

25

**NEELIE KROES:**

The EU Commission Vice President outlines the importance of the Future and Emerging Technologies competition

166

**JANEZ POTOČNIK:**

The Commissioner for the Environment discusses the role of science in tackling climate change

178

**MARIA DAMANAKI:**

The Fisheries Commissioner on the steps being taken to safeguard the future of Europe's fishing grounds

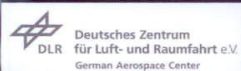
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PAN EUROPEAN NETWORKS EXPLORES THE STANCE TAKEN BY ROMANIAN SCIENCE MINISTER, **DANIEL FUNERIU**, AND THE OBJECTIVES OF THE NANOPROSPECT PROJECT IN ORDER TO INVESTIGATE THE STATE OF THE COUNTRY'S SCIENTIFIC R&D

The development of Romanian science

Romanian science is improving rapidly, and while universities and other research institutes may still be seen as underperforming, the result of years of underinvestment, a significant amount of extra funding has been awarded to the scientific and R&D communities since 2005 in the hope that it will act as a catalyst for excellence. With the appointment of Daniel Funeriu as the Romanian science minister in 2009, and the formation of new research bodies that are to explore some of the more exciting emerging technologies, the future of science in Romania looks promising.

Speaking to nature.com earlier this year about the perceived underperformance of Romanian scientific institutions, Funeriu outlined the problems he wants to eradicate: "The money did not necessarily get distributed to the best people, and academic positions don't necessarily go to the best people either."

"Scientific nepotism still exists. We need more input from Romanian scientists abroad and an influx of the best international practices."

As a result, the minister has introduced reforms into the country's management of scientific research, much of which has focussed on the redirection of funding and resources. "I know how science needs to be managed," Funeriu, who has a PhD in chemistry, said.

"I know the nuts and bolts of a scientific career and how to recognise the best research, worthy of funding from public resources. I am also a big fan of private research. People who were used to getting money, even though their results were humdrum, are angry. They know they can't convince me that what they are doing is important if it isn't."

NANOPROSPECT

Funeriu's hard-line approach to scientific research, education and funding certainly seems to be the right one, and the development of the NANOPROSPECT initiative is a prime example of how the Romanian government has identified and supported key emerging technologies.

NANOPROSPECT is a 'prospective study' devoted to nanotechnology, with the main objective of analysing the Romanian potential for applications and for international co-operation, while also positing a national strategy for nanotechnology, in line with the EU strategy.

Professor Dan Dascalu, CEO and president of the board of the National Institute for Research and Development in Microtechnologies (IMT-Bucharest) and full member of the Romanian Academy, informed the JRC-Romania Information Exchange Event in Bucharest this year that NANOPROSPECT will also "suggest measures to accelerate innovation, the industrialisation of results in R&D, the full use of experimental facilities and the formation of interdisciplinary competencies."

Dascalu highlighted the fact that while numerous projects and important acquisitions for performing equipment have received funding in Romania, a plan "that would concentrate the research for specific domains in which there is a critical mass and an interest from economy and society" and a "strategy that would cover all the important aspects for the development of nanotechnologies at national level," were lacking.

He also explained that "R&D interaction with industry in nanotechnologies becomes really attractive through the interest shown by large companies, and also through creating clusters of companies that are interested in the applications for a certain domain."

NANOPROSPECT has selected nanoelectronics and photonics, bio-nanosystems (including nanomedicine, pharmaceuticals and the application of magnetic materials), energy, nanomaterials (applications) and the evaluation and management of risk as research priorities.

There are several new thematic areas which are expected to impact on nanoelectronics, Dascalu said, which include carbon nanotubes-based nanoelectronic circuits, improved communications or environment monitoring, nanomagnets and nanowires.

In conclusion to an informative presentation that encompassed everything from the design of an RF NEMS switch based on carbon nanotubes, to hybrid inorganic-organic nanomaterials and the innovations being made through the CENASIC project, Dascalu called for a "reinforcement of the experimental infrastructure in various R&D organisations and an increasing interaction with industry."

Science in Romania thus seems to be developing at a significant rate, not least in the varied fields of nanotechnology and future and emerging technologies, more generally.

Indeed, while there are bound to be recommendations that need to be made – such as those underlined by Dascalu – and while some members of the scientific community may not support Funeriu's re-allocation of funding or the education law (which means a post-PhD qualification is required to become a professor and supervise PhD students), the country's present and future scientists can rest assured that investment and innovation run in tandem, and that the marrying of science and politics in Romania will continue to nurture an environment in which both can thrive.

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