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SEPTEMBER 2015

Newsletter of the European Research Council

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Most scientists in Europe see the ERC as a European success story. Also our colleagues in the USA often say that they have a lot to learn from the ERC. Why has the ERC been so successful? The main reason is that any topic or idea can be funded by the ERC. There are no pre-set, steering regulations when it comes to themes. This implies that excellence is the only criterion for funding by the ERC. To make sure that only the most excellent proposals are selected, the applications are assessed by the best scientists. In addition, although the ERC functions independently, it is strongly supported by the European Commission.

While grants go to individual researchers, both universities and countries compete for ERC grants. For example, obtaining ERC funding is increasingly important for organisations providing young scholars with postdoctoral training, the kind of training which opens the door to a scientific career. Today, the impressive number of 23,000 PhD and postdoc researchers work in ERC-funded projects.

I have been a member of the ERC Scientific Council since 2011, and since January this year I have been serving as the ERC Vice President responsible for the Life Sciences domain. Over these years, I have identified two major challenges for the ERC.

Firstly, the evaluation panels are the most crucial part of the ERC's work, but it is challenging to maintain their high level of quality. In the Life Sciences domain alone we have 54 alternating panels (for Starting, Consolidator, Advanced and Proof of Concept Grant schemes) consisting of 12 to 16 top scientists each. Working in an ERC panel is very demanding and time consuming, which unfortunately makes some colleagues hesitate whether they should take on this task. However, in the panels our best scientists have a unique chance to shape and strengthen high-quality, excellent science. They can create networks of experts, and let the most outstanding scholars in Europe meet. Here, I would like to stress that about two thirds of ERC grants are given to younger, very talented researchers.

The second challenge is about the geographical distribution of grants. Some countries in Europe have not yet hosted ERC grantees and researchers in many Eastern and Central European countries rarely win ERC grants. I find this particularly painful, since my roots are in Estonia (I worked there until 1990, when I joined the University of Helsinki in Finland). Luckily, there are bright spots, for example, Hungary is rather successful. We now need to understand why some countries achieve better results than others. In general terms, we also have to learn how to attract the best applicants from less successful countries so that their success rates in ERC calls go up.

In this issue of the Newsletter, I encourage you to read about the ERC Scientific Council's new idea of how to provide better support to ERC candidates from less successful countries. You will also learn about the impact of ERC Starting Grants on early-career researchers and discover ERC projects involving citizens in research.

Enjoy reading,

Mart Saarma  
Vice President of the ERC



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# It's time for citizen science!



*Science is not only for researchers anymore. Now – using the power of the Internet – citizens can contribute to scientific projects too. They can share photos from a scuba-diving trip to help identify new species of fish, or take an online test measuring logical thinking abilities to allow neurologists to study brain functions. So-called “citizen science” is a new social phenomenon becoming popular amongst curious amateurs. In this issue of the Ideas newsletter, we invite you to learn about ERC-funded projects engaging volunteers.*

The idea behind citizen science is that everybody can participate in meaningful scientific research. Volunteers do not necessarily need to have a scientific background, but they often have hobbies or interests related to the topic under investigation and they are willing to invest their time and energy to collect data for full-time researchers. Typical examples can be counting butterflies or shooting stars, monitoring noise pollution or testing online programmes.

Citizen science in this current form was born in the nineties, thanks to the emergence of the Internet and the advance of the new information tools. More recently, with the massive spread of mobile technology, the opportunities for citizens to participate in scientific projects have multiplied. Nowadays, many smartphone applications facilitate the collection of data in a variety of fields, ranging from bird monitoring to reporting on weather conditions.

Although citizen science has started in an informal way, the number of research ventures benefiting from the participation of amateurs has rapidly increased during recent years, drawing the attention of policy-makers to this grassroots phenomenon. In 2012, the European Commission funded the [SOCIENTIZE](#) project which aimed, amongst other things, to compile best practices and to provide recommendations to policy-makers on how to make use of citizen science. For two years the project has mapped ongoing activities, funding programmes and initiatives based on engaging citizens in science. It has resulted in the [White paper on Citizen Science in Europe](#).

The ERC has also funded projects involving citizens and studies investigating this social phenomenon. Discover here three examples of such projects.

## Crowd-sourcing for better land use

Information about land-cover and land-use are vital to protect the environment and secure suitable, sustainable food production. Yet, in developing countries and remote areas, data on how fields and forests are managed is often scarce.

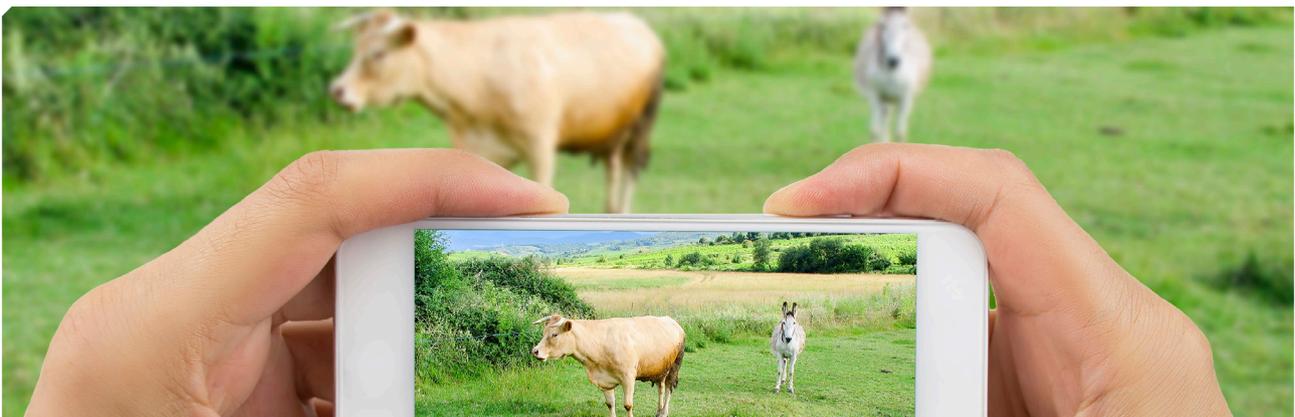
Led by Dr Steffen Fritz, the CROWDLAND project aims to generate better land-use maps in those regions. Its ambition is also to test the potential of crowd-sourcing by asking locals to collect and share photos of their surroundings, including specific information on land cover, such as crop location and irrigation conditions.

For the purpose of the research, Dr Fritz and his team have developed mobile games and apps that people can use to send pictures, comments and information through their smartphones. By using social gaming, Dr Fritz aims to generate an openly accessible archive of geographically located pictures, information on land characteristics and other observations of research and educational value.

The data collected will be used to improve land-cover and land-use maps as well as statistics, feeding into global land use change models and providing information on food production and on how land-use might change in the next 50 years. It will help understand where the changes are occurring, which could be used for decision-making in the areas of agriculture, health, and environmental management.

The research is carried out in Austria and in Kenya. In the latter, the use of mobile devices has significantly increased in the past years, while data on land-use remains patchy and incomplete. To better understand how crowd-sourcing could work in developing countries, the scientists, for example, test which incentives are the most efficient to encourage citizens to collect data for common use.

Dr Steffen Fritz is based at the Internationales Institut Fuer Angewandte Systemanalyse in Austria. [CROWDLAND](#) is supported by a Consolidator Grant worth EUR 1.3 million.



## Spreading environmental awareness through sensor technologies

With the widespread use of digital sensors, monitoring and sensing of the environment for scientific purposes became possible through Web and smartphone applications. Citizens are now able to observe their surroundings and collect data in a scientific way by simply using their mobile device. Such “citizen sensing” projects intend to democratise the collection and use of environmental sensor data in order to facilitate citizen engagement in environmental issues. But how effective are these practices in not just providing crowd-sourced data sets, but also in giving rise to new modes of environmental awareness and practice?

This is the key question of the CITIZENSENSE project led by Dr Jennifer Gabrys. Her team investigates, through three case studies, the relationship between technology, practices of environmental sensing and citizen engagement. The first case study, “Pollution Sensing,” concentrates on the increasing use of sensors to detect environmental

disturbance, including air and water pollution. The second case study, “Urban Sensing”, focuses on urban sustainability projects that implement sensor technologies to make urban processes more efficient or environmentally sound. The third project area, “Wild Sensing,” studies the use of sensors to map and track flora and fauna activity and habitats.

This project will contribute to the establishment of more robust practices and protocols for citizen-led environmental monitoring, the development of tools for analysing citizen-collected data, and recommendations for policymakers and environmental organisations on how to incorporate citizen-collected data into decision-making processes.

Dr Jennifer Gabrys is based at the Goldsmith’s College in London. [CITIZENSENSE](#) is supported by a Starting Grant worth EUR 1.5 million.

## Crowd-sourced data revolution

What are the reasons behind the success of crowd-sourced ventures such as Wikipedia, TripAdvisor and IMDb? Prof. Tova Milo has taken on the ambitious task to develop a universal model for efficient and reliable management of crowd-based data suitable for all kinds of Web applications.

Some of the most popular online platforms such as Wikipedia, TripAdvisor, Airbnb or IMDb rely on the voluntary contribution of Internet users, who openly share data in the form of, for example, images, reviews, opinions and ratings. Processing this huge amount of information and assessing its reliability is such a challenging task that so far only a few projects have managed to utilise crowd-based data successfully. However, their ad hoc solutions are often too specific to be adopted by other projects, and this hinders the crowdsourced data revolution.

In the MODAS project, Prof. Milo's team has made a major step towards developing a universal model for data crowd-sourcing, termed *crowd mining*. The model has integrated factual information (such as a catalogue of florists in a certain town or a filmography of an actor) and combined it

with people's individual knowledge (their habits, opinions or preferences). The researchers have then investigated the logical, algorithmic and methodological foundations for managing and interweaving these two sets of data. They have also analysed existing smartphone and Web applications designed to process this kind of information. On this basis, they have come up with a mathematical model that instantly optimises the questions to be asked to the crowd and that draws significant patterns from the answers.

Thanks to its universality, this model could drastically simplify the way crowd-based data sourcing applications are built. It would also enable the exchange of information between different Web applications developed on the basis of the model. This technological breakthrough could pave the way for a new and otherwise unattainable universe of knowledge.

Prof. Tova Milo is based at the Tel Aviv University in Israel. [MODAS](#) is supported by an Advanced Grant worth EUR 1.7 million.



## “New Champions” meet in China



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*Eighteen young ERC grant holders took part in the Annual Meeting of New Champions (AMNC) to showcase their ground-breaking research and to debate future global challenges. The event, dubbed “Summer Davos”, was organised by the World Economic Forum (WEF) from 9 to 11 September. It took place in Dalian, China and gathered talented and emerging researchers, entrepreneurs and politicians, as well as high-ranking leaders.*

The ERC grantees presented their research findings in areas such as neuroscience, computer science and material sciences. The ERC also organised an “Ideas Lab” session, during which four grantees discussed new sustainable ways for generating energy. Twelve of the participating ERC Starting Grant holders were selected as Young Scientists by the WEF. This prestigious WEF programme identifies the best scientific minds who play a transformational role in integrating scientific knowledge and technological innovation to improve the state of the world. Each year, the Forum selects around 40 extraordinary researchers under the age of 40 to join its “Young Scientists” community. They engage with business and political leaders at the AMNC to spur innovation and identify ground-breaking scientific solutions to current global challenges. This year, ERC grantees constituted one third of all “Young Scientists” at the meeting, which hints at the recognition ERC grant holders enjoy internationally.

As every year, the ERC leadership contributed extensively. This time President Prof. Jean-Pierre Bourguignon and Vice-President Prof. Núria Sebastià Gallés conveyed the message that international scientific exchange is important to achieve the best results. Indeed, the ERC is open to talent from around the world and it encourages researchers to cooperate beyond borders to learn from each other and to exchange experience.

At the ERC [press briefing](#), held together with EU Commissioner for Research, Innovation and Science Carlos Moedas and ERC Starting grantee Prof. Panayiota Poirazi, President Bourguignon focused on the role of globalisation in boosting scientific exchange. “It was clear from the start that the ERC must be open to the whole world to create opportunities to researchers from many different countries,” he said. He also mentioned that, thanks to a recently signed [agreement](#), researchers funded by the Chinese National Natural Science Foundation can now join ERC-funded teams for short periods of time.

Commissioner Moedas highlighted the role of frontier research in today’s economic context, calling it “*the main ingredient for growth*”. He also appealed to politicians to create proper conditions to give researchers freedom to pursue creative ideas. “*When I meet ERC grantees, they tell me this is the best thing that happened in their lives. Not because of the money, but because of the network, the experience, the people they meet and opportunities it creates. So I see the ERC as a model for the future.*”

As an ERC-funded scientist, Prof. Poirazi testified to this. She explained that young researchers often have to adjust their projects to pre-set priorities to receive funding. “*When I got an ERC grant, I was finally able to do what I loved the most. I think this is really important, the opportunity to pursue your dreams. That’s when the great discoveries come – because you need to have the passion for what you’re doing.*”

The ERC grantees who participated in the AMNC this year are clearly passionate about their research. And - as the WEF puts it - they are also expected to make vital contributions to solving global challenges in the years to come by actively engaging with policy makers and business leaders. [See the ERC programme.](#)

## Impact of Starting Grants revealed



*Why exactly do young researchers apply for ERC Starting Grants? And what advantages does the funding bring in terms of professional development? A new study, to be published later this year, reveals the benefits the award can bring to early-career researchers. Here, we offer you a sneak peek at the findings.*

To draw a picture of the impact of Starting Grants, over 700 grantees (awarded funding from 2009 to 2011) and a control group of 2,660 unsuccessful ERC applicants were invited to participate in an online panel survey. In the first round, they were asked - among other things - about their reasons to apply for ERC funding. Two and a half years later, the respondents were approached again. This time, they shared their observations on what they have learnt and how their professional careers have developed within this period.

Not surprisingly, candidates' motivation to apply was mainly driven by the generous financial conditions the grant offers - up to EUR 1.5 million for five years. Around 67% of candidates applied to set up their own research groups. They were also attracted by the thematic openness and freedom to set their own research priorities (62%). Slightly less relevant, but still important, was the excellent reputation of the programme.

The study showed that only a minority of submitted proposals (9%) were written without any external help. Applicants mainly consulted their more experienced colleagues as well as the service points at their institutions and the [ERC National Contact Points](#). However, the support focused more on adjusting the application to administrative norms, rather than on the substance of the research proposal.

The study tried to capture the scientific excellence of the applicants. As bibliometric analysis revealed, both the successful and the unsuccessful candidates showed an above-average scientific output - in terms of number of publications - before applying for ERC funding. Ninety percent of them have published at least six articles in international journals and 75% have authored at least one

highly cited paper. This implies that ERC candidates have a well-established self-selection attitude.

The funding had one immediate result: the grantees were more satisfied with their working conditions. This especially concerns a higher level of autonomy in terms of allocation of materials, staff and lab space. The grant also allows scientists to spend more time on genuine research: on average, the awardees dedicated 46% of working time to this task. In comparison, the rejected applicants spent only 36% of their time doing research.

The findings also suggested that receiving a Starting Grant helps researchers climb the career ladder. Within a period of three and a half years after the award, 70% of the grantees had obtained a professorship or equivalent - compared to 46% of the rejected candidates. A substantial number of the grant winners were promoted soon after receiving the funding, which may imply that promotion came as reward for the successful Starting Grant application.

Generally, the grantees were also in a good situation regarding future career prospects. One and a half year before finalising their Starting Grant projects, 82% of the recipients already had a permanent position in sight and 9% have secured temporary employment. Only 1.5% was not sure about their future prospects.

Helping the most promising young researchers develop is at the heart of the ERC mission. With its positive findings, the study has proven that the Starting Grant scheme is an efficient tool in building a new generation of research leaders in Europe. Next year, almost 30% of the ERC annual budget (EUR 485 million) will be distributed to 335 early-career scientists through Starting Grants.

The study, "Monitoring European Research Council's Implementation of Excellence" (MERCIE), was commissioned by the ERC as a "Coordination and Support Action" (CSA). The full report will be published before the end of the year. Stay tuned!

# In a quest for excellent science



*How to make sure that excellent researchers from all over Europe know about ERC funding and apply for it? Statistics show that in some countries participation and/or success rates of candidates in ERC calls are rather low. There are certainly structural reasons to explain this situation. For example, generally the more a country invests in research and innovation, the more ERC grantees it hosts. This is why national policies (also supported by EU Structural Funds) are the main solution to improve the level of national research, which is the first step to becoming more competitive at the European level.*

But the ERC Scientific Council also puts an effort into supporting less successful countries. In 2013, it set up the [ERC Widening European Participation Working Group](#), chaired by [Prof. Eva Kondorosi](#), to investigate the issue and to propose some “soft measures” to help spread excellence and widen participation in ERC calls.

The Working Group has for instance analysed data and processes to ensure that the ERC peer review evaluation is unbiased and solely based on scientific quality, no matter the country of origin of the applicant. The Working Group has also organised meetings with scientists in less performing countries to promote ERC calls.

One of the new measures is a project that will be run by the ERC National Contact Points ([NCPs](#)), who play an increasingly important role in providing support to ERC applicants. The aim of the project, as indicated in the [ERC Work Programme 2016](#) (p. 44), is to boost support for potential ERC applicants from countries with weak participation rates in ERC calls. Various activities may be included, such as the organisation of joint workshops,

coaching, twinning/tripling, webinars, training sessions, as well as events for stakeholders. The project is expected to start next year and to run for three years, with an indicative budget of EUR 850,000.

The ERC has also launched other initiatives to ensure that the full research potential in Europe is reached. For example, the ERC Scientific Council gathers regularly for its plenary sessions around Europe, including the newer EU Member States where participation and success rates in ERC calls are particularly low. This provides an opportunity for interaction with local research communities, and at the same time helps promote [ERC funding schemes](#).

Plenary sessions have already taken place in Bulgaria, Croatia, Cyprus, Hungary, Latvia, Romania and Slovakia, among other countries. From 7 to 9 October, the ERC Scientific Council is going to meet in Tallinn, where the Estonian Academy of Science will also host a dedicated meeting on widening participation in ERC calls. A similar event will take place in Budapest on 4 November, in cooperation with the Hungarian Academy of Sciences. The aim is to gather ERC grantees, members of the ERC Scientific Council and ERC panel members, NCPs, scientists, as well as policy makers to discuss how to strengthen the support offered to excellent scientists in these regions.

Moreover, Hungary and Poland are planning to launch specific national schemes to let young scientist join or visit already existing ERC-funded teams, in order to familiarise them with ERC projects. And Hungary, which already hosts 44 ERC grants worth over EUR 64 million, is a good example to show that widening participation is not only a challenge, but also a possible reality.

# Luxembourg



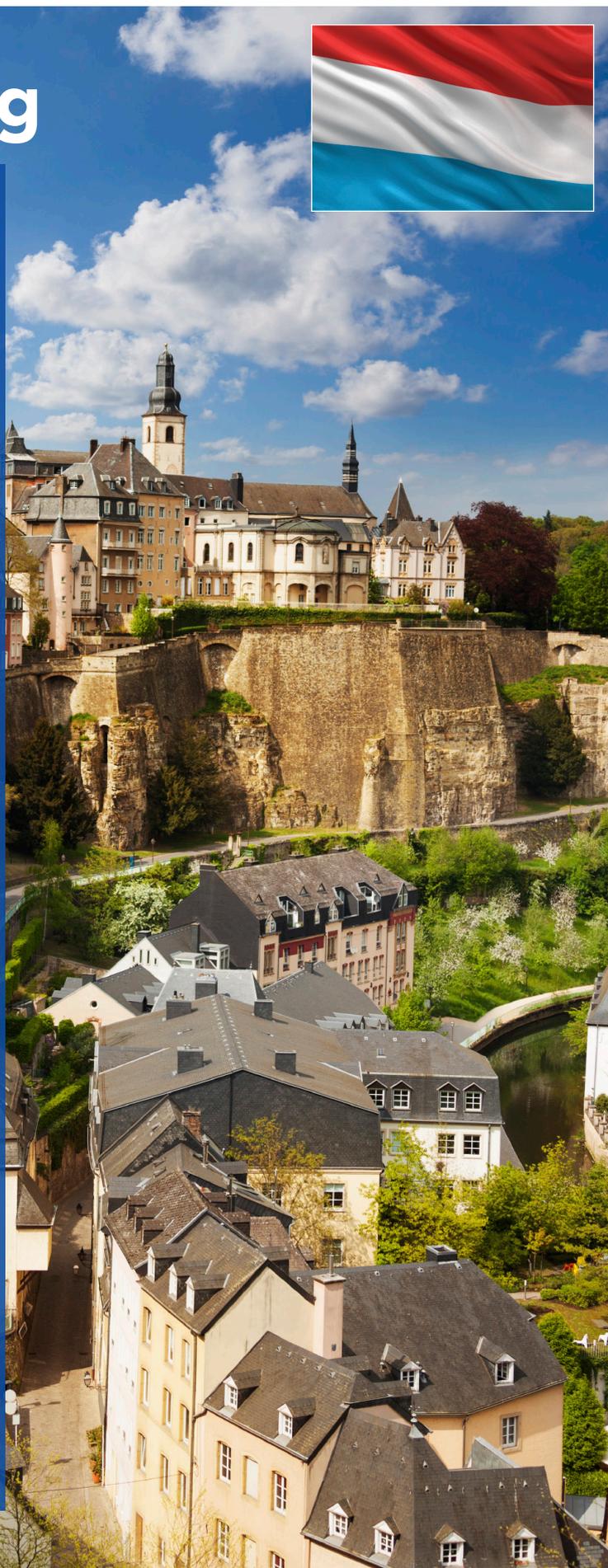
This time we turn our attention to Luxembourg, the country holding the Presidency of the Council of the EU since July.

Luxembourg is a rare example of a European country currently expanding its research base. Not only has it refrained from cutting public expenditure on research during the latest economic crisis, but it has actually increased investment in the sector. By 2020, the Grand Duchy has set a target for national spending on research of 2.3% to 2.6%, of which over half is to be invested by the private sector.

The latest official data, from 2011, show that 1% of national GDP was spent on research. Although the country's business sector contributed the lion's share to this expenditure, Luxembourg still lags behind the EU average in terms of private R&D intensity. On the other hand, the Grand Duchy scores higher than the EU average in the share of high-impact scientific publications, licences and patent revenues. The country is also above average in terms of number of scientists in the labour force.

Luxembourg sees research and innovation as a priority and as a means of ensuring economic growth. Recently, the country has come up with an ambitious plan to boost its research landscape. It focuses on several strategically important areas, from biomedical and health sciences, to information and materials science. In the short term, the goal is to consolidate know-how in the private sector. In the long term, the country aims to establish itself as a research center of excellence.

With regards to the ERC, Luxembourg has so far hosted two ERC grant holders funded with a total amount of EUR 3.27 million. Prof. Jan Lagerwall was awarded a Consolidator grant in 2014 to study liquid crystals. Prof. Stéphane Bordas, ERC Starting grantee moved to the University of Luxembourg from the UK, where he obtained ERC funding to develop an innovative surgery simulation model for young surgeons. Moreover, six researchers of Luxembourgish nationality lead ERC-funded projects outside their country of origin.





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A few questions to

## Katharina Horst

Luxembourgish National Contact Point (NCP)

### How would you describe the research landscape in Luxembourg?

Luxembourg's research and innovation sector is relatively young - a real national R&I system has developed and consolidated over the past few decades. As investment in public research has been rising continuously, Luxembourg's National Research Fund ([FNR](#)) was set up in 1999 as the country's main research funder. A major step forward was the establishment of the University of Luxembourg in 2003. The country has also a strong tradition of research in the private sector. Major R&D centres of a number of internationally renowned companies, such as Goodyear, DuPont de Nemours, CERATIZIT and Tarkett, are established here. In 2012, the private sector represented two thirds of total national R&D expenditure and employed almost two thirds of staff involved in R&D.

Both boosting public research and supporting innovation-led entrepreneurship are a national priority, with a goal to diversify the country's economy.

### Luxembourg has launched an ambitious plan to increase its research base by 2020. Can you tell us more?

As a small country, Luxembourg must prioritise spending to excel in some areas. The country's focus is on logistics, health, IT and environment sectors.

Luxembourg's research, development and innovation sector is also continuously evolving to remain competitive internationally. For example, in 2015, two major research centres merged to create the Luxembourg Institute for Science and Technology ([LIST](#)). Other centres have changed names to reflect their international outlook.

The "Cité des Sciences" project in [Belval](#) - in the south of the country - is yet another ambitious long-term venture. This former centre of the coal and steel industry is now being transformed into a modern hub for innovation, hosting the University of Luxembourg, research centres, the National Agency for Research and Innovation ([Luxinnovation](#)), and business incubators.

Further developments are on the horizon.

### What is the country doing to boost scientific cooperation between private and public sectors?

Luxinnovation supports public-private partnerships (PPPs) through the funds provided by the Ministry of Economy. These research grants include a specific bonus for projects that are carried out in collaboration between a public and a private organisation. Additionally, Luxinnovation's multi-annual research programme [CORE](#) specifically funds projects that establish links between the public and private sectors.

### How is the country trying to attract the scientific talent to work in Luxembourg?

The country certainly welcomes non-native scientific talent. The FNR puts a great emphasis on attracting foreign scientists by offering them funding, such as through the competitive [ATTRACT](#) and [PEARL](#) fellowship programmes, or the new doctoral programme [PRIDE](#). Today, more than 80% of researchers working in Luxembourg come from abroad.

Luxembourg is also very open to hosting more ERC grantees. For example, the University of Luxembourg has established a very complete support programme for ERC candidates, both for those who already work there and for those ready to move to the institution.

### As the NCP, how do you encourage researchers based in the country to apply for ERC grants?

In April, we organised an info-session at the University of Luxembourg, which included a general presentation and testimonials from two ERC grantees. I must say this part was particularly interesting, as both of them gave insights into the proposal submission and evaluation procedures, which are little known to outsiders. It was funny and informative. We had [another info-session](#) in September, where we provided a general introduction to the ERC and focus on proposal writing.



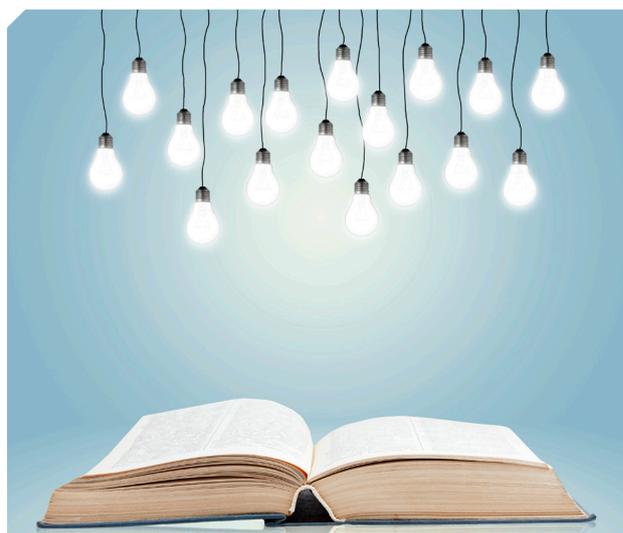
## All you want to know about ERC 2016 calls



The [ERC Work Programme 2016](#) has been announced. EUR 1.67 billion is earmarked for grants to top researchers from anywhere in the world who are ready to come to or to stay in Europe to pursue their breakthrough ideas. The first call for Starting Grants 2016, with a budget of EUR 485 million, was launched on 29 July. Other grant competitions will follow according to the work programme's calendar (see p. 15). Among other activities, the programme introduces a new action to widen participation in ERC competitions: support to a consortium of formally nominated ERC National Contact Points (NCPs) to identify and share good practices, and raise the quality of support to applicants (read p.12).

Compared to last year, the main novelty for ERC applicants is a relative "softening" of the re-submission rules. Applicants who scored B at step 2 of the evaluation in the last call will be able to re-apply immediately, while under the 2015 work programme they had to wait for one year. There are also new restrictions for applications from candidates whose proposals have been rejected on grounds of breach

of research integrity (pp. 18-20). Finally, the structure of the panels and descriptors in social sciences and humanities has been modified (p. 52), and the applicants in this scientific domain should carefully check the new arrangements before submitting their proposals. (Read [press release](#)).



## Your dream research made concrete



*In an interview with Ideas, Jose Labastida, Head of the Scientific Management Department at the ERC, gives valuable advice to applicants.*

### **The ERC announced its grant competitions for 2016. What should the applicants look for this time?**

The ERC has been keeping the same type of calls for several years and evaluation did not change much either. Like always, you have to build a good proposal, have a ground-breaking idea, an idea that will open new perspectives in a given area of knowledge, and that could lead to important breakthroughs. Then you have to write down this idea in a proposal that is credible and able to convey to the evaluation panel that, if successful, your research will lead to important scientific results, that there will be important gains. Finally, you must show that you are able to carry it out; the panel must be convinced of the feasibility of your proposal. So, it's your dream research made concrete.

### **Would you give different advice to applicants in Starting, Consolidators and Advanced Grant calls?**

Yes. When you apply for a Starting Grant you have to show you have the potential to be a principal investigator, that you are able to supervise a team during a five-year project with a large budget. In the case of Consolidator Grant – you have to show more: that you reached your research independence, for example showing that you are the main author in several scientific publications. When you compete for an Advanced Grant you have to focus on the last ten years of your research experience and give evidence that you are a leader in the research area in which your project is planned.

### **Are there any typical mistakes that applicants make? What pitfalls should they avoid?**

I would underline one point: invest energy in creating a good synopsis. This is not something you are doing at the last minute, trying to summarise your scientific proposal. In step 1 of the evaluation, the panel reviews only the synopsis and the merits of the applicant. If the synopsis

is not good enough, the evaluators won't have the chance to see your full scientific proposal. In the synopsis you have to present your idea and convince the panel about the high scientific impact of your proposed research, while giving hints on its feasibility. The synopsis should be written so that the main messages can be understood by a broad audience. Why? Because at this stage only panel members will review your proposal and they will evaluate it as generalists. So don't be extremely technical. And share your synopsis with other people, including researchers who are not necessarily close to your field, before submitting, listen to them and adapt your synopsis accordingly.

### **How much time do you need to write a good proposal?**

We don't have precise information on how much time on average the researchers spend writing their proposals. My experience, after talking to many applicants, is that you have all kinds of people. Some write it quite fast, but there are others that invest a considerable amount of time, often while waiting to have more scientific publications. There is no fixed rule. But do spend time on it, at least three months, because you are competing against very good proposals, and against people who spend a lot of time on presenting their ideas.

### **Formulating and honing your research idea is not easy. But is the administrative part of applying lighter at least?**

People sometime have the wrong idea that applying for an ERC grant involves a very complex process. Certainty this is not the case nowadays. First, the ERC funds individual researchers, which makes the process easier, you do not need to coordinate yourself with other researchers. Second, the bureaucratic burden is the lightest possible, a minimal amount of data and files uploaded with information about your merits and your proposal plus a letter of support of the host institution where you will be performing your research. And third, there is a user-friendly IT system to submit your proposal. On top of all this, service-oriented staff is at your disposal to help you with any doubt you might have.



## Calendar of ERC calls

Grants open to researchers from anywhere in the world

Call for proposals*	Publication date	Deadline	Budget	Funding
ERC 2016 Starting Grant	29 July 2015	17 November 2015	EUR 485 million	Up to EUR 1.5 million per grant
ERC 2016 Consolidator Grant	15 October 2015	2 February 2016	EUR 605 million	Up to EUR 2 million per grant
ERC 2016 Advanced Grant	24 May 2016	1 September 2016	EUR 540 million	Up to EUR 2.5 million per grant
ERC 2016 Proof of Concept Grant**	22 October 2015	16 February 2016 26 May 2016 4 October 2016	EUR 20 million	Up to EUR 150,000 per grant

\*\*Researchers who wish to apply to one of the ERC calls can do so through the [Participant Portal](#).

\*\*Call open to ERC grantees only.

Read the new rules for re-submission of proposals in the [ERC Work Programme 2016](#), (pp. 18 – 20).

For more information regarding ERC Proof of Concept grants, please see the [ERC Work Programme 2016](#), (pp. 35 – 41).

Candidates should apply with a host institution in an EU Member State or a Horizon 2020 Associated country.

See further information on the [Participant Portal](#).

Stay informed on the [ERC website](#) and the [Participant Portal](#).

### Information on the ongoing selection:

- In the 2015 ERC **Starting Grant** call **2920** applications were submitted.
- In the 2015 ERC **Consolidator Grant** call **2051** applications were submitted.
- In the 2015 ERC **Advanced Grant** call **1951** applications were submitted.
- In the 2015 **Proof of Concept** call:
  - > **97** applications were submitted in the first round
  - > **107** application were submitted in the second round



## The ERC meets science in China

In August, the ERC took part in two conferences in China to contribute to scientific discussions and inform researchers from the region about ERC funding opportunities. First, ERC President Prof. Jean-Pierre Bourguignon, who is a mathematician, joined the [International Congress on Industrial and Applied Mathematics](#) in Beijing. Two weeks later, the ERC attended another event, this time gathering historians at the [International Congress of Historical Sciences](#) in Jinan. China is in the limelight after it has signed an [agreement](#) helping its researchers join ERC-funded teams.



## ERC grantees present plant research in Milan

From 8 to 11 September, a [congress](#) on plant science and the future of agriculture was organised by the University of Milan. Among the speakers, three ERC grantees presented their projects exploring rice reproductive mechanism, genetic diversity in maize and grapevine, and mechanisms of root growth. [One of the sessions](#), focusing on plant genetics and biodiversity, was hosted by the Italian Pavilion at EXPO Milan. At the event, Massimo Gaudina, the ERC Head of Communication, gave a presentation on the ERC funding opportunities.

## ERC funds 190 research leaders

The ERC's seventh Advanced Grant call awarded EUR 445 million to 190 senior researchers to let them pursue ground-breaking, high-risk projects that open new directions in various fields of science. The grantees will, for example, pioneer gene therapy for heart arrhythmias, address the outstanding questions for understanding the most important liquid on Earth - water - and investigate insects and bio-diversity in tropical and temperate forests. Almost 2,300 candidates applied for ERC funding in this call. Read [ERC press release](#)



## Research for better cities and traffic flows

From 16 to 22 September, European cities celebrated the [European Mobility Week](#). Two ERC projects were under the spotlight on this occasion. Prof. Michael Batty's [project](#) uses mathematical models and fractal geometry to analyse the evolution of the urban landscape with the goal to help better design urban areas. In his [project](#), Prof. Luc Van Gool aims to build on existing 3D city modelling by using object class recognition methods and crowd-generated data. To test his ideas, he created a spin-off that commercialises a video-based smart parking system in Locarno, Switzerland.

