



HORIZON 2020

LE PROGRAMME DE RECHERCHE ET
D'INNOVATION DE L'UNION EUROPÉENNE

OPPORTUNITÉ POUR LES IR DANS D'AUTRES APPELS H2020

Appel ERC Synergy

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The European Research Council



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Appel Synergy 2018



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Background

- 2012-2013: two pilot Synergy grant calls
 - 1,5-3% success rate: 24 projects selected
- 2015: Assessment by the ERC Scientific Council of the pilot funding schemes
- 2016: Decision by the ERC Scientific Council to re-launch the SyG scheme
 - Implementation: 2018 Work Programme



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SYG 2013-2013 CALLS

PILOT SCHEME ASSESSMENT

2012-2013 Synergy pilot scheme

Assessment method



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- Site visits to all 24 Synergy projects
- No Scientific evaluation
- Assessment included :
 - Open session with research team on:
 - Goals and status of the project
 - Vision and strategies
 - Challenges
 - Reaction from research community
 - Session with PhD students and postdocs

2012-2013 Synergy pilot scheme

Assessment report : conclusions (I)



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- Synergy grant scheme would be a valuable addition to the current ERC frontier schemes
- Why?
 - Highly ambitious research goals – that cannot be achieved by a single PI
 - Complementarity of PIs/teams essential
 - Cross-fertilization of disciplines and signs of new fields emerging

2012-2013 Synergy pilot scheme

Assessment report : conclusions (II)



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- Why having a SyG scheme?
 - 'Seed' effects visible: expanding the fields and attracting further funding
 - Early career scientists team members broaden their expertise and opportunities
 - Increased and/or unconventional collaborations between institutions

2012-2013 Synergy pilot scheme

Assessment report : recommendations(I)



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- To run on a yearly basis
- 2 or 3 or 4 Principal Investigators
- **No restrictions on localization of PIs**
- More streamlined evaluation process

2012-2013 Synergy pilot scheme

Assessment report : recommendations (II)



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- Excellence is the sole criterion for evaluation, with intrinsic synergetic effects
- Ambition of the research question and complementarity or interdisciplinarity of the approach to be emphasized
- Indicative budget of 10 M€ per grant, allowing for flexibility and top-ups (up to 4 M€ more)



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SYG 2013-2013 CALLS

OVERVIEW OF THE EVALUATION RESULTS

2012 - 2013 Synergy pilot scheme

Overall results



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Synergy 2012

- 710 proposals submitted
- 11 proposals selected for funding (5 PE, 4 LS, 2 SH)
- 38 PIs (10 nationalities)
- 20 Host Institutions (7 countries)
- Success rate : 1,5%
- Average budget requested:
€ 11.5m

Synergy 2013

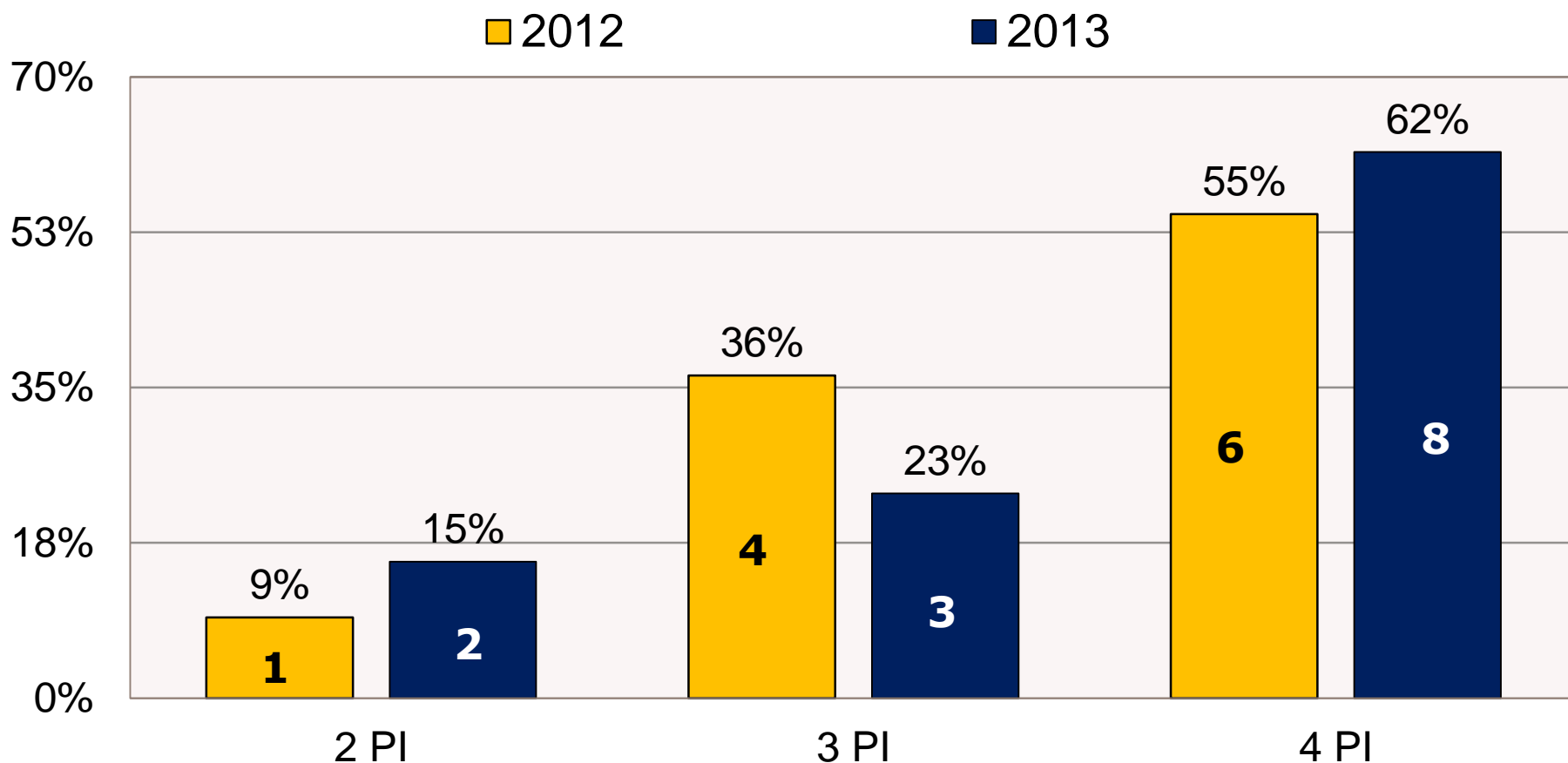
- 449 submitted proposals
- 13 proposals selected for funding (6 PE- 5 LS- 2 SH)
- 45 PIs (14 nationalities)
- 38 institutions (12 countries)
- Success rate : 3%
- Average budget requested:
€12.5 m

2012 - 2013 Synergy pilot scheme

Grouping of PIs of funded proposals



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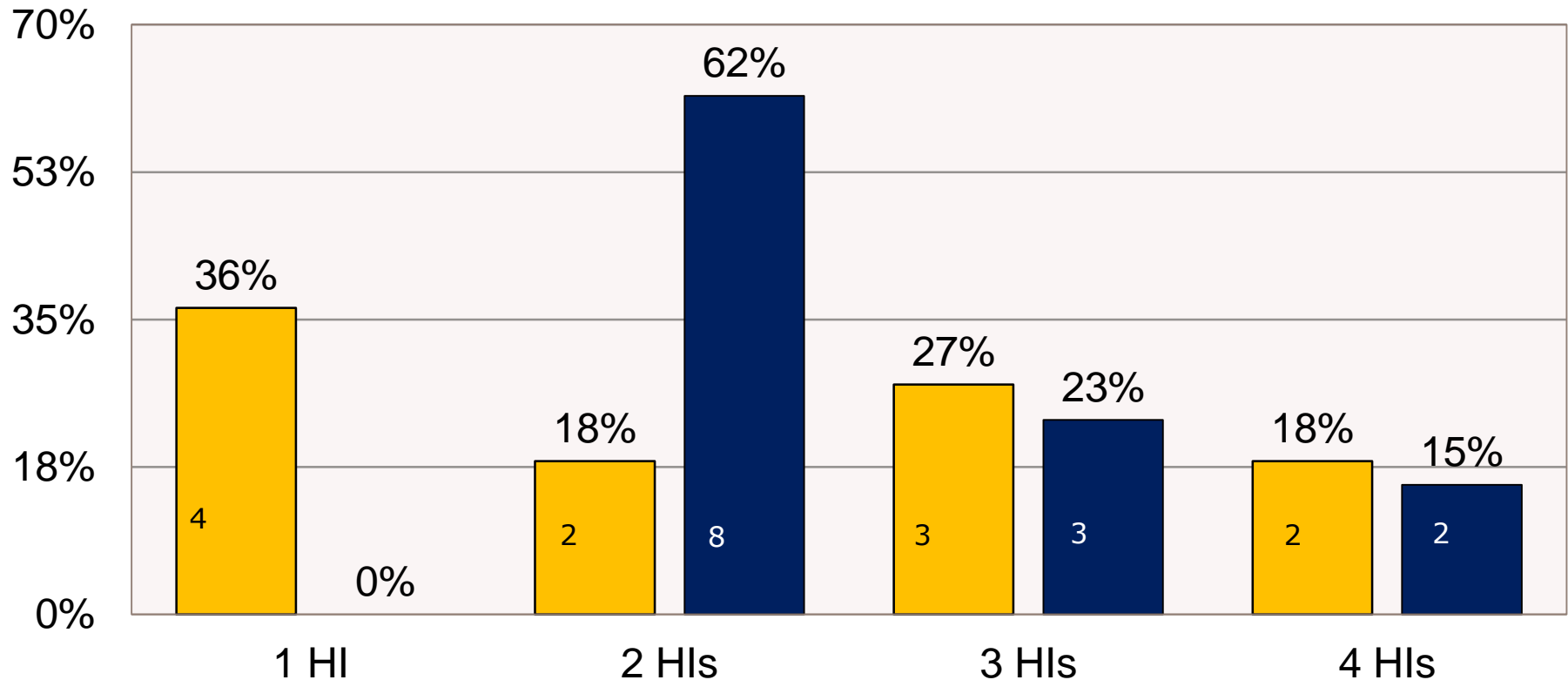


2012 - 2013 Synergy pilot scheme

Grouping of proposals by Host Institutions (HIs)

■ 2012

■ 2013

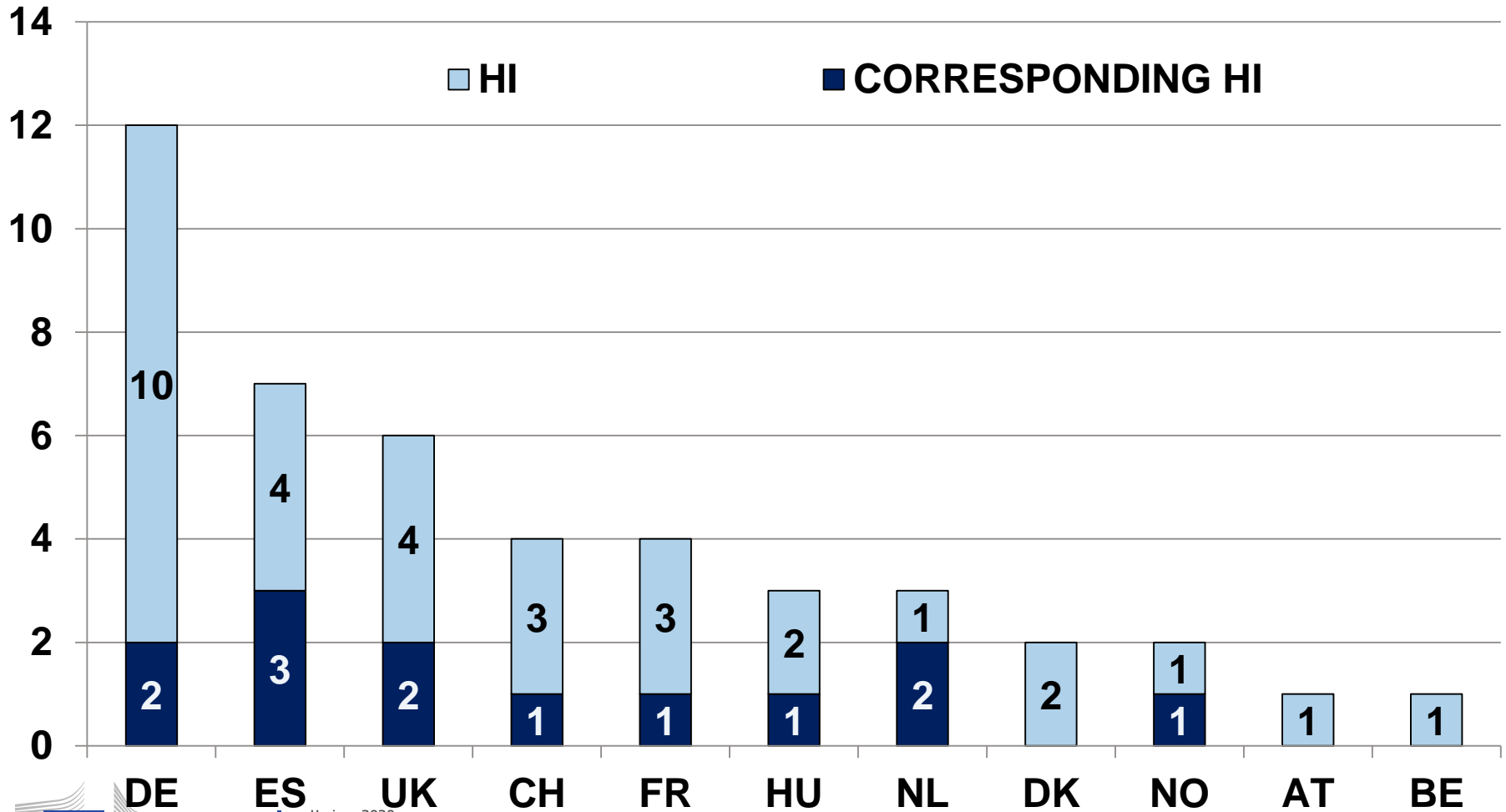


2013 Synergy pilot scheme

Host Institution distribution by country



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SYG 2018 CALL

MAIN FEATURES

2018 Synergy Grant scheme

Objectives



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- Looking for scientific **breakthroughs** that can be achieved **only by working in complementary teams**, not by a PI alone
- 2 to 4 PIs jointly address ***in a unique synergetic effect*** ambitious research problems to :
 - ➔ achieve substantial advances at the **frontiers of knowledge**
 - ➔ to enable **transformative research** on a global scale
 - ➔ to encourage **new productive lines** of enquiry
 - ➔ new methods and techniques, including **unconventional approaches** and investigations at the interface between **established disciplines**

2018 Synergy Grant scheme

Background information



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How 'Synergy' is understood for the scope of the grants

- Each proposal must demonstrate that its objectives can only be achieved through the specific combination of knowledge and skills brought together by the PIs
- Each proposal must highlight its synergetic effects, namely that the end result is substantially greater than the sum of the individual components

These substantial added values distinguish the Synergy Grant scheme from the simple cooperation, consortia or networking aspects of many EC funding programmes.

High Risk aspects

- Proposals are expected to include high risk elements. The risks and how they will be managed have to be well thought through and explained in the proposal.

2018 Synergy grant scheme

Budget and Planning

pending the adoption of the ERC Work Programme 2018 in July 2017



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- Indicative budget foreseen for 2018: 250 M€
 - ➔ 25-30 projects to be selected
- Maximum budget per grant :10 M€
 - ➔ with additional 4 M€ in case:
 - a) "start-up" costs for Principal Investigators moving to the EU or AC and/or
 - b) the purchase of major equipment and/or
 - c) **access to large facilities**
- Maximum duration : 6 years
- Indicative call opening: 19 July 2017
- Indicative call closure: 14 November 2017
- Proposals to be evaluated between November 2017 and September 2018.

2018 Synergy grant scheme

Profile of the Principal Investigators

pending the adoption of the ERC Work Programme 2018 in July 2017



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- 2 or 3 or 4 Principal Investigators
- No restrictions on location of PIs
 - ➔ PI can come from the same corridor in one HI, different HIs within one country, or from different countries (within EU or AC)
- PIs to be considered as equal, but a corresponding PI to be designated who will be the administrative contact for the duration of the project.
- Time commitment: $\geq 50\%$ of working time in EU or AC and $\geq 30\%$ of working time on the ERC project

2018 Synergy Grant scheme

Profile of the Principal Investigators

pending the adoption of the ERC Work Programme 2018 in July 2017



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Applications are expected from a group of innovative and active Principal Investigators who :

- must present an early achievement track-record or a 10-year track-record whichever is most appropriate for their career stage (see Starting, Consolidator and Advanced Grant profiles).

ERC Synergy Grants are designed to foster research at the intellectual frontiers. New types of joint effort may be needed that allow for :

- new combinations of skills and disciplines,
- or the bringing together of researchers from different institutions, sectors or countries.

2018 Synergy Grant scheme

Proposal Structure



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Part B1:

- 5 pages Synopsis,
- 2 pages for the CVs of each PI,
- 2 pages for the track record for each PI

Part B2:

- 15 pages scientific proposal (budget and references excluded)
- each PI to indicate their budget breakdown,
- in addition : one joint budget table

Exclusion of reviewers

up to 6 people can be excluded from evaluating the proposal

2018 ERC Synergy Grants

Evaluation process



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Step 1

Single panel

~700 proposals

Remote evaluation of short proposals

- PMs + PEVs (PMs of other calls)

Panel chairs meeting: proposals selected for Step2

- 130-170 proposals
- up to ~7x call budget

Scores : A, B, C

Step 2

5 panels dynamically formed

Remote evaluation of full proposals

- PMs + external specialized reviewers

Panel meetings: proposals selected for interview

- ~60proposals
- up to ~3x call budget

A, B

Step 3

5 interview panels (max) dynamically formed

PMs reassess the proposals

- based on step 2 reports
- Interviews: all PIs of all proposals

Panels rank the fundable proposals

- ~30 proposals

A, B

2018 ERC Synergy Grants

Evaluation criteria

pending the adoption of the ERC Work Programme 2018 in July 2017



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- **Similar to the other frontier ERC grants :**
 - **Research project:** ground-breaking, ambition, feasibility
 - **Individual PIs :** intellectual capacity, creativity, commitment
- **In addition, synergetic aspects :**
 - **Complementarities :** profiles of the PIs, fields of research, ...
 - **Working arrangements:** innovative, collaborative...
 - **Scientific added-value**



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2018 ERC Synergy Grants

Resubmission restrictions

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Score B at Step1 or Step2

A Principal Investigator whose proposal was evaluated as **category B at step 1 or step 2** in the Synergy Grant call for proposals under Work Programme 2018 may not submit a proposal to the **Synergy Grant calls for proposals made under Work Programme 2019**.

Score C at Step1

A Principal Investigator whose proposal was evaluated as **category C at step 1** in the Synergy Grant call for proposals under Work Programme 2018 may not submit a proposal to **any ERC research grant calls for proposals made under Work Programme 2019 or for the Synergy Grant call in 2020**.

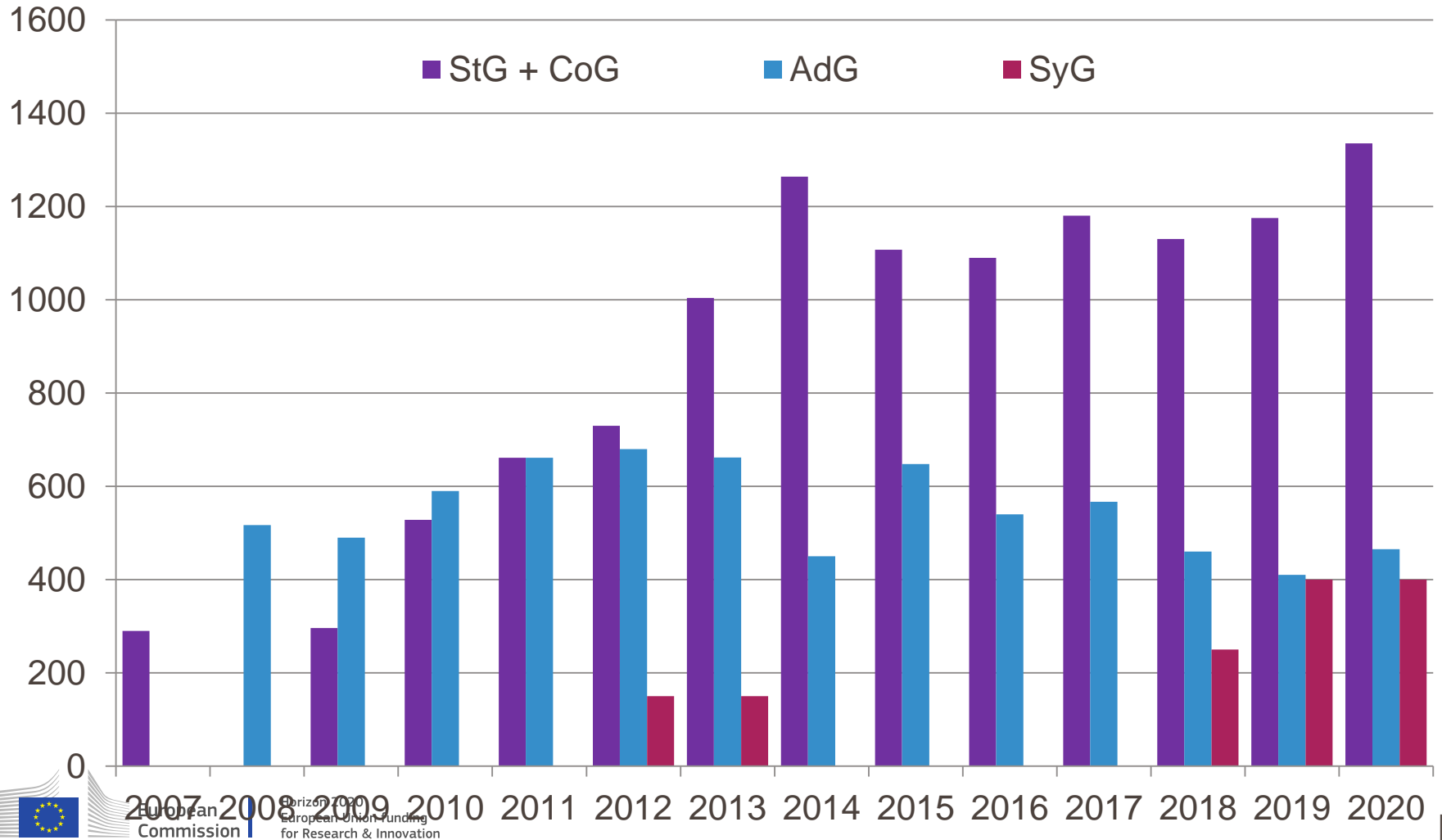
Breach of Research Integrity

All Principal Investigators whose proposal was rejected on the grounds of a breach of research integrity in the Synergy Grant calls for proposals under Work Programme 2018 may not submit a proposal to the **calls for proposals made under Work Programme 2019**.

Call Budgets with Synergy Calls



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SYG 2012-2013 CALLS

EXAMPLES OF FUNDED PROJECTS

SyG 2013: 4D-GENOME



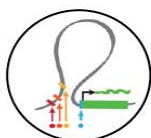
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- "Dynamics of human genome architecture in stable and transient gene expression changes"*

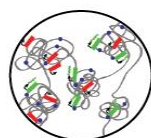
Miguel Beato del Rosal	Fundació Privada Centre de Regulació Genòmica	ES
Thomas Graf	Fundació Privada Centre de Regulació Genòmica	ES
Guillaume Filion	Fundació Privada Centre de Regulació Genòmica	ES
Marc Martí-Renom	National Center for Genomic Analysis	ES

'Do **temporal changes** in the genome **3D structure** contribute to gene regulation?'

10Kb 100Kb 1Mb 10Mb 100Mb Genome



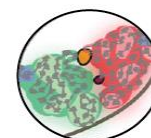
Looping



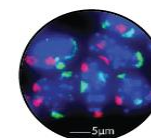
Topologically Associating Domains (TADs)



Lamina Associated Domains (LADs)



Chromosome Territories



Chromosome Positioning

12 272 645 €



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<http://www.cnag.crg.eu/projects/4d-genome>

SyG2012 : HELMHOLTZ

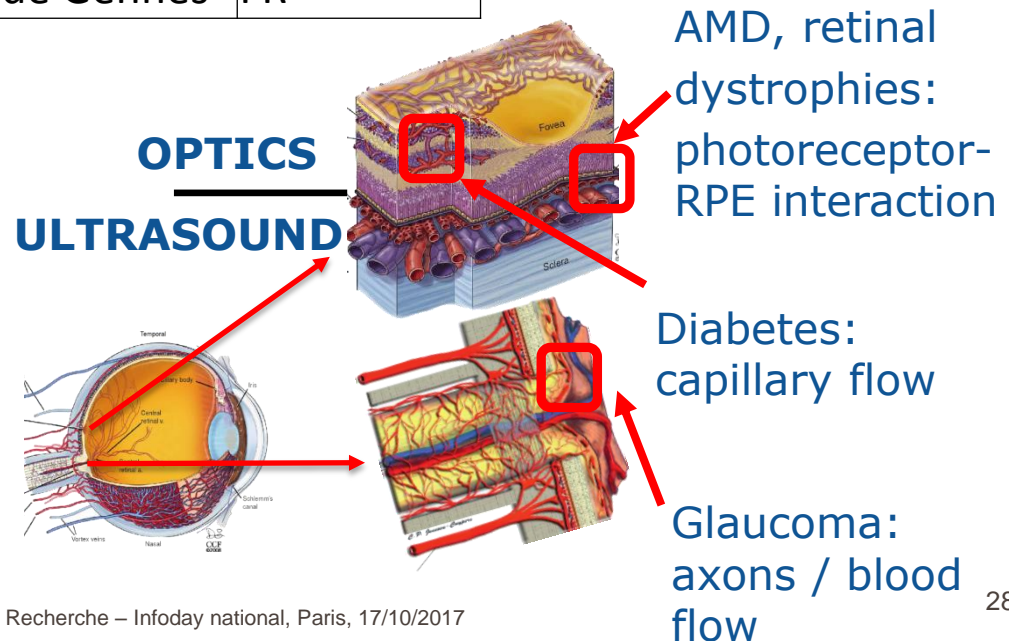


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- "Holistic evaluation of light and multiwave applications to high resolution imaging in ophthalmic translational research revisiting the helmholtzian synergies"*

José-Alain SAHEL	Fondation Voir et Entendre	FR
Mathias FINK	Fondation Pierre-Gilles de Gennes	FR

"The eye, a 'small brain' with easily accessible structures, at the crossroad of human diseases"



11 861 923 €



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SyG2012 : dHCP



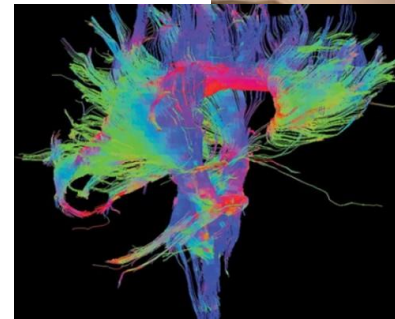
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"The Developing Human Connectome Project"

Anthony David Edwards	King's College London	UK
Joseph Hajnal	King's College	UK
Daniel Rueckert	Imperial College	UK
Stephen Smith	Oxford University	UK

Create a dynamic map of human brain connectivity from 20 to 44 weeks post-conceptual age, which will link together imaging, clinical, behavioural, and genetic information.

<http://www.developingconnectome.org/>



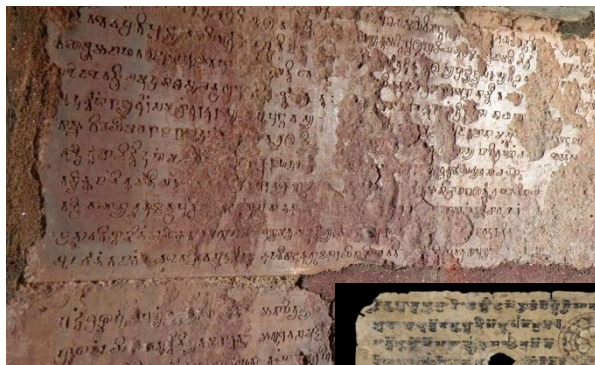
14 900 000 €



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- *"Beyond Boundaries: Religion, Region, Language and the State"*

Michael WILLIS	British Museum	UK
Sam Julius van SCHAIK	The British Library	UK
Nathan HILL	School of Oriental and African Studies, University of London	UK



Rethink Asian history and present a bold picture that demonstrates how South, Central and Southeast Asia functioned as a cosmopolitan entity

<https://asiabeyondboundaries.org/>

8 053 716 €

SUMMARY



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- Highly competitive call
- Proposals likely to be funded will :
 - ➔ demonstrate that the **truly ambitious** research questions could lead to breakthroughs **only through the joint effort** of the complementary and synergistic group of PIs.
 - ➔ yield possibly either unforeseen, completely new science, to cross fertilize disciplines or to solve important research problems that until now could not be dreamt of solving.
- Tough future restrictions on submissions planned
 - ➔ PIs evaluated with a **C score in 2018** will **not** be able to apply to **any** ERC call in 2019.

Indicative summary of 2018 calls



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	<i>Starting Grant</i>	<i>Consolidator Grant</i>	<i>Advanced Grant</i>	<i>Synergy Grant</i>	<i>Proof of Concept Grant</i>
<i>Call Opens</i>	18/07/2017	24/10/2017	17/05/2018	19/07/2017	18/07/2017
<i>Deadline or cut-off dates for PoC</i>	17/10/2017	15/02/2018	30/08/2018	14/11/2017	16/01/2018 18/04/2018 11/09/2018
<i>Budget million EUR (estimated number of grants)</i>	583 (391)	553 (287)	452 (194)	250 (30)	20 (130)
<i>Planned dates to inform applicants (after each step or cut-off date)</i>	14/05/2018 14/08/2018	06/07/2018 30/11/2018	29/01/2019 08/04/2019	23/04/2018 29/08/2018 19/10/2018	30/03/2018 21/06/2018 10/12/2018

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- More information on the SyG2012&2013 funded projects: <https://erc.europa.eu/projects-figures/erc-funded-projects/>
- National Contact Point: erc.europa.eu/national-contact-points
- Sign up for news alerts: erc.europa.eu/keep-updated-erc



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