WHAT AVENUES FOR ENHANCED AFRICA-EU COLLABORATION ON RESEARCH AND INNOVATION?

Forging new competitive advantages through science, technology and innovation networks: new growth paths for Africa and Europe

History has shown that science, technology and innovation (STI) can be important drivers of economic growth and development. Due to resources and capacity constraints, not all African countries are able to fully reap the benefits of STI. Furthermore, European enterprises have a tendency to overlook the growing opportunities of emerging markets in Africa. But according to STI experts involved in the Africa-EU Partnership those challenges can be overcome through the implementation of appropriate joint STI strategies. The benefits of those collaborative initiatives would, moreover, be shared by African as well as European stakeholders, in line with the spirit of the Africa-EU Partnership.

Those key messages emanate from the first Africa-EU Partnership Lunch-time Seminar, held in Brussels on 27 November 2013 and supported by the European Commission. The seminar, dedicated to Science, Technology and Innovation was attended by more than 50 participants from 30 African and European participants. The multi-actor dialogue was opened by Elisabeth Lipiatou (DG Research & Innovation) and Mahama Ouedraogo (AU Commission) and moderated by Dr. Oblé Neya (Director General, Ministry of Research, Burkina Faso). Presentations were made by Prof. Dr. Knorringa from the Dutch ISS, LDE Research Center on Frugal Innovation and Technology Networks with Africa, Anneline Morgan from the Department of Science and Technology in South Africa and Prince Randy Koussou Alam-Sogan, chairman of Black Lion Rising Investments, a consulting firm specialised on investment opportunities in Africa.

By strengthening their cooperation to produce knowledge-based societies and economies, Africa and the EU recognise that:

- the development of science, technology and innovation, as well as the spreading of the digital era to all sections of society are key motors of socio-economic growth and sustainable development;

- competitiveness in the world economy rests increasingly on knowledge and application of modern technologies and;

- attainment of the MDGs requires a general effort to raise S&T capacities in Africa and enable widespread use of ICTs and related services.

JAES Action Plan 2010-2013
New STI Strategies to tap Emerging Market Segments

Science, Technology and Innovation are often believed to be out of reach of small and medium enterprises, and even more so, those which are located in developing countries. This is because, STI is conventionally associated with fundamental research and revolutionary discoveries. But in fact, STI is also about customizing/developing product and business models to the needs of specific market segments, and the pursuit of potential customers. The type of research required for such application does not necessarily imply huge investments in sophisticated laboratories and top-of-the-notch engineers. Rather, it demands a combination of design skills, good knowledge of potential users, good understanding of local business networks and an inclusive business model.

Case studies can be drawn from European and African research partnerships to show how the concept can work in reality. One of the best examples illustrating the application of this concept, also known as Frugal Technology and Innovation, is the low-cost solar technology for lighting streets in remote places. Other interesting applications include the design of thermometers adapted for rural health centres or weather stations that cost one tenth of the price of conventional stations. Those STI initiatives were made possible thanks to the contribution of people from multidisciplinary networks with expertise such as industrial design and anthropology and knowledge of local business networks.

This STI strategy is particularly relevant in order to serve emerging markets in many parts of Africa. In such markets, the high-growth areas are typically found in the medium and low end segments of society.

It appears that western companies typically position themselves in the higher end of the market irrespective of where they operate. However, it is clear to exploit growing market opportunities in Africa, European businesses need to make better use of frugal innovation.
Private Sector Participation is Key

The model underlying the STI strategy places the private sector at its core. The importance of the private sector in being one of the initiators of STI research as well as its conduit for effective diffusion was also highly underscored by the seminar’s experts and participants. In order to make it happen, mechanisms should be put in place to facilitate investment decisions in areas with potential growth. Some participants supported the idea of mapping requirements for targeted areas in order to unveil investment opportunities and raise capital in business ventures that would also have economic and social impact. Such exercise has to involve national and local authorities. The investment potential of African and European entrepreneurs should not be overlooked.

The Need for a Conducive Environment

STI is a key factor for all the thematic areas of the Africa-EU Partnership. As such it should be embedded in the area policy agenda. In the same vein, it was pointed out that countries needed to establish the necessary policy environment to promote STI in their own national development strategies. The key issues to be tackled in that regard are: insufficient prioritisation of STI in the budget; address brain drain/facilitate human resources mobility; address infrastructure deficits (including energy); address Intellectual Property Rights issues; improve awareness and communication and manage international partnerships.
Key emerging messages for strengthening the Africa-EU partnership

The extensive and open-minded discussions generated a host of ideas and suggestions which convey essentially the following points:

- Mainstream STI within the Africa-EU partnership: Technology and Innovation should be factored into other initiatives within the Africa-EU initiatives such as higher education and mobility (Pan-African University), infrastructure (i.e. PIDA), internet access (AfricaConnect) and agriculture (CAADP);
- Encourage governments to invest in R&D and in STI: the inter-continental partnership enables governments, private sector and research institutions to join forces and to identify specific interventions of mutual interests that can be taken forward at the national level;
- Enhance the role of the private sector: The private sector is essential to transform STI investments into concrete gains;
- Apply the principles of win-win: the Africa-EU partnership is based on the pursuit of common interests and mutual obligations. These principles should continue to be the basis for future STI initiatives;
- Act in areas of comparative advantage: African and European actors have complementary assets that should be better used to optimise joint STI initiatives.