## The European Research Council (ERC): Putting Excellence at the Heart of European Science Policy

Professor Fotis C Kafatos, Imperial College London ERC President and Chairman of the Scientific Council

## The Origins

In 2000 European Commissioner P Busquin enunciated the European Research Area (ERA) concept. In 2001 prominent European scientists debated at the Swedish Academy of Sciences whether Europe should invest more in fundamental research, and in 2002, during its EU Presidency, Denmark organised a broad meeting on "Do we need a European Research Council?" To the surprise of many, the overwhelming response was YES.

Busquin then embraced ERC as a road to ERA, and Director General A Mitsos correctly identified the inherent added value: competition for excellence at the European level. A high level advisory group established by the Copenhagen meeting (lead by F Major) and another from ESF (lead by R Sykes) concurred with arguments. In August 2004 a large number of leading scientists signed the manifesto of the grass-root "Initiative for Science in Europe" in support of the ERC (Science 305, 1327). The new European Commission, in which J Potočnik replaced P Busquin, incorporated an autonomous ERC for frontier research in its April 2005 Framework Programme 7 proposal with a budget that was ultimately agreed at €7.51b over 7 years. Some feared that a Commission-established Executive Agency would compromise autonomy, but an EA was accepted because of Potočnik's strong commitment to ERC autonomy and the pragmatic requirement for speed.

At that stage, a Slovenian and two British political leaders were instrumental in securing support by the European Council. Lord Sainsbury, widely appreciated as Research Minister, supported the ERC despite contrary advice, because its focus on excellence matched the UK's long-standing vision. Potočnik entrusted Lord Patten and his committee of European scientific leaders to identify the members of the ERC's Scientific Council (ScC) amongst some 400 nominations from learned societies, academies and national research councils. Potočnik accepted the committee's 22-person proposal in full. Ever since, the (non-remunerated) ScC has served as the driver for the ERC, even before being established formally (which will occur in early 2007, following the legal decisions for starting FP7).

## The Rationale and Prospects

One important reason for the ERC is that science and knowledge are at the heart of European civilisation - our identity. Further, Europe can only compete as a Knowledge Society, based on the knowledge triangle: Education/Research/Innovation. And it is a triangle; investment in research excellence is an imperative, not an option. We must generate, attract and retain top research talent by modernising our research system; invest consistently across our narrow borders in a globalised world; encourage the young by establishing attractive career paths and a competitive Champions League for setting standards, as in football.

Since October 2005 the ScC has developed our strategy and made critical decisions. To avoid a fatal split between strategy development and implementation, we created an ERC Board with our Chair and Vice-Chairs, the Director of the EA and our experienced Secretary-General E-L Winnacker. We selected a clear and compelling strategy to address to obvious gaps in Europe: by creating Starting Independent Researcher Grants (StG) for exceptional individual young scientists to become independent and work where they choose, and by funding frontier research projects of the



best, already established investigators through Advanced Investigator Grants (AG). To make a difference, they will average €1.5m and €3.0m, respectively over 5 years. All fields of science, technology and scholarship are eligible; excellence will be the sole criterion, permitting overseas investigators to be grant holders if they come to Europe. To keep flexibility, the review panels will decide the funding levels which the investigator can re-budget subsequently. The grants will be portable, allowing investigators to move with these funds within Europe, if their host proves disappointing. We expect that StG will establish ca 200 new investigators pa, some 1400 in 7 years; and that some 1700 AG grants will be funded during the same period.

We hope that through its policies, the ERC will facilitate progress in enhancing the European research structures with a light touch.

We are comfortable being experimental and will monitor developments over time, making changes as required. Provisionally we earmarked 15% of the budget for Social Sciences and Humanities, 40% for Life Sciences and 45% for Physical and Engineering Sciences, the rough average in researchintensive areas of the world, but depending on high-quality proposal numbers we may re-examine this distribution. The StG evaluation panels have been designed not on a narrow disciplinary basis, but by mixing related disciplines to facilitate consideration of boundary-crossing proposals. We invited eminent scientists to serve on them, and interpret the unprecedented high rate of acceptance as a gratifying token of the community's trust in the ERC. Whilst we are focusing on the individual investigator's excellence, we are aware of the importance of critical mass in research, and will be monitoring with interest the impact of the ERC in restructuring the European research landscape. We expect that the StGs will encourage proactive institutions to create poles of excellence with fresh recruitments, including from overseas. We hope to encourage their pursuit of the three Rs: Recruit, Repatriate, Retain top talent.