

THE ERC IN HORIZON 2020



OVERVIEW




- ERC aims and basic principles
- Main ERC Grant schemes
- Proposal structure and evaluation
- What's new in Horizon 2020?
- Considerations for a proposal
- Questions/Discussion




ERC: AIMS AND BASIC PRINCIPLES


- Funds potentially **groundbreaking research** (“frontier research”) by individual researchers (PIs) and their teams
- Open for **all areas of research**
- **Scientific excellence** is the only criterion for funding
- Led by autonomous Scientific Council
- **highly competitive** : ~ 10% success rate

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ERC: FUNDING PRINCIPLES



1 Principal Investigator (PI) +


Target group: excellent scientists in all career stages

Starting Grant: establish independent research team/programme

Consolidator Grant: consolidate research team/programme

Advanced Grant: novel, ambitious research programme


1 Host Institution (HI)



in EU-28 or Associated Countries

- Minimum time commitment by PI
- Funding goes to HI, but HI guarantees autonomy of PI
- ERC-Grants are portable (“Money follows researcher”)

ERC GRANT SCHEMES



STARTING GRANTS
„Starters“

Eligibility time-window can be prolonged under defined circumstances (e.g. parental leave)

2-7 years post PhD
max. 1,5-2,0 Mio EUR for 5 years

CONSOLIDATOR GRANTS
„Consolidators“

7-12 yrs post PhD
max. 2,0 – 2,5 Mio EUR for 5 Years

ADVANCED GRANTS

outstanding track record in the last 10 years


max. 2,5 – 3,5 Mio EUR for 5 years


SYNERGY GRANT (?)
2-4 Principle Investigators
max 15 Mio EUR for 6 years

PROOF OF CONCEPT
for ERC Grantees: test innovation potential of idea arising from ERC StG, CoG, AdG, SyG
max 150.000 EUR for 18 months

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PROFILE OUTLINE OF A „STARTER“





- **PhD** awarded **2 – 7 years** before the publication of the ERC Starting Grant Call
- must already have shown the potential for **research independence** and evidence of **maturity**. E.g. at least one important publication without the participation of the PhD supervisor
- promising **track-record of early achievements** appropriate to the research field and career stage: publications, monographs, invited presentations, patents, prizes/awards

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PROFILE OUTLINE OF A „CONSOLIDATOR“



- **PhD** awarded **>7 – 12 years** before the publication of the ERC Consolidator Grant Call
- must have already shown the potential for **research independence and evidence of maturity**. E.g. **several** important publications without the participation of the PhD supervisor.
- promising **track-record of early achievements** appropriate to the research field and career stage: publications, monographs, invited presentations, patents, prizes/awards, ...

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„ADVANCED“ PROFILE OUTLINE



- No specific eligibility criteria, but intense competition
- active researchers with a track-record of significant research achievements in the last 10 years; at least matching one or more of the following benchmarks:
- **10 publications as senior author** in major international peer-reviewed multidisciplinary scientific journals
- 3 major research **monographs**, of which at least one is translated into another language (social sciences /humanities) (...)

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PROPOSAL STRUCTURE AND EVALUATION

- one-step submission, two-step evaluation
- Evaluation by Panel-Members and remote referees

B1
Extended Synopsis - 5 pages
 CV - 2 pages
 Track record – 2 pages

B2
Scientific proposal – 15 pages
 Ethical issues – 2 pages

1 2

**Starter,
Consolidator:
Interview**

Step 1: B1 evaluated by panel members

Step 2: B1 + B2 evaluated by panel members and remote referees

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EVALUATION: DOMAINS AND PANELS

ERC Domains

Domain	Percentage
PE	44%
LS	39%
SH	17%

Physical Sciences and Engineering

- PE1 Mathematics
- PE2 Fundamental Constituents of Matter
- PE3 Condensed Matter Physics
- PE4 Physical and Analytical Chemical Sciences
- PE5 Synthetic Chemistry and Materials
- PE6 Computer Science and Informatics
- PE7 Systems and Communication Engineering
- PE8 Products and Processes Engineering
- PE9 Universe Sciences
- PE10 Earth System Science

Life Sciences

- LS1 Molecular & Structural Biology and Biochemistry
- LS2 Genetics, Genomics, Bioinformatics, Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 Neurosciences and Neural Disorders
- LS6 Immunity and Infection
- LS7 Diagnostic Tools, Therapies and Public Health
- LS8 Evolutionary, Population and Environmental Biology
- LS9 Applied Life Sciences and Non-Medical Biotechnology

Social Sciences and Humanities

- SH1 Markets, Individuals and Institutions
- SH2 *The Social World, Diversity, and Common Ground*
- SH3 Environment, Space and Population
- SH4 The Human Mind and its Complexity
- SH5 Cultures and Cultural Production
- SH6 The Study of the Human Past

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EVALUATION: PANEL MEMBERS AND REMOTE REFEREES

Life Sciences

- LS1 Molecular & Structural Biology and Biochemistry
- LS2 Genetics, Genomics, Bioinformatics, Systems Biology
- LS3 Cellular and Developmental Biology
- LS4 Physiology, Pathophysiology and Endocrinology
- LS5 **Neurosciences and Neural Disorders**
- LS6 **Immunity and Infection**
- LS7 Diagnostic Tools, Therapies and Public Health
- LS8 Evolutionary, Population and Environmental Biology
- LS9 Applied Life Sciences and Non-Medical Biotechnology

LS6 Immunity and Infection: The immune system and related disorders, infectious agents and diseases, prevention and treatment of infection

- LS6_1 Innate immunity and inflammation
- LS6_2 Adaptive immunity
- LS6_3 Phagocytosis and cellular immunity
- LS6_4 Immunosignalling
- LS6_5 Immunological memory and tolerance
- LS6_6 Immunogenetics
- LS6_7 Microbiology
- LS6_8 Virology
- LS6_9 Bacteriology
- LS6_10 Parasitology
- LS6_11 Prevention and treatment of infection by pathogens (e.g. vaccination, antibiotics, fungicide)
- LS6_12 Biological basis of immunity related disorders (e.g. allergy)
- LS6_13 Veterinary medicine and infectious diseases in animals




Remote Referees
„Specialists“
Step 2

10-15 Members/Panel
„Generalists“
Step1 and Step 2
StG, CoG: Interview

list of previous panel members: <http://erc.europa.eu/evaluation-panels>

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EVALUATION “SUBCRITERIA”



Scientific excellence

}

research project:

groundbreaking nature

ambition

feasibility

}

principal investigator:

intellectual capacity

creativity

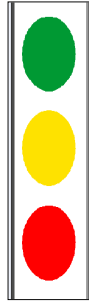
committment

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Evaluation: ABC - ranking system



Step1

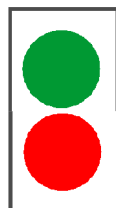


- A** is of **sufficient quality to pass to step 2 of the evaluation;**
- B** is of high quality but not sufficient to pass to step 2 of the evaluation;
- C** is not of sufficient quality to pass to step 2 of the evaluation.

Evaluation: ABC - ranking system



Step2

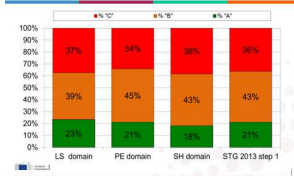


- A** **fully meets the ERC's excellence criterion** and is recommended for funding if sufficient funds are available;
- B** meets some but not all elements of the ERC's excellence criterion and will not be funded.

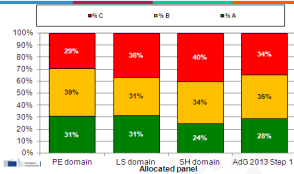
EVALUATION CATEGORIES: A-B-C



StG 2013 – Overview by domain
Step 1 results



AdG 2013 – Overview by domain
Step 1 results



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ERC: WHAT'S NEW IN HORIZON 2020?



- Strong increase in **ERC budget**: ~ 13,1 Mrd EUR for seven years (+74%)
- However, due to continuous rise in applications, the ERC plans **more restrictive rules for ERC resubmissions** in Horizon 2020:

UP TO NOW:

FROM 2014/15

Proposal-Category according to evaluation	Submit to the next possible ERC call	1 Call „pause“	Proposal-Category according to evaluation	Submit to the next possible ERC Call	1 Call „pause“	2 Calls „pause“
A	✓	-	A	✓	-	-
B	✓	-	B	-	✓	-
C	-	✓	C	-	-	✓

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ERC: WHAT'S NEW IN HORIZON 2020?



- **Horizon 2020 funding rates and simplification measures** apply:
Funding rate: max. **100%** direct eligible costs; max. **25 %** for indirect costs;
fewer audits
- Synergy Grant Call: fate unclear
- Some changes to panel descriptors
- Request for the exclusion of up to 3 reviewers: No reason required



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ERC: WHAT'S NEW IN HORIZON 2020?



- Open Access to publications obligatory
- Model CV template included in Guide for applicants
- Funding ID: mandatory table template for submitted and running projects
- Simplified budget table



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ERC: WHAT'S NEW IN HORIZON 2020?



- PhD equivalency policy (1):

M.D./PhD: Clinical specialty training (Facharztausbildung) does no longer render a M.D. degree a PhD equivalent

However, clinical training can still extend the „eligibility window“:

*For long-term illness, clinical training or national service the effective elapsed time since the award of the first PhD will be considered reduced by the actual amount of leave taken for each incident which occurred **after** the PhD award.*

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ERC: WHAT'S NEW IN HORIZON 2020?



- PhD equivalency policy (2):

ERCEA:

“A researcher (with PhD equivalency) and applying on the basis of his/her MD degree, may request an extension of the eligibility for clinical specialty training. However, only the time spent **after the PhD equivalent award** (ie MD +2 years) can be considered for this extension (the maximum duration granted for eligible career breaks **cannot surpass 4 years and 6 months**).”

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CONSIDERATIONS FOR AN ERC-PROPOSAL



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- How does the project break new ground? What is its **core novelty**?
- What are the main overarching **research questions/hypotheses**?
- What are the central research **objectives**?
- Risk/gain-balance
- Which **panel** should I choose?
ERC Project Database at CORDIS:
http://cordis.europa.eu/fp7/projects_en.html
- What is the optimal **structure** for the proposal?
-> **clarity** and „**narrative**“

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ERC CALLS IN H2020



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ERC Grant	Call publication	Call deadline	Budget (Mio €)
Starting Grant 2014	11. Dec. 2013	25. March 2014	485 (~ 370 grants)
Consolidator Grant 2014	11. Dec. 2013	20. May 2014	713 (~ 400 grants)
Advanced Grant 2014	17. June 2014	21. Oct 2014	450 (~ 200 grants)
Proof of concept 2014	11. Dec. 2013	1. April 2014 1. Oct. 2014	15 (~ 100 grants)
Starting Grant 2015	Sep/Oct 2014?	3. Feb. 2015	411 (~ 315 grants)
Consolidator Grant 2015	Nov/Oct 2014?	12. March 2015	603 (~ 340 grants)
Advanced Grant 2015	Jan/Feb 2014?	2. June 2015	640 (~ 285 grants)
Proof of concept 2015	Nov/Dec 2014?	23. April 2015 1. Oct. 2015	15 (~ 100 grants)
Synergy 2015?	?	?	?

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FURTHER INFORMATION



EU Participant Portal:
<http://ec.europa.eu/research/participants/portal/desktop/en/home.html>

RESEARCH & INNOVATION
Participant Portal

Horizon 2020

Search Topics
Call Updates

FP7 & CIP Programmes
Calls
Call Updates

COSME
Other Funding Opportunities

Horizon 2020

Excellent Science
 European Research Council
 Future and Emerging Technologies
 Marie Skłodowska-Curie actions
 Research Infrastructures
Industrial Leadership
 Leadership in enabling and industrial technologies (LEIT)
 Access to risk finance
 Innovation in SMEs

Filter a call [FILTER]

Sort by Title Call ID Publication Date Deadline Date

Excellent Science Call for proposals for ERC Consolidator Grant ERC-2014-COG Pub.Date: 11/12/2013 Deadline: 23/02/2014	Excellent Science Calls for proposals for ERC Proof of Concept Grant ERC-2014-PCG Pub.Date: 11/12/2013 Deadline: 01/10/2014	Excellent Science Call for proposals for ERC Starting Grant ERC-2014-STG Pub.Date: 11/12/2013 Deadline: 23/02/2014
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In addition to the search facilities, the full list of H2020 Calls can be found here:
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FURTHER INFORMATION



EU Participant Portal:

RESEARCH & INNOVATION
Participant Portal

CALL FOR PROPOSALS FOR ERC STARTING GRANT

ERC-2014-STG
Publication date: 2013-12-11
Budget: €800 000 000
Main Pillar: Excellent Science
Call reference: ERC-2014-STG-01-2013

Call description Call documents Call requests Submission for notifications

Call summary

ERC Starting Grants are designed to support excellent Principal Investigators at the career stage at which they are starting their independent research career or programme. This action targets researchers of any nationality who intend to conduct their research activity in any Member State or associated country.

The ERC Starting Grants grants support on a bottom-up basis without predetermined priorities. The call 'ERC-2014-STG' consists of several calls with a single enabling approach in each of the four main research domains:

- Medical Sciences & Engineering (Marie Skłodowska-Curie)
- Life Sciences (Marie Skłodowska-Curie)
- Social Sciences & Humanities (Marie Skłodowska-Curie)

The deadline for submission of the call is 23 February 2014, 17:00:00 (Brussels local time).

The budget indicated above is the total budget covering all Research.

Please note that the link for the electronic proposal submission system will be made available in January.

OPEN FOR SUBMISSION SERVICE
+ ERC-2014-STG: ERC Starting Grant



FURTHER INFORMATION



EU Participant Portal:

RESEARCH & INNOVATION
Participant Portal

Call for proposals for ERC Starting Grant

ERC-STARTING GRANT

Publication date: 2013-12-11 | Deadline Date: 2014-03-25 17:00:00 (Business local time)
Total Call Budget: €48,000,000 | Main Phase: Closed | Grant Reference: QJ-ERC-STG-13

Topic Description: **ERC-STARTING GRANT** | ERC-ERC-2014

Objectives:
ERC Starting Grants are designed to support excellent Principal Investigators at the career stage at which they are starting their own independent research team or programme. Applicant Principal Investigators must demonstrate the ground-breaking nature, ambition and feasibility of their specific proposal.

Size of ERC Starting Grants
Starting Grants may be awarded up to a maximum of EUR 1,500,000 for a period of 5 years.

Researcher: QJ is established EUR 1,500,000 can be requested in the proposal to cover "at least" "start-up" costs for Principal Investigators moving to the EU or an Associated Country from research as a consequence of receiving the ERC grant and/or to the purchase of major equipment (where QJ seems to be large facilities).

Profile of the ERC Starting Grant Principal Investigator
The Principal Investigator who has been awarded their StG must at least 3 and up to 7 years prior to the publication date of the call for proposals of the ERC Starting Grant. The effective elapsed time since the award of the StG can be reduced in certain specific circumstances.

A competitive Starting Grant Principal Investigator must have already shown the potential for research independence and evidence of maturity. For example, it is expected that applicants will have produced at least one important publication without the participation of their PIH supervisors. Applicant Principal Investigators should also be able to demonstrate a promising track record of other internationally significant research that and career stages, including significant publications (as main author) in major international peer-reviewed multidisciplinary scientific journals, or in the leading international peer-reviewed journals of their respective field. They may also demonstrate a record of invited presentations in well-attended international conferences, invited papers, awards, prizes etc.



FURTHER INFORMATION



ERC-Webpage: erc.europa.eu

Information and Contact at FFG:
<https://www.ffg.at/erc>

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