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# WILL THE EIC BE A SUPERSTAR OF HORIZON EUROPE?

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Jerzy M Langer<sup>1</sup>

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## THE ERC STORY IN A NUTSHELL

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Very few instruments of The European Commission receive such an accolade as the European Research Council. It is technically run by the REA – a dedicated executive agency under the jurisdiction of the DG RTD, but most of the decisions are taken by scientists only. A procedure unthinkable some 2 decades ago, when Phillippe Busquin, the then Commissioner for Research, gave a green light to the creation of the ERC at a pivotal meeting with a provocative title “Towards ERA: Do we need a European Research Council?” in Copenhagen 18 years ago.

The meeting was followed by an enormous wave of support from the science community, including some 50 Nobel Prize winners. The unprecedented rush was somewhat like Medieval Fyrd - a type of early Anglo-Saxon army that was mobilised from freemen to defend their shire. And amazingly Commission attentively listened. It was truly revolutionary motion, because for the first time “basic science” became seen by politicians as a foundation of Europe’s competitiveness.

And five years later a triple miracle happened:

- **The scientists could have agreed on something,**
- **the EC file and rank listened to their arguments and finally,**
- **top EU politicians agreed to take a risk of giving scientists a huge sandpile of gold for their playground with almost no string attached.**

From the outset, EXCELLENCE became the only criterion of receiving the ERC grant. No gender balance, no geographical equalization, just pure scientific excellence of both project and project proposers. Both judged by the panels consisting of peers of the science community selected by the ERC Council.

Was it just an attentive listening of a rational argumentation from the scientist’s community? By far not. **The key argument behind the EC decision was a dramatically rising outflow of most talented young Europeans to the USA and a notable fact that getting a Nobel award became almost a pure American business (with a great fraction of the scientific emigrants from Europe).**

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<sup>1</sup> A physics professor, former science vice minister in Poland, member of the EIC Pilot Advisory Board and a former chair of the FET AG. Fellow of Academia Europaea.

Today, much too often it is stated that the success of the ERC lies in that it is based upon the EXCELLENCE only. Indeed, but it is such a trivial statement that should not be raised every time. The science that counts must be excellent only. Everything else is a stamp collection, travestying a famous saying by Ernest Rutherford - one of the giants of the XX century physics.

## THE KEY ROLE OF TRUST

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**The real reason for the unquestionable success of the ERC is TRUST. Trust of scientists** that the process is fair and losing does not mean losing a face (a notion that stopped quite many top scientists to apply at the first ERC concourses). But also **trust of the Commission** to scientists involved in the process that the money the EC is at the end responsible for will be fairly distributed and shall have a transformative effect, namely by stopping and finally reversing the talent outflow from Europe, what de facto has happened.

Anyhow, it was great courage on the Commission side that started to change the ubiquitous notion the organisation is non-transformable, bureaucratic and risk averse. But one must notice another fact. Today, the EC is predominantly young people coming from all Europe through a painful recruiting process, very well educated, speaking many languages and eager to devote the most productive years of their life to something serious, transformative - a kind of Kennedy's "let's fly to the Moon" motion. As a member of so numerous advisory boards to the EC over the last 2 decades, I have had so many chances to talk not only to the top directors and Commissioners but first of all to their staff. And they want to influence the course of events, for good.

## WHAT IS THEN THE NEXT GREAT CHALLENGE AND A PROPOSED SOLUTION? INNOVATE OR DIE.

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What is then the next great challenge and a proposed solution? There is plenty of costly high-level talking groups around the EC aiming at that issue, which we shall forget even before they come to any sensible conclusion. Also, behemoth constructs, stuck in endless negotiations and entwined by lobbying institutions wresting quite large pieces of the tort for themselves. Such is, unfortunately, the cost of progress, especially in multinational public institutions.

The EC has proved over the years to be attentive and correctly identifying serious problems. Today comes to a crucial test requesting similar crowding-in as was the case of the ERC creation. It is a **problem of the sustainability of European competitiveness on a global market**. No doubt that e.g. in the field of Artificial Intelligence Europe almost lost the ground against the US and China, once being a conceptual leader. The automotive industry is another example, but hopefully, the European giants are not going to give up easily in the electromobility transformation to such sharks as Tesla and Asian automobile companies. Unclear is the case of a pharmaceutical market, but there Europe is battling with some successes with the USA.

These examples illustrate the larger problem of innovativeness or better to say entrepreneurship of Europe. A famous slogan "innovate or die" does not need any additional wake-up call in Europe. Everybody finally puts the slogan on the flags everywhere in Europe. It

is clear that in a battle for future, Europe without innovations, especially breakthrough game-changers, will be reduced at best to a secondary consumers level. To quote the Queen race from the Alice in Wonderland famous book by Lewis Carroll: "**Now, here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!**"

Yes, we must consolidate all our assets and run, fast. And the role of the European Commission in this race is pivotal. Three reasons for that: the EC sits on a pile of money, which in the R&D area is the largest portion of public money in Europe amounting to more than 20 bln EUR/year when Horizon budgets and the pro-innovation portion of the ERDF (cohesion policy) are added. This is well over 20% of public spending from public funds in Europe, and even larger fraction if we count the competitive money only (i.e. not spent for salaries and maintenance). A second reason is that the EC is fairly independent in their activity, once the financial frames are set by the MSs and the EP. Thirdly and very importantly in contrast to the ERC creation times, the EC does not start from scratch.

The EC has not just knowledge how to deal with a variety of applications, but first of all, it has well tested and appreciated instruments aimed at innovations. One has been the so-called SME instrument assisting European small enterprises in their quest for success, but the second one is even more powerful and agile, namely the FET (Future and Emerging Technologies) program developed and run by the DG Connect over the last two decades. The program originates from the ICT field, where science is almost intimately connected to the enterprise. It is a kind of the ERC but directed towards breakthrough technologies of the future. Also, and very importantly, it requests collaboration of at least three partners. It already has produced a vast number of breath-taking and almost out of the science-fiction stories outcomes that quickly paved the way to the practice through the SMEs involved. And the demand for both instruments, namely the SME and FET were immense. The latter 20 times larger than the money available. What a loss of enthusiasm and an ingenuity!

So, facing a very alerting status of innovation in Europe and having these two jewels in hand, the EC placed a high bet on a table. It is **The European Innovation Council concept**. The EIC should be more than just a Yin-Yang twin to the ERC. It must seek for visionary scientific results, but first of all, impose their placement at the market as soon as possible.

So, the EC has refurbished the SME instrument under the new name **the Accelerator** and amalgamated the two most acclaimed FET subprograms under a very catchy name **the Pathfinder**.

But the EC has added something truly novel and risky, namely a blended finance, where the SMEs may receive **not only grants but also equity** – an absolute mental revolution at the EC level. The first EIC pilot runs under the Horizon 2020 financial and legislative regime. Already the first demand showed a massive interest from the SMEs and research communities. Its value just in the first year almost broke a suggested 10 bln EUR cap for the whole next financial period. This is the first and clear sign of the need for such a flagship initiative and the content of submissions provide more than just assurance of the goal fulfilment.

There are however clear dangers on the way. The first is the “kill a novelty” syndrome at the expected budgetary cuts, the second is too often verbalized statement that a concentration on the SME/innovators is adequate, as the “science will take care of itself”. The latter would simply mean the killing of one of the most successful and acclaimed at MSs the FET/Pathfinder programs. But I do believe in wisdom and determination of the new Commission, especially of the new Commissioner Mariya Gabriel, responsible for Innovation, Research, Culture, Education and Youth. The operating staff of the EC lead by the DG Jean-Eric Paquet and a special envoy for the EIC, Jean-David Malo are fiercely battling every day for security of the EIC initiative.

In my opinion, already expressed several times over the last decade, **the EIC may become the same flagship for the Horizon Europe, as the ERC was to the Horizon 2020.** But to get there, the science-based and entrepreneurial EIC have to be based on excellence and trust like the ERC, but also on the ability to combat at the most competitive global markets, thus becoming the first choice for talented European innovators. This can be achieved by drawing from tough venture capital rules in providing grants and equity to SMEs and further assistance and monitoring.

**Then a trio consisting of the EIC, ERC and MSC Fellowship scheme may become a true gateway to restoring the European dream, especially for the talented and success hungry young Europeans.**

## HOW ABOUT POLAND IN THIS CONTEXT?

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All, that is very true in a global sense. European, better to say. But how about the more local view, just Polish? We, as the research and innovators community, have not been very successful in grasping chances offered in various concourses coming from Brussels. Even if percent-wise we are not dramatically low in the participation table, but a money-wise situation is dramatic. Roughly we “recovered” only about a third of Polish financial contribution to the Framework program (almost 2 bln Euro of lost chances in a whole 7-year financial period). Of course, it is more than compensated by structural funds, but no way we may treat this as an excuse. But this is the past. Meanwhile, our infrastructure immensely got better, thanks to the investments funded by the structural funds. Moreover, the consciousness that the slogan “innovate or die” is a zero-one alternative for Poland, finally landed into the governmental minds. Our links with the global economy got tightened and we are not anymore, a cheap labour force. Finally, a gold rush of Polish youth for education. Still, every tenth student in Europe is Polish and quite a large fraction of them study abroad or participate in numerous temporary exchange programs. And one very important extra. It is an explosive growth of a start-up community in Poland, a lot of them located in the mushrooming Techno Parks everywhere in Poland.

We are still far away from the start-up nation Israel, but the example of Estonia tells that good changes can happen fast. We, the Poles, are still very hungry for success. Therefore, we should look at this superstar EC trio: ERC, EIC and MSC Fellowship as a golden opportunity and chance.

**IF THEY MAY WIN, WHY NOT US?**