

# Wanted: a strategy for European Science

It is easy to become mesmerized by the slow drip of comments, speculations and politicking that accompanies the discussions on research funded by the European Union (EU). One might even be lured into believing that these are the important decisions. Unfortunately, all these activities focus only on the minute details of the European Commission's (EC) funding instruments and delivery mechanisms, rather than on a general research strategy for the EU member states. However, to succeed in the face of growing international competition, European science needs an overarching strategy for research before the instruments to achieve the desired goals are put in place, not the other way around. The sad fact is, no such strategy seems to exist—or it is all part of a cleverly hidden plan that the EC cannot share fully with its constituents?

Like many big rivers, the Framework Programmes—the EC's main scheme to support research and development—are fed by several small tributaries. These include the EU member states whose primary motivation is to ensure that the EC's call for proposals matches the strengths of their national research agenda. They feel that 'winning' or 'losing' in the scientific Olympics depends on the number of grants they receive. To define what projects they would like the EC to include in their next Framework Programme, they consult their scientists, analyse the success of their research teams in previous rounds of funding, and send their emissaries to Brussels to ensure that a topic of general interest to their country becomes included in the call for proposals. Their insistence on this topic being part of the overall scheme will give them an advantage over countries where other topics are more important. In short, there is much 'horse trading', but little or no overall strategy.

Then there are the scientific officers in the EC's bureaux in Brussels. Unlike most politicians, they are in daily contact with

scientists, either to monitor ongoing projects or because a scientist engages them in a (self-serving) conversation about an exciting new research topic. Occasionally, scientific officers detect new trends and arrange meetings that bring together the leaders of the field. Their job is crucial and powerful, as the choice of topics to be funded by each Framework Programme allows the introduction of new directions and research fields into European science. They also bear the responsibility of writing key documents, in which the inclusion or exclusion of a topic has major consequences for further discussions and funding schemes. By doing so, they inevitably nudge the Framework Programme in one direction rather than another. The scientific officers have the difficult task of interconnecting exciting new ideas with national interests, and of balancing the real value of claims from outside sources—in particular lobbyists and scientists—against blatant self-interest. In this constellation, it is inevitable that politics moulds the content of the European research programmes and not strategic considerations.

But who cares? EC money continues to keep scientists employed all over Europe. And as it comprises only about 5% of the total spending on research and development, it is the icing on the cake, not the cake itself, one might say. However, such an attitude is a dangerous one, as it allows the national systems to remain independent from a collective European effort. For those who believe in the benefits of European countries working together, it is also disingenuous, and it undermines any chance of a real strategy.

When the Framework Programmes were first implemented in the 1980s, there was a strategy for science—but it had little to do with science. Its ultimate aim was to foster interactions between research groups in different countries, to increase their awareness

of different cultures and to encourage contact with scientists outside national boundaries. This EU-funded 'research tourism' was effective. So what is the next step? In 2000, the Lisbon Agreement stated that research should be the motor for the future economic development of Europe, but there was little analysis of what strategy could achieve that goal—other than investing more money in research. Since then, there have been some interesting developments, but it is not yet clear if they are random occurrences or part of a plan. The decision to start the European Research Council with a focus on generating knowledge fits the future needs perfectly. The move towards technology initiatives addresses developments close to industry. The need for training remains central. The standard programmes fill some gaps in research funding, but they are not balanced against each other in a strategic framework, and other gaps remain (Gannon F (2006) From inhibitor to drug: mind the gap! *EMBO Rep* 7: 237).

In the absence of any overall strategy, budget discussions inevitably result in a power struggle between EC officials favouring their own portfolios, politicians supporting their home constituency and industry looking for ways to obtain support for their research. Unfortunately for European science, it is unlikely that the players in these political games are altruistic enough to set aside individual interests for the benefit of the continent. It is time for a real research strategy consisting of priorities and goals based on facts and needs to ensure that European science becomes a powerful torrent of creative energy. As it spends billions of Euros each year, the EU cannot afford the alternative: a flood of dissatisfaction from its citizens.

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**Frank Gannon**

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