

Opening session of the Africa-Europe Summit on Research and Innovation

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Jean-Pierre BOURGUIGNON

President ad interim of the European Research Council

Dear Declan KIRRANE, dear Commissioner AGBOR, dear Minister HEITOR, distinguished guests, ladies and gentlemen,

I feel very honoured to participate in the opening session of the Africa-Europe Summit on Science and Innovation.

For this speech I will be drawing on several experiences I had with Africa: first as a scientist – I am a mathematician – and second as President of the European Research Council, a programme that has been a component of already three European framework programmes for Research and Innovation.

Let me start with my experience as a mathematician. I learned a lot about Africa from my first research student, Jean-Pierre EZIN, who, after getting his PhD, decided to come back to his country, Benin, to teach at the University in Cotonou and to develop research in his country. He established a mathematical research institute in Porto Novo. Later, he helped me get a broader view on research in Africa, its perspectives and its challenges, when he became African Union Commissioner for Higher Education and Research, hence a predecessor of Commissioner AGBOR. I also visited Cameroon at the invitation of colleagues in Yaounde.

A good example of successful collective efforts by mathematicians came from African colleagues who, in 1976, launched the African Mathematical Union. The idea was to learn from the experience from different African countries and to share concerns and ambitions. It took European mathematicians 14 more years to create the European Mathematical Society in 1990. It is the late Professor Jan PERSENS from Western Cape, then President of the African Mathematical Union, who invited me to visit South Africa for the first time.

Interacting with another African structure that was born in Muizenberg near Cape Town, the African Institute for Mathematical Sciences (AIMS), has also been an interesting experience. The initiative has now grown into a remarkable network of institutes in Senegal, Ghana, Cameroon, Tanzania and Rwanda after the first one in South Africa. The ambition is to offer a broad curriculum to African graduates coming from different countries, beyond the usual boundaries of pure, applied and computational mathematics aiming for excellence. They also take advantage of the cultural differences, also from the point of view of language, often inherited from colonial times. The education given in AIMS centres is indeed bilingual. The network now hosts more than 1500 graduates. Quoting from the AIMS website *"AIMS is enabling Africa's talented students to become innovators driving the continent's scientific, educational and economic self-sufficiency"*.

AIMS was also the inspirer of a remarkable initiative, the Next Einstein Forum (NEF). I could witness its development as I had the privilege of being a member of its Steering committee. In this capacity I could attend the first NEF in Dakar in 2016, the second one in Kigali in 2018, and I was on my way to attend the third one in Nairobi when the pandemic stroke in March

2020, forcing to move the event to a virtual format in December. Taking part in the selection of the Next Einstein Fellows, for the first time in Cape Town, was a great experience as the jury was confronted with a huge diversity of talented young African scientists from many different disciplines and backgrounds. The latest selection took place in Nairobi in 2019.

Another mathematician, Mary Tieuw NIANE, also helped me gain a better understanding of the challenges African scientists face. Many of you know that, after being a very successful Rector of the *Université Saint Louis* in Senegal, he was an active Minister for Higher Education and Research also at a global African level. It was therefore no surprise that the first Next Einstein Forum took place in Dakar after the establishment of AIMS Senegal in M'bour.

Let me now bear my European Research Council hat. The ERC came to life after an intense effort from the European scientific community who managed, after more than 15 years of struggle, to convince some politicians such as the late Mariano GAGO, then Minister for Science and Research In Portugal, and some Commission officials, such as Commissioner Philippe BUSQUIN from Belgium, that such an initiative could make a difference in creating a positive dynamic for the development of frontier research in Europe.

After 14 years of existence, I think one can say that the ERC developed as a success story that is based on the trust relation it developed with the scientific community at large, in particular with younger scientists. Its DNA is to fully respect bottom-up initiatives from scientists being open to all fields and encouraging them to submit their most ambitious projects and to base the peer-review selection strictly on scientific quality. It has now supported more than 10 000 scientists, among which almost 7000 of them below 40 years of age. It also achieved good progress in terms of attracting more women and witnessed balanced success rates between women and men. Last year about 40% of the ERC laureates of Starting grants were women.

The ERC has been actively developing so-called Implementing Arrangements to facilitate visits by non-European scientists to ERC teams. There are now such agreements with 12 countries in the world for which we got excellent support from the DG-RTD Directorate on International Cooperation under the leadership of Ms Cristina RUSSO. You will be listening to her soon. I was very pleased that, during my mandate as ERC President, such an agreement could be signed with the South African National Research Foundation thanks to the great support Minister Naledi PANDOR and her team provided to the project.

Another sign of the remarkable presence at world level of South Africa is the fact that the Global Research Council, that brings together Heads of research organisations of many different countries (this time more than 150 of them), was due this year to be held in Durban and hosted jointly by the South African National Research Foundation and the UK Research and Innovation. The pandemic prevented the event to be held physically in Africa, which would have been a first.

Let me finish by calling your attention to the ARISE pilot programme that is just starting. ARISE stands for African Research Initiative for Scientific Excellence. It is an attempt to explore the possibility to develop an African equivalent to the ERC. It is jointly supported by the African Union and the European Union and is established under the responsibility of the African Academy of Sciences based in Nairobi. I was very honoured to be invited to take part

in its International Scientific Advisory Board. The work is just starting and I hope it will develop swiftly and successfully. We must give opportunities to the most motivated and talented young scientists in Africa.

The pandemic has shown how indispensable an enhanced international collaboration in the domains of science and innovations is. Africa and Europe have to make very substantial progress on this front. The global challenges the world is facing can only be tackled if we join efforts and develop the knowledge and the training of the next generation at the highest level. Africa can count on its impatient youth to play a growing role in this key endeavour. Many issues have to be tackled at the same time as the interdependence of the Sustainable Development Goals (SDGs) set by the United Nations show. This can only be achieved through a long-term approach for which we need to join forces.

I thank you for your attention.
Jean-Pierre Bourguignon