

## **Africa: A New Horizon for African-European Research Links**

**BRUSSELS, Belgium, January 10, 2014 (SciDev.Net)** — For scientists across Europe, last month marked the official start of a fresh wave of funding opportunities from the European Union (EU).

On 11 December, the European Commission finally released the detailed topics and budgets available for the first two years of Horizon 2020, the EU's eighth research and innovation funding package, worth nearly €80 billion (around US\$110 billion) in total from 2014 to 2020.

And European researchers are not the only ones who can get a slice from this funding pie: scientists around the world, including those in developing countries, can compete to take part in EU-funded research projects.

The previous edition of the programme, the Seventh Framework Programme (FP7) that ended on 31 December 2013 (though some awarded projects are still ongoing), was also open to such international collaboration, and many African scientists seized the opportunity.

At the last count in September 2013, the European Commission said that 1,315 participants from organisations in 45 African countries had taken part in 565 EU-funded projects since FP7 began in 2007.

Although areas such as energy, space research and information and communications technology (ICT) are gaining importance, the bulk of these projects remained focused on health, food and agriculture, and water and environmental sciences.

"This was only partly due to the EU setting [these] priority areas, in particular through a special Africa call in 2010," says Stéphane Hogan, science counsellor at the Delegation of the EU to the African Union in Addis Ababa, Ethiopia. Many other African collaborations in FP7 projects emerged spontaneously, without a specific request from the EU.

African participants have received a combined €178 million from FP7, a substantial rise compared with the previous edition. Under FP6, which ran from 2002 to 2006, only 882 participants took part in 322 research projects and received a combined €95 million from the EU.

Out of the €178 million under FP7, almost €9 million went to fellowships for African researchers, while the rest went to large, collaborative projects where African participants were part of a consortium along with other scientists in Europe (and possibly beyond).

### **More than money**

But FP7's most valuable benefits for African science cannot be expressed in numbers. "African researchers benefit not only from significant funding but also from collaborating with some of the best European researchers," Hogan says.

For example, Lateef Sanni and Wahabi Asiru are two food researchers from Nigeria. Along with other partners in their own country, as well as scientists from Ghana, the Netherlands, Portugal, Thailand, the United Kingdom and Vietnam, they are involved in a large project that aimed to reduce cassava and yam losses by improving their management after harvest. The Gratitude project received about €2.85 million from the EU over three years.

Sanni is a food technologist at the Federal University of Agriculture, Abeokuta, and his colleague Asiru works at the Federal Institute of Industrial Research, Oshodi, in Lagos. Both say that participating in the project broadened their scientific horizons, boosted their skills and enhanced the quality of their work.

"[The project] improved my knowledge as a researcher through workshops, conferences and training, and it encouraged cultural integration," Asiru says.

Thanks to the project, his lab acquired modern equipment that enabled agricultural waste

products such as cassava peel and stalks to be used as an alternative substrate for mushroom production, he adds.

In addition, the project's benefits will extend to future generations: for example, Sanni's research group was able to use the funds to train 12 master's students and hire two PhD students during the project.

### **Not charity**

However, boosting science capacity in Africa is merely a side effect of FP7's open, collaborative approach; the programme's main focus lies elsewhere.

"It's a European programme, not a collaboration programme with Africa," so it is logical that most funding goes to the EU, says Daan du Toit, senior science and technology representative for the South African Department of Science and Technology to the EU in Brussels, Belgium. "As much as we [South Africans] promote it and are enthusiastic about it, it's not a magic instrument for all."

Just like under FP7, Horizon 2020 projects will be selected based on their scientific merits. This means the funding goes to the best researchers - not to those who most need the money. The EU has separate programmes aimed specifically at capacity building, such as the European Development Fund, du Toit says.

"It's not charity," he says. African scientists who want to take part in an EU-funded project must show what they can contribute. "It used to happen that science collaboration was just about collecting data and samples in Africa; now Africans play a more active and meaningful role," he adds.

In terms of science cooperation between Europe and Africa, South Africa is ahead of the rest of the continent, and the European Commission itself cites the country as an example to follow.

Out of the €178 million of EU funding that went to African participants under FP7, €37.3 million went to South Africa, far above Egypt (€16.1 million), Morocco, Tunisia and Kenya - the other top recipients of EU funding.

The South African government encourages its researchers to take part in FP7 projects that match its own national priorities. For example, the EU covers three-quarters of a project's eligible costs and, in South Africa, the government covers the remainder for South African organisations.

Du Toit adds that it is smart for the country to invest in international projects that the EU's expert panels have chosen for their scientific quality. "If they select a proposal, we can have confidence in the evaluation and monitoring process," he says.

Another reason behind South Africa's success under FP7 is that the government provides information and support to its scientists through so-called National Contact Points (contact people trained to provide specific information and guidance on EU funding opportunities) as well as funding for researchers to travel and form alliances with scientists in Europe, says Hogan.

The European Commission encourages other African countries to set up tailored support to help their scientists benefit from the EU funding. "You need a system in place where people who have a good understanding [of the programme] are responsible for disseminating the information," says du Toit.

### **Being proactive**

On a more personal level, Sanni and Asiru believe African researchers should proactively seek guidance and opportunities.

One starting point is the EU-funded CAAST-Net Plus network to advance research cooperation between Europe and Sub-Saharan Africa.

This provides online information and organises briefing events - info-days - describing its funding opportunities in various African cities. Scientists can also monitor online information themselves, join professional networks through online services such as LinkedIn and attend international conferences to seek potential partners, they suggest.

Du Toit urges researchers to search for the details of calls for proposals well before their official release, to provide extra time to forge partnerships and prepare projects.

Draft documents are generally available online, either through official or informal channels, before the final version is published.

The work programmes detailing the research topics that the Commission wants to fund under Horizon 2020 - to the tune of more than €15 billion over the first two years - released on 11 December already include [specific calls for food and agriculture research involving European and African researchers](#).

If you are keen to take part in an EU project, "tell all your European connections", du Toit recommends: some European scientists are unaware that organisations outside the EU are eligible for Horizon 2020 funding. Any legally established organisation performing research can take part, so universities, institutes, government departments, companies, NGOs and patient organisations are all eligible.

Horizon 2020 has been presented as a break from past research programmes, with a greater focus on innovation and a clear call for more industry participation.

But as far as African researchers are concerned, Horizon 2020 will not introduce any particular change compared with FP7, says Hogan, "aside from the European Commission's wish to see international cooperation continue to grow".

Hogan's role itself is testament to these intentions: his post was created last summer to develop science collaboration between the EU and Africa.

Last year, the European Commission updated its international cooperation strategy for research and innovation, which will apply to Horizon 2020. The plan will not change the rules for Africa.

"I'm very optimistic about Horizon 2020," says du Toit, adding that instead of doing "everything with everyone", the European Commission's cooperation efforts will be better focused on areas of mutual interest for both sides. "The whole programme is still open, but it's about making special efforts."

[Link to Horizon 2020 funding opportunities](#)