

European Research Council Established by the European Commission





Newsletter of the European Research Council

Highlight Science talk

In the spotlight **Research for sport**

Whats new **ERCcOMICS**



>>> editorial



Communication = ethos, logos, pathos.

This was Aristotle, 2,300 years ago. Today, these principles should still be important for all those who communicate with citizens, even in the Twitter era. And these are the principles that we, in the communication team of the ERC Executive Agency, always try to follow. We try to be ethical and transparent; to explain content with the right words, facts and evidence; and to convey the passion and curiosity of the researchers we support.

Every year since the launch of the ERC, the communication strategy, which our independent Scientific Council adopts, has been guiding us with a triple objective.

First, we need to promote ERC funding opportunities in Europe and beyond; to make sure that high-quality participation in our calls is guaranteed and widened, covering all countries and all scientific disciplines.

Second, we need to show the results of this funding: the very many success stories coming from the over 6,000 projects supported by the ERC. This is an amazing challenge since there are more and more discoveries and scientific prizes resulting from ERC projects and the number of articles covering ERC-funded research in both scientific publications and in the press is ever growing. We try to maximise the visibility of ERC grantees not only in the scientific community, but also amongst a wider audience. This is why, in parallel with the many actions the ERC Executive Agency undertakes, we also support two communication initiatives aiming to present ERC projects to citizens in new, creative ways: through webcomics and through interactive events, for example, in science museums and at universities. You can read more about the first campaign on page 14. The second project will be covered in the next newsletter.

Last, but certainly not least, we want to spread the word about the ERC as such, including its impact on career opportunities for researchers, on the European and national research systems, and ultimately on European competitiveness in the global arena - reasons that make the ERC one of the main success stories not only within Horizon 2020, but also within the whole EU family.

In these years of growing disconnection between citizens and the European project, we think that the ERC is a very good example of good use of public money, spent to invest in our best researchers and in our future, to improve the quality of our life, the knowledge of our world and the understanding of our mysteries. The ERC is highly appreciated by scientists not only in Europe, but also in Asia or the Americas, as representatives of the US NSF, and for instance Japanese, Indian and Mexican researchers keep saying.

According to a recent external report that evaluated the ERC Executive Agency, 95% of our grantees stated that "*funding opportunities for ERC grants are well advertised*" with 98% confirming that "*the research community in [their] country is aware of ERC grants*". This means that the visibility of the programme within the scientific community, only nine years after its launch, is extremely high. This data also shows why communicating on this wonderful initiative is such a great privilege for me and my team. We keep counting on the precious cooperation with the National Contact Points, our European Commission colleagues in Brussels, Europe and worldwide, and, most of all, with our researchers, to make this brand of excellence shine further.

Massimo Gaudina, Head of ERC Executive Agency Communication Unit 20 June 2016

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Special thanks go to our ERC colleague Magdalena Kufrej for her superb and tireless work coordinating the ERC newsletter. We wish her all the best in her new role within the EU family.

For comments: <u>erc-info@ec.europa.eu</u>

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Research for sport



As football fans enjoyed the European Cup, and athletes prepare for the Rio 2016 Olympics in Brazil, this newsletter features ERC-funded projects related to sports. In the following pages, you will read how researchers contribute to better understanding of team sports, and how, in the future, the experience of spectators could be enhanced.

The cognitive art of team sports

While on court, beach volleyball players need to act as a whole in order to prevent the ball from touching the sand: in a fraction of a second - just before the opponent's hand spikes the ball - the passer has to predict and adjust to the attacker's action as well as to their teammate's block position. Thanks to her Consolidator Grant, cognitive science professor Natalie Sebanz is studying the cognitive and psychological mechanisms underlying joint action expertise – in other words, how individuals learn skilled actions, such as those performed by professional athletes, together.

Many human achievements, from planning and executing architecture plans to performing surgeries, piano duets and tangoes, are the result of collaboration. According to Prof. Sebanz, teamwork is key for the advancement of human civilisation and heavily relies on joint actions. These occur whenever two or more people interact with one another to coordinate a particular action in space and time, in order to accomplish a shared goal.

Although philosophers agree that joint actions require shared intentions, debate on what shared intentions are is still ongoing. Besides, intending to do something together is clearly not enough to meet a target: "*Imagine if a football team were to spend hours talking about how they will*

in the spotlight •••



score a goal. There would be no guarantee that they would eventually manage to do so. This is why cognitive psychology and cognitive neuroscience are necessary to understand the mechanisms that come into play when people act together and allow for the fine-grained, timely coordination we see in team sports", explains Prof. Sebanz.

According to her research, members of a team rely on a variety of mechanisms to coordinate their actions. One crucial aspect is that, rather than focusing on their own specific movements, the team members mainly rely on the interaction with each other. Joint action expertise also involves planned coordination: "*Take synchronous swimmers – their planned actions have to include their own contribution as well as their partners*'. *They all have an image of what their moves will look like when performed together. Being driven by this kind of mental imagery helps them to be so coordinated.*" Prof. Sebanz's research also demonstrates that participation in highly coordinated activities boosts the participants' sense of commitment: "*The more athletes depend on each other, the more they feel bound to go on doing their part even though they are exhausted, like members of a rowing team who are running out of energy*". This concept might also be the reason why rugby teams are so tightly knit – players value the group's performance and welfare more than their individual contribution.

In the project, Prof. Sebanz's team also explores the benefits of joint improvisation. "Practising with exercises used in improvisational theatre, where participants cannot easily guess their partners' intentions, may help team players to become more attuned to each other, while being confronted with an activity that is outside their field of expertise", concludes Prof. Sebanz.

The project, which started in 2014, uses electroencephalography along with behavioural and physiological indicators, such as measures of movement trajectories and heart rate synchronisation. In the long term, it may help develop autonomous robots designed to collaborate with humans and provide new therapies, based on social training interventions, to alleviate social disorders such as autism.

Researcher: Prof. Natalie Sebanz Host Institution: Department of Cognitive Science, Central European University, Budapest (Hungary) Project: Joint Action Expertise: Behavioural, Cognitive, and Neural Mechanisms for Joint Action Learning (JAXPERTISE) ERC call: Consolidator Grant 2013 ERC funding: EUR 1.9 million (2014-2019)



Towards new quality sports broadcast

Imagine your favourite football team entering a stadium. An army of wireless cameras is following the players to give you the best possible view – of the whole pitch, of the chanting crowd, of each footballer, from the tip of his head to the grass blades he treads with his cleats. Thanks to Prof. Leif Oxenløwe's research, this kind of wireless ultra-high definition television broadcasting can one day become a reality.

Combining cutting-edge technologies

Athletes are not the only ones hoping to set world records. With his ERC Starting Grant, Prof. Oxenløwe, from the Technical University of Denmark, has pushed the boundaries of optical communication. He is now engaged in

▶ in the spotlight



the race to enhance wireless communications, the type that would allow high-speed video transfers and which would open a world of possibilities for extremely-high definition broadcasting.

"It is a race for higher and higher speed", says Prof. Oxenløwe, *"and we are investigating the extremes"*. In 2014, his team set the world record for data transmission through an optical fibre cable with a single laser source, reaching 43 Terabit of data per second - enough to download the whole Spotify library of 30 million songs in less than a minute. Now, they are trying to leverage this record to improve wireless transmission.

"The focus of my ERC grant was to explore high-speed optical telecommunication systems with low-energy consumption. But as we talked to another team in our department, we realised the potential in combining our results with the wireless Terahertz emitter they were working on", explains the grantee. "This is one of the positive aspects of ERC grants: the freedom to follow new, unexpected ideas."

The team patented the concept and could test the value of the prototype further thanks to an ERC Proof of Concept grant. Their latest milestone: a wireless speed of 60 Gigabits per second (Gbps), or 32 times the data transmission rate needed for full HD images to reach viewers' TV screens, is achieved by using the 400 Gigahertz (GHz) frequency range. Prof. Oxenløwe is working towards beating the current record of 100 Gbps, using such high frequencies approaching a Terahertz.

The future of events broadcasting

With such a speed, a smartphone could download a Bluray movie in less than four seconds. Unfortunately, these extremely high-speed wireless transfers are not designed for this purpose, as they require an antenna accurately set and directed to the sending source.

This technology, however, could be a breakthrough, for example, in broadcasting sport tournaments and music festivals. Nowadays, TV cameras recording live events are usually connected to a mixing centre through a cable. Prof. Oxenløwe's prototype would allow the use of ultra-high definition cameras to send their footage to the mixing centre without the need to wire them. In the future, we could see every single centimetre of the running track, the pitch or the concert stage recorded and broadcast in real time and in unprecedented quality.

According to Prof. Oxenløwe, the technology could also become a tool for emergency teams in the event of natural disasters: "Medical and security staff could easily set up local, flexible, high-capacity mobile communication units to retrieve huge amounts of data, for example patients' medical records, in a matter of seconds."

Researcher: Prof. Leif Oxenløwe Host Institution: Technical University of Denmark Projects: Serial Optical Communications for Advanced Terabit Ethernet Systems (SOCRATES) and Terahertz wireless information systems and technologies (TWIST) ERC call: Starting Grant 2009 and Proof of Concept Grant 2014 ERC funding: EUR 1.9 million (2009 -2014) and EUR 150,000 top-up funding





New grantees, new milestones



From left: Rector of Maastricht University Luc Soete, ERC President Jean-Pierre Bourguignon, Dutch State Secretary Sander Dekker, Prof. Valentina Mazzucato, Director General Jan-Robert Smits and ERCEA Director Pablo Amor

The results of the ERC 2015 Starting and Consolidator Grant competitions marked a milestone for Dutch frontier research. On 16 June, Maastricht University celebrated the winner of the 500th ERC grant selected in the Netherlands, Prof. Valentina Mazzucato.

Prof. Mazzucato, an Italian-born social scientist who worked in Africa, the United States and France before moving to Maastricht, focuses her studies on understanding the impact of migration on the development and wellbeing of children (see next page). Here, she received a Consolidator Grant, awarded by the ERC to leading researchers with more than seven years of experience after their PhD to help cement their careers.

The milestone researcher was not the only one at the centre of attention at the event, but also grantees number 497 to 499: Prof. Arwen Deuss, a twice-holder of an ERC grant from Utrecht University, Dr Mohammed A. Ikram, from the Erasmus Medical Centre Rotterdam, and Dr Hyun Youk, a Canadian at TU Delft. The four grantees are an example of the variety of research fields the Netherlands excel in, from migration studies to geoscience, neuroresearch and cell biology, and mirrors its international attractiveness.

Not only researchers, but also policy makers participated in the event. Amongst the speakers were Dutch State Secretary for Education, Culture and Science Sander Dekker (see page 11), Rector of Maastricht University Prof. Luc Soete, Director-General for DG RTD Robert-Jan Smits and ERC President Prof. Jean-Pierre Bourguignon. The master of ceremony was ERC Executive Agency Director Pablo Amor.

The event allowed a reflection upon the role of European and national funding agencies. In her speech, Prof. Mazzucato focused on the openness of the Dutch system, which allows "*bright young talent from anywhere in the world to prosper in universities*".

Robert-Jan Smits stressed the importance of funding clever, curiosity-driven scientists to boost any country's competitiveness, something that is starting to be understood at both the national and European level, with the Netherlands offering "500 brilliant examples of this research diversity".

President Bourguignon emphasised the importance of giving researchers the autonomy to follow their passion and curiosity, without top-down priorities. "One of the key conditions which researchers need is scientific freedom. There has always been an inherent tension between the demands of policy-makers for relevance and impact - a legitimate concern because they link it with productivity and economic growth - and the deeply-rooted interests of scientists in curiosity-driven research. But I believe that this apparent contradiction is mostly a false one", he said.

One must remember that some of the most important scientific results often come about when scientists are not looking to solve any particular societal or technological problem.

The 500th ERC grantee in the Netherlands, Prof. Valentina Mazzucato



How migration affects children

More than 325,000 migrant children have been admitted to German schools since 2014. Due to emigration, an estimated 40,000 children live without parents in Romania, while in large urban areas in Ghana at least 35% of children are living with one parent or none. In Amsterdam, more than half of children and youth have a migrant background. For millions of young people around the world, migration is part of their biographies. Yet we know very little about their mobility throughout their young lives because we are focused on just two types of moves: their first move to a new country of residence, or their parents' migration. How does young people's continued mobility, or mobility trajectory, influence their performance in school, and what they do after they finish school? And what about their psychological wellbeing? These questions are yet to be answered.

"My research is not necessarily assuming that there is a problem. We don't know whether there is a problem, and what the problem is," says Valentina Mazzucato, professor of globalisation and development at Maastricht University in the Netherlands. She has recently received an ERC Consolidator Grant to carry out her research on these issues.

Prof. Mazzucato will be trying to understand the mobility patterns of youth with migrant backgrounds, including those who stayed behind while their parents moved. She wants to compare the youth who do not move to those who do in different European countries. She will also study one origin-group—migrant children from Ghana. She aims to understand how mobility affects youth's life chances.

"Policymakers are usually saying that migrant children are not performing in school as well as local ones. That's what many studies find. But they are comparing children with migrant backgrounds with children who don't have migrant backgrounds," says Prof. Mazzucato. "They are comparing apples and oranges when it comes to understanding how migration and mobility affect young people."

The result is policies containing a hidden assumption that too much mobility is bad for children. They often ignore that many children of migrants are mobile themselves, moving backwards and forwards between their parents' country of origin and the country where they are residing. That's why Prof. Mazzucato's plan is to compare migrant children to children from their origin countries, to really see the effects of mobility.

"Let's look at these assumptions, let's study whether they are true or not, and if they are true, let's understand how mobility works. Let's also ask whether mobility in some cases can help children overcome certain social problems." One interesting hypothesis that Prof. Mazzucato's team makes, is that for migrant children from lower socio-economic classes, visiting their parents' home country can be a way to gain more human and social capital, and come out with better life chances.

The research will be carried out in Belgium, Germany, the Netherlands and Ghana, and has a strong potential for policymaking. The team will work with ministries of education as well as with teachers and school principals, it will also organise workshops and produce materials about mobility of children and how to deal with it.

"Modern school systems have been designed for sedentary populations, based on the idea that a Dutch person will grow up in the Netherlands and will go to school in the Netherlands and will live in the Netherlands. But today the mobility of youth is changing this. We need to adapt school systems to this new reality and see how we can turn it into a strength rather than a weakness," says Prof. Mazzucato.

Why did you decide to apply for an ERC grant?

The opportunity to have a whole group of researchers work together from the very beginning in a very synchronised and cohesive way on a research project is one of the most rewarding experiences that a researcher can have. It's the only way I can do the research I want to do, with mixed methods and in an interdisciplinary fashion. I always work in teams with people with different expertise: child psychologists, family sociologists, development economists.

Did you receive support from your university while preparing your proposal?

At Maastricht University we have a project office that helps us understand the actual grant scheme and assess whether we have the right qualifications to apply for a grant. We have a finance office that helps us prepare an appropriate budget. We also have a research committee that helps with assessing our proposals at different stages of the writing process, so we get feedback from peers, from people who are sometimes very far from our discipline, but have experience with these grants. Finally, we have mock interview sessions. It's very intricate and effective, and I definitely benefited from all of this support.

What do you think about the Netherlands as a host country for researchers?

It's a very open system. It's based on merit and if you come with a strong CV and you have a good idea, the university will make room for you. They will accept you and hire you. This is very different from some other systems in Europe that tend to be much more based on who you know and whether you have a good network of connections. The Dutch allow bright young talent from anywhere in the world to prosper in their university system. That's why you see so many ERC winners in the Netherlands, and they are not only people who were born and trained in the country.

You are a "migrant" yourself and you have two children. Did this influence your choice of research topic?

If migration had an influence on my kids, I definitely need the research to understand it [laughs]. I was born and raised in Italy, but then we moved to the United States. Throughout my life I was always going back and forth between Italy and the United States. This made my upbringing very different from a lot of Italian-American children who never go back to Italy. And I think we, within the migrant community, feel that difference, but it is never talked about or never studied in academic or policy circles. So, of course this does influence my interest in the topic and it actually helped me to formulate certain questions that might not have been asked in previous studies.

Researcher: Prof. Valentina Mazzucato Project: Mobility trajectories of young lives: Life chances of transnational youths in Global South and North (MO-TRAYL) Host institution: Maastricht University (Netherlands) ERC funding: EUR 1.94 million (2015-2020) Research area: Environment, Space and Population (SH3)



The Netherlands

This time, we shine the spotlight on the Netherlands. June was not only the last month of the Dutch EU Presidency, but the country also celebrated a new milestone on 16 June - the 500th ERC grant awarded in the Netherlands (see page 7).

According to the latest data, in 2014 the country spent 1.97% of its GDP on research and innovation, slightly above the EU average, yet below the target of 2.5% set for 2020 by the Dutch government in its <u>Enterprise</u> <u>Policy.</u>

The Netherlands are one of the best performing EU Member States in terms of winning EU research funding. Within the FP7, the EU Research Programme for 2007 to 2014, the country received around EUR 3.371 billion, which is around 7.4% of the programme's overall budget. At the same time, the Dutch contribution to FP7 amounted to around 5% of the programme's budget.

Of all EU countries, the Netherlands have also received the highest number of ERC grants per capita: since 2007, over 500 projects in Dutch research institutions have been selected for ERC Starting, Consolidator and Advanced Grants, for a total of around EUR 970 million. The success rate of applicants in the Netherlands is also one of the highest (14%). Grantees based in the country received in total 65 ERC Proof of Concept (PoC) Grants, worth about EUR 9.7 million, helping them bring their research closer to the market. They ranked second best after PoC grant holders in the United Kingdom, who received 10 grants more.

Dutch personalities are and have been part of the ERC Scientific Council. Since 2014, Martin Stokhof, Professor of philosophy of language at the University of Amsterdam and member of the Dutch Royal Academy of Sciences, is holding this position. Prof. Paul J. Crutzen, Nobel laureate in Chemistry (1995), is a former and founding member of the Scientific Council, and Prof. Sierd Cloetingh, currently President of Academia Europea, was an ERC Scientific Council member and in 2015 served as ERC Vice-President.

From the research perspective, the Dutch EU Presidency set the focus on open science, a topic that the ERC cares deeply about since long. In the last issue of this newsletter, dedicated to open access, Prof. Martin Stokhof, who is also the Chair of the ERC Working Group on Open Access, said "From its inception in 2007, the ERC has been a strong supporter of the idea of open science. It aims to foster it in various ways, e.g. by implementing policies, advising its grantees and working with other stakeholders to support the necessary infrastructures. In doing so, the ERC remains sensitive to the realities "on the ground". Publication cultures differ from one discipline to another (...)."

This message was reiterated by the ERC President Jean-Pierre Bourguignon at the two Dutch Presidency conferences on open access in Amsterdam and The Hague, to which he was invited as a speaker. He stressed the importance of open access in science, which he summarised with four words: *"respect diversity, involve communities*".





Questions to the Dutch Secretary for Education, Culture and Science Sander Dekker

Are the ERC funding schemes important to researchers in the Netherlands, and if so why?

The ERC's impact on the whole science system is tremendous, since it encourages Europe-wide competition between knowledge institutions. This is crucial for realising the full potential of the European Research Area (ERA).

It's no wonder that so many researchers in the Netherlands are applying for ERC grants. The ERC gives excellent researchers the opportunity to develop their skills and talents. They can establish their own lines of research and choose their own team members. The ERC applicants and ERC grantees know where to find it each other. This can lead to interesting new research projects.

The Netherlands is very successful in ERC competitions. What lies behind this success?

I am very proud of all 500 ERC grantees in the Netherlands. It is a huge accomplishment to receive an ERC grant. So many researchers apply for an ERC grant and only the best researchers are funded.

It is not easy to pinpoint a reason for the success of researchers in the Netherlands in the ERC funding schemes, because there are so many possible explanations. Of course, the excellent performance of the researchers themselves and the attractiveness of the Dutch knowledge institutions are always the most important reasons. Furthermore, researchers in the Netherlands are used to the competitive funding schemes of the Netherlands Organisation for Scientific Research (NWO), which is very similar to the ERC funding scheme. Both schemes focus on competitiveness and only the best researchers receive funding.

What are the biggest challenges ahead for Dutch and European research?

First of all, Dutch research is fully embedded in and interconnected with the European Research Area. To me, the key challenge in Europe is to open up science in the years to come. This is paramount for the current rapid developments, such as digitisation and globalisation. I believe that Europe should bring a "fifth freedom" into play: the free movement of knowledge and data. This is crucial for promoting Europe's competitiveness. During the Dutch Presidency, I have spread this message and tried to convince the European research ministers that we should realise open access to scientific articles and optimal reuse of research data. I sincerely hope that knowledge circulation is not only limited to the scientific community. Well-educated and interested citizens should benefit from scientific knowledge and should have access to scientific articles. For instance, teachers and doctors can use this knowledge in their daily work.

Moreover, the interesting ideas of top researchers can attract citizens to science, and a better involvement of citizens in the scientific process can contribute to the further development of science, as well. In the Netherlands, I have experienced that a bottom-up stakeholder approach and citizen involvement in the drafting process of the Dutch National Research Agenda has been very valuable and has even led to new forms of interaction between science and society.

How have you contributed to open science?

Open science was my main focus of the Dutch Presidency. During the Open Science Presidency Conference in Amsterdam, the scientific community presented the Call for Action, which contains concrete actions to accelerate the transition to open science. Last May, at the Competitiveness Council, all EU research ministers dedicated themselves to realising the immediate open access to all scientific articles by 2020 and to working towards optimal use of data. I am convinced that the best researchers and their research projects will definitely also benefit from opening up science. I would challenge the ERC to be a pioneer in open science and set the standard by opening up science without compromising scientific excellence. Evaluation procedures and granting criteria have to be adapted and open science and the impact of research on society should be considered.

In your opinion, how important is it to fund curiositydriven frontier research?

Of course, it is extremely important to keep investing in frontier, curiosity-driven research. The ideas of top researchers in frontier science often provide concrete solutions to the societal challenges and opportunities to strengthen the economies of the future.

All European research ministers in last May's Competitiveness Council emphasised the importance of excellence-based investments in research in response to the ex-post evaluation of the Seventh Framework Programme for Research and Technological Development (FP7), and justifiably so. When I look at the ERC grantees and their research projects, there is no doubt that frontier, curiosity-driven research is truly essential, as well as being an important future source of growth.

►►► highlight

Science talk



There is no doubt that the core mission of ERC grant holders is to carry out ambitious research. But to make the fruit of their hard work available more broadly, they should also think about outreach activities. This article is an address to our grantees – they have a wealth of stories to tell!

Science communication is the new black. From measuring air pollution to unveiling archaeological treasures and learning about the animal kingdom, scientific stories are popping up on social media. Short animations available online translate science into lay language and explain, for instance, how the sleep mechanism works, why we feel pain, or what black holes are really about. Researchers invited to TEDx talks and conferences conduct experiments, mesmerising the general public. As a grantee, you could join this trend and make your EU-funded research more visible.

What's in it for you?

Telling the world about your research is certainly beneficial, both for citizens and for you. It gives you and your team broader visibility beyond the research community and opens up opportunities for new collaborations and partnerships.

Publishing scientific results beyond traditional channels can also bring other advantages. Certain analytic tools used

Are ERC funding opportunities advertised well?

In a recent survey ("Evaluation of the operations of ERC Executive Agency 2012-2015"), researchers said:

Is the research community in your country aware of ERC grants?





How to acknowledge ERC funding?

In your communication materials, you should include the EU flag and the ERC logo (you will find them on the <u>ERC website</u>). You should also acknowledge EU and ERC funding.

"This project has received funding from the European Research Council (ERC) under the European Union's [Seventh Framework Programme (FP7/2007-2013)] or [Horizon 2020 research and innovation programme] (grant agreement No [number])".



to assess scientific output currently include social media and web 2.0 platforms focused on scholarly contents. For example, if you choose to write a scientific blog, you will score better than if only publishing a paper in a scientific journal.

Moreover, if you talk to the press, you also have the opportunity to get complex and difficult messages across, and bring your research closer to the public. But science communication is a chance to showcase research results not only to citizens, but also to industry and policymakers. They need to know about your cutting-edge work!

Acknowledging ERC's support

In addition to the benefits of communicating science, there are actually some provisions for you as grantees to follow too. According to the grant agreement, you must communicate on your research and formally report back on your outreach activities to the ERC Executive Agency. What's more, you need to acknowledge the European Union and ERC funding in your communication activities, and include the EU flag and ERC's logo. You are also expected to inform the ERC Executive Agency about major media actions you are planning.

When and how to communicate?

Often, the best occasion for launching a communication action is when your project reaches scientific results,

Play with ERC success stories!

A new feature on this <u>ERC webpage</u> will allow you to search for articles on ERC-funded projects in all scientific disciplines and create your own booklets. especially a breakthrough. You can also feed into topical news stories (such as the Zika virus, climate change, upcoming elections), or contribute to an ongoing debate. Other opportunities to promote your research include winning a prize, speaking at a conference or carrying out experiments that spark the imagination.

It is also important to pick the right channel for the right audience. For example, you can publish a press release, talk to the media, record a video or make infographics explaining your research – it all depends on the topic and what appeals to you. You can use social media, build a dedicated website, write a blog, or give a talk at a conference... possibilities are endless! Whatever you do, remember that visual elements can capture the attention.

Where to look for help?

Your first contact point should be your institute. Many universities provide communication support to their researcher and help them spread the news to a wider audience. As an ERC grantee, you can also contact <u>ERC-PROJECT-PROMOTION@ec.europa.eu</u> in advance, especially when your project reaches some interesting results. The ERC staff behind this inbox can help promote your research on social media (<u>Facebook</u> and <u>Twitter</u>) and on the <u>dedicated ERC webpage</u>, in topical brochures and – in case of ground-breaking results - through joint press releases. The ERC also occasionally looks for cooperation with grantees attending scientific events.

So, are you ready to embark on a new journey and share your passion with the general public, media and policy makers? We wish you an inspiring and fruitful adventure. *Bon voyage!*



Whom to contact?

<u>ERC-PRESS@ec.europa.eu</u>: when you are planning an important press action

ERC-PROJECT-PROMOTION@ec.europa.eu:

if your project achieved important research results you would like to promote

Show me the Story!



Comic strips are a powerful medium for storytelling, reaching all types of audiences. Visual narrative has been used throughout history, from cave paintings, ancient Egyptian tombs, cathedral stained-glass windows and frescos from the Middle Ages, proving that a picture is indeed worth a thousand words. So why not apply this approach to science? <u>ERCCOMICS</u> is doing just that by explaining ERC-funded research projects through the engaging form of comics. Based on the collaboration between the communication agency La Bande Destinée and Pierre and Marie Curie University, the campaign aims to bring science closer to citizens in the most creative way.

Compelling, concept-friendly, collaborative, enriching

ERC beneficiaries are individual scientists with talent for frontier and visionary research, but to successfully communicate their projects to a broader audience, the ability to tell their stories in a simple and engaging way is key. The ERCcOMICS team is there to help them, by adding captivating images and a narrative line so that complex projects at the frontier of knowledge can be easily understood by everyone.

The artistic team creates webcomics by working in collaboration with the ERC grantees, who make sure that all information is accurate. In this interesting cooperation, the scientists not only describe the scope of their research, but also come up with concepts and ideas to visualise and narrate their projects more easily. For example, ERC Advanced grantee Prof. Ulf Leonhardt, who experiments on invisibility, has expanded his explanation with drawings on pieces of paper that the comics team has collected to jealously guard for future exhibitions. ERC Starting grantee Prof. Dr Hans Verbeeck and his team often send the ERCCOMICS team pictures, videos and







data from their expeditions to tropical forests in Panama and French Guiana, where they study how lianas adapt to climate change. Another Starting grantee, <u>Prof. Giselinde</u> <u>Kuipers</u>, who wants to understand what beauty means in different cultures, set a brainstorming team of sociology students to suggest some fresh ideas from the university environment. Finally, ERC Advanced grantee <u>François</u> <u>Pachet</u> participates in writing a script for the <u>Max Order</u> webcomic, with his insights on music and artificial intelligence. He has even provided a tailored soundtrack composed by artificial intelligence.

Max Order, Beauty, Treeclimbers and the Invisible

The four comic stories that will be featured in 2016 are mainly fictional, with some realistic digressions on the ERCCOMICS creative process. However, this innovative project is not only about creating compelling and interesting stories - it is also about looking into the future of storytelling. While the artists work on the semi-animated drawings, the programmers and designers experiment with different navigation techniques for each webcomic, improving and widening the reader's experience.

What are the first four webcomics illustrating ERC-funded projects?

- <u>Max Order</u> is about a street artist, Maxine. Read and listen to the story: you will see how artificial intelligence and art can go hand in hand
- ...<u>and the invisible</u> takes place in a phantasmagorical physics lab, where you will learn about the most fascinating physics concepts and discoveries
- <u>Beauty</u> stands at the crossroads between the colliding worlds of the fashion industry and of an antiestablishment student movement
- <u>Treeclimbers</u> unveils the secret life of a forest, with its plants, its insects, its animals, and its fragile balance
- * the project received an ERC grant under the "Coordination and Support Actions" budget





>>> going global

"ERC – Open to the World" in full swing



Following the launch of the "ERC - Open to the World" campaign, ERC's international efforts are moving forward, with President Jean-Pierre Bourguignon, other ERC representatives and grantees spreading the word about funding for researchers currently based outside Europe.

The campaign - in line with the ERC's core mission and with Commissioner Carlos Moedas's strategic priorities "Open Innovation, Open Science, Open to the World" focuses on researchers globally and targets them through social media, press and through events organised to allow current grantees to share their experiences with potential ERC applicants. The <u>New Einstein Initiative Forum</u> in Dakar, Senegal, in March this year, marked the launch of this international campaign.

Two months later, President Bourguignon represented the ERC at the <u>Global Research Council</u>, in New Delhi, India. The meeting allowed heads of research councils from around to world to exchange views on the themes of interdisciplinarity and gender balance in research. Whilst in India, President Bourguignon <u>visited</u> some of the country's most prestigious universities and research institutions, and met with policy-makers and funding bodies. He also engaged with the research community, including at a New Delhi Euraxess Links event, which targeted Indian scientists. The visit to India was not the ERC's only presence there this year. In April, ERC grantees Dr Ramesh Pillai and Dr Donal O'Carroll were invited to speak to a group of Indian researchers in Chandigarh as part of the Euraxess event "<u>Advancing your career in Europe</u>", where they shared their experiences as ERC grantees. The meeting sparked interest and questions in the motivated audience.

This year, the ERC also brought its message to many other countries. In January, ERC grantee Dr Manuel Pérez García spoke at an event in Beijing. In May, the ERC was present in Hanoi, Bangkok and Rio de Janeiro, and, in June, the ERC visited Shanghai, with Dr Eugene Ch'ng, a Chinese researcher who is a member of an ERC-funded project, and Dr Pérez García. This month, the ERC will take part in a Euraxess conference at the EU Delegation in Tokyo, during which some Japanese grantees will talk about their careers. Finally, the ERC returned to China to take part in the World Economic Forum's Annual Meeting of the New Champions in Tianjin for the fifth consecutive year (see page 18).

These efforts are pivotal to the success of "ERC - Open to the World" as they aim to inform top researchers worldwide who may otherwise not be aware of the ERC's opportunities that are already well known in Europe.

going global •••



>>> did you miss this

ERC awards Advanced Grants

n April, 277 senior researchers were awarded ERC Advanced Grants worth a total of EUR 647 million to further their pioneering research in all scientific disciplines. The funded projects include: endowing living organisms with magnetism in search of new opportunities in medicine; looking for new potential applications of quantum particles in superconductivity and quantum information systems; studying disadvantaged people's aspirations to design better anti-poverty policies. The success rate in the call, i.e. the percentage of the grant winners among all the applicants, was 14%. Read also the press release.

Grantee carries the Olympic flame

n May, ERC Starting grantee Prof. Arturo Avila, had the chance to take on a new role. As a mathematician, Fields medallist and one of the most recognised Brazilian scientists, he was invited to join the team of the first ten Brazilian torchbearers, who carried the Olympic flame to the country's capital, Brasilia. In this Olympic Torch Relay, he was joined by Brazilian sporting stars, such as Fabiana Claudino, double Olympic gold medallist in volleyball, and world surfing champion Gabriel Medina, as well as a 12-year-old refugee from Syria and an inspirational teacher.









ERC at "Summer Davos" in Tianjin

n 26-28 June, the ERC took part in the <u>Annual</u> <u>Meeting of the New Champions</u> in Tianjin, China, organised by the World Economic Forum. Also known as "Summer Davos", the event is the foremost global gathering on science, technology and innovation in Asia. The ERC delegation at the event included ERC President Jean-Pierre Bourguignon and ERC Vice President Mart Saarma. Twelve ERC grantees also attended the meeting to contribute to the discussion. The ERC held an Ideas Lab session - "Fighting superbugs" - with three ERC grantees who talked about emerging strategies to combat drug-resistant infections. See also <u>highlight</u>.

Breakthrough in Cambodia

RC Starting grantee Dr Damian Evans has made a ground-breaking discovery in Cambodia. Beneath tropical forest not far from Angkor, his team has unveiled some medieval cities suspected to be part of the Khmer civilisation, which flourished from the 9th to 15th centuries. According to experts, these cities would have been part of the largest empire on earth at its peak moment, in the 12th century. The breakthrough was possible thanks to cutting-edge airborne laser scanning technology, resulting in *"the most extensive airborne study ever undertaken by an archaeological project"*. Stay tuned for the ERC story in the next issue of the newsletter!



Calendar of ERC calls

Grants open to researchers from anywhere in the world

Call for proposals*	Publication date	Deadline	Budget	Funding
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	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 <u>ERC Work Programme 2016</u> (pp. 18 – 20). For more information regarding ERC Proof of Concept grants, please see the <u>ERC Work Programme 2016</u> (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 <u>Participant Portal</u>.

Stay informed on the <u>ERC website</u> and the <u>Participant Portal</u>.

Coming soon:

On 25 July (indicative date) the upcoming calls for proposals are expected to be announced in the ERC Work Programme 2017.

Information on the ongoing selection:

- In the 2016 ERC Starting Grant call, 2,935 applications were submitted (results to be officially communicated in September (tbc))
- In the 2016 ERC Consolidator Grant call, 2,304 applications were submitted. (results to be officially communicated before the end of the year)



2 July 2016

European Commission on the outcome of the referendum in the United Kingdom

The <u>Statement</u> of 29 June of the Heads of State or Government of 27 Member States, as well as the Presidents of the European Council and the European Commission, confirms that until the UK leaves the EU, EU law continues to apply to and within the UK, both when it comes to rights and obligations. This includes the eligibility of UK legal entities to participate and receive funding in Horizon 2020 actions.

(<u>link</u>)



European Research Council Established by the European Commission

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