

## **Highlight:**

A tribute to excellence - two Cypriot ERC grantees meet EU research ministers 19 July 2012

Tomorrow two Cypriot researchers funded by the European Research Council (ERC) will give a talk at the informal Competitiveness Council in Nicosia, under the Cyprus EU Presidency. ERC Starting grantee Dr. Marios Avraamides and ERC Advanced grantee Prof. Marios Polycarpou - both from the University of Cyprus - will highlight the benefits of ERC funding and present their projects during this lunch event with the 27 EU research ministers. They will demonstrate the dynamism, excellence and creativity of science in Cyprus.

Cyprus has been highly successful in the ERC schemes, in spite of the relatively small size of its research system. With a total of five ERC grantees receiving funding of €6.7 million, it has nearly three times more ERC grants than would be expected given its share of public sector researchers in the EU. (Only the Netherlands performs better out of the EU Member States on this measure.)

At tomorrow's meeting, ERC grantees will underline the importance of investing in excellent researchers. At this Council meeting, EU ministers will discuss the simplification of the funding models in research programmes. They will also debate the best methods of promoting Euro-Mediterranean cooperation in research and innovation.

Cyprus holds the Presidency of the EU from 1 July to 31 December 2012. The Cyprus Presidency fully and enthusiastically endorses the ERC's activities and will work towards strengthening the ERC's mission.

During the Cyprus Presidency, one of the plenary meetings of the ERC's Scientific Council will take place in Limassol, Cyprus, on 4 and 5 October 2012.



#### Background information on the two ERC grantees participating in the event:

#### **Marios AVRAAMIDES**

## Cognitive psychology and spatial representations

The goal of this project is to examine the way we form, maintain and use spatial memories, in our immediate environment - for example, remembering whilst at home where we left our keys - but also memories of more distant places and objects such as the route in a city we are about to revisit. Existing empirical findings on spatial cognition seem conflicting at first glance. This research aims to reconcile the different findings by gathering empirical data to test the predictions of various theoretical models. First results tend to show that the representations we form are different in memories of our immediate and distant environments. This research could have implications for navigation systems for blind people and human-machine communication.

ERC Project: Multiple Systems of Spatial Memory: Their role in Reasoning and Action

(OSSMA)

Host institution: University of Cyprus, Nicosia

**ERC Call:** Starting Grant 2007

**ERC Funding:** € 500 000 for four years More about his project can be found here.

## **Marios POLYCARPOU**

### Improving critical infrastructures

The emergence of networked embedded systems and sensor/actuator networks has given rise to advanced monitoring and control applications, where a large amount of sensor data is collected and processed in real-time in order to activate the appropriate actuators and achieve the desired control objectives. However, in situations where a fault arises in some of the components, or an unexpected event occurs in the environment, this may lead to a serious degradation in performance or to an overall system failure. This project will contribute to the development of a framework which can be applied to critical infrastructure systems (e.g., power, water, telecommunications and transportation systems). This will allow real-time local information to be integrated into a large-scale "picture" of the health of the infrastructure. The research has the potential to open up new horizons in fault diagnosis research and to instigate methods leading to a new generation of smarter critical infrastructures.

ERC Project: Fault-Adaptive Monitoring and Control of Complex Distributed Dynamical

Systems (FAULTADAPTIVE)

Host institution: University of Cyprus, Nicosia

ERC Call: Advanced Grant 2011
ERC Funding: € 2 million for five years
More about his project can be found here.





# Note to the editors

## The European Research Council (ERC)

Set up in 2007 by the European Union, the ERC aims to stimulate scientific excellence in Europe by encouraging competition for funding between the very best, creative researchers of any nationality and age.

Since its launch, the ERC has funded over 2 500 researchers and their frontier research projects across Europe. The ERC operates according to an "investigator-driven", or "bottom-up", approach, allowing researchers to identify new opportunities in all fields of research (Physical Sciences and Engineering, Life Sciences, and Social Sciences and Humanities). It has also become a benchmark of the competitiveness of national research systems and complements existing funding schemes at national and European levels.

The ERC, which is the newest component of the EU's Seventh Research Framework Programme, has a total budget of €7.5 billion from 2007 to 2013. Last year, the European Commission proposed a substantial increase in the ERC's budget for 2014 to 2020 under the new framework programme ('Horizon 2020').

The ERC is composed of an Executive Agency and a Scientific Council. The Scientific Council is made up of 22 top researchers and sets the ERC's scientific strategy. The ERC is led by President Prof. Helga Nowotny and the Scientific Council is represented in Brussels by Secretary General Prof. Donald Dingwell. The ERC Executive Agency implements the "Ideas" Specific Programme and is led by Director (ad int.) Pablo Amor.

#### Links

- Details of Informal Competitiveness Council meeting (20.7.2012)
- The ERC: a success story in support of excellence in research in the EU
- Announcement of the ERC Scientific Council meeting in Limassol

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