



Netherlands Enterprise Agency



# ERC Grants

*13 March 2017*

*Funding for excellent ideas*



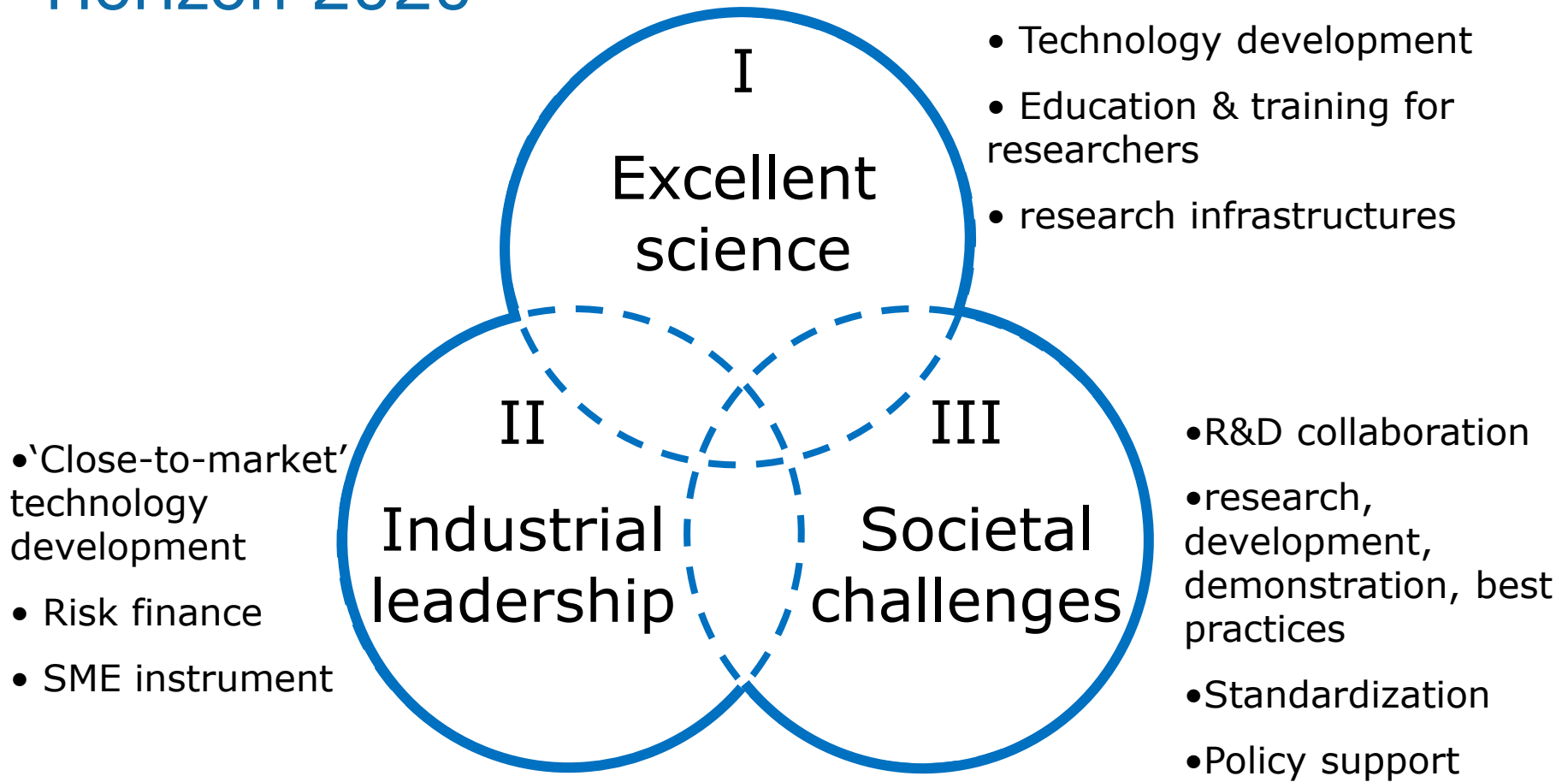
# Horizon 2020

- The EU Framework programme for research and innovation
- 2014-2020
- Total 70 billion euro
- ERC: 13.1 billion euro



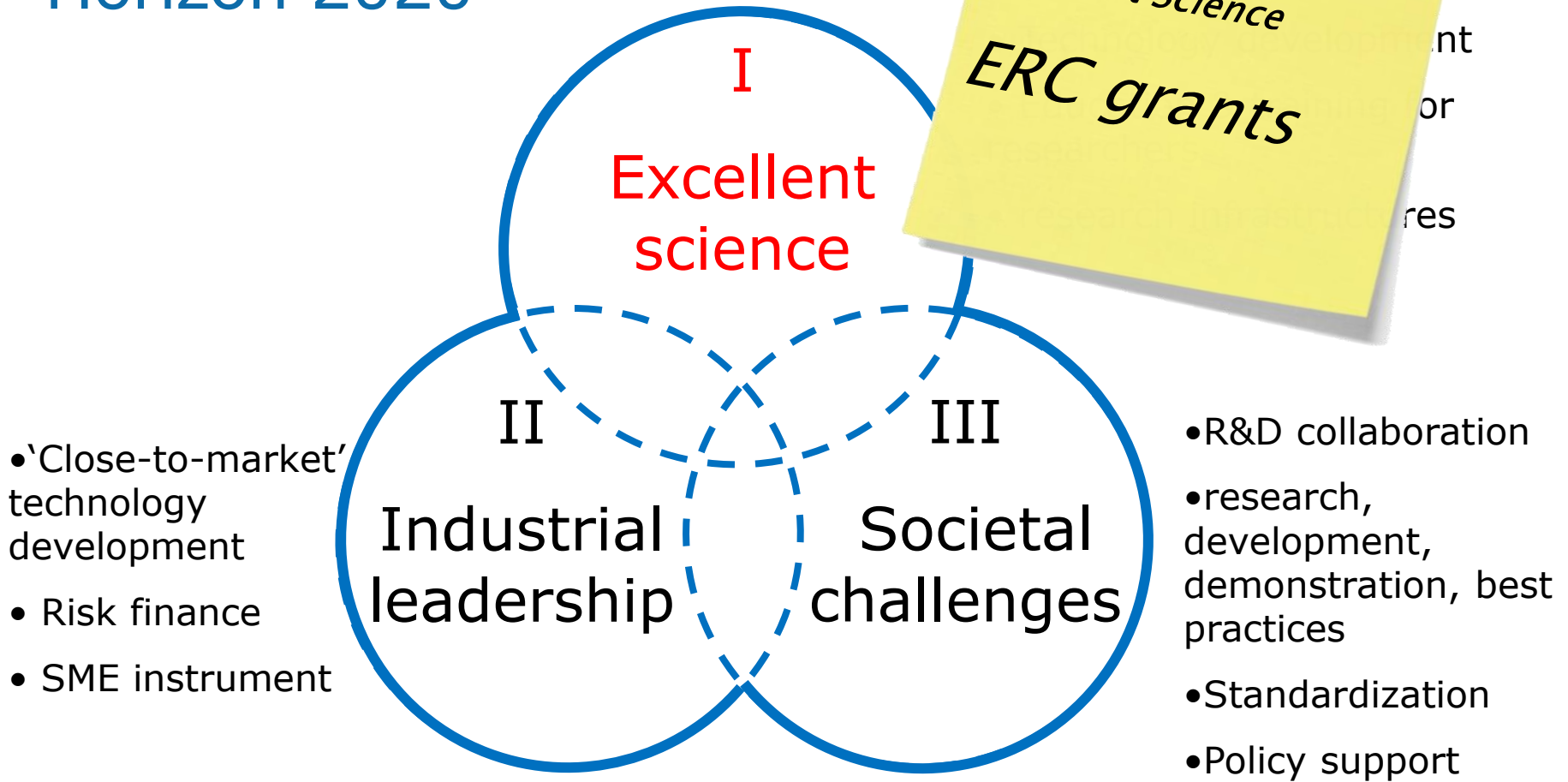


# Horizon 2020





# Horizon 2020





# European Research Council - mission

To encourage the highest quality research in Europe through competitive funding and to support investigator-initiated frontier research across all fields of research, on the basis of scientific excellence.



**European Research Council**

Established by the European Commission



# European Research Council - mission

To encourage the **highest quality research** in Europe through **competitive funding** and to support **investigator-initiated frontier research** across **all fields of research**, on the basis of **scientific excellence**.

*Funding excellent scientists  
with the most brilliant ideas*



**European Research Council**

Established by the European Commission



# ERC grants- Frontier research

- Any field of research\*
- Interdisciplinary, crossing boundaries between different fields
- Pioneering
- New and emerging fields
- Unconventional, innovative approaches and scientific inventions
- High risk – high gain
- Opening new horizons of knowledge

*\* Except nuclear energy and unacceptable ethical issues*



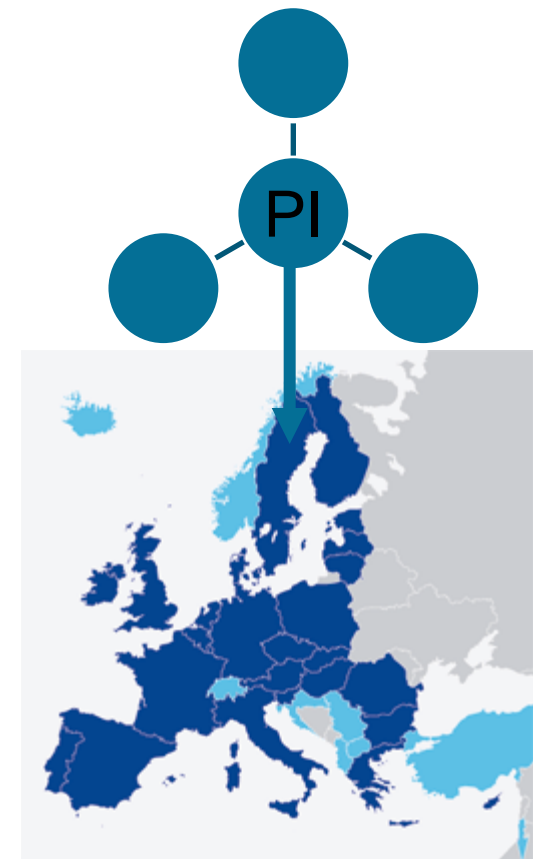
# “Individual Research Team” concept

## Individual research teams:

- Principal Investigator (PI) - team leader
- any nationality or age
- additional team members

## PI's host institution:

- EU Member State or Associated Country







# ERC- three main types of grants

ERC **STARTING** Grant

2-7 years after PhD

*PI is **starting** first research team  
transition to independence*

ERC **CONSOLIDATOR** grant

7-12 years after PhD

*PI is **consolidating** team  
consolidation of independence*

ERC **ADVANCED** grants

internationally recognized  
research leaders



## Eligibility window 2018 (*StG and CoG*)

Calculated with reference date '1st of January of the call year':

- **Starting grant:** PhD 2-7 years prior to 1 January 2018  
*PhD awarded from 1 January 2011 to 1 January 2016 (inclusive)*
- **Consolidator grant:** PhD 7-12 years prior to 1 January 2018  
*PhD awarded from 1 January 2006 to 31 December 2010 (inclusive)*

Extensions to eligibility window:

- Maternity leave: 18 months per child;
  - Paternity leave: accumulation of actual time taken off
  - Long-term illness (PI or direct family >90 d), clinical training, national service
- } before/  
after PhD
- } after PhD



# ERC StG & CoG - What is allowed?

- Budget: up to **1,5 M€** (StG)  
up to **2 M€** (CoG)  
  
**Top up** of 0,5/0,75 M€  
in case of:  
*access to large facilities*  
*purchase major equipment*  
*PI moving to Europe*
- Up to 5 years
- Min. 50% (StG) and 40% (CoG) of time dedicated to the project
- Including *portability*



## Profile of PI (*StG and CoG*)

- Promising track record of early achievements, including:
  - Significant publications as main author in:
    - *major international peer-reviewed multidisciplinary journals*
    - or**
    - *the leading international peer-reviewed journals of their respective field*
- Important publications without PhD supervisor
  - StG**: at least 1; **CoG**: several
- Invited presentations, awards, granted patents



# ERC Advanced grant - What is allowed?

- Up to **2,5 M€**

1,0 M€ extra in case of: *PI moving to Europe*  
*major equipment investment*  
*access to large facilities*

- Up to 5 years
- Min. 30% of time dedicated to the project
- Including *portability*



## AdG – Profile of PI

- Active researcher
- Track-record of significant achievements **in the last 10 years**
  - *Contribution to research field*
  - *Ability to change research fields*
  - *International recognition*
  - *Inspire younger researchers*
  - *Leadership in industrial innovation*



## Call deadlines 2017\*

### Call deadlines 2017:

Starting grant 2017	Opening: 19 July 2016 Deadline: 18 October 2016
Consolidator Grant 2017	Opening: 20 October 2016 Deadline: 9 February 2017
Advanced grant 2017	Opening: 16 May 2017 Deadline: 31 August 2017

*\*Call dates 2018 will be published in summer 2017*



# Submission

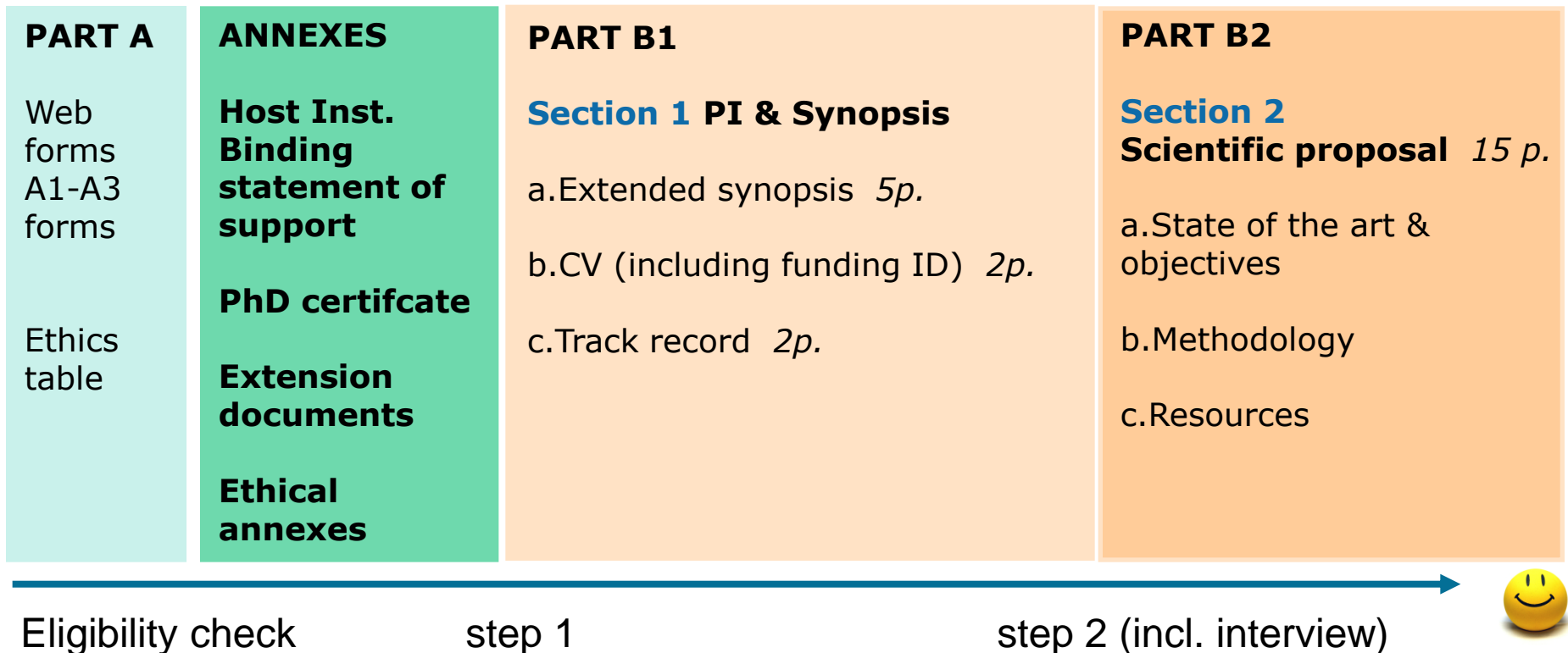
- Single submission – two step evaluation
- Only 1 proposal for ERC research grant under 2017 work programme
- Strict resubmission rules





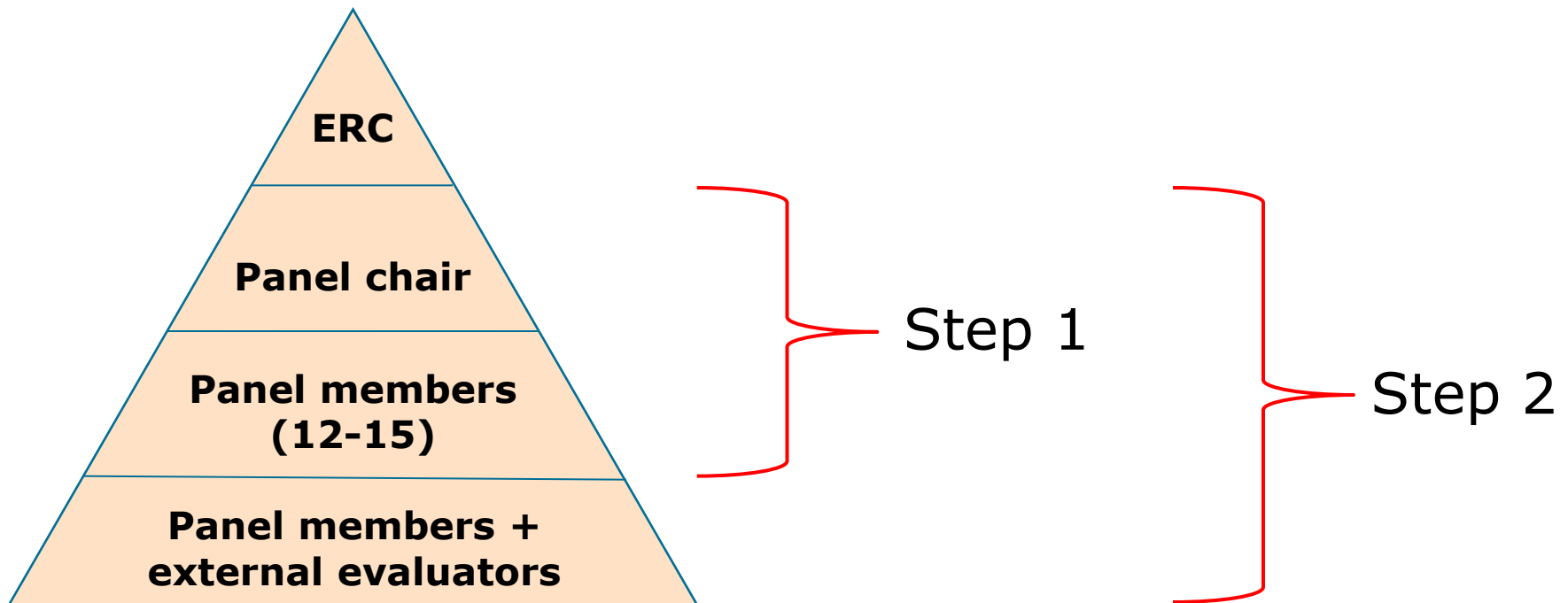
# The proposal

*Single submission – two-step evaluation*





# Evaluation panel structure



**Choose your panel wisely!!**



## 3 domains - 25 panels

- Physical Sciences and Engineering
- Life Sciences
- Social Sciences and Humanities

Budget division over domains and panels based on No. of applications received



# Examples of Panels

Choose the right panel  
and key words

## PE10: Earth system science

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

## SH4: the human mind and its complexity:

Cognitive science, psychology, linguistics, philosophy of mind

## LS8: Evolutionary, population and environmental biology:

evolution, ecology, animal behaviour, population biology, biodiversity, biogeography, marine biology, microbial ecology



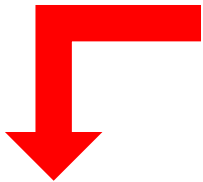
# How are you evaluated?

## Step 1

C: not of sufficient quality for ERC

B: of high quality but not sufficient for step 2

A: of sufficient quality to pass to step 2



## Step 2

B: meets some but not all of the excellence criteria

A: excellent, will be fundable if sufficient funds are available



# Resubmission rules

## First-step score

B score: may not submit for next call

C score: may not submit for coming **2** calls

**Strategic planning crucial**

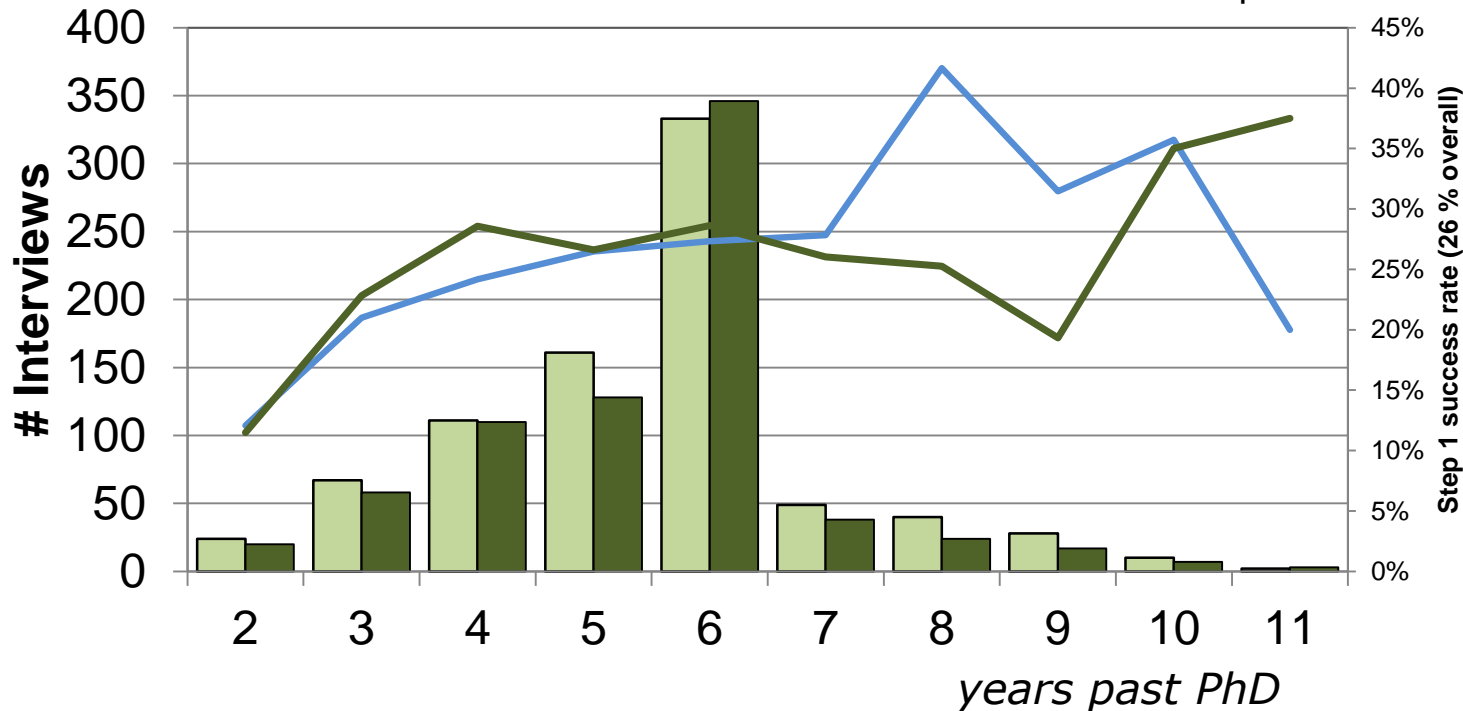


# Go/no-go: *optimal timing?* (StG)



**STG 2014-2015 # interviews at Step 2 with success rate by years past PhD**

- STG 2014 (825)
- STG 2015 (751)
- step 1 SR 2014 (26 %)
- step 1 SR 2015 (26 %)



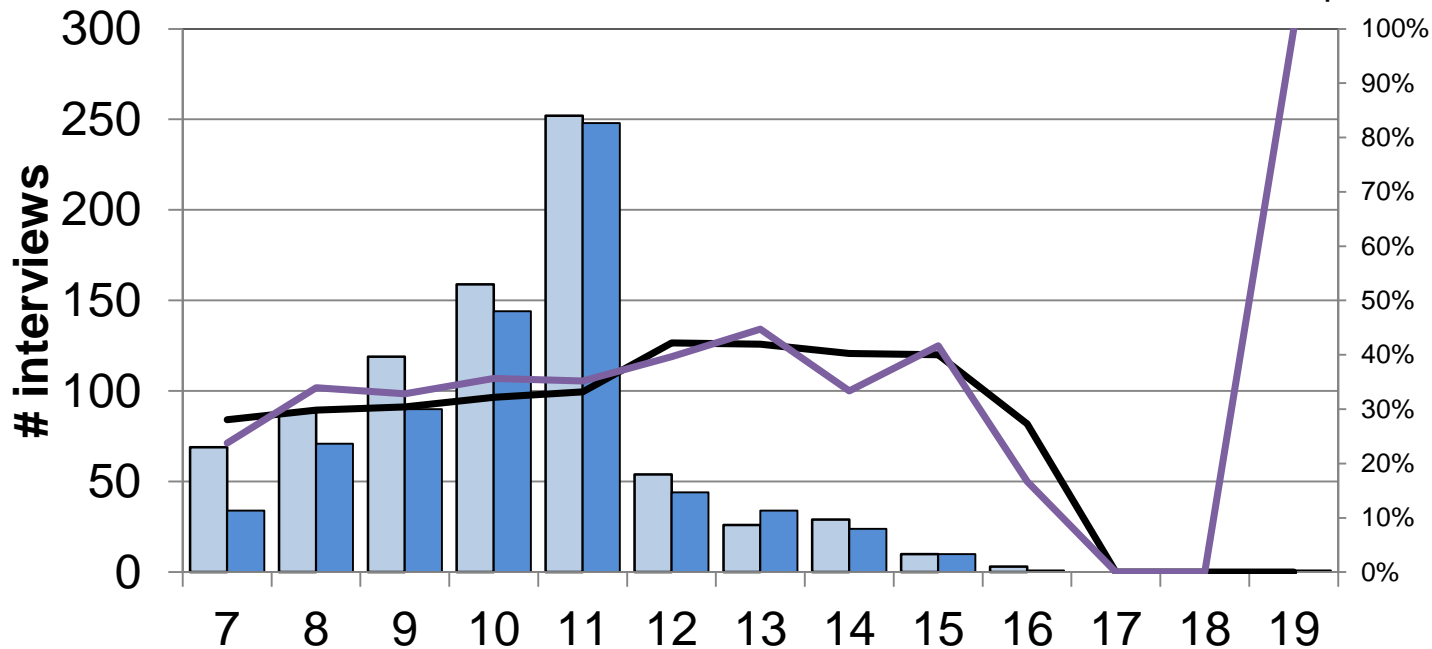


# Go/no-go: *optimal timing?* (CoG)



**COG 2014-2015 # interviews at step 2 with success rate by years past PhD**

- COG 2014 (809)
- COG 2015 (701)
- 2014 Step 1 SR (32 %)
- 2015 Step 1 SR (34 %)



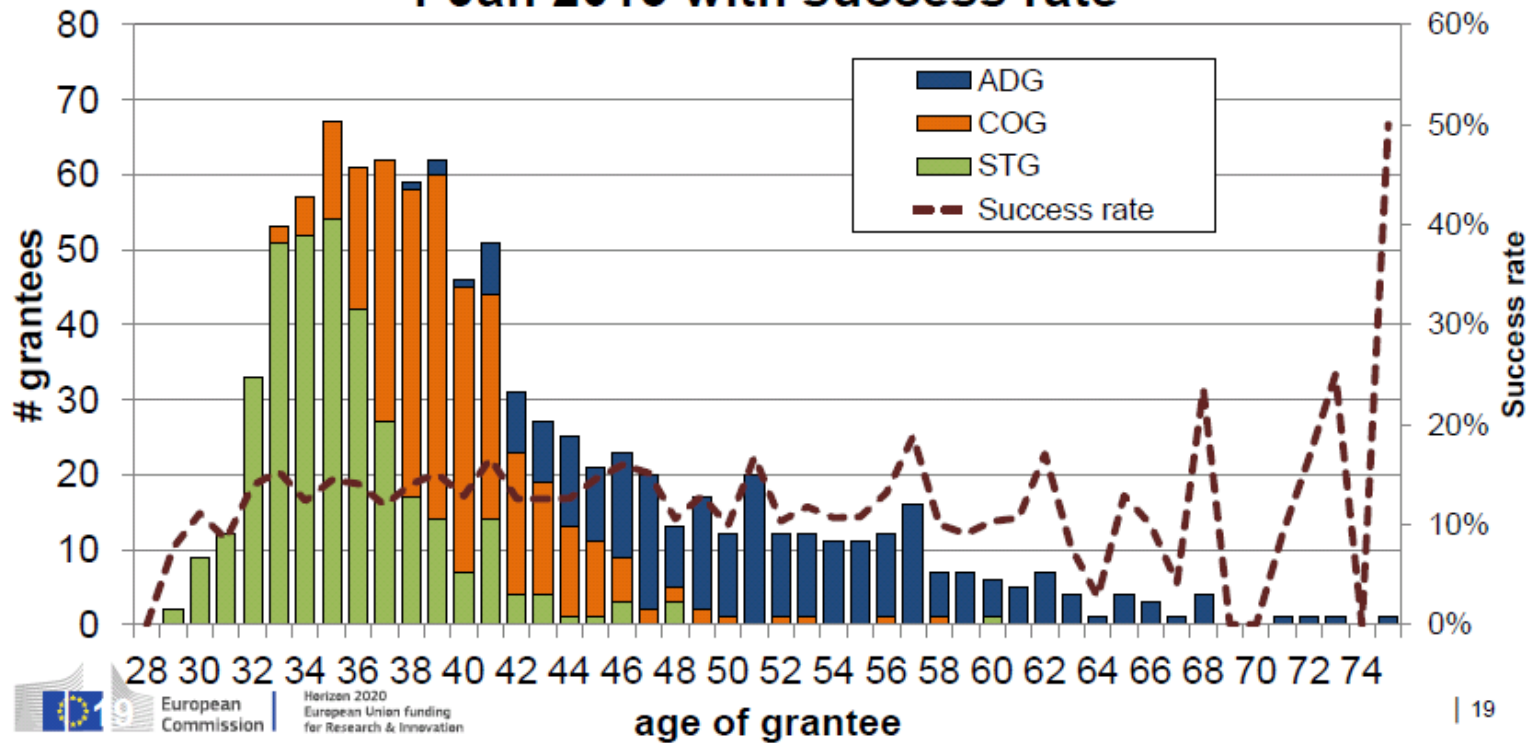




# Go/no-go: *optimal timing?*



### STG COG ADG 2015 Age of grantees on 1 Jan 2015 with success rate





ERC panel member:

*"We are looking to fund excellent scientists with a vision and brilliant plans to achieve that vision, rather than individual research projects..."*



High risk  
Ambition  
Novelty

**Versus**

Feasibility





Your vision  
and creativity

- Information on your methodology
- Preliminary data
- Contingency plan
- Proven expertise



Credibility...



## Go/ no-go?

### **Go, if:**

- Your frontier research idea is mature enough
- You have well thought-out plans to achieve your research goals (feasibility)
- Your cv shows leadership skills, scientific impact, international recognition and independence.

### **No-go (wait) if:**

- You need more proof in your cv (e.g. publications without PhD supervisor)
- Your idea is still too general, it is hard to become concrete







Rijksdienst voor Ondernemend  
Nederland



# ERC grants

*Dutch participation:  
lessons learned*



# Funding brilliant minds

## 10 Years ERC research in the Netherlands



Over **1 billion euro** awarded to dutch institutions



**NL ranks 4th**



in number of granted ERC projects, with **672 ERC projects** awarded



Attracting **181 top talents** from abroad



**74 Projects** bridging the gap between basic science and **Commercial Application**



Projects **ranging** from **black holes** to **group violence**





## ERC projects @UTwente





# ERC@Twente

*(at least)*

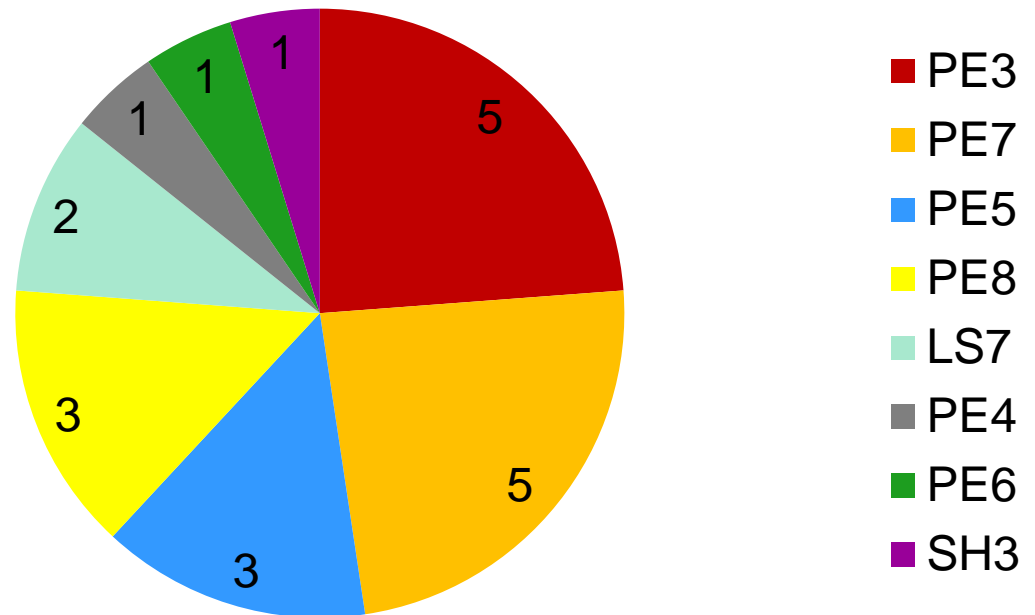
13 Starting Grants

5 Consolidator Grants

3 Advanced Grants

+ 9 Proof of Concept Grants!  
(highest in NL!)

## Panel distribution



➔ 86% in PE!



## Statistics – *Success rates*

		Success rates	
		EU	NL
<b>StG</b>	2015	12,2%	
	2016	13,0%	
<b>CoG</b>	2015	14,9%	
	2016	13,6%	
<b>AdG</b>	2014	8,5%	
	2015	14,4%	



## Statistics – *Success rates*

		Success rates	
		EU	<b>NL</b>
<b>StG</b>	2015	12,2%	19,4%
	2016	13,0%	16,8%
<b>CoG</b>	2015	14,9%	23,8%
	2016	13,6%	19,9%
<b>AdG</b>	2014	8,5%	12,2%
	2015	14,4%	17,8%





## Statistics – *score distribution (H2020)*

StG	<i>to 2<sup>nd</sup> step</i>	26%
	<i>First step <b>B</b></i>	43%
	<i>First step <b>C</b></i>	30%

CoG	<i>to 2<sup>nd</sup> step</i>	34%
	<i>First step <b>B</b></i>	36%
	<i>First step <b>C</b></i>	30%

AdG	<i>to 2<sup>nd</sup> step</i>	24%
	<i>First step <b>B</b></i>	42%
	<i>First step <b>C</b></i>	32%



## Statistics – score distribution (H2020)

StG	<i>to 2<sup>nd</sup> step</i>	26%	<b>NL:</b>	36%
	<i>First step <b>B</b></i>	43%		47%
	<i>First step <b>C</b></i>	30%		17%
CoG	<i>to 2<sup>nd</sup> step</i>	34%	<b>NL:</b>	43%
	<i>First step <b>B</b></i>	36%		39%
	<i>First step <b>C</b></i>	30%		17%
AdG	<i>to 2<sup>nd</sup> step</i>	24%	<b>NL:</b>	38%
	<i>First step <b>B</b></i>	42%		42%
	<i>First step <b>C</b></i>	32%		20%



## How are you evaluated?

### **Excellence of the PI**

- Intellectual capacity and creativity
- Commitment, willingness to devote at least 50% of time

### **Excellence of the project**

- Ground-breaking nature and potential impact
- Methodology (step 1: feasible / step 2: appropriate)
- High risk/High gain balance



# Lessons learned





## Lessons learned – *Life Sciences*

### **Frequent remarks in rejected proposals**

- Not enough high impact papers without PhD supervisor (StG/CoG)
  - PI remained in lab of PhD supervisor (StG)
  - No proven expertise on risky/groundbreaking parts of project
  - Publications with high number citations are reviews
  - Recent scientific output of lower quality compared to earlier work (AdG)
- 
- Project is standard continuation of previous work
  - Project not hypothesis-driven
  - Coherence between subprojects unclear
  - Proposed experiments not suited to answer research questions



# Lessons learned – *Physical sciences & engineering*

## **Frequent remarks in rejected proposals**

- High impact publications only from collaborations and leading role of applicant not clear
- Number of citations not sufficient
- Not enough experience supervising PhD students
  
- Absence of project planning
- Too much focus on technological development/engineering without considering scientific questions
- Not clear why proposed approach will be successful in comparison to previous efforts
- Doubts regarding technological feasibility



# Lessons learned – *Social sciences & Humanities*

## **Frequent remarks in rejected proposals**

- Not enough experience supervising PhD students
  - No external funding acquired
  - No experience managing large grant (AdG)
  - Books published in Dutch (no other language)
  - No peer reviewed articles
- 
- Theoretical framework not sufficiently addressed
  - Workplan not clear
  - No innovative research methodologies
  - Project doesn't add to theory formation/new conceptual development



## Some words of advice...

- Take sufficient time to develop your scientific idea
- Assess your impact on research field and independence
- 'Get to know' your panel(s)
- Arrange for feedback



# More information

The screenshot shows the ERC website homepage with the following elements:

- Header:** "Supporting top researchers from anywhere in the world" and a search bar.
- Navigation:** Home, Funding and Grants, Projects and Results, Media and Events, About ERC, Contact us.
- Main Content:**
  - Pathways to success for second-generation migrants:** Accompanied by a photo of a diverse group of people.
  - ERC News:** A list of recent news items with dates and brief descriptions:
    - 22.02.17: ERC projects behind exoplanets discovery
    - 10.02.17: Facts and figures: Applications for ERC CoG 2017
    - 31.01.17: ERC funds 133 innovations arising from frontier research
    - 17.01.17: ERC brings frontier research into Davos debates
    - 13.01.17: New ERC Vice Presidents and Scientific Council members
    - 21.12.16: The winter issue of the ERC newsletter is out
    - 16.12.16: Beyond the first decade: ERC turns ten in 2017
    - 13.12.16: ERC Consolidator Grants: €605 million from Brussels to 314 ambitious researchers
  - Funding Opportunities:**
    - OPEN CALL:** ERC Proof of Concept Grant | ERC-2017-PoC Information for applicants. Deadlines: 25 Apr 2017 | 05 Sept 2017.
    - UPCOMING CALL:** ERC Advanced Grant | ERC-2017-AdG. Call opens: 16 May 2017. Deadline: 31 Aug 2017.
  - Other sections:** "ideas" newsletter, "erc comics", and a video "How I got my ERC grant - Dr Ágnes Melinda Kovács".

erc.europa.eu

- Calls
- Panels
- News alerts
- Funded projects

The tweet from @ERC\_Research reads: "Ne ratez pas le dialogue citoyen @unistra @Strasbourg ce 14/03 avec @Moedas! #ERC10yrs #EUdialogues ec.europa.eu/france/event/2...". Below the text is a cartoon illustration with speech bubbles in French: "UNE INVITATION À UN DIALOGUE CITOYEN À STRASBOURG?", "MAIS ÇA VEUT DIRE QU'IL Y A DES CITOYENS?", and "AH NON, ATTENDEZ, C'EST 'CITOYEN'".



# Need support?

Your local EU support office

National Contact Point for ERC:  
Esther Verhoeven and Doenja Koppejan



[www.rvo.nl/horizon2020](http://www.rvo.nl/horizon2020)



[horizon.erc@rvo.nl](mailto:horizon.erc@rvo.nl)



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