



Stakeholders' Conference

Africa-Europe Cooperation in Science and Technology: Status and Way Forward

10th – 11th November 2009, Mombasa, Kenya

Summary Report and Recommendations

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Executive Summary

Addressing the role that science and technology (S&T) is expected to play in promoting socio-economic development and in providing solutions to present global challenges, a dialogue was convened allowing African and European stakeholders representing the scientific and science policy communities to exchange experiences and views on the current state of cooperation in S&T between Europe and Africa, and to draw conclusions for preparing a better ground for future S&T cooperation. The goal was to enhance bi-regional cooperation in S&T through an examination of the nature and the role of cooperation processes.

The main conclusions and recommendations resulting from the conference are proposed for consideration and up-take by on-going cooperation dialogues, such as that taking place around the 8th Partnership on Science, Information Society and Space of the Joint Africa-Europe Strategy, and are therefore addressed to all policy stakeholders in Africa and Europe involved in bi-regional cooperation in S&T and development at different levels, as well as to the science communities in both regions.

Major conclusions of the conference are:

1. S&T policy strategies should be advanced through a balanced partnership between policy stakeholders, the science community, the private sector and civil society. Efficient implementation measures and instruments should be foreseen to assure coherence and synergies across various policy sectors. S&T policy strategies should be embedded into wider national or regional development strategies.
2. Highlighting the achievements of implementing the Joint Africa-EU Strategy, scope was identified for further strengthening of joint activities. It was proposed that Member States of both regions more strongly engage in the planning and implementation process, to integrate the private sector and other relevant non-governmental stakeholders in its implementation and to advance (joint) funding schemes.
3. Value should be added to existing bi-regional dialogue formats by establishing a new high-level policy dialogue platform between EU and AU stakeholders, seeking systematic involvement of Member States of both regions. The goals would be to increase mutual understanding, to enhance joint policy learning and to further advance the transnational or bi-regional coordination of implementation measures.
4. Considering S&T a key prerequisite for knowledge-based societies, the need for further S&T capacity building was stressed. Emphasis was placed on developing electronic communication infrastructure, on regional S&T infrastructure, on training and career development of young scientists and women, and on the use of the scientific diaspora.
5. With reference to opportunities for cooperation arising within the European Framework Programme for Research, Technological Development and Demonstration, participants believed African participation could be increased. Particular attention should be given first to wider information dissemination, highlighting the value of establishing a network of African National Information/Contact Points, second to continue with dedicated "Calls for Cooperation with Africa" within the annual work programmes of the European Framework Programme, which address African research priorities, and third to leverage bilateral relationships of African and European countries to build research collaboration partnerships in the European Framework Programme.
6. Bilateral cooperation schemes should be strategically widened respecting joint responsibility and mutual benefit. Consideration should be given to creating a conducive legal framework and to establish joint funding instruments. Special attention should be given to the multilateral coordination of existing bilateral cooperation schemes in variable geometries of interested partner countries in order to pool activities and resources.
7. Greater awareness should be raised in both scientific and political communities of the essential synergy between investment in scientific research on the one hand, and sustainable economic growth and social welfare, on the other. Disseminating and utilizing research results for implementing national/regional development strategies need to be enforced. The conference (participants) recommended that the dialogue between policy makers, practitioners and researchers, as well as a wider public discussion about the impact of science for society, be strengthened.

Summary Report and Recommendations

Science and technology (S&T) cooperation between Europe and Africa at present enjoys unprecedented political attention. The Joint Africa-EU Strategy (JAES) agreed upon in Lisbon in December 2007 and the 8th Partnership on Science, Information Society and Space of the JAES action plan, form a political framework at the level of both Communities for an enhanced bi-regional cooperation in S&T that is built on growing African scientific capacities and on the recognition of the critical role played by S&T as an instrument for accelerating economic growth, fighting disease, and supporting socio-economic transformation. Moreover, bi-regional cooperation in science and technological development is considered a major asset for responding to the recent global challenges which include application of science to address the United Nations' Millennium Development Goals.

Against this background, a dialogue between African and European stakeholders representing the scientific and science policy communities is important, not only to develop a shared vision, but also to link S&T cooperation with political, economic and development cooperation. Thereby, the translation and up-take of research results is ensured to support economic growth, social development and the consideration of scientific evidence in other policy domains, as well as to make sure that policy instruments continue to meet the evolving needs of cooperation.

In order to foster bi-regional S&T partnership, a consortium representing national S&T authorities from 16 European and Sub-Saharan African countries was formed in 2008 to launch the "Network for the Coordination and Advancement of Sub-Saharan Africa-European Union Science & Technology Cooperation" (INCO-NET CAAST-Net). This initiative is funded within the 7th European Framework Programme for Research, Technological Development and Demonstration (FP7). One of the core activities is to provide a platform for bi-regional dialogue processes to advance bi-regional cooperation in S&T and development.

As a contribution to the bi-regional dialogue, a conference was convened in Mombasa, Kenya, to provide scientists and policy makers from both Africa and Europe with a forum to exchange experiences and views on the current state of cooperation in S&T, and to draw conclusions for preparing a better ground for future S&T cooperation, respecting principles such as joint ownership, shared responsibilities and mutual benefit.

Cooperation in S&T between Africa and Europe operates across a wide range of thematic disciplines and is supported by a variety of funding instruments. Following the goal of the conference, the nature and the role of cooperation processes were examined, with particular focus on three specific configurations: the European Union's Framework Programme for Research, Technological Development and Demonstration; implementation instruments for bilateral agreements; and lastly dedicated instruments of development cooperation.

The conclusions of the conference are:

Advancing S&T Policy Strategies and Implementation Measures

Assuring policy coherence

1. The distinguished **role of S&T and the benefits of a partnership** between Europe and Africa were underlined in view of present challenges facing both regions. Those challenges are addressed through national and continental development strategies like the Science and Technology Consolidated Plan of Action for Africa and the Lisbon Strategy for the European Union (EU), as well as through policy responses to global problems like climate change, water management, sustainable energy supply, food security and health.

Against this background the conference emphasised a need for the implementation and – in a second step – the advancement of the Joint Africa-EU Strategy and its 8th Partnership on Science, Information Society and Space to be considered by the policy makers in Europe and Africa as a significant framework for increasing the impact and the efficiency of each others' policy actions in areas of common interest.

2. The participants share the view that **consolidated national S&T policy frameworks**, embracing national strategies and priority setting, developed by efficient, accountable policy institutions (such as national Science Ministries and their implementing agencies), having at their disposal the appropriate implementation instruments, are of utmost importance. Here, efforts of governments and parliaments in Europe and Africa in building such frameworks were acknowledged. The participants emphasised the need for these policy frameworks to be developed in a balanced partnership between policy stakeholders, science community, private sector and civil society.

Such policy frameworks should be embedded into **national (or regional) development strategies, promoting policy coherency** across various sectors and encouraging policy instruments to mobilizing intellectual capacities for contributing to economic growth and societal demands.

There was a joint understanding that the implementation of national policy frameworks should be built around national resources and comparative advantages first, before considering benefits from, as well as contributions to the regional cooperation. In this regard, it was considered of particular importance that **national investments in the S&T sector be accelerated**, for example through national competitive funding programmes which are implemented according to international standards in a transparent and efficient manner based on

solid peer review processes. The value of leveraging investment in S&T from economic and development cooperation instruments such as the Structural Funds (in case of the EU) as well as of Development Funds (in case of African Union - AU) for budget support of the S&T sector was also highlighted.

In order to increase acceptance for national investments in the S&T sector, dedicated measures are recommended in order to better **communicate the role of science for the society** and the benefits to the society from national investments in the S&T system at two levels: among the policy makers and to the civil societies.

Emphasis was placed on the **role of national parliaments** in supporting the development of S&T policies and to the allocation of appropriate budget. With respect to Africa, the role of the Pan-African Parliament as well as of Parliamentary Committees on Science and Technology, which exist in some African countries, were highlighted.

National S&T strategies should embrace **regional and international cooperation**. Addressing issues of joint regional concern and aiming at pooling infrastructures and resources, regional cooperation approaches should be given particular importance. This would also increase the attractiveness of the regional science community to international partners and investors.

In order to further advance policy-making and develop common understanding, joint policy learning and dedicated measures of **capacity building in S&T policy development and implementation** in the context of the bi-regional or bilateral cooperation between the Member States of EU and AU might be foreseen. Ongoing joint initiatives such as those between the AU and UNESCO or UNECA need to be complemented or strengthened. In terms of instruments apart from joint policy learning, international staff exchange schemes and dedicated twinning concepts between national Science Ministries in Europe and Africa are highly recommended.

The Joint Africa-EU Strategy

Enforcing the implementation

3. The achievements of the first two years of the **Joint Africa-EU Strategy** and its 8th Partnership on Science, Information Society and Space were highlighted. Particular reference was made to the “Book of Lighthouse Projects” and two early deliverables: The African Research Grants, and the Water Management and Food Security research project. Reference was also made to the African Science Award as a dedicated contribution to the popularization of Science in Africa. Distinct joint activities in capacity building in the African innovation sector, addressing public or private institutions involved in the utilization of research such as applied research or technology transfer centres and innovative small companies were highlighted. It was also acknowledged that recently the EU Commission launched a dedicated “Seventh Framework Programme Call for Africa” covering a range of themes for S&T cooperation that contribute also to one of the two early deliverables. For the time being the major financing instruments for the 8th Partnership are the European Development Fund and the EU Framework Programme for Research, Technological Development and Demonstration.

However there seems to be room for advancing the implementation of this partnership in a second

phase starting 2011 following the present mid-term review. In this respect the conference made the following recommendations:

- sharpen the strategic focus through addressing common interest by building on each others strengths and comparative advantages;
- closely involve the Member States of both regions in the planning and implementation process aiming at real joint ownership;
- develop adequate schemes to integrate the private sector and other relevant non-governmental stakeholders in its implementation, and
- advance (joint) funding schemes based on clear objectives and lean but effective management structures and getting national or bilateral programmes of the Member States involved.



A New Format for a Policy Dialogue

Raising common understanding and enabling joint agenda setting

4. There was unanimous agreement on the potential of a new **high-level policy dialogue** between EU and AU stakeholders, seeking systematic involvement of Member States of both regions. The ultimate goals would be to increase mutual understanding, to enhance joint policy learning and to further advance the trans-national or bi-regional coordination of implementation measures through joint action plans. Topics of such a policy dialogue could include:

- exchange on policy objectives and national policy instruments and the respective development of shared visions;
- consensus building on an optimum framework for S&T cooperation covering, among others, issues such as the management of intellectual property and ethical issues;
- human capacity development and brain circulation, and

- cross-sector policy coordination in particular between S&T and national/regional development policies.

The rich variety of established policy dialogues both at the bilateral level between Member States, and at the Community level (EU/AU) is acknowledged. As a matter of principle, existing formats will complement the new scheme with duplications avoided.

The participation of the Regional Economic Communities in such dialogue needs to be explored in order to address dedicated regional interest most efficiently.

Following the example of other bi-regional dialogues, the institutional actors of a new EU-AU policy dialogue platform could make use of CAAST-Net, an EU-Africa INCO-NET instrument with capacity to deliver both analytical input and organisational services.

Raising S&T Potential

Increasing the impact

5. Particular attention should be given to an adequate **electronic communication infrastructure** in order to overcome the digital divide and to allow a full virtual integration of universities, research centres and other S&T institutions into regional and global scientific networks. Since this is considered a key prerequisite, it should be accorded the highest political attention.
6. With respect to S&T infrastructure, the value of **regional S&T infrastructure** was highlighted in order to increase the impact and the efficiency of national or international investments.
7. In order to increase the impact of S&T cooperation and to contribute to strengthening the science base, **training** elements including S&T management skills and scenarios for **career development of young scientists** should be built into cooperation measures. It was also recommended by the conference that focus be placed on **networks** of universities, non-university S&T institutions and the private sector in collaborative projects. In that respect, existing co-operations might usefully be expanded to include other appropriate partners in both regions.
8. Best **use** should be made **of the scientific diaspora**. On the one hand, schemes might be developed to re-integrate experienced scientists who have left their home country. On the other hand, these scientists should be considered a rich source for international networking and enhanced cooperation with key institutions abroad. National databases of scientists abroad are considered an essential prerequisite.



The EU RTD Framework Programme

Increasing African participation

9. The conference highlighted the opportunities for both regions from the participation of African institutions in the EU Framework Programme: sharing knowledge and resources and allowing networking and partnerships among key institutions.
10. However, the conference drew attention to several concerns which, for some, may represent challenges to potential participation by African researchers, such as:
 - lack of timely information on calls for proposals and application procedures;
 - limited knowledge about services of National Information or Contact Points;
 - limitations in networking with potential European partners;
 - limited national funding to complement the EC funding;
 - non-eligibility of funding for meeting basic capacity-building needs, such as equipment, outside the specific scientific objectives of the project;

- complexity of EC instruments as well as their administrative rules and regulations;
- delays by European Commission in payments of successive tranches within an approved project, which are severely punitive for those institutions with insufficient core resources.

Addressing those challenges it was recommended that

- effective information dissemination and consultancy are improved through establishing efficient information points in S&T institutions or through formal nomination of National Information/Contact Points by African governments;
- dedicated contributions of the AU Commission are foreseen in respect of information dissemination;
- Information Days in Africa or capacity building activities for African Information/Contact Points are better coordinated and supported within a variety of project funded by the EU Commission,

thereby increasing the transparency of those activities;

- regular and dedicated “Calls for Cooperation with Africa” are foreseen within the annual work programmes of the EU RTD Framework Programme;
- attention is drawn to African research priorities and they be taken into account in the definition of the calls;
- the possibility of establishing an African “proposal incubator” is explored, where promising concept notes are offered targeted support;
- bilateral relationships between African and European countries are leveraged to build research collaboration partnerships for joint participation in the EU RTD Framework Programme.



Coordinating Efforts in Variable Geometries

Enhancing bilateral activities between European and African countries

11. It was unanimously agreed that bilateral cooperation is an important and effective framework for wider S&T cooperation between Europe and Africa. In that respect, it was recommended that policy stakeholders should strategically widen bilateral cooperation schemes respecting joint responsibility and mutual benefit.
12. In order to foster bilateral ties among individual European and African countries it was suggested that Member States work together to identify and develop bilateral cooperation strategies. In developing cooperation strategies the conference considered the following:
 - the establishment of joint funding schemes
 - the creation of a conducive legal framework for S&T cooperation through bilateral agreements regulating issues like provision of visas, managing intellectual property, customs' fees for scientific equipment, transfer of scientific material, as well as access to infrastructures and biological and geological research sites.
 - according special attention to the coordination of existing bilateral cooperation schemes in variable geometries of interested partner countries in order to increase their impact through pooling activities and resources.

Utilizing the Potential of S&T

Implementing national development agendas

13. Greater awareness should be raised in both the scientific and political communities of the essential synergy between investment in scientific research on the one hand, and sustainable economic growth and social welfare, on the other. Here, emphasis is placed on investments in science and technology with its main purpose of addressing national/regional development agendas through appropriate S&T policy instruments.

It is proposed to programme owners in both Africa and Europe (including national funding institutions as well as the European and African Union Commissions) that developing this awareness in the scientific community by setting incentives for enhanced **dissemination as integral part of research project proposals** can help ensure that funding decisions are based not only on scientific merit, but also on their potential application, and the adequacy of their proposed measures to ensure that these applications are achieved.

With respect to the broader policy-making community responsible for national development, including sector policies such as health, energy, and the environment, the need for an **enhanced dialogue between policy makers, practitioners and researchers** was underlined. The aim should be to disseminate the causal link between investment in research and achieving broader social and economic goals, including the implementation of the Millennium Development Goals. This dialogue among the scientific and policy making communities can be enhanced by various means including:

- enhancing the level of discussion about the impact of science for society in national parliaments among others through boosting the activities of science and technologies committees and raising the science communication capacities of parliamentary researchers and of scientists to communicate to politicians.
 - increasing the stakeholder involvement, including the above-mentioned policy makers as well as implementing institutions from the public and private sector (users), in the design of targeted research programmes, in order to ensure that these respond not only to scientific priorities but also to social and economic needs as perceived by the intended beneficiaries of such programmes.
14. The need for an enhanced and effective **communication of the role of S&T for implementing national development agendas** was highlighted. It was recommended that:

- “story telling” is encouraged to spread information about successful projects with implications for development issues, and using this to generate support for further investment. In this regard, the connection between higher education and individual social advancement has to be stressed in order to encourage a scientific career.
- the role of “infomediaries” as organisations committed to acting as channels of communication between the research and policymaking communities is enhanced and their capacities increased.
- steps are taken by programme owners on national and regional level in Africa and Europe to ensure that the results of project to be funded are widely publicised in particular through requiring researchers to take their communication responsibilities seriously, and through encouraging the use of ICTs to disseminate research information.

Outlook

It was agreed that the conclusions of this Stakeholders’ Conference should be disseminated as widely as possible in order to allow its utilization by all interested parties.

CAAST-Net is committed to further stakeholders’ conferences on both a bi-regional (Africa-Europe) level and on a sub-regional level (between Europe and Africa’s regional economic communities) in order to provide forums for an open dialogue between interested stakeholders’ communities in Europe and Africa. CAAST-Net welcomes suggestions for topics of discussion which would be expected to have an impact on enhancing the bi-regional S&T cooperation. Suggestions can be addressed to the project consortium. Please contact:

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About CAAST-Net:

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Against the background of a global consensus that capacity in science and technology is an essential prerequisite to economic competitiveness, sustainable development and poverty reduction, CAAST-Net has been developed as a high-level platform to advance international cooperation between Europe and Africa for mutual benefit. Enhancing the policy dialogue among African and European stakeholders is one strategic activity of CAAST-Net.

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