European Research Council

**Press release**

14 February 2012

# Some 50 ERC-projects now funded to spur innovation

**The European Research Council (ERC) has today announced the conclusion of its competition for Proof of Concept funding. Introduced last year, it allows researchers who are already ERC grant holders to bridge the gap between research and the earliest stage of an innovation. In this call, a total of 52 grants have now been awarded, of which the final 22 were announced today. The first 30 grants were awarded in October 2011.**

Worth up to €150,000 each, these 'top up' grants are designed to help ERC-funded 'blue sky' research maximise value. The funding can cover activities related to for instance intellectual property rights, investigation of commercial and business opportunities or technical validation.

Projects cover a range of topics, such as the development of a new drug to treat arthritis, the creation of floating robots to detect earthquakes inexpensively, and new ways of measuring the health of corals and aquatic plants.

ERC President Professor Helga Nowotny commented: "*The ERC took the bold step to demonstrate that already now its funding of frontier research holds considerable innovation potential. Although only a limited amount of our budget, it enables our ERC grantees to take part of their work one decisive step further towards utilization on the market and in society*".

The success rate is around 33 %. A total of 73 proposals were submitted in November 2011 to the second deadline of this call. The first deadline was in June 2011 which resulted in the award of 30 innovative projects.

Full list of all selected Principal Investigators by country of host institution (in alphabetical order within each country group)

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**Some examples of projects selected for funding**

## A photoacoustic instrument for measuring health of corals and aquatic plants

Global warming due to the emissions of $CO_2$ has had severe effects on fauna and flora of oceans. About one third of that $CO_2$ is absorbed by the oceans which in turn become more acidic. The combination of warmer seawaters and acidification are causing harm to corals and coral reefs, the foremost protectors of tropical shorelines, and surrounding ecosystems. The objective of the project is to better quantify the effects of global warming and acidification on corals in the Mediterranean and the Red Seas. With his new Proof of Concept, the researcher's team will develop the prototype of a diver operated, submersible and handheld instrument for measuring photosynthetic quantum yields (i.e. how efficiently plants utilise light in photosynthesis) by photoacoustics. Since reef building corals depend on the photosynthesis of millions of tiny algae living in the host animals' cells, they depend on the health of these algae. The instrument is ideally suited to analysing seaweeds and seagrasses affected by warming and acidification, as well as by pollution; it will also measure the efficiency of algae in converting solar energy into biofuels. The grant will help in manufacturing the device and marketing it towards marine and freshwater research laboratories, government agencies, nature reserves, water supply authorities and engineering companies. Applications could be tremendous to enable timely detection of the ocean warming, allowing prompt intervention, remediation, early warning for deterioration of drinking water reservoirs and supplies or to assist to convert efficiently solar energy into plant-based products such as biofuels.

Researcher: Zvy Dubinksy (Advanced Grant 2009)
Host institution: Bar-Ilan University (IL)
Project title: Photoacoustic instrument for quantification of photosynthesis and health of corals and aquatic plants (ECHOGREEN)
Link: http://www.coralwarm.eu/

## A "Google-like" application to track the influence of messages

Advertising companies, political parties and NGOs are all very keen to know about the impact of their messages over time. What determines the success of a press-release, a newspaper commentary or a blog entry in triggering and influencing subsequent writing? What makes messages successful and over what time frame? These questions are potentially relevant to anyone with an interest in evaluating and improving the impact of an argument, an idea or text, for instance, warnings of civil war, campaigns to influence people to stop smoking or news media organisations interested in a larger audience share. However, there is no suitable software package or application capable to automate such a work, where it is possible to trace over many months the impact of a small number of texts on a huge set of documents. This Proof of Concept project will develop a web-application called ImpactTracer that allows different types of users to trace a large number of texts over time and according to their specific needs. Done at considerably reduced costs compared to human analysis/coding, this tool would allow a quantitative and qualitative analysis of messages on all types of digital formats, without any pre-set criteria. The grant will be used to test the prototype web-application and produce a business plan to attract potential commercial players.

Researcher: Christoph Olaf Meyer (Starting Grant 2008)
Host institution: King's College, London (UK)
Project title: ImpactTracer: Building a Web-Application to Measure and Visualise the Impact (Impact Tracer)
Links:
http://www.kcl.ac.uk/artshums/depts/europeanstudies/people/staff/academic/meyer/index.aspx

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## A floating robot capable of detecting seismic waves

With their ERC Advanced Grant, researchers have developed a floating underwater robot that can recognize seismic waves from earthquakes at large distances and transmit these data by satellite. Such robot has a considerably reduced cost compared with current means of obtaining these data, namely the installation of seismometers on the ocean floor readable once a year. The team has now clinched a Proof of Concept Grant to improve the robots properties in terms of depth range and lifespan. They will do so by replacing the current tubular hulls by spherical glass containers, capable of floating and of supporting pressures to a depth of 5 km and even deeper. These enhanced capacities may add potential applications to the robots; e.g. in meteorology and climate research, as well as a wider use to detect, for instance, signals emitted by the black box of airplanes after an accident over sea.

Researcher: Guust Nolet (Advanced Grant 2008)
Host institution: Centre National de la Recherche Scientifique (CNRS) (FR)
Project title: Development of a general-purpose deep ocean float (MULTIMERMAID)
Links:
https://www.geoazur.net/GLOBALSEIS/nolet/index.html
http://www.insu.cnrs.fr/co/terre-solide/experimenter-modeliser/grace-a-mermaid-les-enregistrements-sismiques-dans-les-domaines-

## A new drug for rheumatoid arthritis patients

The main objective of this project is to improve the quality of life of rheumatoid arthritis (RA) patients, who represent between 0.5 and 1 percent of population in industrialized countries. RA is associated with severe long-term disability and while current drugs have beneficial effects; they still compromise parts of the immune system. This ERC Proof of Concept project will potentially develop a new drug addressing RA's early stages, focused only on the disease-inducing immune reactions and avoiding other parts of the immune defense to lessen adverse effects. This new therapy would be combined with a better diagnosis system to enable treatment before patients degenerate and loose their capacity to work, reducing the consequent burden to public health budgets. The research team will now look into the development of the vaccine drug(s) and look for strategic alliances with other parties including diagnostic companies.

Researcher: Lars Klareskog (Advanced Grant 2009)
Host institution: Karolinska Institutet (SE)
Project title: Prevent Rheumatoid Arthritis in Practice (pRActice)
Links:
http://ki.se/ki/jsp/polopoly.jsp?d=5963&l=en
http://www.combinesweden.se/

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**Note to the editors**

The European Research Council launched the new funding initiative, the "**Proof of Concept**", in March 2011, to contribute to stimulating innovation. The total funding of the first ERC Proof of Concept call is €10 Mio and is foreseen to continue in 2012. The call is open to all Principal Investigators benefitting from an ongoing ERC grant or a grant that ended less than twelve months before the publication date of the call. The funding is for up to one year per grant.

Set up in 2007 by the EU, the **European Research Council** is the first pan-European funding organisation for frontier research. It aims to stimulate scientific excellence in Europe by encouraging competition for funding between the very best, creative researchers of any nationality and age. The ERC also strives to attract top researchers from anywhere in the world to come to Europe. The ERC two core funding schemes are the 'ERC Starting Grants' for younger, early-career top researchers and the 'ERC Advanced Grants' for senior research leaders. Last year, two smaller initiatives were added, namely the 'ERC Proof of Concept' scheme and the 'ERC Synergy scheme' (targeting small groups of principal investigators working together on one project).

The ERC operates according to an "investigator-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in any field of research. Since its launch, the ERC has funded over 2,500 frontier research projects throughout Europe and has become a "benchmark" of the competitiveness of national innovation systems as it complements existing funding schemes at national and European levels.

The ERC, which is the newest, pioneering component of the EU's Seventh Research Framework Programme, has a total budget of €7.5 billion from 2007 to 2013. It is led by the ERC Scientific Council, composed of 22 top scientists and scholars. The ERC President is Prof. Helga Nowotny. The Scientific Council's representative in Brussels is the Secretary General, Prof Donald Dingwell. The ERC Executive Agency implements the "Ideas" Specific Programme and is lead by Director (*ad int*.) Pablo Amor.

**Links**
ERC Press Release on Proof of Concept (March 2011)
ERC Press Release on results of Proof of Concept (Oct. 2011)
ERC website

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