreement)
- Team members can be of any age, nationality & country of residence
- Team members do not need to be independent
- Resubmission rules do not apply to team members
- **REMEMBER: Individual research team headed by a single PI (including any team members at other institutions) so NOT a traditional network or research consortium**

## Starting, Consolidator and Advanced Grants

- ERC operates a **single-stage submission** and **two-stage evaluation** process:
  - **Step 1:** panel evaluates 5-page Extended Synopsis, CV and track record sections
  - **Step 2:** panel evaluates 15-page full proposal description (in conjunction with the sections above)
- An interview with the PI forms part of the step 2 evaluation for Starting and Consolidator Grants (not for Advanced Grants).
- PI must choose the panel, based on the keywords and panel descriptors in the Guide for Applicants. Panel consists of up to 15 leading researchers.
- For interdisciplinary proposals: can choose primary and secondary panel.

# Scoring System

## Step 1 (Part B1 of proposal)

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

Applicants scoring B or C told the ranking range of their proposal out of those evaluated by the panel

## Step 2 (full proposal)

- A. fully meets the ERC's excellence criterion and is recommended for funding **if sufficient funds are available**; and
  - B. meets some but not all elements of the ERC's excellence criterion and will not be funded.
- 
- Panels may review the level of the requested budget and suggest adjustments
  - Applicants told the ranking range of their proposal out of the proposals evaluated by the panel



# Restrictions on Submission of Proposals (Rules for ERC-2014-StG Call)

- ▶ A PI may submit only one proposal for ERC calls (except for the Proof of Concept scheme) made under the same **Work Programme**.
- ▶ A PI whose proposal was evaluated as **category C** for a call under the 2013 Work Programme may not apply for a call made under the 2014 Work Programme.
- ▶ A researcher may participate as Principal Investigator in only one ERC project at a time.
- ▶ **A PI who holds an ERC grant** cannot submit a proposal for another ERC grant unless the existing grant ends no more than 2 years after the call deadline
- ▶ **A PI who is a serving panel member** for a 2014 ERC call or who served as a Panel Member for a 2012 ERC call may not apply to a 2014 ERC call for the same type of grant.

# Extension to restrictions in future calls

## In addition:

- ▶ A PI whose proposal is evaluated as category C in a call under the 2014 Work Programme may not submit a proposal to a call under the 2015 or 2016 Work Programmes.
- ▶ A PI whose proposal is finally evaluated as category B in the 2014 Work Programme calls may not submit a proposal to the calls for proposals made under the 2015 Work Programme.
- ▶ So – think about the timing of proposal and when to apply!

## **How to score highly for the PI criterion? Some recurring feedback from successful applicants....**

- ▶ Pack the Track Record with evidence about your achievements – panels are more likely to give an ambitious project the go-ahead if they ‘trust’ the PI, and are convinced of your credibility as an excellent researcher/project leader.
- ▶ Avoid British understatement and ‘sell’ yourself as an excellent researcher.
- ▶ Quote positive reviews of your work, highlighting esteem for your research from others in your field.
- ▶ Provide specific details of prizes, citation data for publications, project management experience, papers at conferences, mentoring of students etc.
- ▶ If possible, provide evidence of international influence and activities.
- ▶ Try to explain how you are exactly the right person to undertake this particular project, at this specific moment in time.
- ▶ Refer explicitly to the criteria used in the call documents.

# How to frame the project? Recurring feedback from successful applicants...

- ▶ Convey passion and make clear the way in which you think the proposal breaks new ground and is innovative. What is your vision for ‘frontier research’?
- ▶ Balance your vision with a strong, confident plan and good project structure
- ▶ Use the ERC’s terminology explicitly
- ▶ Should strike a balance between showing the experts in your field that you know your stuff, and engaging the non-experts
- ▶ Structure your proposal to address, in order, each of the evaluation criteria stated in the 2014 call documents
- ▶ The proposed research should be “safely adventurous”, i.e. containing an important idea with a big long-term goal, but also being practically feasible
- ▶ Should convey the message that the project can be delivered, but also make an effort to “sell the dream” of an exciting piece of research
- ▶ Part B1 must be accessible and enthuse a range of evaluators, and should present a convincing case that the project is worth funding

# How to frame the project? Recurring feedback from successful applicants...

- ▶ Projects with a risky/new methodology are welcomed, as long as there is a good reason for trying it out and a potentially high reward
- ▶ Communicating a longer-term vision of where the project would lead
- ▶ Seeking to establish a new interdisciplinary field of study at the junction of two related disciplines
- ▶ ‘No virtue in economy’ in applying for an ERC grant, and explain why the reviewers should award you significant funding for your project
- ▶ How will your project be an important contribution to the research area you have selected, and what will its scientific impact be?
- ▶ The project fits well with the main features of the ERC scheme, i.e. it is ambitious and innovative, different to a national funding application
- ▶ Provide measurable milestones, but make clear that you will be flexible
- ▶ Outline a step change in your field: “*this ground-breaking project will deliver radically new approaches....*”

## How to be frontier?

- ▶ 'Take the pulse' of your field
- ▶ Choose and clearly define an unmet need

## How to be even more frontier?

- ▶ Think inter-disciplinary
- ▶ Think latest technology, if appropriate
- ▶ Try to emulate the leaders in your field
- ▶ Aim high

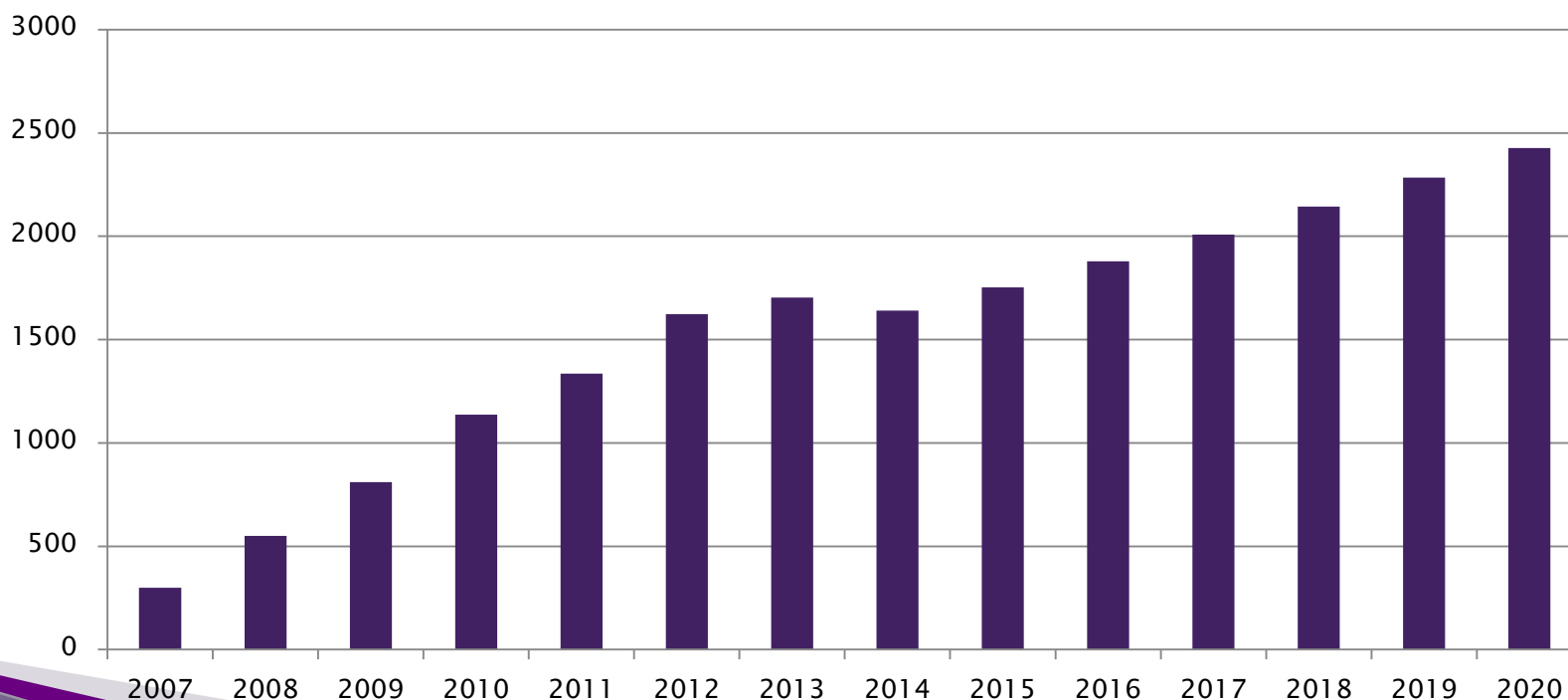


# ERC in H2020 – Calls 2014 / 2015

2014 Calls	StG	CoG	AdG	PoC
Published	11 Dec 2013	11 Dec 2013	17 June 2014	11 Dec 2013
Deadline	25 Mar 2014	20 May 2014	21 Oct 2014	1 April 2014 & 1 Oct 2014
Budget	EUR 485m	EUR 713m	EUR 450m	EUR 15m
2015 Calls	StG	CoG	AdG	PoC
Published	tbc	tbc	tbc	tbc
Deadline	3 Feb 2015	12 Mar 2015	2 June 2015	23 Apr 2015 & 1 Oct 2015
Budget	EUR 411m	EUR 603m	EUR 640m	EUR 15m

# ERC in Horizon 2020 – Budget

- ▶ ERC allocated around €12.7 billion for Horizon 2020 (compares to the allocation of €7.5 billion for FP7). Highest amount of funding to go to the Starting Grants and Consolidator Grants schemes.
- ▶ But due to the progressive increases in the annual ERC budget until 2013, the amount allocated for the 2014 calls will in fact be lower than in 2013:





## ERC since 2007: a few statistics

- The UK was the most successful country in applying to the ERC in FP7:

Over 800 grants based  
in around 75 different  
UK institutions

Around 15% success  
rate for proposals  
submitted by UK  
institutions (about 11%  
average overall)

Around 20% of all ERC  
grants based in the UK

6 of the 11 Synergy  
Grants projects funded  
in 2012 feature at least  
one UK-based PI

- See here for examples of funded projects: <http://erc.europa.eu/erc-funded-projects>

## Useful Links

- ▶ UKRO subscriber web pages on the ERC:  
<http://www.ukro.ac.uk/subscriber/fp7/erc/Pages/index.aspx>
- ▶ ERC website:  
<http://erc.europa.eu/>
- ▶ EU's Cordis website for summaries of funded projects:  
[http://cordis.europa.eu/fp7/projects\\_en.html](http://cordis.europa.eu/fp7/projects_en.html)
- ▶ UKRO UK ERC National Contact Point helpdesk:  
<http://www.ukro.ac.uk/erc/Pages/helpdesk.aspx>