A European Research Council—more competition in science

An interview with Enric Banda, Secretary General of the European Science Foundation

EMBO reports (ER): You and a number of other scientists have proposed the establishment of a European Research Council (ERC). Why do you think this is necessary?

Enric Banda (EB): For several reasons, but the most obvious is because of the idea of a European Research Area (ERA) proposed by Commissioner Busquin. He has been able to articulate the concept very well, and he has been politically skilled in putting this before the heads of government. In the background documents that set out the concept of the ERA, there are constant comparisons with the USA. Certainly, there is not enough investment into research and development in Europe, but there are other reasons why we are not as good in some fields, and this is because our research infrastructures don't include the equivalent of an NIH or NSF on a European scale.

ER: Do you see these as the role models for an ERC?

EB: They are good as a reference. As nationwide funding agencies, they have done a lot of good for the American research system. There's no need to precisely copy their structures, but I believe that Europe needs a similar Europe-wide funding agency.

ER: One strength of the American system is that they have one organisation—the NIH, the NSF or NASA—that speaks with one voice for each respective field. How do you see the ERC, yet another organisation in Europe, replacing or cooperating with the existing European structures without creating more confusion?

EB: It depends at what level. If you think of a research council that will swallow CERN, ELSO, EMBO and all the rest, this would never work. Diversity is one of our

assets in Europe. What's wrong here is that, every time we have a bright idea, we invent something new rather than looking at what we have already in place. Therefore,

the ESF (European Science Foundation) Assembly decided to launch a debate in order to discuss what is needed and what is already there. The problem is that people devoted to science policy are very superficial—we say 'We need this', but we don't say why. We should first discuss whether we need an ERC to improve the performance of science and technology in Europe, and, if so, we should look at how we might achieve that both physically and financially.

ER: How do you see your organisation, the ESF, relating to such a council?

EB: The ESF has 27 years of experience in multinational cooperation at the European level that involves 70 member organisations from 27 countries. Our members are

individual institutions and research councils, not European Union (EU) member states. We have been geared not towards being a funding agency but a cooperation agency with a non-bureaucratic structure, and this experience could be valuable for the establishment of an ERC.

ER: So are you positive about the outcome of these debates? Do you feel there is a wide demand among the scientific community for an ERC?

EB: I would say yes. However, there are a lot of people who feel unhappy about it. In some countries, the research council culture does not exist—for example, in Spain, my own country. We have the CSIC, which is an excellent institution that executes research, but it is not a funding agency. Decisions about what to fund are decided at the ministry rather than at an independent agency that can make autonomous decisions. But, in general, at the grass roots of science, there is some recognition that a funding agency at the European level

beyond the Framework Programme is something that we would benefit from.

ER: This would obviously require money, which has to come either from the European Commission or from the national research councils. In his article in *Science*, Ernst-Ludwig Winnacker proposed providing 0.5% of the DFG's budget. That is about €25 million, which does not sound a large contribution. So, who should eventually provide the funding for an ERC?

EB: One model would be to use money from Brussels. The other extreme is not to involve the EU at all, but to build on national research councils. But to fund a reasonably healthy, or even wealthy, council you need a lot of money from member states. Should they take it from

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their national councils or should they invent new money? Inventing new money is not in the mind of our politicians, so it will have to be taken from the national councils. This decision will be very difficult. In the end, I think, there will have to be a combination of both if we really want this to happen within the next 10 years. 0.5% of the DFG budget is a sizeable amount of money, but what would be the equivalent in another country? Are we talking only about research councils, or the total of the

that. And I know, from experience, that competition will eventually increase the quality of science in the countries collaborating. When you are committing funds to a common pool and you are not sure of your return on that investment, then either you stop participating or you stimulate activities at home to increase your level of scientific excellence. So I don't see any reason why an ERC would not produce a lot of benefits in addition to the existing schemes. I'm sure there are negative aspects but I cannot see any, except if the

means only a postdoc and a technician working on a project, even if it doesn't have an element of European cooperation to it?

EB: The best heritage for Europe would be to have brilliant young people involved in science. If they don't find the right mechanism here, they go somewhere else—some give it up, others go to systems that are more attractive, like the USA. The last PhD student I had before I devoted my life to science management submitted a proposal to the NSF. That was 5 years ago and he has just come back to Europe, to the Netherlands. But before then, why didn't he come back? Because he was not able to find an attractive place to go. All of us are interested in living in a place where you feel comfortable, where you fit culturally—it's not only a matter of high salaries. These young kids, if they are offered some support to stay, it will be for the benefit of Europe. Of course, there are also the professionals, 45–50-year-olds, whose only possibility to obtain funding at the international level is the Framework Programme. And if they get money from their national council, why bother applying at all? Why go to Brussels and fill in 100 forms? If we have competition between various funding schemes, which we don't have, the scientists will know where to apply and where to go.

ER: But wouldn't it be a waste of effort to have various funding organisations on a European level?

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country's budget on research and development, or on basic research only? Certainly, the financing scheme needs a lot of debate.

ER: Wouldn't it be detrimental to the ESF budget if each government and organisation needs to contribute to your organisation as well as to an ERC?

EB: The ESF budget is very small, about €15 million. We only fund coordination. The only sizeable funding that we stimulate is the EUROCORES. This is a new scheme where we have one call for proposals and, after peer review, we recommend the best proposals to the national councils for funding. Only those of our 70 members who want to participate in this scheme provide funding—we propose something and only those who want to pay for this activity do so. I think this is the way of the future. Europe will never be able to do everything together while keeping everybody happy.

ER: Could an ERC, modelled probably after the NIH or the NSF, make an impact compared to existing national structures such as the DFG, The Wellcome Trust, the MRC, all of which have massive budgets and also fund science on a European level? And there are the Marie Curie fellowships to allow scientists to work abroad and gain experience.

EB: We are already very good at collaborating in Europe—we are truly international in science and the Framework Programmes have done a lot for that. But what about competition? Where do we compete at the European level? I have only one answer and that is the Framework Programme, but even this is not exactly what scientists call competition. Only a structure such as an ERC can provide

research council creates a new bureaucracy. From that moment on, I would give up and go home and do science.

ER: You mentioned that the Framework Programmes have contributed to European cooperation. But they have also been heavily criticised for being top-down rather than bottom-up and for the emphasis on applied research.

EB: I don't think you can build an ERC with the idea that you copy what the Framework Programme does. You have to do things that, in my opinion, are being neglected at the European level. Certainly, the research that is done for the generation of knowledge is being neglected because it is politically incorrect. Also, you have to produce short-term results, which some-

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times does not happen in basic research. Another problem is that you must have a partner from another country to apply for funding under the Framework Programme. Of course, we scientists adapt because we have to look for money, and sometimes we make promises that may not be fulfilled. It's an uncomfortable system with some artificiality and that is not what a research council should create. What you want is that a scientist who has a good idea in a particular field can go on and submit a proposal to a European funding agency without any constraints other than the quality of the science. This is a component that we don't have in Europe, and I believe that we need it.

ER: So funding from the ERC would also involve funding for 'small science', which

EB: Every study of the American system recommends keeping the diversity of funding. Our system doesn't have much flexibility. It means rigidity, means bureaucracy, means every negative aspect. You have to offer different schemes.

ER: Who would be responsible for building this? Would the onus be on the scientists or would it come from the top, from the administration?

EB: I think it has to be owned by the scientists, the scientific community, but there are many people who think otherwise. In the last decade, governments have become more and more fond of funding agencies because they see research as a source of wealth. They now realise that there is a lot to gain. In

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Finland, for example, they made the decision 20 years ago and, despite crises and changes in the system, they have been able to keep their support of science and technology at a very high level. In other European countries, this has not been the case generally; there is a tendency to label the money that goes into research. One could ask whether this is right or wrong, and I could even think that they might be right because, in the end, politicians are the responsible ones, they have been elected to govern the country. A government might decide priorities, such as we need more chemists for whatever reason and therefore stimulate research in this particular field. Then it is up to the funding agency to do it. What is not acceptable is that the government tries to intervene with the management of funding agencies.

ER: This would mean that scientists should be in charge and you have to convince them to spend the time and effort. Clearly, scientists have been involved very effectively in administration: Harold Varmus did a tremendous job in increasing the NIH's budget and promoting basic research in the USA. And there are Tom Cech at the Howard Hughes, Paul Nurse at Cancer Research UK, Hans-Ludwig Winnacker at the DFG. But these people are few and far between. How can you convince your scientist colleagues to invest extra time and effort in science administration?

EB: I believe that when scientists are called to do science management at a national level, they are proud to do so. Some may refuse, but a large majority accept that, if they are called, it is because they are excellent scientists. Of course, you must have a system of rotation—if you have a very good scientist running an agency and keep him or her for 10 years, you kill them scientifically. In Spain, scientists used to have the right to a sabbatical year if they serve 3 years as head of a particular committee. There are a number of incentives you can give scientists to engage them in science administration. We are not talking about a large number of scientists. What you want is the main spirit transmitted to a team and a good scientist to make judgements about proposals and reviewers.

ER: Are you still an active scientist?

EB: Since 1998 I have not put my hands on science in terms of sitting at the

computer and doing things. Of course, I read and I am aware of what is going on. My term at the ESF is 5 years, so in 18 months I will probably go back to science. But

sometimes there are other opportunities in life and something else comes up.

ER: What goals do you wish to achieve by the end of the next 18 months?

EB: One priority is to establish EUROCORES as a way to open national programmes to international funding. One EUROCORES programme is up and running, two others will be operative in a couple of months and there are several others in the pipeline. In terms of science policy, I am of course now very engaged in the debate about creating an ERC, although I realise it will

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not be up and running by the time I leave the ESF. The concept has been discussed internally by the ESF and we now have a new strategic plan for 2002–2006. Our mandate is to lead the debate on whether it is appropriate or not to have such a research council. For example, we will be meeting with the Danish presidency in the second semester of this year to discuss collaboration with the Danes. After that, we will discuss it once more within ESF and deliver a position paper at the beginning of 2003.

ER: Are there similar initiatives with other countries?

EB: The Swedes are internally debating the possibility of an ERC, although they have invited people from outside. I have published an article in Spain to trigger discussion there. I believe that the essence of opening up the national programmes will be the ERC, more than having, for example, the DFG and the CNRS and the CSIC trying to imagine a scheme that they fund together. I know how much effort it takes to get Europe off the ground with eight or nine people of different nationalities around the table, all with different cultures and different ways of doing things. As I mentioned in my article [in *Science*], European organisations should feed each other rather than put distance between themselves. Europe cannot afford to waste any energy. But by committing money, the national policy makers will have not only the will, but the need to cooperate.

ER: The ERC, unlike organisations in the USA, would possibly fund science on a broad base involving physical sciences, chemistry, life sciences, medical research as well as social sciences and humanities. What do you think should be supported first on a European level?

EB: At the European level we have not debated if we want a single research council or several. Personally, I think it is better to have one. For this reason, I am very keen that scientists should be involved in the debate and be consulted.

ER: How has your experience been with the ESF in the regard of funding research in different fields?

EB: We are organised into five standing committees, one for humanities, one for social sciences, one life and environmental sciences, one medical and one physical and engineering sciences. When you have that system, you often think it would be better to have it combined in a different way, and so you do that and a few years later somebody says shouldn't we combine it in yet another different way. I see the future of science as multidisciplinary. I would not be surprised if we get into a truly profound and rational debate about the councils and come up with some new ideas about distribution. It would be splendid if ideas like this emerge in the debate, because, although we would be starting very late in comparison with the USA, maybe we would start ahead of them in terms of structure and organisation.

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ER: One of the schemes the ESF is supporting is science and society, particularly biology and society as well as support of the media. You helped to establish Alpha Galileo and the European Science Journalist Association. Should that also be a task for the ERC?

EB: The ESF, being an association of research organisations, had to be involved in policies concerning biology and society. We set up a group that reflected their opinions—for example, on genetically modified plants and using animals in research. This is something that has to be done at European level. Should a research council do these things? I don't think so—it should be a funding agency with no interference from others.

ER: Are your policies at the ESF an average opinion of the funding councils that you represent?

EB: No, but we try to sharpen them. When you are dealing with 70 member organisations, there may be 20 with no opinion, and from the other 50 there may

only be 40 who agree in principle. It would not be good to take the minimum common denominator, because then there is no profile. This has generated internal debate in some of our organisations, which is good because they may come back with their own ideas.

ER: Are these always biological issues or do you have similar debates in the physical domains or the chemical sciences?

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EB: At the moment what really gets into the media is life sciences, but I can very well imagine that the issue of nuclear energy will come back. Social sciences don't get enough attention, but the things that they discuss and the progress they make are not as touchy as, say, cloning. That is what triggers the imagination. It's not a good comparison, but in order to

have the Euro introduced in Europe, there were many meetings and discussions. Our sector is not so complex, because it has less implications from a fiscal point of view. It is not so delicate, but still the decision-making in Europe is very slow. I'm afraid it will take some time before we see an ERC.

ER: Isn't that frustrating for you?

EB: My honest opinion is that an ERC will happen. What is frustrating is if it takes 10 years. But it will happen. Maybe the winds in Europe now are not very strong towards integration, but it's rare that we work backwards. I would prefer if it to happen sooner rather than later.

ER: Professor Banda, thank you for the interview.

The interview was conducted by Susan R. Owens and Holger Breithaupt.

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