



European Research Council
Established by the European Commission

4^e session plénière du CERCle

Le Club des ERC du site d'Aix-Marseille

Palais du Pharo le 6 juillet de 14h30 à 17h30

*En présence du **Professeur Maria Leptin**,
Présidente du Conseil européen de la Recherche (ERC)*



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European Research Council
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The 4th plenary session of the CERCle

The ERC Club of the Aix-Marseille site

Palais du Pharo on the 6th of July from 2.30 to 5.30 p.m.

*In the presence of Maria Leptin,
President of the European Research Council (ERC)*



Agenda

Opening of the session – Eric BERTON

Overview of the activities of Le CERCle – Céline DAMON

Presentation of 4 new Horizon Europe ERC projects

Anabela BENSIMON (MMG) (Starting Grant) - Projet CARDIOCALC

Benjamin MORILLON (INS) (Consolidator Grant) - Projet SPEEDY

Sophie BONNET (M.I.O) – *Recorded* (Consolidator Grant) - Projet HOPE

Livio De LUCA – MAP (Advanced Grant) - Projet n-Dame_Heritage

Break

ERC – Achievements, Funding Opportunities, Recent Developments – Maria LEPTIN, President of the ERC

Questions & Answers Session

Presentation of 2 H2020 ERC projects

Frank SCHNORRER (IBDM) (Synergy Grant) - Projet StuDySARCOMERE

Felix RICO (LAI) (Consolidator Grant) – Projet MechaDynA

Concluding remarks – Philippe DELAPORTE



Welcome

Eric BERTON

Rector of Aix Marseille Université

Le CERClE

Overview of this joint local initiative

Céline DAMON

Coordinator of 'Le CERClE'

Le CERCle in a nutshell

92 ERC projects

since the launch of this programme in Aix Marseille

- **11 ERC projects** in Horizon Europe
- 49 projects** in H2020
- 32 projects** in FP7

5 ERC Proof of Concept

9 panel members

Members of LE CERCle:

Laureates of a completed or ongoing ERC project

Current or former members of an ERC panel



Meet the laureates:

Collection [HAL CERCle](#)

Follow us on this [internet page](#)

Le CERClé: objectives & activities

Objectives du CERClé

- **Encourage** (teacher-)researchers to apply to the ERC and create a scientific dynamic.
- Improve the **visibility** of the site's scientific excellence, strengthening its **attractiveness**.
- Support the **dynamics** of the site to strengthen its position as a major European research centre.

Activities

- Provide all (teacher-)researchers who are submitting an ERC project with **individualised coaching**.
- Lead a **strategic reflection** to strengthen the participation of research teams to the ERC.
- Stimulate **interactions** between site teams to participate in these programmes.

Actions

- **Coaching sessions** for ERC project applications, with the ERC National Contact Point (NCP)
- **Training workshops** on writing an ERC project and on preparing for an ERC oral
- **Summaries and Documents** useful for project submissions
- **Analysis** of site ERC results
- Strengthening the **visibility** of the laureates of the site and support for the enhancement of their **bibliometry**
- **Annual plenary session**, with project presentations by the candidates selected for funding

New laureates since the 3rd plenary session (2018)

2019



Romain TIQUET StG – SH6 IMAF

MADAF A History of Madness in West Africa:
Governing Mental Disorder during Decolonisation
(Senegal, Burkina Faso and Ghana - 1940s – 1970s)



Tam MIGNOT AdG - LS3 LCB

JAWS Une Approche Multi-échelles de la Prédation
Bactérienne



Frank SCHNORRER SyG IBDM

StuDySARCOMERE Structure and Cellular Dynamics
of the Sarcomere



Fabrice BARTOLOMEI – SyG INS - Institut de
Neurosciences des Systèmes

GALVANI Controlling epileptic brain networks with
computationally optimized weak electric fields

2020



Rosa COSSART SyG3B, INMED

HOPE Reverse engineering the assembly of
the hippocampal scaffold with novel optical
and transgenic strategies



Cécile ALBERT StG – LS8, IMBE

SCALED Integrating processes across scales to
understand and predict ecological dynamics in
landscapes



Réjane RUA StG – LS6, CIML

CNSentinelS Spatiotemporal control of
neuroinfection by meningeal macrophages

First laureates of Horizon Europe (2021)



Hervé RIGNEAULT AdG - PE7 Institut Fresnel
SpeckleCARS Vibrational speckle tomography microscopy for fast intra-operative cancer tissue histopathology



Livio De LUCA AdG MAP
n-Dame_Heritage n-Dimensional analysis and memorisation ecosystem for building cathedrals of knowledge in Heritage Science



Raphaël BEUZART-PLESSIS CoG - PE1 I2M
RELANTRA Relative Langlands Functoriality, Trace Formulas and Harmonic Analysis



Sophie BONNET CoG - PE10 MIO
HOPE How do diazotrophs shape the ocean biological carbon pump? A global approach, from the single cell to the ecosystem



Elodie Choquet CoG - PE9 LAM
ESCAPE Exoplanetary Systems with a Coronagraphic Archive Processing Engine



Alexis LICHT CoG - PE10 CEREGE
DISPERSAL A climatic or tectonic control on early primate dispersal? A new approach to investigate species dispersal in deep time



Benjamin MORILLON CoG - SH4 INS
SPEEDY Defining an integrated model of the neural processing of speech in light of its multiscale dynamics



Anabela BENSIMON-BRITO StG MMG
CARDIOCALC The fundamentals of cardiovascular calcification: from cells to therapy



Thomas CHALK StG – PE10 CEREGE
ForCry Analysing frozen Foraminifera by Cryostage LA-ICPMS: Neogene CO₂, patterns, cycles, and climate sensitivity

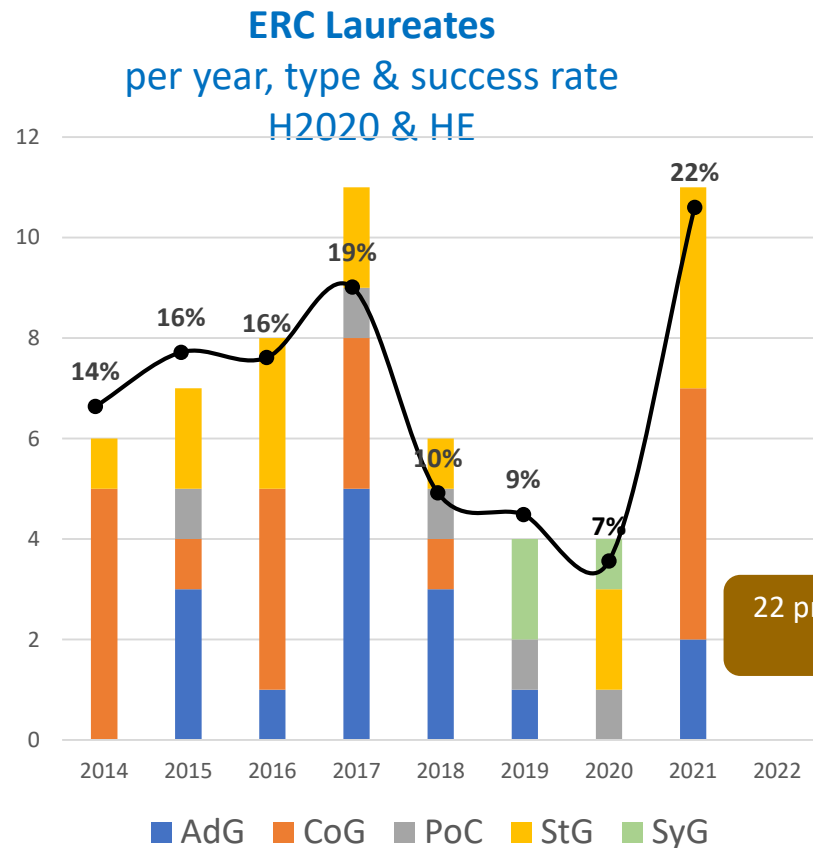


Tilman GRUNEWALD StG – PE11 Institut Fresnel
TeTxTOM X-ray texture tomography as a tool to enable, multi-scale, in-situ imaging of the enthesis, a biological hinge between bone and tendon

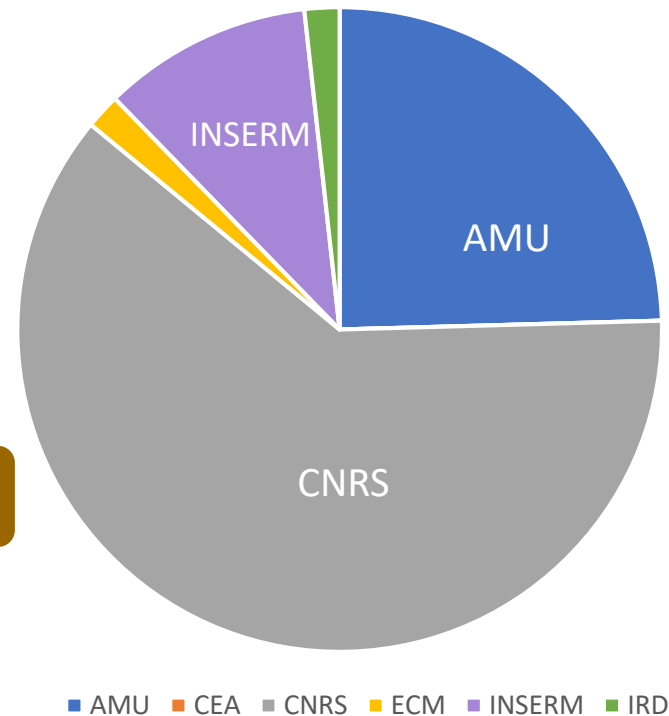


Dorothea VOM BRUCH StG – PE2 CPPM
ALPaCA Accelerated PreCision Tests of Lepton UniversAlity

Main figures of the ERC for Horizon 2020 and Horizon Europe



Employers of the ERC laureates



Indicators 2014-2021

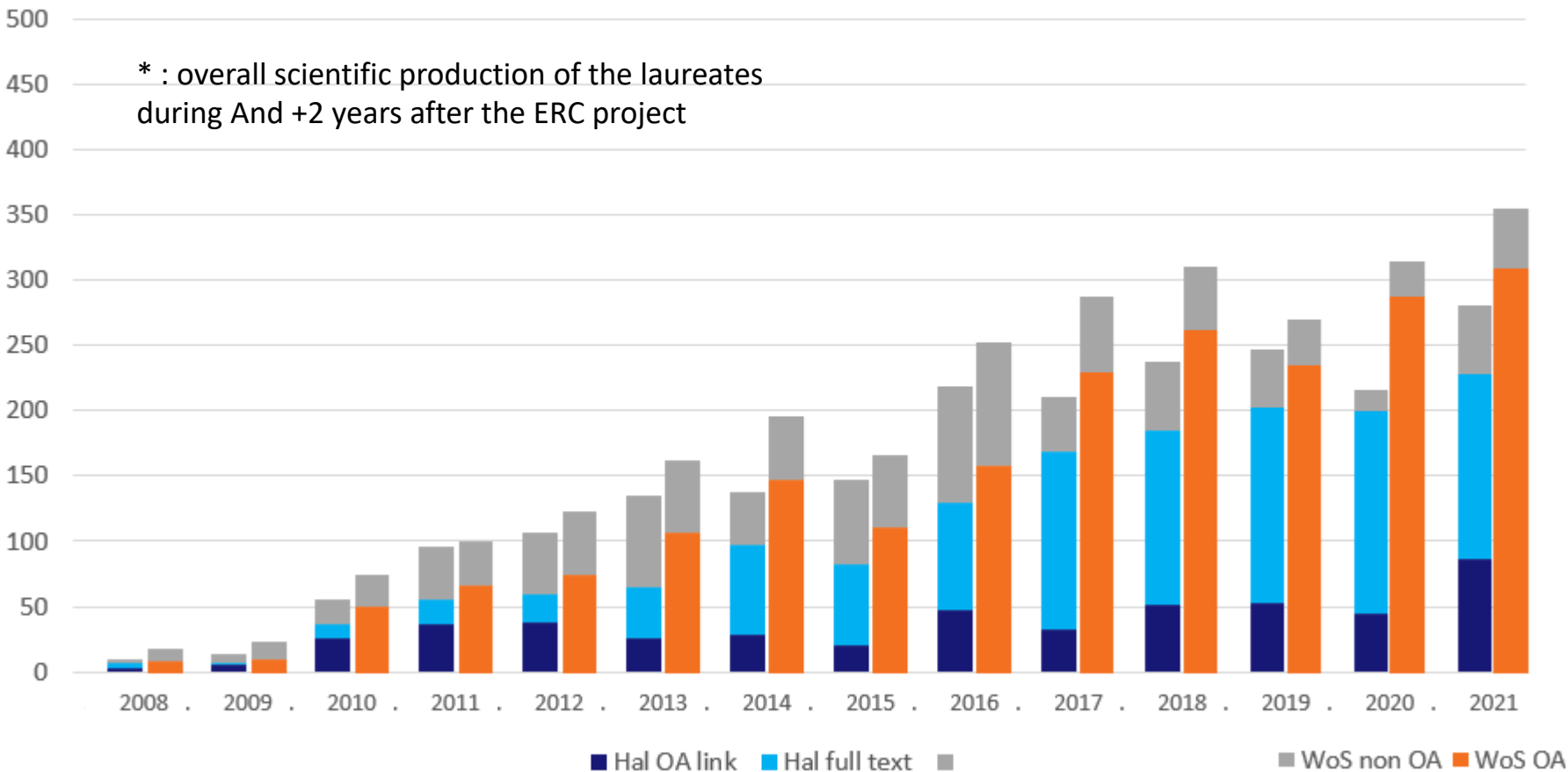
Nb of ERC **submissions** (2015-2021):
app. **240**

Nb of **coaching** (2015-2021) : app.. **500**

Collection HAL CERCle :

71 ERC laureates have an ID HAL.
2200 publications, out of which 73% in OA (more than half in integral text)

Quantitative & Open Access analysis of the ERC laureates's scientific production*



Av. 77% of the publication in OA
91% for the ones marked as 'ERC' as 'Funding'

Rate of recovery:
 app. 30%



WEB OF SCIENCE

Qualitative analysis of the ERC laureates's scientific production¹



Data from the WoS analysed with



1 : overall scientific production of the laureates during and +2 years after the ERC project
 2 : **CNCI** = Category Normalised Citation Impact. 1 is the world reference

	Nb.	CNCI ²	% Q1	% Top 1%	% OA
erc Aix-Marseille¹ With ERC marked in « Funding »	900	2,37	80,41%	4,64%	90,95%
	129.000	(2,07)	(74,77%)	(3,95%)	(82,74%)
	2.900	2,96	83,86%	7,23%	92,32%
	25.000	(2,32)	(78,02%)	(5,09%)	(87,27%)
	61.000	1,56	58,30%	2,41%	59,75%
	969.000	(1,34)	(55,67%)	(1,86%)	(51,61%)

Aix Marseille financial share per panel



Total financial share of Aix Marseille laureates In H2020



→ 0,6% of overall ERC budget for H2020 gathered by Aix Marseille

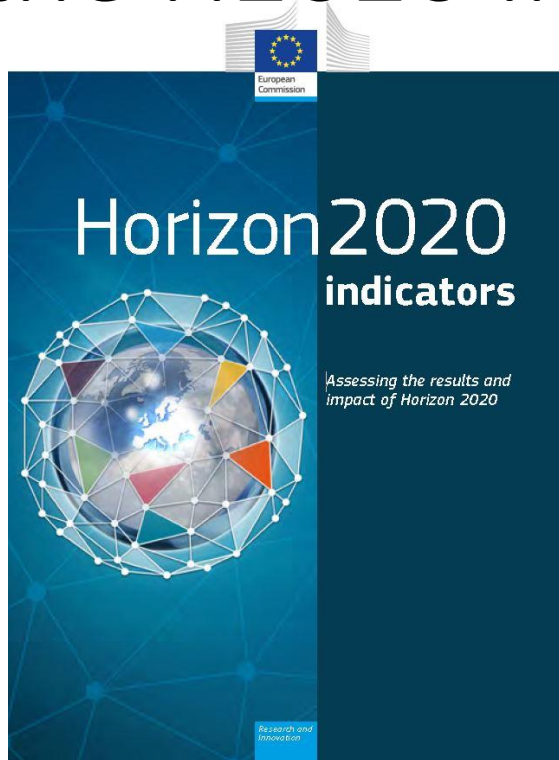
Most performing panels:

- LS6, LS3, LS5
- PE3, PE4, PEP
- SH4, SH6

Comparison with the HiCi publication shares

- 2% are from Aix Marseille
- 5,5% with the co-publication with Aix Marseille researchers

Aix Marseille performance assessment against the H2020 Indicators



Report: [HERE](#)

Specific indicator for the ERC: % of ERC laureates publication in the world top 1%

Aix Marseille laureates: 4,64%

(vs. Global average publications of all researchers of Aix Marseille: 2,41%)

Transversal indicator: % of publication in Open Access (OA)

72% (Open Access and/or HAL Cercle in integral text)

91% in the WoS

Leiden Ranking for Open Access for AMU:

75,8% of publications in OA → 73rd place

Transversal Indicator : % of women laureates

28,6% (14/49 projects) vs. 22% for FP7

(PI in H2020 with AMU as beneficiary: 19,6 % (22/112))

Scientific presentation ERC Laureates



Annabella BENSIMON

CARDIOCALC : The fundamentals of cardiovascular calcification: from cells to therapy

StG

Marseille Medical Genetics (MMG)

anabela.BENSIMON-BRITO@univ-amu.fr



Benjamin MORILLON

SPEEDY : Defining an integrated model of the neural processing of speech in light of its multiscale dynamics

CoG - SH4

Institut de Neurosciences des Systèmes (INS)

benjamin.MORILLON@univ-amu.fr

Sophie BONNET



HOPE : How do diazotrophs shape the ocean biological carbon pump? A global approach,
from the single cell to the ecosystem

CoG - PE10

Mediterranean Institute of Oceanography (M.I.O)

sophie.bonnet@mio.osupytheas.fr

Livio de Luca



n-Dame_Heritage : n-Dimensional analysis and memorisation ecosystem for building cathedrals of knowledge in Heritage Science

AdG

Modèles et simulations pour l'Architecture et le Patrimoine (MAP)

livio.deluca@map.cnrs.fr

ERC: Achievements, Funding Opportunities, Recent Developments

Maria LEPTIN

President of the European Research Council

The European Research Council

ERC – Achievements, Funding Opportunities, Recent
Developments

Maria Leptin
ERC President



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The European Research Council



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“

The ERC awards long-term grants to researchers of any nationality and age, from anywhere in the world, who wish to carry out their research projects in a host institution based in Europe. Scientific excellence is the sole evaluation criterion.

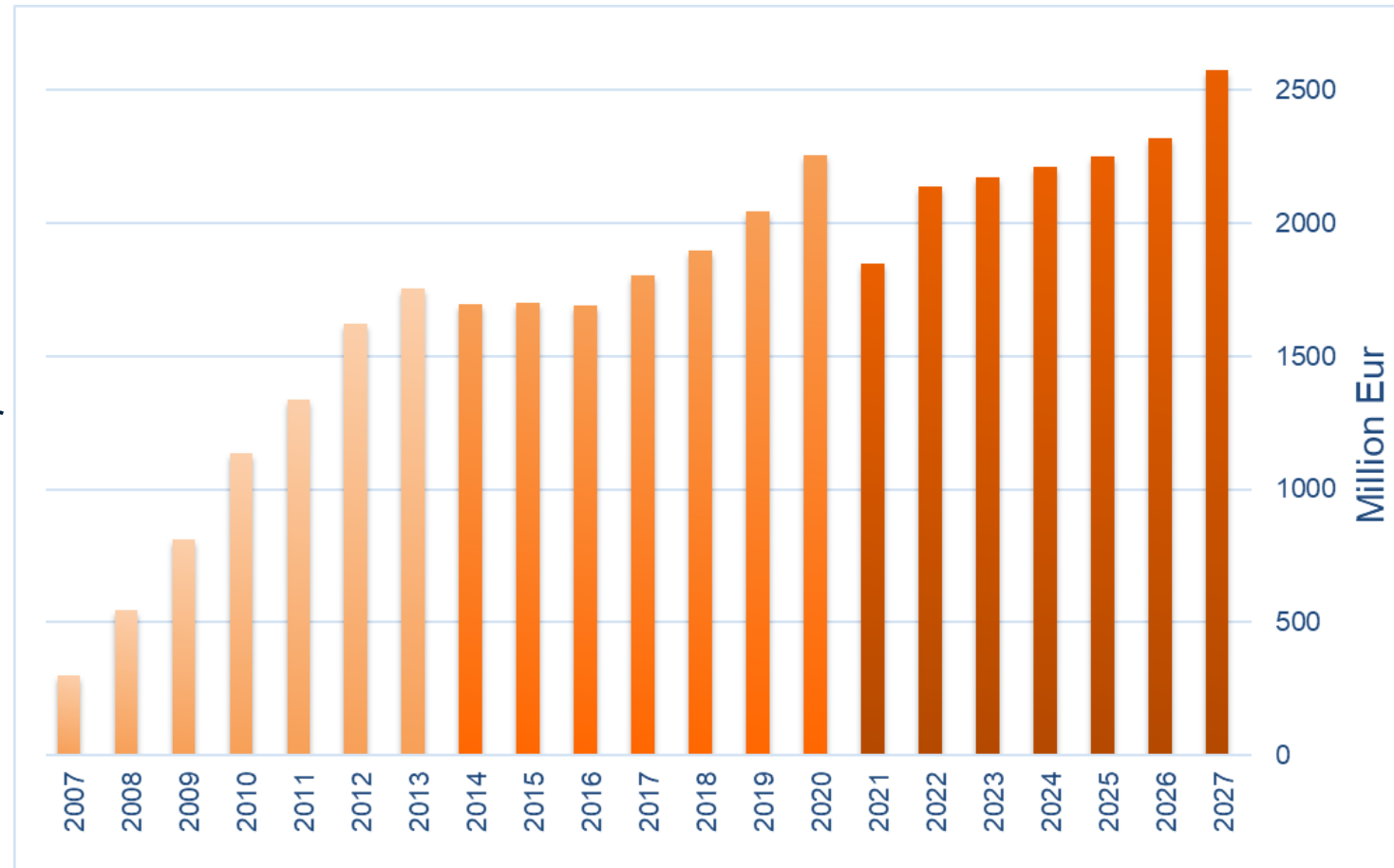
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ERC Mission

Established by the EU in 2007 “to reinforce excellence, dynamism and creativity in European research”, ERC supports excellence in frontier research through a bottom-up, individual-based, pan-European competition.

Budget

€ 16 billion (2021-2027) – 2.3 billion €/year
€ 13 billion (2014-2020) - 1.9 billion €/year
€ 7.5 billion (2007-2013) - 1.1 billion €/year



ERC principles

Scientific Governance

- Independent Scientific Council with 22 members including the ERC President; full authority over funding strategy
- Support by a Dedicated Implementation Structure (ERC Executive Agency)

Scientific Freedom

- Scientific excellence as the only criterion
- Support to the individual scientist – no consortia!
- No predetermined subjects (bottom-up)
- Support to frontier research in all fields of science and humanities
- International peer-review



The ERC Scientific Council



Prof. Maria
LEPTIN
(Biology)
ERC President



Prof. Eveline
CRONE
(Psychology)
Vice-President



Prof. Andrzej
JAJSZCZYK
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LOVÁSZ
(Mathematics)



Prof. Kurt
MEHLHORN
(Computer Science)



Prof. Nicola
SPALDIN
(Materials Theory)



Prof. Giovanni
SARTOR
(Law)



Prof. Jesper
SVEJSTRUP
(Biology)



Prof. Alice
VALKÁROVÁ
(Physics)



Prof. Milena
ŽIC FUCHS
(Linguistics)

ERC in Figures



Over **12,000**
top researchers funded since
the ERC creation in 2007



Over **80,000**
researchers and other professionals
employed in ERC research teams



Over **2,200**
patents and other IPR applications
generated by ERC funding



Over **400**
start-ups identified as founded
or co-founded by ERC grantees



Over **200,000**
articles from ERC projects published
in scientific journals



Over **900** research institutions hosting ERC
grantees – universities, public or private
research centres in the EU or Associated
Countries



87
nationalities of
grant holders



9 Nobel Prizes, **6** Fields Medals, **11** Wolf Prizes
and other prizes awarded to ERC grantees

International Prizes for ERC Researchers



Fields Medals 2022

- ERC grantees Hugo Dominil-Copin (Starting Grant 2017) and James Maynard (Starting Grant 2019) have been awarded the Fields Medal together with ERC panel member Maryna Viazovska and ERC remote referee June Huh

Nobel Prizes 2021



Benjamin List
Nobel 2021
ERC Grantee
AdG 2010
ERC Grantee
AdG 2015

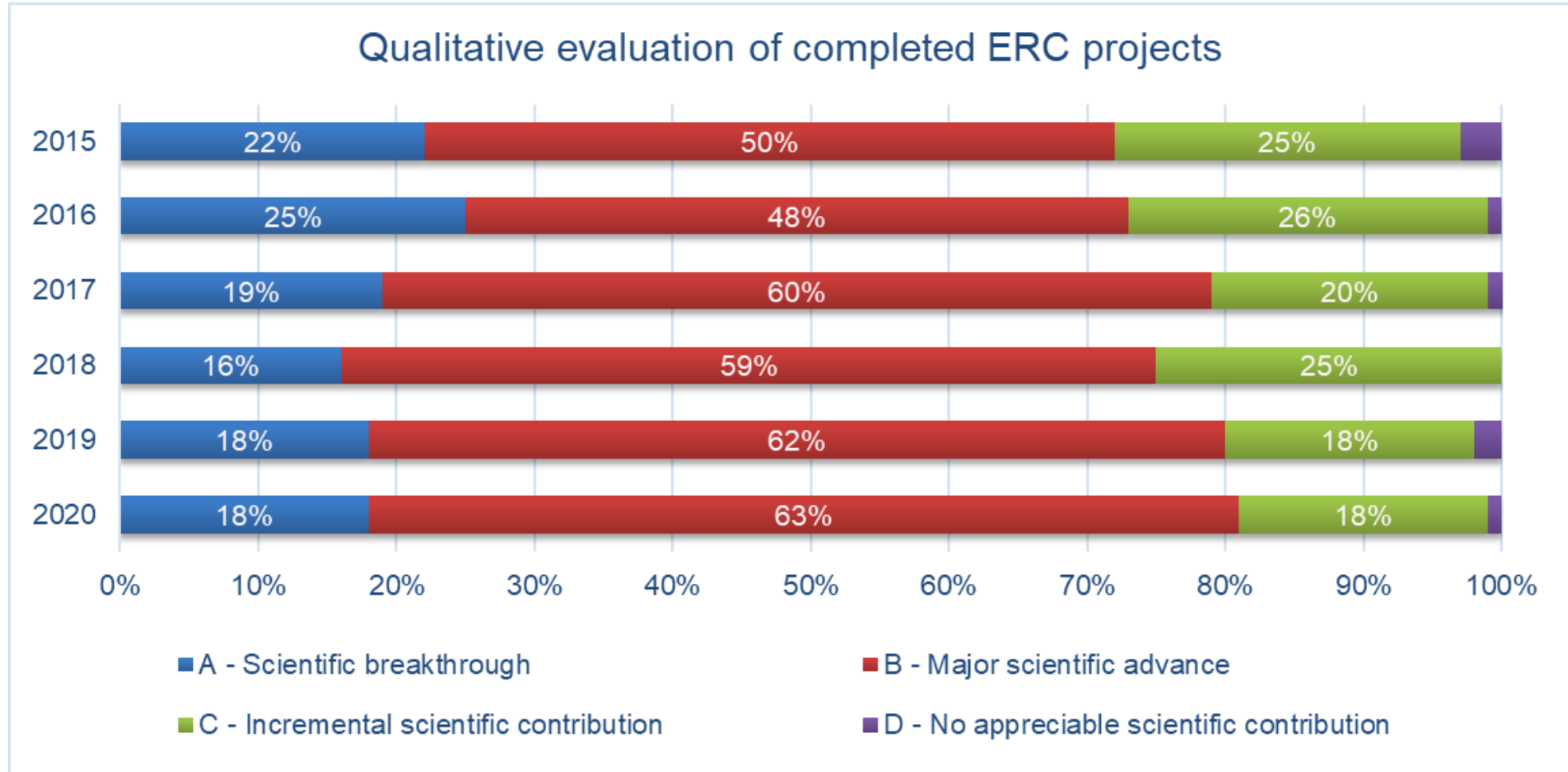
The Nobel Prize in Chemistry 2021 was awarded jointly to Benjamin List and David W.C. MacMillan “for the development of asymmetric organocatalysis”.



Giorgio Parisi
Nobel 2021
ERC Grantee
AdG 2009
ERC Grantee
AdG 2015

The Nobel Prize in Physics 2021 was awarded jointly to Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi “for ground-breaking contributions to our understanding of complex physical systems”.

20% of the ERC-funded Projects Deliver Scientific Breakthroughs



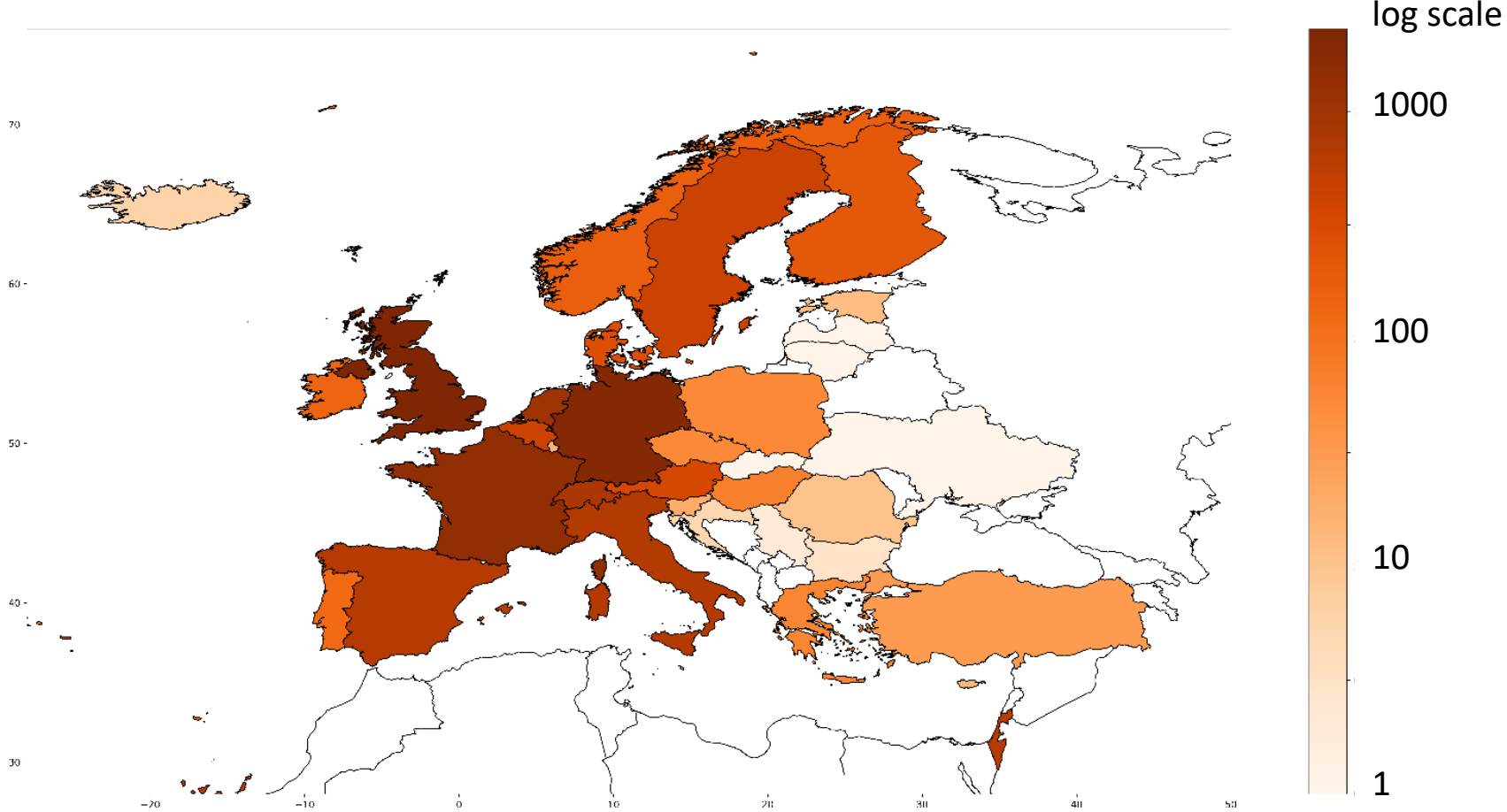
ERC Funded Projects by Country of HI

1,428 ERC main grants based in France

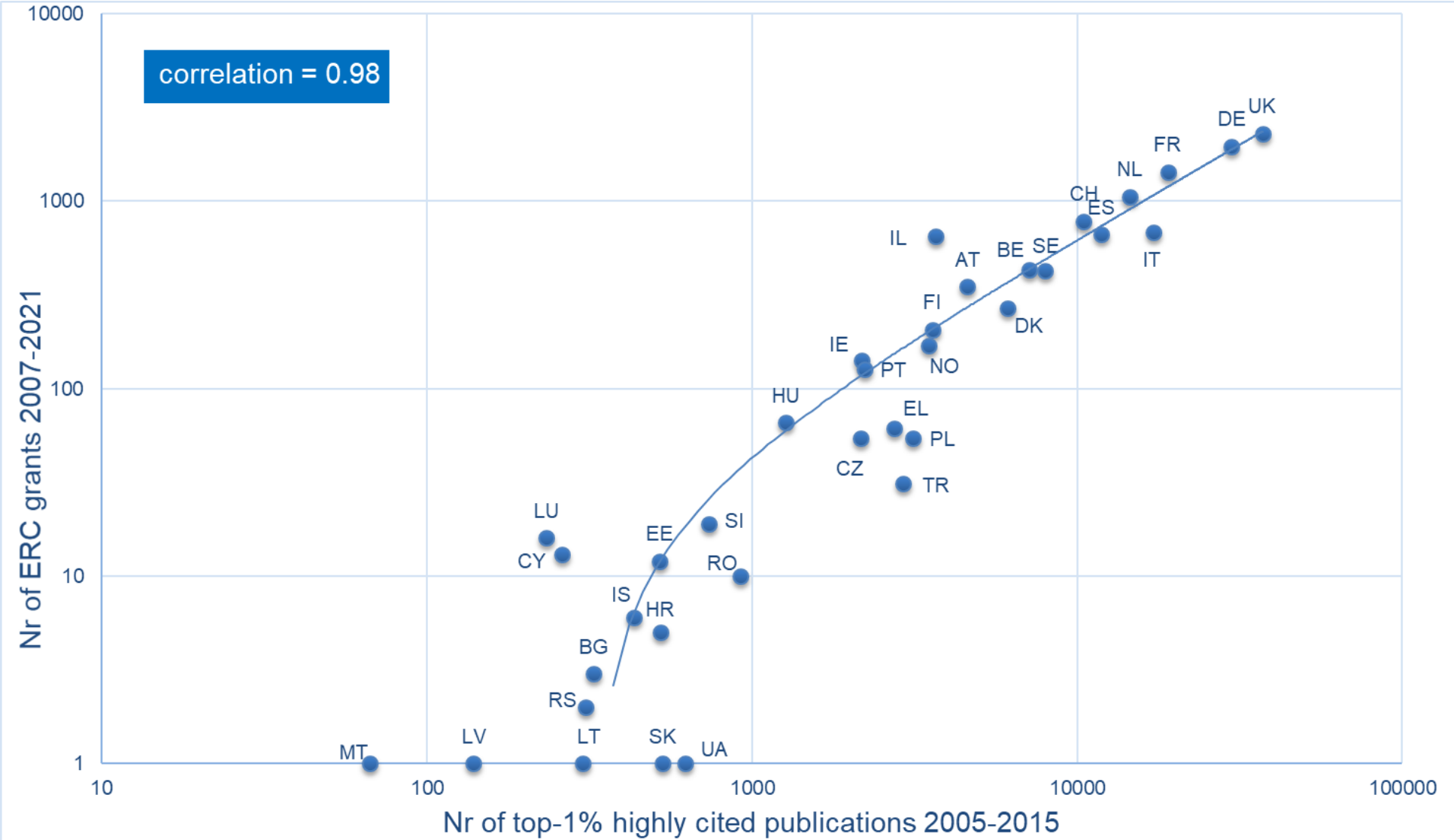
Total grant value over 2.5 billion euro

Third highest success rate in the EU: ~ 15%

Host countries as of 15/06/2022



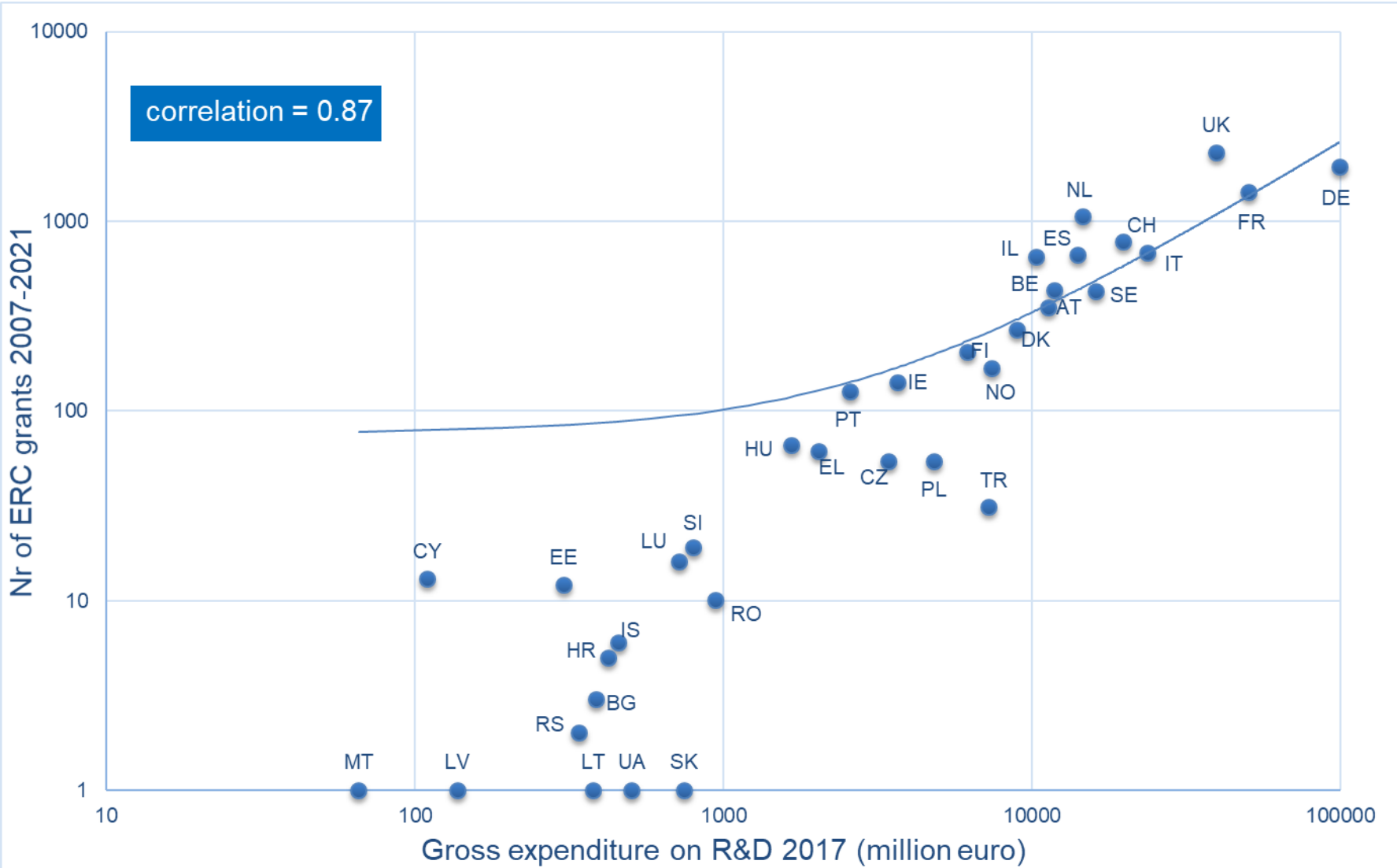
ERC Grants versus Top Publications



———— Linear fit

Host countries as of
15/06/2022

ERC Grants versus GERD



— Linear fit

Host countries as of
15/06/2022

Top Institutions

Hosting
ERC Grantees
by Funding
Scheme

ERC calls 2007-2021

Current signatories
of the grant agreement

Data as of 15/06/2022

Country	Higher-Education Institution	No	StG	CoG	AdG	Total	LS	PE	SH
	UK University of Cambridge	1	122	66	112	300	94	154	52
	UK University of Oxford	2	108	69	113	290	78	119	93
	UK University College London	3	98	46	63	207	66	56	85
	CH Swiss Federal Institute of Technology Zurich (ETH Zurich)	4	82	38	84	204	56	137	11
	IL Weizmann Institute	5	78	55	52	185	108	75	2
	CH Swiss Federal Institute of Technology Lausanne (EPFL)	6	71	25	62	158	38	116	4
	IL Hebrew University of Jerusalem	6	82	27	49	158	64	63	31
	DE University of Munich (LMU)	7	64	22	48	134	53	44	37
	UK University of Edinburgh	8	59	28	44	131	45	57	29
	UK Imperial College	9	69	28	32	129	36	86	7
	IL Tel Aviv University	9	74	30	25	129	52	65	12
	BE University of Leuven	10	53	25	42	120	28	60	32
	DK University of Copenhagen	11	56	37	26	119	44	43	32
	NL University of Amsterdam	12	65	25	28	118	10	33	75
	NL Delft University of Technology	13	58	23	25	106	13	81	12
	NL Utrecht University	14	48	33	23	104	17	38	49
	CH University of Zurich	15	38	25	33	96	50	19	27
	NL Leiden University	15	47	22	27	96	4	42	50
	FI University of Helsinki	16	43	23	27	93	44	24	25
	IL Technion - Israel Institute of Technology	17	55	18	17	90	25	63	2
	DE Technical University of Munich	17	40	26	24	90	22	66	2
	UK University of Bristol	18	35	9	45	89	18	48	23
	AT University of Vienna	19	40	24	23	87	20	33	34
	BE Ghent University	20	50	27	9	86	17	34	35
	NL Radboud University Nijmegen	21	41	21	22	84	22	28	34
	NO University of Oslo	22	39	22	20	81	13	22	46
	SE Lund University	23	38	20	21	79	40	32	7
Country	Research Organisation	No	StG	CoG	AdG	Total	LS	PE	SH
	FR National Centre for Scientific Research (CNRS)	1	312	165	161	638	177	379	82
	DE Max Planck Society	2	129	43	115	287	136	118	33
	DE Helmholtz Association of German Research Centres	3	102	57	46	205	118	84	3
	FR National Institute of Health and Medical Research (INSERM)	4	60	39	33	132	122	4	6
	ES Spanish National Research Council (CSIC)	5	45	30	26	101	37	52	12
	FR French Alternative Energies and Atomic Energy Commission	6	47	14	20	81	10	68	3

ERC in Horizon Europe



ERC Grant Schemes



Starting Grants

starters (2-7 years after PhD) up to € 1.5 Mio
for 5 years



Consolidator Grants

Consolidators (7-12 years after PhD) up to € 2 Mio
for 5 years



Advanced Grants

track-record of significant research achievements in the
last 10 years up to € 2.5 Mio
for 5 years



Synergy Grants

2 – 4 Principal Investigators up to € 10.0 Mio for 6
years
1 PI can be based outside EU/AC



Proof-of-Concept

bridging gap between research - earliest stage of marketable innovation
lump sum €150,000 for ERC grant holders

2022 and 2023 Call Calendar

ERC calls	Call Opens	Call Deadline
Starting Grants ERC-2023-StG	12/07/2022*	25/10/2022*
Synergy Grants ERC-2023-CoG	13/07/2022*	08/11/2022*
Consolidator Grants ERC-2023-CoG	28/09/2022*	02/02/2023*
Advanced Grants ERC-2023-CoG	08/12/2022*	23/05/2023*

*) indicative dates

ERC in Horizon Europe – Recent Developments

ERC and EIC

- EIC-ERC joint working group established in spring 2020 to identify potential synergies and complementarities;
- EIC Transition funding as a follow up to the ERC Proof of Concept grants;
- joint events and workshops – next workshop on energy storage.

ERC in Horizon Europe – Recent Developments

Research Assessment Reform

- Task Force on Research Assessment: looking closely at the various proposals and recommendations for reform in the light of the ERC's own current practices.

ERC in Horizon Europe – Recent Developments

Lump sums for Advanced Grants 2024

- The Scientific Council agreed conditionally to introduce lump sums for Advanced Grants on a pilot basis in the 2024 ERC Work Programme.

Thank You!

- More information: erc.europa.eu
- National Contact Point: erc.europa.eu/national-contact-points
 - Sign up for news alerts: erc.europa.eu/keep-updated-erc
- Funding & Tender Opportunities: <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home>

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<https://www.youtube.com/c/EuropeanResearchCouncil>



Q&A session

Scientific presentation ERC Laureates

Frank SCHNORRER



StuDySARCOMERE : Structure and Cellular Dynamics of the Sarcomere
SyG (2019)

Institut de Biologie du Développement de Marseille (IBDM)
frank.SCHNORRER@univ-amu.fr



Felix RICO

MechaDynA : Multi-scale mechanics of dynamic leukocyte adhesion

CoG – PE3 (2017)

Laboratoire Adhesion & Inflammation (LAI)

felix.RICO@univ-amu.fr



Concluding Remarks

Philippe DELAPORTE

Vice-Rector for Research of Aix Marseille Université

Thank you!