Annual Report on the ERC activities and achievements in 2017

Prepared under the authority of the ERC Scientific Council

RESEARCH & INNOVATION POLICY

European Commission

European Research Council

Established by the European Commission

EUROPEAN COMMISSION

Annual Report on the ERC activities and achievements in 2017

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chapter one

Foreword

Commissioner's message

> *The ERC has in its DNA a magnificent obsession about the power of fundamental science and that has made it a major European accomplishment.*

2017 was a year of festivities for the European Research Council. On the 21st of March we celebrated its 10 year anniversary at a gathering in Brussels with many friends and supporters. That has been one of the most important events in my tenure as a Commissioner for one simple reason: the ERC is our jewel in the crown, one of the best things to happen in Europe in the last 10 years.

I am proud that the European Commission took the bold step in 2005 to propose the establishment of the ERC as part of the 7th Framework Programme. At the time, there was strong opposition to this proposal. After two years of tough negotiations – and the vocal support of the scientific community – the ERC was finally agreed upon by the European Parliament and the Member States.

In ten short years the ERC has become a powerhouse of science, recognised as the best in the world in the way in which it supports frontier research. It was a success from day one, and has gone from strength to strength ever since. What makes the ERC exceptional is its unfailing faith in the potential of science. The ERC has in its DNA a magnificent obsession about the power of fundamental science and that has made it a major European accomplishment.

ERC funded researchers have been awarded six Nobel Prizes, five Wolf Prizes and three Fields Medals. Their projects have resulted in the publishing of 100,000 articles in scientific journals, including over 5,500 in the 1% most cited scientific journals globally.

These are just some of the direct successes of the ERC, but after ten years we are also seeing a number of indirect ones that were not planned for at the beginning of this beautiful story. The strong belief that the Commission and the ERC have in basic science has become contagious. Its model has been recognised as an example of best practice for national funding. Since the creation

of the ERC eight Member States have set up their own national research councils inspired by the ERC model, 11 Member States have launched funding mechanisms based on ERC funding. In ten years, the ERC has not only become a beacon of excellence in science, but it has kick-started a domino effect in this belief throughout Europe, and the world.

I am convinced that the importance of the ERC goes beyond science, by showing how the European Union itself can innovate. In ten years the ERC has consistently demonstrated that it is responsive and understanding of what scientists need. And it has created a shift in scientific research, producing a new paradigm in research funding and becoming one of the best success stories of the European project.

Let's not stop here. Let's encourage our scientists to tell everyone about the ERC as a success story of Europe. Let's create a brand of scientific excellence known globally by everyone. Let's remain united in defending an open, excellence-based vision of science with the ERC as a spearhead. And let's continue to believe in the potential of science.

Carlos Moedas
European Commissioner for Research, Innovation and Science

Personal message from the President

> *Many fond memories of encounters during the ERC 10th anniversary celebrations come to my mind, leaving me with the exhilarating feeling of having touched the frontiers of knowledge and caught a glimpse of what science has done and is doing in Europe and what it brings to the world.*

The year 2017 has been marked by a number of events for the European Research Council, some festive celebrating its tenth anniversary, as Commissioner Carlos Moedas highlights in his preface, and some unfortunately sad as the premature passing away of Professor Fotis Kafatos, the first ERC President, and of Professor Anna Tramontano, a former member of the Scientific Council. Evoking these sad events gives me an opportunity to recall that, for the ERC, people matter most. The visionary role of Professor Kafatos will be put in perspective in the most appropriate way later in 2018. But his very strong leadership, decisive at the creation of the ERC, should never be forgotten. Actually, it should be preciously kept in mind as the ERC has to be recreated at the end of every EU framework programme until it is finally recognised as a stable pillar of the European research landscape. The key role played by people applies equally to all those who make the ERC: of course the almost 8,000 grantees carrying out their ambitious projects; the more than 2,000 panel members for their dedication and unselfishness in devoting time to do the selection; the ERC Executive Agency staff for its intense professional engagement in making the ERC service better and better; and of course the members of the Scientific Council, who constantly drive the ERC in aiming for even higher achievements and pay the utmost attention to sensitive key issues such as gender balance, widening European participation, open access and data sharing, relation to innovation through the Proof of Concept programme as well as ethics.

I had the privilege of attending 26 events celebrating the ERC tenth anniversary among the more than 160 that took place in 40 countries in Europe and across the world. This was an extraordinary opportunity to celebrate a major success story of Europe and for Europe, to witness the great ambition of researchers in so many different domains and settings, and in particular the fantastic dynamism of the young generation of ERC grantees (representing over

two thirds of all grantees). It was also striking to see the structural changes the ERC has brought to a number of institutions; local, regional and also national. This undoubtedly goes far beyond what the founders of the ERC could have imagined to happen in the short period of time that ten years represent for an institution.

Many fond memories of encounters during these celebrations come to my mind, leaving me with the exhilarating feeling of having touched the frontiers of knowledge and caught a glimpse of what science has done and is doing in Europe and what it brings to the world. The annual ex-post evaluation of completed ERC projects, commissioned by the Scientific Council, continues to show the high level of quality and impact of ERC-funded research projects - more than 70% led to breakthroughs or major scientific advances.

On a more practical note, 2017 was a particularly busy year for all of us. For the first time the ERC awarded more than 1,000 grants in one year. This is a remarkable achievement representing a real challenge to all people working in the ERC Executive Agency. This was indeed done with little more staff to accompany the significant increase in the workload. The more so that, in a renewed effort to give more space to researchers committed to developing multidisciplinary projects, the Scientific Council decided to relaunch the ERC Synergy Grant scheme in 2018, allowing groups of two to four researchers to jointly submit proposals to tackle a landmark scientific problem in a "synergetic" way. This of course required mobilising more human resources already in 2017 at the time the call was open.

The adventure continues, a great reason to express my most sincere thanks to all policy makers and people who trust the ERC and contribute to the success of a special institution proving the extraordinary added value Europe can bring to research.

Prof. Jean-Pierre Bourguignon
ERC President
and Chair of its Scientific Council

chapter two

Strategy

ERC Mission

Pushing forward the frontiers of knowledge

Reinforcing the excellence, dynamism and creativity of European research.

Research funded by the ERC is expected to lead to advances at the frontier of knowledge and to set a clear and inspirational target for frontier research across Europe.

ERC Strategy

Excellence

Providing attractive long-term funding awarded on the sole criterion of excellence, to support excellent investigators and their research teams to pursue ground-breaking, high-gain/high-risk research.

The ERC operates on a 'bottom-up' basis without predetermined priorities and its grants are open to individual researchers of any age, gender, and from any country in the world, working in Europe. Particular priority is given to assisting the best starting researchers with excellent ideas to make the transition to independence by providing adequate support at the critical stage when they are setting up or consolidating their own research team or programme.

The ERC aims to foster healthy competition across Europe based on robust, transparent and impartial evaluation procedures which address, in particular, potential gender bias.

ERC Grants

Starting Grants (StG) support researchers at the early stage of their careers, with the aim of providing working conditions enabling them to become independent research leaders.

Consolidator Grants (CoG) support researchers who are at the early stage of their careers but often already working with their own group.

Advanced Grants (AdG) support outstanding and established research leaders by providing them with the resources necessary to continue the work of their teams in expanding the frontiers of scientific knowledge.

Proof of Concept Grants (PoC) offer ERC grantees the possibility to establish the innovation potential of ideas stemming from their existing ERC grants, helping them bridge the gap between research and social or commercial innovation.

ERC Scientific Council

The Scientific Council has the responsibility to establish the ERC's overall scientific strategy, the Work Programme and, from a scientific perspective, positions on the implementation and management of calls for proposals, evaluation criteria, peer-review processes and proposal evaluation.

It is made up of members of the scientific community at the highest level, knowledgeable of the European scene, acting in their personal capacity and independently of political or other interests.

The Scientific Council's composition allows it to be independent, combining wisdom and experience with vision and imagination and reflecting the broad disciplinary scope of research.

The 22 individual members are selected, based on their undisputed reputation as leaders and for their independence and commitment to research, following a transparent procedure by an independent committee of seven highly respected personalities in European research.

They are appointed by the European Commission for a term of office limited to four years, renewable once, on the basis of a rotating system which shall ensure the continuity of the work of the Scientific Council.

Prof. Jean-Pierre BOURGUIGNON
(Mathematics)
ERC President

Prof. Eva KONDOROSI
(Plant Biology and Microbiology)
ERC Vice-President

Prof. Klaus BOCK
(Chemistry)
ERC Vice-President

Prof. Martin STOKHOF
(Philosophy)
ERC Vice-President

Prof. Paola BOVOLENTA
(Neurobiology)

Prof. Margaret BUCKINGHAM
(Biology)

Prof. Christopher CLARK
(History)

Prof. Eveline CRONE
(Psychology)

Prof. Athene DONALD
(Soft Matter and Biological Physics)

Prof. Andrzej JAJSZCZYK
(Electronics and Communication Engineering)

Prof. Tomas JUNGWIRTH
(Condensed Matter Physics)

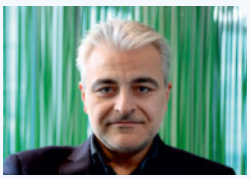
Prof. Michael KRAMER
(Astrophysics)

Prof. Kurt MEHLHORN
(Computer Science)

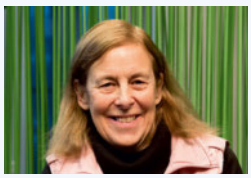
Prof. Barbara ROMANOWICZ
(Geophysics)

Prof. Nils Christian STENSETH
(Ecology and Evolution)

Prof. Giulio SUPERTI-FURGA
(Medical Systems Biology)



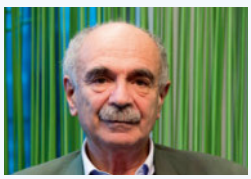
Prof. Nektarios TAVERNARAKIS
(Molecular Systems Biology)



Prof. Janet THORNTON
(Bioinformatics and Structural Biology)

Prof. Isabelle VERNOS
(Molecular and Cell Biology)

Prof. Reinhilde VEUGELERS
(Economics)



Prof. Michel WIEVIORKA
(Sociology)

Prof. Fabio ZWIRNER
(Theoretical and High-Energy Physics)

ERC President

The role of the President is to chair the Scientific Council and ensure its leadership, to work closely with the ERC Executive Agency (ERCEA) and to act as an ambassador for the ERC in the world of science.

The President is appointed by the European Commission following a transparent recruitment process based on the recommendations of an independent, dedicated search committee and with the approval of the Scientific Council.
Jean-Pierre Bourguignon, an internationally respected mathematician, took office as President of the ERC on 1 January 2014 for a four-year term, renewed until the end of 2019.

Steering Committee

The Steering Committee of the ERCEA is the body that supervises the operations of the Agency. Among others, it adopts the annual Work Programme of the Agency, its Annual Activity Report as well as decisions related to the Staff Regulations, organisational structure, administrative budget and annual accounts.

The Steering Committee meets four times a year and is composed of five members appointed by the European Commission for a (renewable) period of two years.

The Steering Committee in office in 2017 was chaired by Robert-Jan Smits, Director-General of the Directorate-General for Research and Innovation, and comprised Kurt Vandenberghe, Director for Policy Development and Coordination in the same Directorate-General (and vice-chair of the Steering Committee); Henk Post, Director for Talent Management and Diversity - Executive Staff in the Directorate-General for Human Resources; Tomas Jungwirth and Janet Thornton, both members of the ERC Scientific Council.

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Jean-Pierre Bourguignon and Robert-Jan Smits in Sofia, Bulgaria,
Informal Meeting of Ministers Responsible for Competitiveness (Research), February 2018

ERC Executive Agency

The ERCEA is the dedicated implementation structure that supports the Scientific Council in the conduct of all of its tasks.

It operates on the basis of the powers delegated to it by the European Commission, which has the ultimate political responsibility for the specific programme implementing the framework programme Horizon 2020.

The organisational structure of the Agency follows its operational and horizontal objectives. It consists of two operational departments (the Scientific Management Department and the Grant Management Department) and a Resources and Support Department. The Accounting Officer, the Communication Unit and the Support to the Scientific Council Unit report directly to the Director.

ERCEA management team

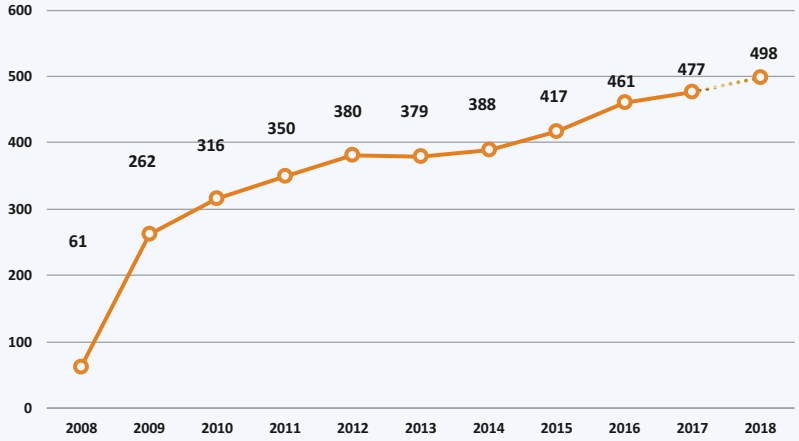
From left to right (top row): Pablo Amor, Mechtild May, Dimitrios Kargianiotis, Claire Levacher, Dirk Costens, Theodore Papazoglou, Alejandro Martin Hobdey, Martin Penny, Richard Frizon

From left to right (front row): Laurence Moreau, Angela Liberatore, Georges-Eric te Kolsté, Jose Labastida, Marja Hennessy, Niki Atzoulatou, Bruno Wastin, Anisoara Ulceluse-Pirvan, Michel Vanbiervliet

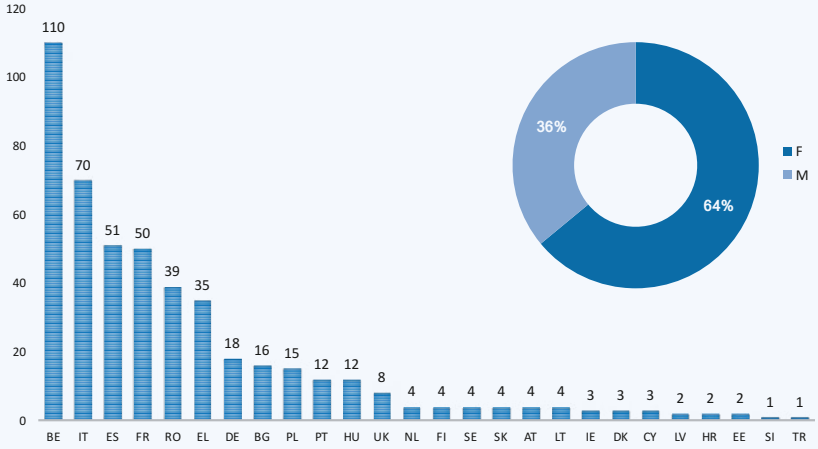
Absent: Massimo Gaudina, Anna Lonnroth, Athanasia Papathanasiou, Thierry Prost

ERCEA Staff

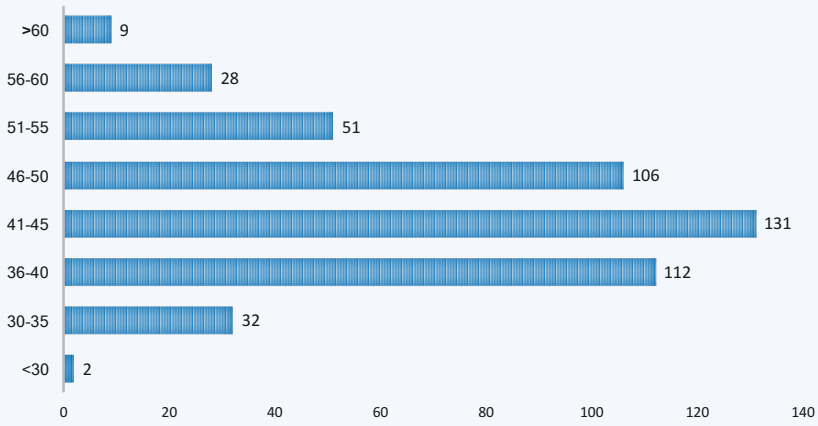
Number of staff



Nationalities and gender distribution



Staff by age category (average = 45 years)



chapter three

Performance

The ERC in figures

EUR 13 billion

ERC budget in Horizon 2020

17 %

of the entire Horizon 2020 budget

EUR 1.8 billion

ERC 2017 budget,
fully committed

EUR 1.6 billion

payment credits fully executed in 2017
(EUR 531 million for FP7
and EUR 1,035 million for Horizon 2020)

> 8,600

projects of all types funded
by ERC since 2007

73

nationalities
of ERC grantees

34

EU and Associated Countries
hosting ERC projects

> 113,000

publications reported
by ERC projects

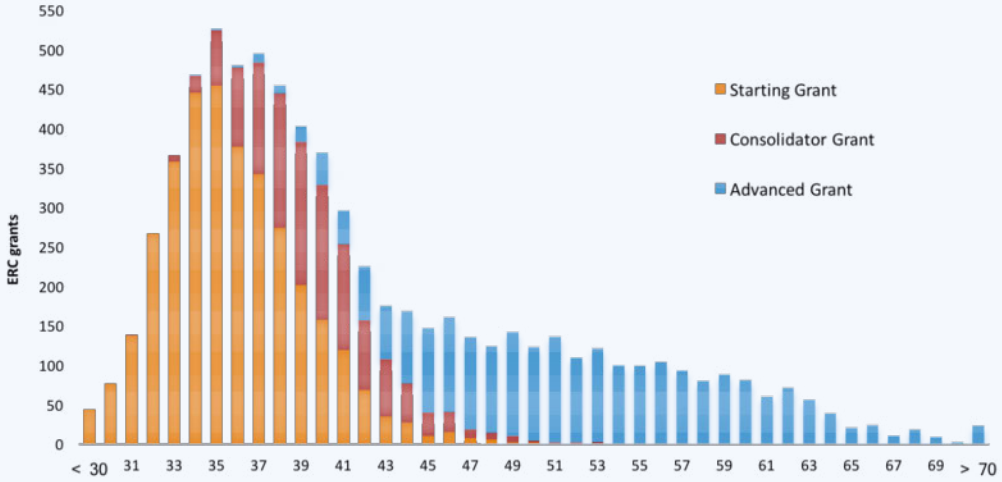
> 1,000

prestigious prizes received
by ERC grantees

> 50,000

researchers and other professionals
hired in ERC teams

Priority to young scientists:
age of ERC grantees at application
(ERC calls 2007-2016)



International evaluation panels:
number of times that experts participated in ERC peer review, by host country
29% of participations were from women
(ERC calls 2007-2017)

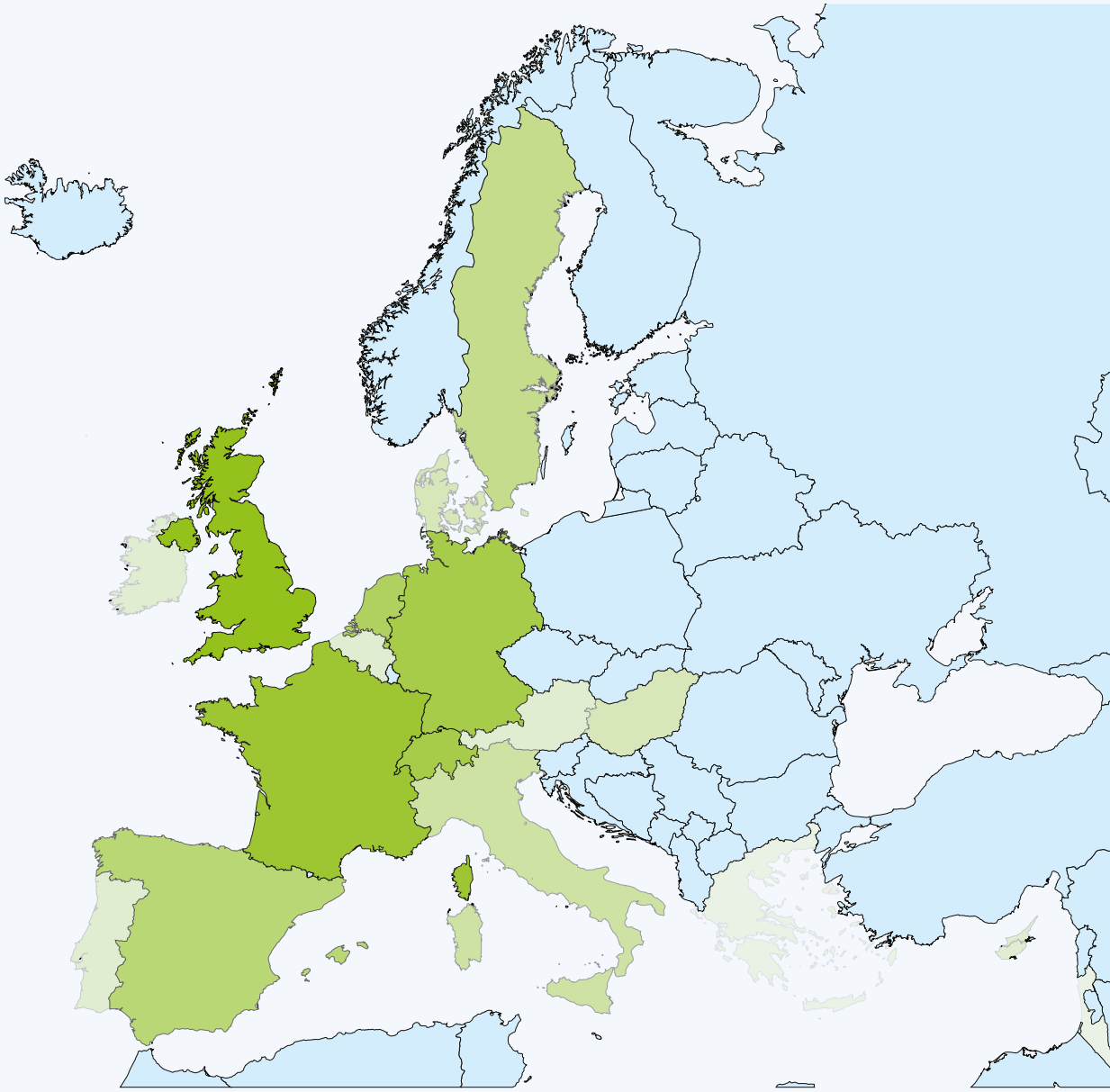
Top organisations hosting ERC Principal Investigators

Host Institution	Country	FP7 2007-2013			Horizon 2020 Calls		
		StG	CoG	AdG	StG	CoG	AdG
National Centre for Scientific Research	FR	130	15	66	84	87	28
Max Planck Society	DE	43	5	51	53	28	30
University of Cambridge	UK	59	7	56	30	34	22
University of Oxford	UK	55	11	61	22	32	19
University College London	UK	53	7	29	23	26	18
Swiss Federal Institute of Technology Lausanne	CH	44	2	37	15	17	13
Weizmann Institute	IL	43	10	28	19	19	8
Swiss Federal Institute of Technology Zurich	CH	30	3	46	18	9	19
Helmholtz Association of German Research Centres	DE	34	6	16	28	26	9
Hebrew University of Jerusalem	IL	40	3	30	19	16	7
National Institute of Health and Medical Research	FR	30	9	18	16	16	7
University of Edinburgh	UK	19	1	24	23	14	14
Imperial College	UK	36	2	21	16	15	2
University of Amsterdam	NL	16	3	17	27	11	6
University of Copenhagen	DK	18	3	13	18	21	6
University of Munich (LMU)	DE	13		26	22	8	7
Tel Aviv University	IL	14	1	14	32	10	2
University of Leuven	BE	26	5	15	13	7	6
French Alternative Energies and Atomic Energy Commission	FR	33	2	10	10	4	6
Spanish National Research Council	ES	21	3	11	9	14	6
University of Helsinki	FI	16		12	14	14	7
Delft University of Technology	NL	13	3	10	19	12	6
University of Zurich	CH	16	3	17	10	8	8
University of Bristol	UK	15	2	20	11	5	9
Radboud University Nijmegen	NL	23	3	12	10	10	3
Utrecht University	NL	15	3	11	10	17	4
Leiden University	NL	18	1	13	12	10	5
Technion - Israel Institute of Technology	IL	22	2	8	14	7	4
University of Manchester	UK	17	2	13	5	9	7
Technical University of Munich	DE	16	2	9	7	13	5
Karolinska Institute	SE	16	2	12	7	7	8
Lund University	SE	13	1	11	9	13	4
King's College London	UK	23		10	5	9	3
National Institute for Research in Computer Science and Automatic Control	FR	19		12	12	5	2

The data are as of December 2017 - The grants distribution is according to the Participant Identification Code (PIC) of the current Host Institution, as appears in CORDA, the European Commission's database of projects. Please note that prior to the compilation of the table, the Helmholtz Association had requested the grouping of the PICs that corresponded to its research centres, providing the appropriate information to the ERC. The ERC may accept similar requests while compiling the list of the institutions that host the ERC-supported Principal Investigators and their teams.

Closing the gap between research and innovation

Geographical distribution of 101 start-ups linked to ERC Principal Investigators (PIs)



United Kingdom	20 %	Sweden	6 %	Cyprus	2%	
France	12 %	Italy	4 %	Belgium	2%	
Germany	11 %	Hungary	3 %	Austria	2%	
Switzerland	11 %	Denmark	3 %	Greece	1%	
Netherlands	9 %	Portugal	2 %	Israel	1%	
Spain	7 %	Ireland	2 %	USA and India	3%	(not on the map)

Data as of July 2017

PI's role in the company

16 %

of companies:
the PI was the founder

38 %

of companies:
the PI was the co-founder

33 %

of companies:
the PI had other role than founder or co-founder

13 %

of companies:
started by PI's laboratory or research team members

Operational status of companies

87 %

in operation

7 %

acquired/merged

4 %

Initial Public Offering (IPO)

2 %

disappeared

chapter four

2017 in Review

European Research Council

Established by the European Commission

23
researchers' information sessions

23
national celebrations

21
regional celebrations

5
local celebrations

64
institutional celebrations

4
thematic celebrations

6
project celebrations

19
other

165
Total

The ERC 10th anniversary celebrations

One of the major ERC highlights in 2017 was the organisation of its tenth anniversary.

The main celebration, that took place on 21 March in Brussels, was attended by around 500 people, with a video-message from Commission President Jean-Claude Juncker and speeches from Commissioner Carlos Moedas, from the Chair of the European Parliament's ITRE Committee Jerzy Buzek, the Chair of the High Level Expert Group on maximising impact of EU R&I Programmes Pascal Lamy, as well as ERC President Jean-Pierre Bourguignon and members of the Scientific Council. Eighteen ERC grantees, including Nobel laureate Ben Feringa, spoke about the ERC's impact and their research in scientific sessions and policy debates. This event was also a major press opportunity with two press briefings held.

In addition, the ERC launched and coordinated a campaign, encouraging the organisation of bottom-up activities throughout the year, in Europe and worldwide, centred on ten years of achievements. This led to over 160 different celebrations. Research institutions, universities, national governments, science museums, EU Delegations around the world and other actors contributed in making this celebration a milestone. Key Commission figures such as Carlos Moedas and Robert-Jan Smits took part, as well as Jean-Pierre Bourguignon and Scientific Council members, and representatives of the ERCEA's management and staff. European Parliament President Antonio Tajani and European Research Ministers contributed alongside other important players all over Europe.

A great degree of effort was placed upon making sure that grantees represented a focus of the celebratory events and activities, taking this occasion as an opportunity to showcase their work and results. To promote the anniversary, the ERC produced the multimedia project "Ten Years – Ten Portraits", featuring testimonials and pictures of grantees, entrepreneurs, patients - all touched by ERC-funded research. The ERC ten-year activities resulted in extensive media coverage and resonated strongly on the ERC's and other organisations' social media channels (#ERC10yrs).

A campaign on social media was launched in early 2017 and concluded with a so called Thunderclap.it initiative that reached more than 1 million people on Twitter and Facebook.

ERC 10th anniversary event celebration at the EU delegation office in Tokyo

"We created a system that is very different from other parts of the world; we have the scientists telling the politicians, telling the institutions what they want to do. And that changed the game"

Carlos Moedas
Commissioner for Research, Science and Innovation

"Today we can say we have delivered. The ERC is the benchmark for frontier research and is an amazing instrument which will continue to thrive"

Robert-Jan Smits
Director-General of the Commission's DG R&I

ERC 10th anniversary celebration at the EU delegation office in New Delhi

Highlights

The ERC participated in the **World Economic Forum (WEF)** in Davos for the fifth time, to bring ERC and frontier science into the discussion. President Bourguignon and nine ERC grantees, including one Nobel laureate, spoke at numerous sessions, notably at the ERC Ideas Lab on "The Science of Social Cohesion". This presence led to much media interest, as well as social media reach.

At the **WEF's Annual Meeting of the New Champions**, the so called "Summer Davos", in Dalian, China, an ERC delegation took part in sessions, including the ERC Ideas lab "Exploring epigenetics". The ERC organised a press conference on the topic "Science under Attack?" with speakers including Prof. Bourguignon and two grantees.

Communication activities were organised in various events in Europe and around the World. These included the **AAAS Annual Meeting** in Boston, USA, the **European Geosciences Union meeting** in Vienna, Austria, the **General Meeting of the European Association of Social Psychologists** in Granada, Spain, the **Bioinformatics and Computational Biology Conference** in Prague, Czech Republic, and the **South African Science Forum** in Pretoria. These allowed for the opportunity to meet directly with potential applicants and raise awareness about the ERC.

The **Supporting excellent researchers all over Europe | Eastern Partnership countries regional event** was jointly organised with the Shota Rustaveli National Science Foundation (SRNSF) of the Republic of Georgia on 20-21 April 2017. This event marked the 10th anniversary of the ERC and its first official visit to the region of Eastern Partnership. The goal was to provide a forum for dialogue, exchange of experience, networking, and learning about good practices among different stakeholders relevant for successful application to the ERC. The event attracted 108 participants from Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine.

© Shota Rustaveli National Science Foundation

The workshop **ERC – a Success Story for Europe: Reflections on Inclusiveness by European Academies of Sciences** took place on 3 September in Budapest, Hungary, organised on the occasion of the Joint Annual Conference of Academia Europaea and ALLEA. The event saw the participation of Prof. Helga Nowotny (former ERC President) and focused on Perspectives on Inclusiveness in ERC Competitions by the European Federation of Academies of Sciences and Humanities.

On 11 October 2017 in Tallinn, Estonia, on the occasion of the Estonian Presidency Research Policy Conference, the ERC organised a workshop on **Strengthening Europe's Science Base** jointly with the Estonian Academy of Sciences. The event included two panel discussions on research funding policies and practices organised jointly with Science Europe, the European association of major national research funders and performers.

In March 2017 the ERC Scientific Council Working group on Open Access together with STM (International Association of Scientific, Technical and Medical Publishers) organised a seminar on **Open Science and publication of research data**. The event brought together several ERC grantees, representatives from a number of publishers, and about 50 staff members of ERCEA, REA and the European Commission.

An ERC/EMBO joint workshop on **Technical and Policy Issues in Open Data for the Life Sciences** took place in Heidelberg, Germany, in September 2017. About 25 high level experts including active researchers as well as representatives from funding bodies, publishers and organisations providing data infrastructure and support discussed issues related to research data management, sharing and re-use.

© Slush

Slush is one of the world's leading start-up conferences bringing leading actors of the global tech scene together in Helsinki, Finland, connecting founders, start-ups and tech talent with top-tier international investors, executives, and media. Fratagene and 2EyesVision, two ventures supported by ERC Proof of Concept grants, gave a 3-minute pitch at Slush Y Science, an event jointly organised with University of Helsinki – HiLIFE aimed at bringing forth the value of science-based business, and encouraging scientists to embrace a different way of thinking about making an impact.

On 7 April in Rome, Italy, Prof. Bourguignon gave a key-note speech at the celebratory event **60 Years of the Rome treaty, 10 years of the European Research Council** organised by the CNR (Italy National Research Council). The wish to celebrate contextually the 60th anniversary of the Treaties of Rome and the 10 years of ERC lies in the conviction that, while research has assumed a role of primary importance in the creation of a united Europe, the European Union has allowed in the last 60 years the development of European-wide excellent research.

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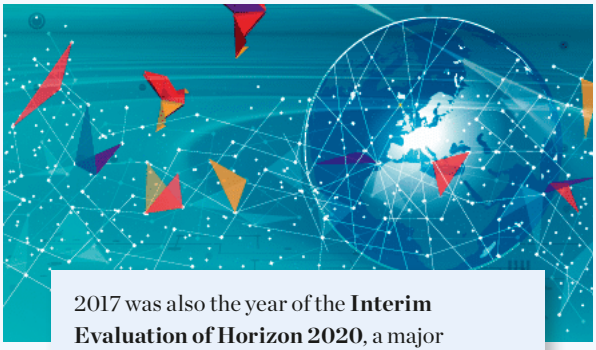
In September 2016 the European Commission set up a High Level Group of experts chaired by Pascal Lamy, President Emeritus of the Jacques Delors Institute, to provide advice on how to maximise the impact of the EU's investment in research and innovation. The group started its work in December 2016. The High Level Group report **LAB- FAB – APP Investing in the European Future We Want** was published on 3 July 2017, on the occasion of the 'Research & Innovation – Shaping our Future' conference in Brussels.

Regarding the ERC it stated: "Increasing the budget of the post-2020 EU R&I programme will provide more resources for the European Research Council (ERC), which finances projects defined and driven by researchers on the sole criterion of excellence. As shown by the interim evaluation of Horizon 2020, the ERC has become a global beacon of excellence and provides those that do the science of the future with the skills and competences that Europe needs to stay at the forefront of development."

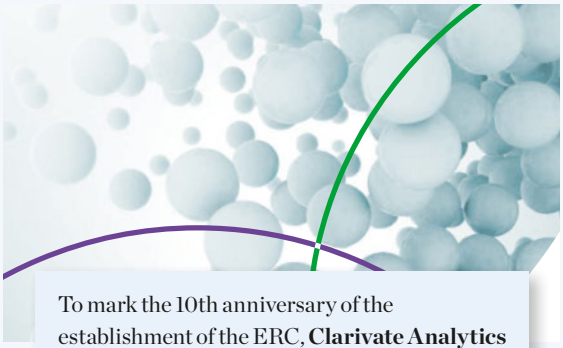


© European Commission 2018

2017 was also the year of the **Interim Evaluation of Horizon 2020**, a major milestone for the whole Framework Programme. The evaluation was the perfect opportunity to look back at data and facts available to assess whether the ERC is fulfilling its mission. The evaluation concluded that the ERC "is now a beacon of scientific excellence across the world". ERC calls are capable of attracting world-class applicants, and the scientific production of grantees is also world-class, with ERC funding contributing to 7% of top 1% most-cited papers by authors based in the EU, against an original target of 1.8%. There is also strong evidence that the ERC is contributing to research that is highlighted as breakthrough by major international scientific publications such as Physics World, Science and Nature.

ERC research has been found by independent bibliometric analysis to be located at the frontier of knowledge by covering a large number of 'hot research fronts', and a qualitative analysis of concluded projects shows that 21% of them produced results that constituted a major scientific breakthrough.

Finally, ERC projects display strong patenting activity, meaning that innovation-related research is often taking place, and in November 2015 the European Business Angels Network (EBAN) awarded its first-ever prize for "Innovation in Science Venture Finance" to the ERC as recognition of its efforts to bring frontier research closer to the market.



© 2017 Clarivate Analytics

To mark the 10th anniversary of the establishment of the ERC, **Clarivate Analytics** published in 2017 the report **"The European Research Council – The first 10 years".**

Based on the bibliometric analysis of publications acknowledging ERC funding that are indexed in Web-of-Science, the report concludes that the ERC has contributed a great deal of high impact research to both the European and wider global research bases.

Among the key findings of the report, there are:

- "The gap between the research performance of the US and the EU countries has narrowed over the 10 years since the ERC was established."
- "The ERC funds a relatively small percentage of all European research, but this is disproportionally focused on very high-impact research."
- "The ERC's research performance is extremely high when compared with the world's largest research funders."
- "The ERC funds a great deal of frontier research in many of the research areas that have received the highest numbers of citations, including those areas that are rapidly emerging."

The report also provides a summary analysis of patent activity from ERC funded research, concluding that ERC funding has resulted in a substantial number of patents although it is targeting frontier research.

Preparing the ERC for the next Framework Programme

Preparations for the next Framework Programme are well under way in the European Commission: a proposal is expected to be approved by mid-2018 together with the next EU Multiannual Financial Framework (MFF).

The Scientific Council started discussing its own vision for the ERC in the next Framework Programme early on in 2017, so that its key messages would be ready ahead of the preparation of the Commission's draft proposal. A Participatory Workshop took place in February and brought together Scientific Council Members with ERCEA staff, and a diverse group of research policy makers and stakeholders. The Commissioner for Research and Innovation, Carlos Moedas, was also invited by the Scientific Council at its February plenary meeting to lay out its plans and vision regarding the future of the ERC.

The Scientific Council's reflections were published on 15 May in a short public statement entitled 'Building on a European Success Story to Further Empower European Researchers'. In it, the Scientific Council took stock of 10 years of ERC operations and formulated its recommendations on the place of the ERC in the next Framework Programme.

Three basic observations shaped the Scientific Council's recommendations on the future of the ERC:

- **More relevant than ever** – the heightened pace of technological change and increased reliance on the ability to generate, share, access and use knowledge, as well as Europe's continued comparative weakness in terms of world-leading centres of innovation, mean that the mission of the ERC today is a major priority for the EU;
- **Time for consolidation** – the concept behind the ERC, a robust evaluation process to select the best ideas conceived by daring scientists anywhere in the world to push the frontiers of knowledge, has been tested and proved. The time has come for the Framework Programme to put the ERC on firmer ground;
- **A European success** – the objectives of the ERC are very ambitious, but the EU has proved capable to deliver on them, mainly thanks to two simple guiding principles: ERC autonomy under the responsibility of a Scientific Council and an unwavering focus on scientific quality.

Based on these observations, the Scientific Council formulated three key messages on the ERC in the next Framework Programme.

Continuity

The current legal framework linked to Horizon 2020 properly encapsulates the provisions and structures needed to ensure the continued success of the ERC. The Scientific Council therefore calls for their continuation into the next Framework Programme.

Agility

While the legal framework establishes the autonomy of the Scientific Council in deciding the ERC's scientific strategy, and provides for support by a dedicated implementation structure to implement it, the Scientific Council notes that this specificity has at times been difficult to secure in practice. The statement calls for the ERC to be granted the freedom, means and the resource management flexibility needed to stay at the forefront of European and global research funding landscapes.

Scale-up

Every year, 30% to 50% of all proposals considered as worthy by ERC evaluators remain unfunded, while the number of researchers supported annually is also limited, with ERC calls success rates below 15%. The budget of the ERC is small if measured on a European scale. In addition, the ability of the Scientific Council to launch complementary grant schemes is severely limited by budget availability. The statement therefore recommends that the ERC budget in the next Framework Programme is increased to EUR 4 billion per year.

Out of the PoC grantees responding to the survey:

> 78%
achieved their objectives

42%
filed at least one patent application

> 17%
achieved a licensing agreement

> 25%
obtained a R&D agreement

20%
created a company

68%
feel more capable of taking an idea to market

50%
would have not undertaken a valorisation project without PoC

43%
would prefer larger grants

50%
would prefer longer grants

An assessment of the ERC Proof of Concept Grant (PoC)

During 2017, a study was conducted by independent external experts to assess the ERC PoC funding mechanism with the aim to provide information and analysis on the current and expected performance of the PoC awards.

The goal of the study was to better understand how well the PoC scheme maximises the value of ERC-funded research by facilitating the development of its commercial and social potential. It focused therefore on a series of interrelated dimensions: awareness and knowledge of the PoC existence by ERC grantees, participation and activity in the programme, impact of the PoC scheme and its benefits on PoC projects.

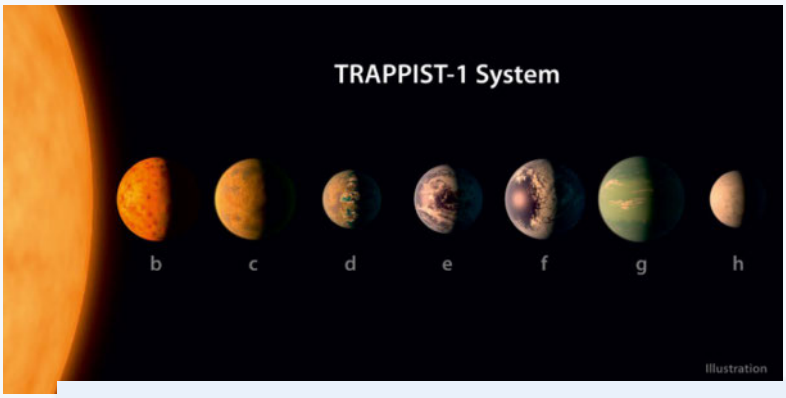
Although it is already possible to determine some of the intermediate outcomes of the awards, such as licensing agreements, R&D contracts, consulting agreements, public engagement, additional funding, and the creation of spin-off companies, the time elapsed between the awards and the study is not sufficient for a full assessment of their impact in terms of market penetration, tax revenue, job creation, and societal benefits. The evaluation reports therefore the achievements of the awardees to date and their assessment of their prospects for future progress. It also portrays individual cases where substantial success has already occurred.

The study concluded that the programme is sound in concept and effective in practice. By most measures, from awareness to IP creation, to firm formation, to additional funding, it is performing very well indeed. This reflects in no small part the underlying quality of the ERC funded research. Importantly, the programme's positive impact in terms of mind-set and confidence among the researchers is potentially one of the most enduring impacts of the awards, contributing to a cultural change among the research teams.

However, the independent experts suggest, even successful programmes can be improved. Recommendations proposed comprise measures such as more flexibility for the project, the need for additional funding, greater outreach to industry, including mentoring and opportunities to meet potential investors. Other suggestions include enlarging the pool of expert evaluators to include expertise in early-stage finance and start-ups. Steps could also be taken to facilitate a clear path for PoC awardees to other EU programmes. High potential PoC projects and companies would represent attractive targets for the ambitious instruments for disruptive innovation proposed by the European Commission with the European Innovation Council (EIC).

chapter five

Research Highlights



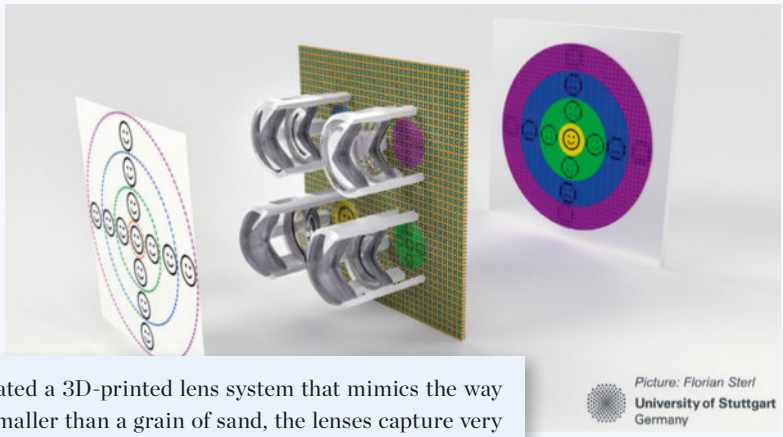
© NASA/R. Hurt/T. Pyle

Seven potentially inhabitable planets

An international team of astronomers led by ERC grantee Michaël Gillon discovered seven planets orbiting the ultra-cool dwarf star TRAPPIST-1, located 40 light years from Earth. The planets, with similar size to Earth and Venus, were detected as they passed in front of their parent star. This was the first time that potentially inhabitable planets were detected around an ultra-cool dwarf star. Most research so far had focused on bright, Sun-like stars. Early 2018, new studies found the planets are probably composed of rocks and water.

SPECULOOS, Michaël Gillon, University of Liège, Belgium

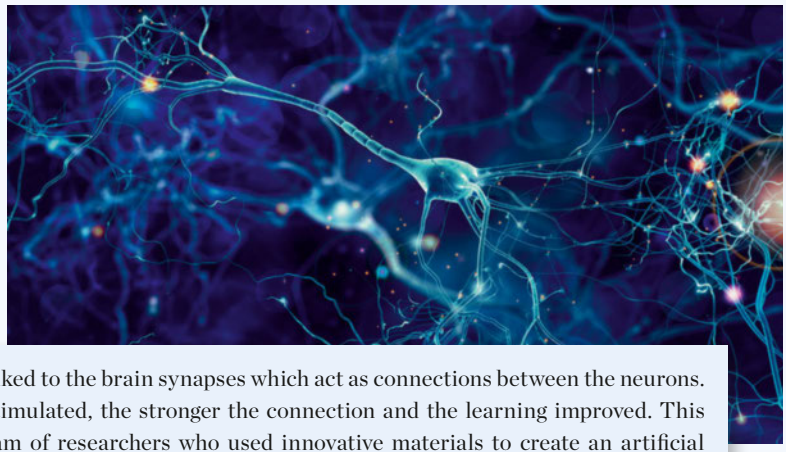
Revolutionary lenses for eagle-eye vision



An ERC funded team created a 3D-printed lens system that mimics the way an eagle sees the world. Smaller than a grain of sand, the lenses capture very sharp images from long distances and could be used in robotics, automation and surgery. Inspired by the foveated imaging technique, the researchers combined four plastic lenses of different focal lengths into a single image sensor: lenses with longer focal lengths capture very sharp images over a narrow, central field of view, while others ensure a wide vision field with less focus. With his ERC grant, Prof. Giessen investigates direct laser writing for nano-optical fabrication, which constitutes a revolutionary new technology that goes far beyond what he originally intended to do.

COMPLEXPLAS, Harald Giessen, University of Stuttgart, Germany

First artificial synapse that can learn



The learning process is linked to the brain synapses which act as connections between the neurons. The more synapses are stimulated, the stronger the connection and the learning improved. This mechanism inspired a team of researchers who used innovative materials to create an artificial synapse capable of learning autonomously. Named memristor, it consists of a thin ferroelectric layer sandwiched between two electrodes; its resistance can be tuned using voltage pulses similar to those in neurons. The team was also able to model the device, which is essential for developing more complex circuits. Understanding the functioning of synapses will make it possible to create more complex AI systems.

FEMMES, Agnès Barthélémy, Unité Mixte de Physique CNRS/Thales, University of Paris-Sud, France

Beliefs and scientific data in climate change policy

How do policy-makers deal with uncertainty and risk perception in climate change decisions? While unpredictability is generally considered a challenge for setting policy, emphasising the uncertainties helps policy-makers bring their beliefs up to date with the current information. This is the conclusion of a field experiment that involved negotiators from more than 100 countries at Paris COP21 conference. Policy-makers participating in climate change negotiations are key users of scientific data, therefore it is vital to provide them with scientific information in the most effective way.

RISICO, Valentina Bosetti, University Luigi Bocconi, Italy

COBHAM, Massimo Tavoni, Polytecnic University of Milan, Italy

"Sleepy" bacteria - the secret to antibiotic resistance

Bacteria sleep through our antibiotic attacks and become stronger when they wake up. These are the findings of a highly multi-disciplinary team led by Prof. Nathalie Balaban. Through tracing the evolution of bacteria exposed to antibiotics, Prof. Balaban showed that these pathogens evolve the ability to remain dormant through treatment and, subsequently, acquire resistance mutations a lot faster. These results, recently published in Science, offer hope in the fight against antibiotic resistance, as they indicate the need to focus on drugs that target "sleeping" bacteria.

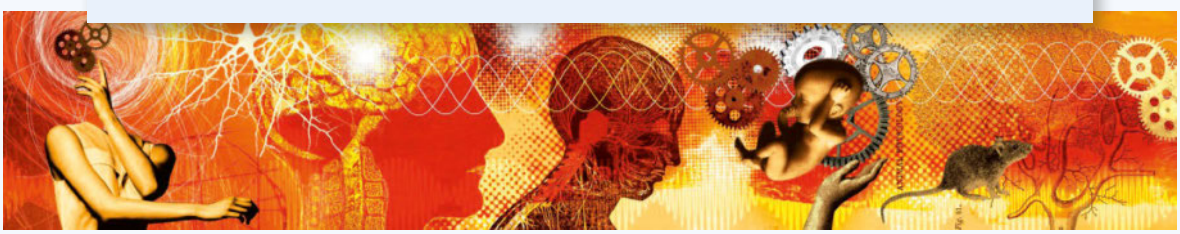
TOLEROME, Nathalie Balaban, Hebrew University of Jerusalem, Israel

The baby's brain, as never seen before

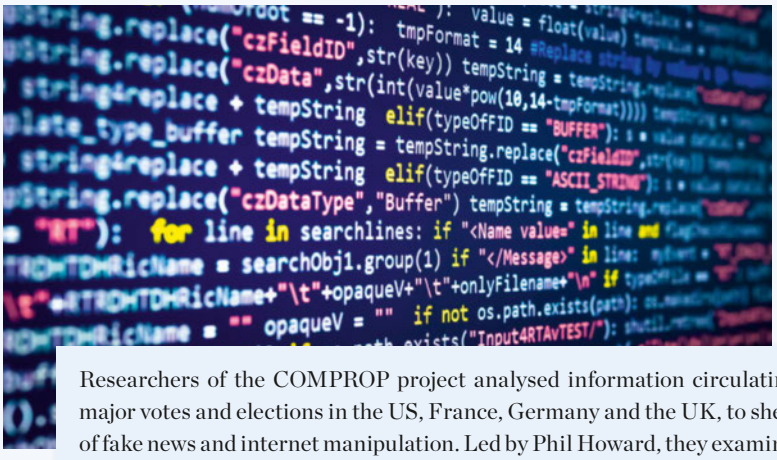
© Angela Erhard

For the first time, researchers managed to record the brain activity of a premature new-born baby during resting and during an epileptic seizure. Functional Ultrasound (fUS), the non-invasive neuroimaging technology they developed, is based on the use of ultrafast ultrasound scanners able to reach more than 10 000 frames per second (fps) compared to the usual 50 fps. High-resolution and high-speed, the fUS technique increases the precision of blood flow measurements in the brain. Portable and cheap, it opens new paths for fundamental research and clinical applications.

FUSIMAGINE, Mickael Tanter, INSERM, France



© Angela Erhard

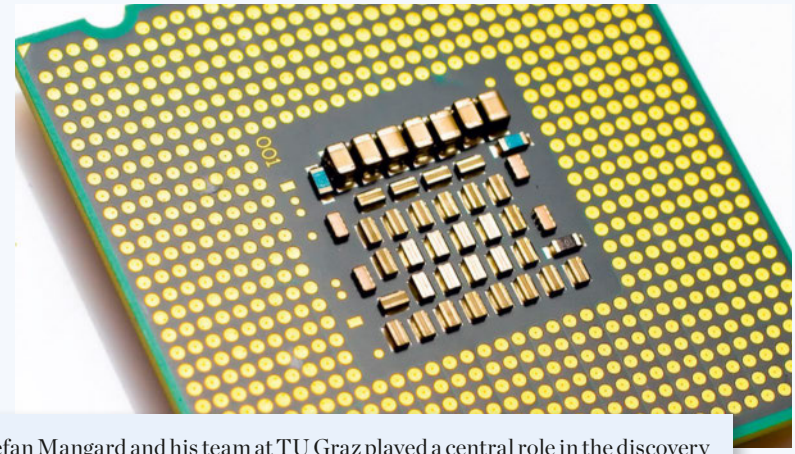


Democracy in the Artificial Intelligence era

Researchers of the COMPROP project analysed information circulating on social media around major votes and elections in the US, France, Germany and the UK, to shed light on the phenomenon of fake news and internet manipulation. Led by Phil Howard, they examined whether algorithms can 'steal elections' and are developing tools for users to discern junk news. Using the most recent social and computer science methods, they showed that the consequences of online misinformation are very serious and spill over outside politics. In December 2017, the project received the Democracy Prize from the National Democratic Institute (NDI) and Prof. Howard was named a '2018 Global Thinker' by Foreign Policy Magazine.

COMPROP, Phil Howard, University of Oxford, United Kingdom

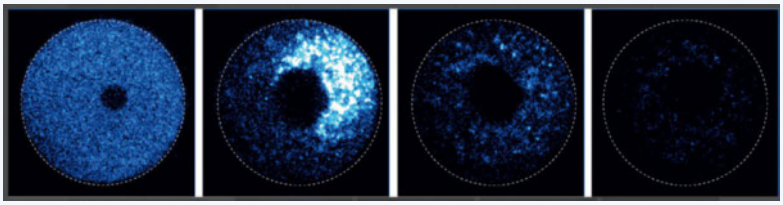
Fighting against hardware bugs



ERC grantee Stefan Mangard and his team at TU Graz played a central role in the discovery of two new security vulnerabilities in computer processors. Named Meltdown and Spectre, these vulnerabilities allow unauthorised users to gain direct access to the heart of computer systems and steal critical information, like passwords or personal data. PCs, servers and cloud services, but also smart phones and IT devices in cars are affected. While the design of processors tend to place all the focus on performance and speed, the team argues the need to have security as a major design criterion and have it in mind from the beginning of the design process.

SOPHIA, Stefan Mangard, Graz University of Technology, Austria

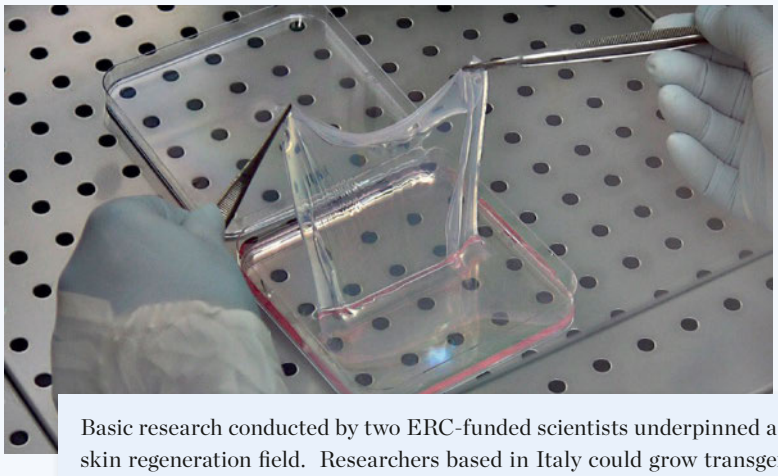
A new tool to investigate missing proteins



© MRC Laboratory of Molecular Biology/ Dean Clift

Dr Melina Schuh is investigating chromosomal abnormalities in mammalian eggs. Studying the function of proteins in cells often involves depleting the respective protein to observe what happens when it is absent. In long-lived cells such as eggs though, this is a challenge: proteins often cannot be depleted with existing methods such as RNAi and CRISPR/Cas. Dr Schuh has now solved this problem by developing Trim-Away, a new technique that acts directly at the protein level and that can be used to eliminate endogenous proteins from cells within minutes. Trim-Away is also suitable to selectively degrade protein variants that cause diseases such as Huntington's. It may therefore open new venues for medical therapies in the future.

CHROMOOCYTE, Melina Schuh, Max Planck Institute for Biophysical Chemistry, Germany



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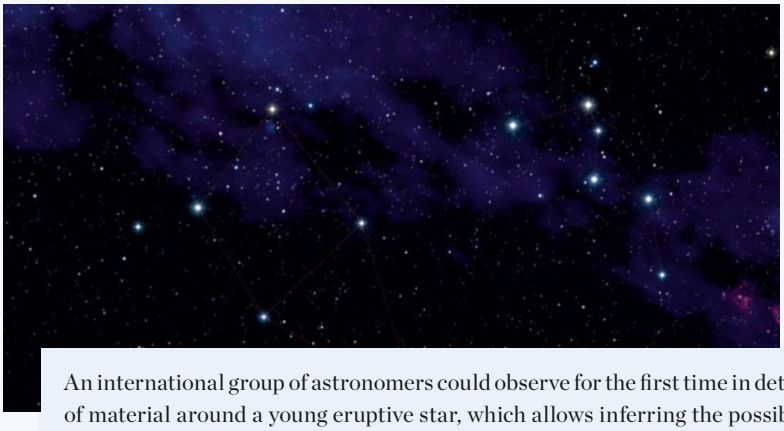
Observation of plant genome leads to artificial human skin

Basic research conducted by two ERC-funded scientists underpinned a major breakthrough in the skin regeneration field. Researchers based in Italy could grow transgenic human epidermal stem cells applying Prof. Morgante's method to detect insertions into plant genome and using novel bioinformatics tools to investigate the integration sites of transgenes in cell cultures specifically designed by Prof. Piccolo and Prof. Silvio Bicciato. In 2017, researchers reported that the artificial skin grown in the lab was successfully transplanted on a child suffering from a genetic skin disease.

NOVABREED, Michele Morgante, University of Udine, Italy

DENOVOSTEM, Stefano Piccolo, University of Padova, Italy



A better view of faraway stars

An international group of astronomers could observe for the first time in detail the flow and structure of material around a young eruptive star, which allows inferring the possible physical reason of the eruptions. The team was led by Prof. Ágnes Kóspál, who was in the meanwhile awarded an ERC grant to pursue her research on new-born stars. These new-born stars are surrounded by gas and dust in the form of circumstellar disks. Studying the composition, temperature, and grain size of these disks will shed more light on our solar system's past and on the planet formation process. In 2017, Prof. Kóspál received one of the International Rising Talent Grants of the L'Oréal-UNESCO For Women in Science programme.

SACCRED, Ágnes Kóspál, Research Centre for Astronomy and Earth Sciences of the Hungarian Academy of Sciences, Hungary

A new model to measure systemic risks

The financial crisis has had a significant impact on the regulation of financial markets and risk management in companies and financial institutions. In order to contribute to the efforts deployed by academics to study systemic risk and other important issues in financial economics, Prof. Lasse Heje Pedersen focuses on the study of financial frictions. In 2017, together with other economists, he introduced a new model-based measure of systemic risk. They first developed a framework for formalising and measuring systemic risk and then used it to derive an optimal policy for managing systemic risk. Finally, they provided a detailed empirical analysis of how their ex-ante measure of systemic risk predicts the ex-post losses during the global financial crisis of 2007/09 as well as the regulators' "stress test" in the spring of 2009.

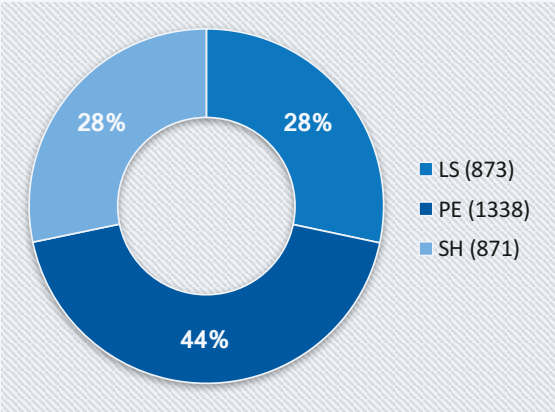
FRICTIONS, Lasse Heje Pedersen, Copenhagen Business School, Denmark

chapter six

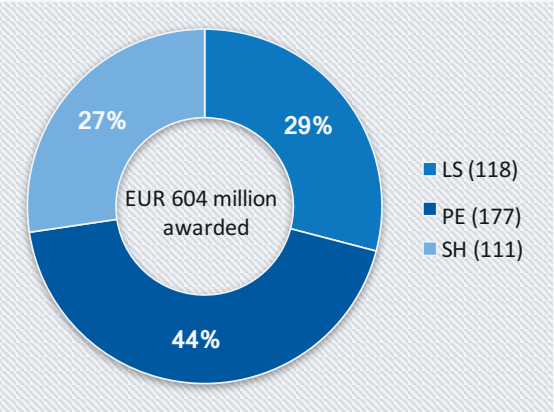
Advancing Frontier Research

ERC calls 2017

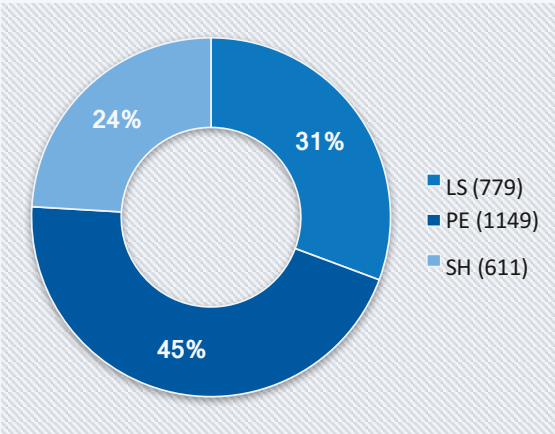
Starting Grant 2017 - Submitted proposals



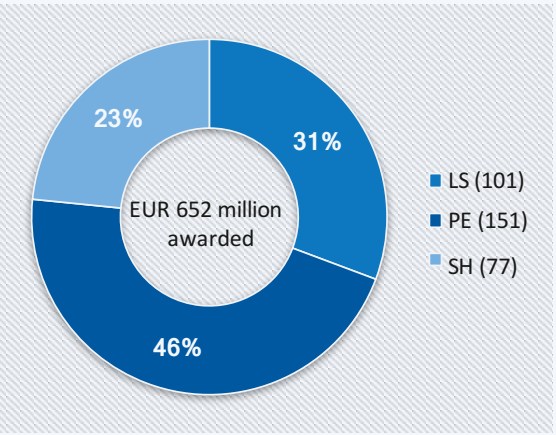
Starting Grant 2017 - Funded projects



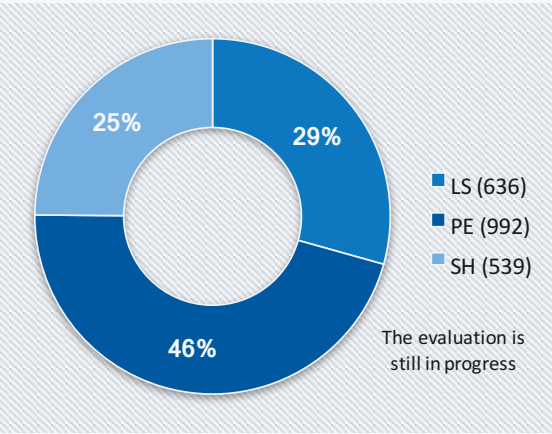
Consolidator Grant 2017 - Submitted proposals



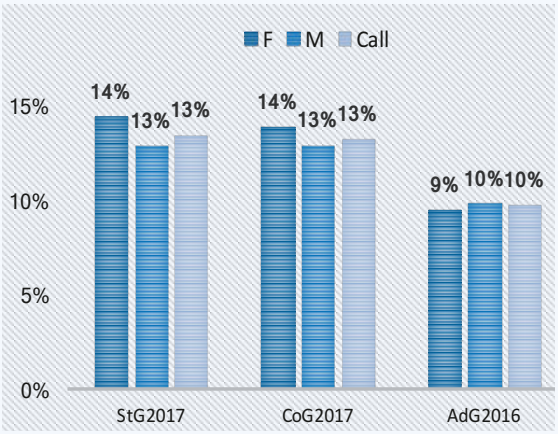
Consolidator Grant 2017 - Funded projects



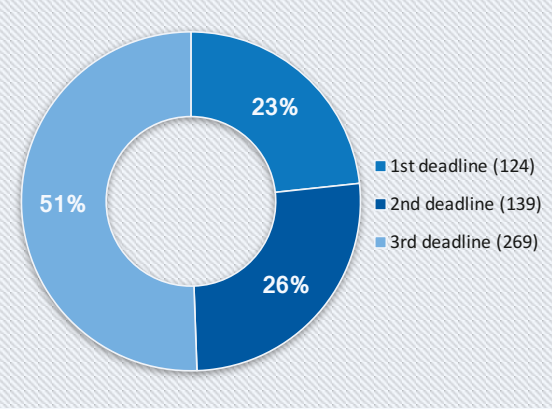
Advanced Grant 2017 - Submitted proposals



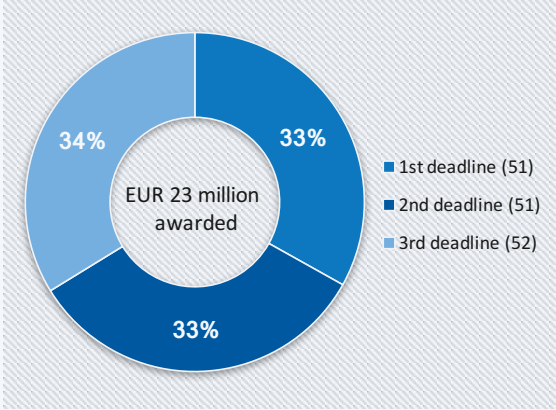
Success rate of male and female Principal Investigators in the last concluded ERC calls



Proof of Concept Grant 2017 - Submitted proposals



Proof of Concept Grant 2017 - Funded projects



7,788

proposals submitted in 2017 to the core schemes

2%

increase compared to 2016

735

projects selected for funding in StG and CoG 2017 *

532

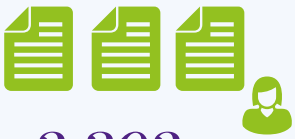
proposals submitted in 2017 to the PoC scheme

22%

increase compared to 2016

154

projects selected for funding in PoC 2017



2,302

proposals submitted in 2017 by female applicants

10%

more female applicants compared to 2016

21%

more female CoG applicants compared to 2016

25

evaluation panels per call

> 2,700

panel members in 2014-2017 calls

> 20,000

external reviewers in 2014-2017 calls

* The Advanced Grant 2017 proposals were still under evaluation at the moment of printing this report

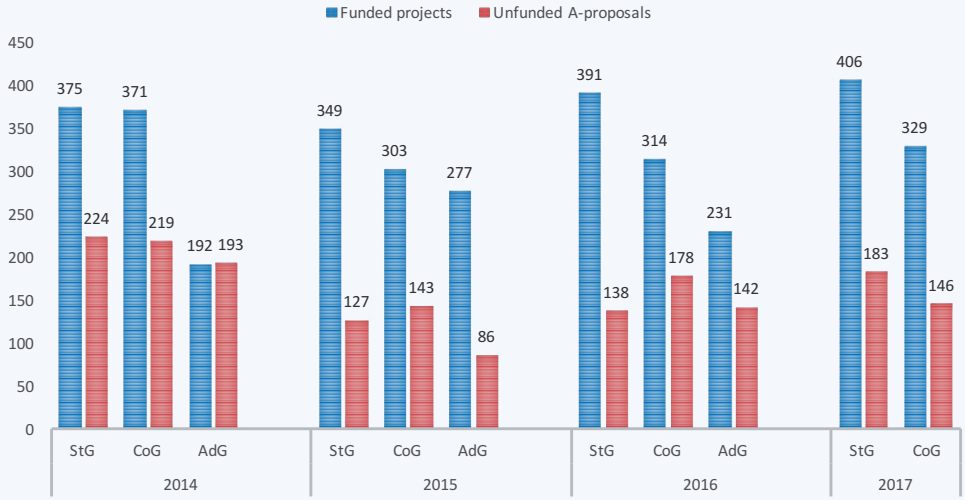
ERC calls in Horizon 2020

	Total number of applications	of which		
		Evaluated*	Funded	Success rates**
Starting Grant 2014	3,273	3,204	375	11.7 %
Starting Grant 2015	2,920	2,862	349	12.2 %
Starting Grant 2016	2,935	2,881	391	13.6 %
Starting Grant 2017	3,082	3,032	406	13.4 %
Starting Grant	**12,210**	**11,979**	**1,521**	**12.7 %**
Consolidator Grant 2014	2,528	2,485	371	14.9 %
Consolidator Grant 2015	2,051	2,023	303	15.0 %
Consolidator Grant 2016	2,305	2,274	314	13.8 %
Consolidator Grant 2017	2,539	2,498	329	13.2 %
Consolidator Grant	**9,423**	**9,280**	**1,317**	**14.2 %**
Advanced Grant 2014	2,287	2,250	192	8.5 %
Advanced Grant 2015	1,953	1,927	277	14.4 %
Advanced Grant 2016	2,404	2,373	231	9.7 %
Advanced Grant	**6,644**	**6,550**	**700**	**10.7 %**
Proof of Concept 2014	442	426	121	28.4 %
Proof of Concept 2015	339	323	160	49.5 %
Proof of Concept 2016	437	405	159	39.3 %
Proof of Concept 2017	532	497	154	31.0 %
Proof of Concept	**1,750**	**1,651**	**594**	**36.0 %**

* withdrawn and ineligible proposals not taken into account
** percentage of funded proposals in relation to evaluated proposals
Data as of December 2017

"A" proposals that could not be funded

Over 1,770 proposals that received score A* after the evaluation could not be funded due to budget limitations in the Horizon 2020 ERC calls; their cumulated budget is EUR 3.4 billion



* A = fully meets the ERC's excellence criterion and is recommended for funding if sufficient funds are available

Origin of ERC grantees

90%

of the ERC grantees were already resident in the country of the Host Institution at the time of application.

3%

of the ERC grantees were resident outside the EU and the Associated Countries and moved to Europe with the ERC grant

8%

of the ERC grantees are nationals of countries other than the EU Member States and the Associated Countries:

41% from USA (255 grantees)

11% from Canada (70)

8% from Russia (49)

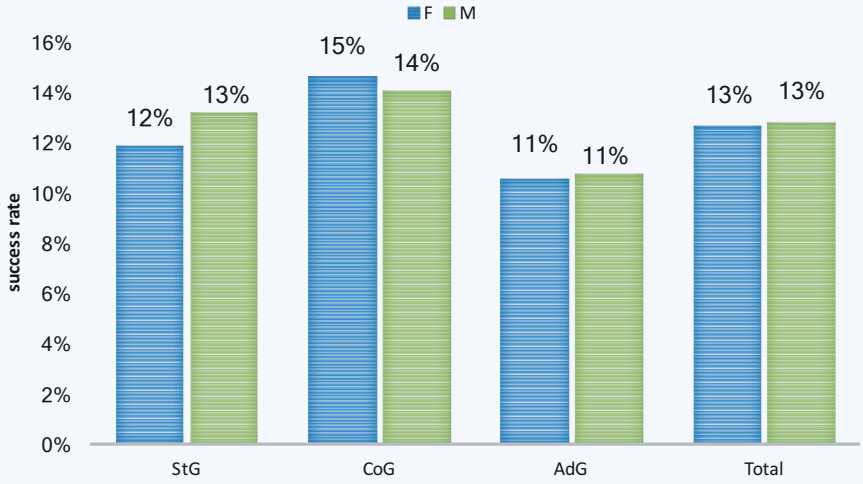
7% from India (45)

7% from Australia (43)

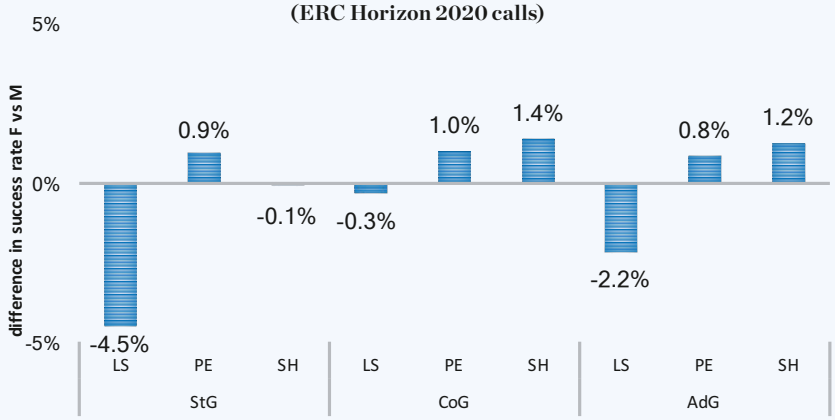
(all ERC calls considered)

Gender of ERC grantees

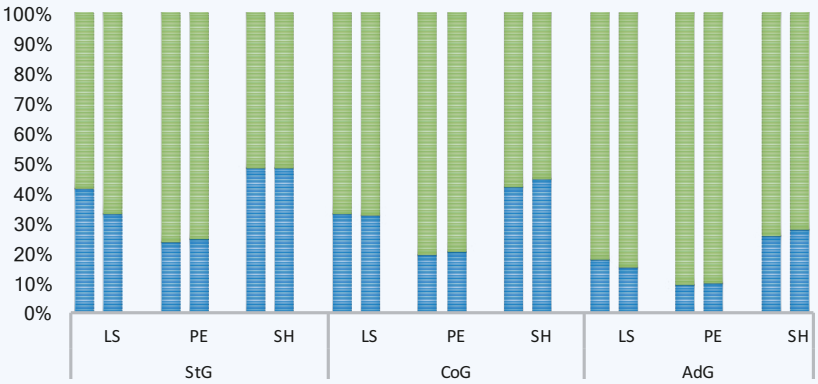
Similar success rates by gender
(ERC Horizon 2020 calls)



At domain level, women less successful than men in LS domain, especially in Starting Grant
(ERC Horizon 2020 calls)



Share of female and male applicants and grantees in the three scientific domains by funding scheme
(ERC Horizon 2020 calls)



Geographical distribution of grantees for each call

Data as of December 2017

Chairs of the ERC evaluation panels 2017

Panel	Starting Grant 2017	Consolidator Grant 2017	Advanced Grant 2017
Life Sciences			
LS1 Molecular and Structural Biology and Biochemistry	Prof. Andrea Musacchio	Prof. Helen Saibil	Prof. Elena Conti
LS2 Genetics, Genomics, Bioinformatics and Systems Biology	Prof. Martin Vingron	Prof. Susanne Mandrup	Prof. Alea Mills
LS3 Cellular and Developmental Biology	Prof. Sarah Bray-Brown	Prof. Thomas Langer	Prof. Malcolm Bennett
LS4 Physiology, Pathophysiology and Endocrinology	Prof. Angel Nebreda	Prof. Michael D Schneider	Prof. Didier Trono
LS5 Neurosciences and Neural Disorders	Prof. Asla Pitkänen	Prof. Martin Ernst Schwab	Prof. David J Brooks
LS6 Immunity and Infection	Prof. Rose Zamoyska	Prof. Dirk Haller	Prof. Francisco Garcia del Portillo
LS7 Diagnostic Tools, Therapies and Public Health	Prof. Annette Peters	Prof. Konstantina Nikita	Prof. Slobodan Vukicevic
LS8 Evolutionary, Population and Environmental Biology	Prof. Nick Barton	Prof. Purificación López-García	Prof. Felicity A. Huntingford
LS9 Applied Life Sciences and Non-Medical Biotechnology	Prof. Kaare Magne Nielsen	Prof. Luis Navarro Lucas	Prof. Pere Puigdomenech
Physical Sciences and Engineering			
PE1 Mathematics	Prof. Angus Macintyre	Prof. Helge Holden	Prof. Michael Roeckner
PE2 Fundamental Constituents of Matter	Prof. Klaus Mølmer	Prof. Diederik Wiersma	Prof. Erik Peter Verlinde
PE3 Condensed Matter Physics	Prof. Jean-Marc Triscone	Prof. Carlo Beenakker	Prof. Daan Frenkel
PE4 Physical and Analytical Chemical Sciences	Prof. Bengt Nordén	Prof. Rodolfo Miranda	Prof. Joachim Sauer
PE5 Synthetic Chemistry and Materials	Prof. Thomas R. Ward	Prof. Helena Grennberg	Prof. Paolo Antonio Netti
PE6 Computer Science and Informatics	Prof. Pierre Wolper	Prof. Anne-Marie Kermarrec	Prof. Pavlos Spirakis
PE7 Systems and Communication Engineering	Prof. Elisabeth André	Prof. Piet Demeester	Prof. Marios Polycarpou
PE8 Products and Process Engineering	Prof. Suad Jakirlić	Prof. Dimitris A. Saravanos	Prof. Narayana R Aluru
PE9 Universe Sciences	Prof. Luigi Guzzo	Prof. Carsten Dominik	Prof. Ewine Van Dishoeck
PE10 Earth System Science	Prof. Katharine Cashman	Prof. Andreas Stohl	Prof. Jeannot Trampert
Social Sciences and Humanities			
SH1 Individuals, Markets and Organisations	Prof. Alfonso Gambardella	Prof. Alberto Bisin	Prof. Ashish Arora
SH2 Institutions, Values, Environment and Space	Prof. Aleh Cherp	Prof. Tanja Börzel	Prof. Stephan Parmentier
SH3 The Social World, Diversity, Population	Prof. Henri Bergeron	Prof. Carsten Karel Willem De Dreu	Prof. Hanna Ayalon
SH4 The Human Mind and Its Complexity	Prof. Louise E. McNally Seifert	Prof. Patrick Haggard	Prof. Elena Leonidovna Grigorenko
SH5 Cultures and Cultural Production	Prof. Maria Luisa Catoni	Prof. Michal Buchowski	Prof. Nadia Al-Bagdadi
SH6 The Study of the Human Past	Prof. John Tolan	Prof. Katerina Harvati-Papatheodorou	Prof. Mitchell G. Ash

chapter seven

Strategy Support

For the ERC President

35

presentations

24

briefings

12

data analyses

For members of the Scientific Council

21

presentations

2

briefings

18

data analyses

Documents and in-depth analysis for:

Scientific Council
Standing Committees
Working Groups

Support to the Scientific Council

Strategy support consists of activities undertaken by the ERCEA to support the Scientific Council with the task of setting the scientific strategy, of establishing positions on scientific management, monitoring and quality control and of undertaking communication and dissemination efforts. These activities cover:

> policy analysis and advice
> programme design and review
> management of Standing Committees and Working Groups
> programme monitoring and evaluation
> communication and dissemination.

The whole staff of the ERCEA contributes to a greater or lesser extent to the development of the Scientific Council's strategy for the ERC, but two units in particular are dedicated to providing strategic support to the Scientific Council:

Support to the Scientific Council: The unit supports the Scientific Council to establish the overall research funding and management strategy of the ERC, including the ERC annual work programme, and leads on the assessment, monitoring, evaluation, reporting and statistical analysis of the ERC's activities. In response to relevant requests by the Scientific Council, the unit continuously advises them in their activities by providing analysis and intellectual input through the drafting of various documents that reflect the Scientific Council's main orientations. Due to the specific governance model, the Scientific Council's plenary meetings are also prepared with the organisational and administrative support of this unit.

Communication: The unit assists the Scientific Council and the ERCEA in their communication strategy towards the scientific community, the public authorities and the public at large.

Meetings

The Scientific Council (ScC) held regular plenary meetings in 2017 both in Brussels and across Europe, usually at the invitation of national authorities. Meeting in different countries, either EU Member States or Associated Countries, is a way of making the ERC more visible.

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January

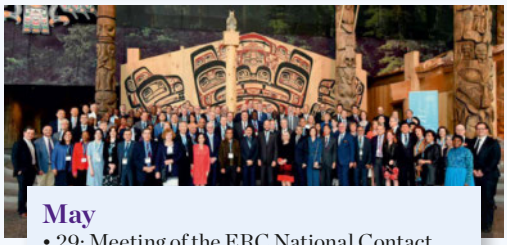
- 16-20: World Economic Forum Annual Meeting 2017 (Davos)
- 31: XI European Winter School on Physical Organic Chemistry e-WISPOC 2017 (Bressanone)

April

- 5-7: IX Research Data Alliance Plenary Meeting (Barcelona)
- 7: Celebratory event "60 Years of the Rome treaty, 10 years of the European Research Council" (Rome)
- 18: Simon Initiative Distinguished Lecture at the Carnegie Mellon University (Pittsburgh)
- 24-26: ScC Plenary (Padua)

February

- 7-10: ScC Plenary (Brussels)
- 8: Participatory workshop on the future of ERC (Brussels)
- 23-24: Polish Conference of the National Congress of Science (Poznań)



GRC © Cynthia Münster, Münster Photography

May

- 29: Meeting of the ERC National Contact Points (Brussels)
- 29-31: Global Research Council (GRC) meeting in Ottawa

March

- 31: ERC Workshop "Frontier Research and Climate Change" (Brussels)

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June

- 1: The Guild Public Forum on 'The Future of Europe: Science, Innovation, and the European Citizen' (Brussels)
- 5-6: Strategic Planning meeting of the Global Life Sciences Data Resources (GLSDR) Working Group (London)
- 27-29: World Economic Forum Annual Meeting of the New Champions 2017 (Dalian)

The meetings are also considered important events both by the national authorities as well as the local scientific and research community. In addition, in 2017 members of the Scientific Council participated in meetings and events around the world representing the ERC.

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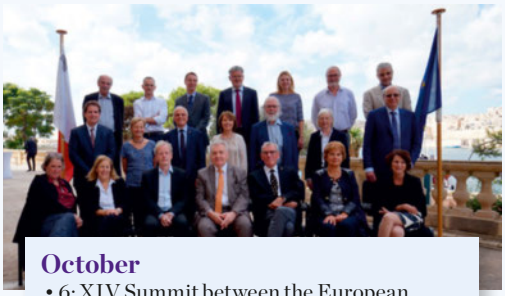
July

- 5-7: ScC Plenary (CERN)
- 15: Public event "High Risk High Gain – Ground-breaking Research" in Berlin



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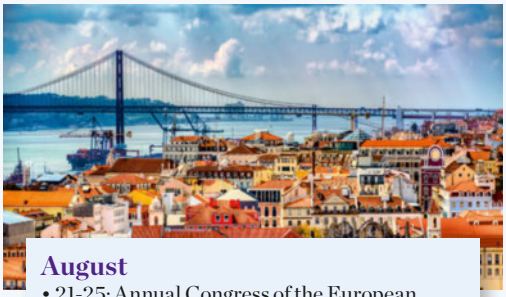
October

- 6: XIV Summit between the European Union and India – signature of the Implementing Arrangement between the EC and the Science and Engineering Research Board of India (New Delhi)
- 11-13: Estonian EU Presidency Research Policy Conference (Tallinn)
- 18-20: ScC Plenary (Kalkara, Malta)

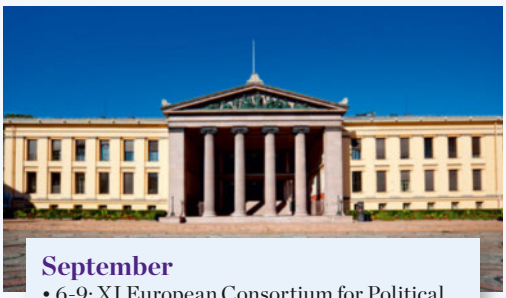


August

- 21-25: Annual Congress of the European Economic Association and the European Meeting of the Econometric Society (Lisbon)
- 30: XIII Conference of the European Sociological Association (Athens)

November

- 7-11: World Science Forum 2017 Jordan
- 8-9: Falling Walls Events 2017 (Berlin)
- 29: Meeting of the ERC National Contact Points (Brussels)



September

- 6-9: XI European Consortium for Political Research General Conference (Oslo)
- 14-15: European Conference on Optical Communication ECOC Special Symposium 2017 (Copenhagen)

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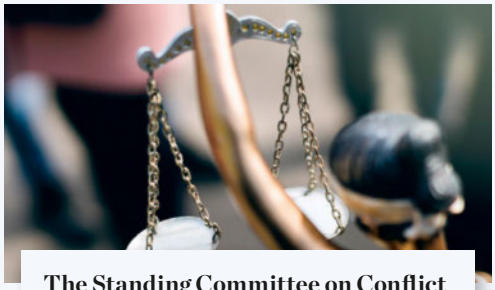
December

- 7-8: III Science Forum South Africa (Pretoria)
- 13-15: ScC Plenary (Brussels)

Standing Committees

The Standing Committee on Panels deals with the selection of evaluation panellists.

The Committee met three times in 2017.



The Standing Committee on Conflict of Interest, Scientific Misconduct and Ethical Issues (CoIME) provides guidance on conflicts of interest, scientific misconduct and ethical issues.

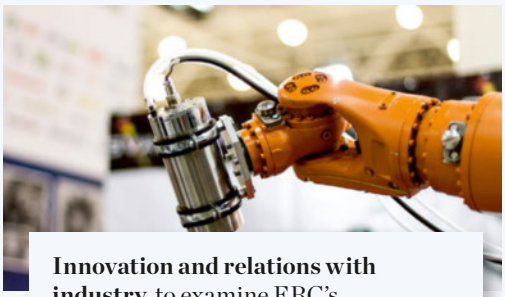
In 2017 the CoIME gave its advice on 17 cases of alleged scientific misconduct of which six still ongoing at the end of 2017. An anonymised reporting of these cases can be found on the ERC website.

The Committee met once in 2017.

Working Groups

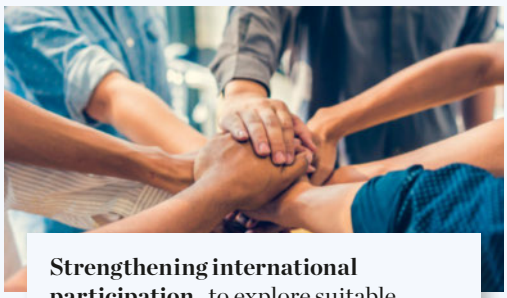
The members of the Scientific Council also meet in Working Groups (WGs) that carry out analyses and contribute to the ERC's scientific strategy through proposals to be adopted by the Scientific Council in plenary in areas addressing specific issues.

There are currently seven Working Groups dedicated to the following topics, which are of particular interest to the ERC:



Innovation and relations with industry, to examine ERC's relationship with the industrial/ business sector and the impact of ERC-funded research on innovation.

The WG met twice in 2017.



Strengthening international participation, to explore suitable mechanisms to increase the participation of researchers in ERC calls from countries outside the EU.

Gender balance, to ensure that the ERC is at the forefront of best practices with regard to gender balance in research.

The WG met twice in 2017.

Key performance indicators, to evaluate the ERC's accomplishment of its mission, using qualitative & quantitative methods to support the short-, medium- and long-term policies of the Scientific Council.

The WG met twice in 2017.

Widening European participation, to encourage low performing countires and, in particular, Central and Eastern European countries to better nurture their scientific talent and invest more in research.

The WG met once in 2017.

Science behind the projects, to perform an ex-ante content analysis of the ERC-funded projects, using expert judgment that will enable ERC to systematically report on the research areas/topics/fields that it funds, including on funding trends.

The WG met twice in 2017.

Open access, to develop an ERC position on issues related to open access to publications, research data management and sharing, and open science more broadly.

The WG met three times in 2017.

Communication

Effective communication is decisive in facilitating the implementation of the ERC mission. The communication activities are centred on three strategic pillars.

Promoting ERC

Promoting ERC, targets top scientists of any nationality, also with an eye towards countries in the widening European participation initiative, researchers outside Europe and women researchers.

As well as the organisation of the tenth anniversary events, activities in 2017 included participation in 22 events, several of which outside Europe, in line with the "ERC – Open to the World" initiative.

In addition to interfacing directly with audiences at these events, collaboration with multipliers was intensified, such as National Contact Points, Euraxess country representatives, Research & Innovation Science Counsellors in EU Delegations and other European Commission colleagues.

Communicating about projects and grantees

Communicating about projects and grantees, highlighting ERC-funded research, targets a variety of audiences. In 2017, this meant covering stories in various online formats, as well as in thematic brochures and engaging social media content. By means of a new dedicated webpage and information sessions, the ERC encouraged grantees to promote their work independently.

Two Coordination and Support Actions (CSA) continued to be part of this pillar, showcasing ERC-funded research to a wider audience through innovative communication. One CSA, ERCcomics, produced eight different webcomics and organised illustrated talks at science events. The other, ERC=Science^2, engaged in activities such as events in science museums, talks, science-cafés, workshops, videos, articles, social media posts focusing on the themes of longevity and the senses.

Raising awareness about ERC

Raising awareness about the ERC, promotes the public image of the ERC, showcasing its impact as a European success story.

Over the past year, this was done notably by engaging with the press and social media on topics such as the tenth anniversary, ERC achievements, grant competition results, major breakthroughs and events with ERC leaders. This pillar included activities with Commissioner Moedas and support to the ERC President and Scientific Council members around press and events as well as increasing the visibility of the ERC within the EU institutions.

ERC press in figures

30

press announcements

200

articles covering Advanced Grants 2016

> 60

media interviews with ERC representatives

306

articles covering Starting Grants 2016

12,900

articles, total media coverage

305

articles covering Consolidator Grants 2016

350

articles, ERC 10th anniversary media coverage

> 36,000

ERC Newsletter (Ideas) subscribers

ERC social media

39,400

Twitter followers

18,700

Facebook followers

4,000

LinkedIn followers

311 million

Twitter reach

1.2 million

Facebook reach

600,000

Website unique visitors

Luxembourg: Publications Office of the European Union, 2018

Print ISBN 978-92-9215-065-5 ISSN 1831-239X ISSN 1018-5593 doi:10.2828/58066 JZ-AA-17-001-EN-C
PDF ISBN 978-92-9215-064-8 ISSN 2363-2593 ISSN 1831-9424 doi:10.2828/397027 JZ-AA-17-001-EN-N
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"The European Research Council has, in a short time, achieved world-class status as a funding body for excellent curiosity-driven frontier research. With its special emphasis on allowing top young talent to thrive, the ERC Scientific Council is committed to keeping to this course. The ERC will continue to help make Europe a power house for science and a place where innovation is fuelled by a new generation."

Jean-Pierre Bourguignon
ERC President and Chair of its Scientific Council

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