

Advisory Group on R&I for Africa-Europe Cooperation



THE AFRICA-EU PARTNERSHIP
LE PARTENARIAT AFRIQUE-UE



Policy recommendations presentation, 27 October 2021

Outcome report

The **Advisory Group on R&I for Africa-Europe Cooperation** held their **final event** to present their policy recommendations on how to best mainstream R&I into African-European cooperation on 27 October 2021. The event took place online and attracted in total more than 140 participants. With 35% of participants originating from the African continent, 60% from the European and 5% from other regions of the world good regional representation was achieved. Great balance was as well achieved with regard to the institutional background of participants ranging from private to public and non-profit organisations, academia as well as different services of the European Commission. Under the moderation on Stefan Haenen, Prospex the event facilitated an informative and essential presentation of the policy papers by the Advisory Group. The papers showcase recommendations on how to improve R&I strategies including future demands of science, technology and innovation to the AU-EU Strategy, appropriate instruments to be used and an improved dialogue between AU and EU policy makers in the context of political priorities and cooperation in the fields of health, R&I capacities, technology and innovation as well as green transition.

The meetings presentation is available [here](#).

Background AG

Africa's importance for the EU's strategic external relations is increasing year by year. One of the most pressing and urgent questions in this regard is how to make Research and Innovation (R&I) a driver for sustainable development in African-European cooperation.

In May 2021 DG Research and Innovation and DG International Partnerships officially launched an Advisory Group (AG) on R&I for Africa-Europe Cooperation. The AG consists of six high-level experts and six personal research assistants coming in equal shares from Africa and Europe. They assist the European Commission in finding answers on how to best mainstream and boost R&I in the cooperation between the two continents.

The experts cover a wide range of cross-cutting themes from capacity building to innovation uptake, data monitoring and policy advice within the four thematic pillars of:

1. Africa-Europe stepped up cooperation in R&I for empowered **health systems**;
2. Strengthening **R&I capacities** in Africa focusing on both regional and bilateral cooperation;
3. **Innovation and technology** revolution;
4. **Green Transition** in Africa.

The group worked until October 2021 and presented their four evidence-based policy papers showcasing recommendations on how to improve R&I strategies as part of a positive agenda between Africa and Europe at their final event on 27 October 2021. The results include an

improved understanding of future demands of science, technology and innovation to the AU-EU Strategy, appropriate instruments to be used and an improved dialogue between AU and EU policy makers in the context of political priorities. The final delivery is a joint conclusion paper including validated policy recommendation from the four studies. The documents are foreseen to be made available to the public in December 2021. Stakeholders will receive a separate e-mail, informing on the publication.

The process of the recommendation-elaboration included a series of events with more than 500 stakeholders to enable a lively exchange between African and European policy makers, relevant stakeholders, actors from the four priority areas and the AG members.

Opening

The event was opened by **Signe Ratso**, Deputy Director General Research and Innovation, European Commission, and **Mahama Ouedraogo**, Director of the Department of Education, Science, Technology & Innovation, African Union Commission. Ratso took a retrospective view, highlighting that the AG had been established by European Commission DG RTD and DG INTPA as part of their 2020 Memorandum of Understanding to strengthen synergies between the DG's and to strengthen R&I in the cooperation with Africa. She further emphasised the importance of the recommendations from the policy papers with regard to the latest strategic developments within the Commission, incl. Europe's global approach to cooperation in R&I and the EU's Neighbourhood, Development and International Cooperation Instrument. Ouedraogo thanked the Commission for the initiative and the growing cooperation in R&I between the two continents. Furthermore, both Ratso and Ouedraogo emphasised the essential role of R&I in jointly managing the health crisis as well as for the economic recovery process. Furthermore, they seized the chance to express their gratitude towards the AG members and emphasised that the outcomes of their work will be a new source of inspiration, which should inform the coming AU-EU high-level events.

Introduction to R&I for Africa-Europe cooperation

Nienke Buisman, Head of unit Asia, Middle East and External relations, DG RTD, European Commission was interviewed by Stefan Haenen about the latest achievements and opportunities of R&I in the Africa-Europe cooperation. She explained that the four pillars were jointly agreed on during extensive discussions during the HLPD plenary in June 2020 and the first AU-EU R&I Ministers' meeting in July 2020. The pillars also reflect already existing policies, joint objectives and experiences of partnerships. The AG was subsequently set up to guide the Commission on how best to mainstream and boost R&I cooperation in the fields of health systems, R&I capacities, innovation and technology, and the green transition. The results of the AG's work will assist AU and EU policymakers in defining future priorities, covering both directions and implementations.

The achievements of the AG's work are seen in their excellent analysis which will assist the Commission in the future cooperation with Africa. Moreover, not only are the papers a result of the expertise of the AG but also the feedback the members obtained from over 500 African and European policymakers and other stakeholders in a participative elaboration process.

The long-term vision for Africa-Europe cooperation in R&I by 2030 emphasises the need for a balanced, respectful, transparent, visible and efficient partnership that follows the principles of good governance and high ethical standards. Thus, the partnership needs to move from research

and development to research and innovation. Furthermore, inclusiveness and transdisciplinary research must be emphasised as well as the need for increasing South-South collaborations.

With regard to the impact of the studies, Buisman revealed that already in the short-term the information from recommendations will feed into the AU-EU innovation-agenda which is currently jointly agreed upon between both Commission's Directorates General RTD and INTPA. In the long-term the very clear and concrete recommendations from the paper should also guide future actions, calls and partnerships.

Visionary keynote speech

Professor **Tumani Corrah**, founder and executive chair of the Africa Research Excellence Fund provided an inspiring speech. He emphasised the continuous nurturing of the long-standing relationship between Africa and the EU. He stressed that R&I capacities and a green transition are very much needed. He described that the state of public health in Africa derives from a history of neglect and dependency. It is under-resourced and heavily dependent on external resources. R&I institutions in Africa are weak and funds for R&I are demanding since they provide platforms for donor and recipient relationships. Corrah sees an immense potential for a green transition in Africa since the continent is blessed with life. Nevertheless, fully funded post-doctoral programmes as well as fellowships are needed since there is only limited funding for these programmes. Moreover, there has been little progress been made in publications even though massive improvements have been happening in regards to graduations. Africa as a continent holds raw materials and a strong and young workforce, which must be enhanced. Institutional infrastructure, innovation, good leadership as well as equal partnerships are much needed. There is a strong need to develop the next generation of professionals to contribute to the world's development. In all of this the African-European cooperation plays a significant role.

Recommendations from the Advisory Group on R&I

The experts of the AG provided a brief presentation of their recommendations on how to make R&I a driver for sustainable development. The presentations were divided into the four pillars: empowered health systems, strengthened R&I capacities in Africa, innovation and technology revolution and green transition in Africa.

Health

Marleen Temmerman presented the recommendations on how to make R&I a driver for empowered health systems. With regard to thematic health priorities a strong resilient public health system needs to be enforced by vertical programmes depending on the needs of the countries. Financings and effective cooperation are key priorities.

Based on these findings, the following **policy recommendations** are made by the group for how to best mainstream health into African-European R&I collaboration.

- **Capacity building in R&I health and health systems:** not only do research institutions require strengthening and upscaling, but also the users of knowledge and evidence such as health policy makers, government officials and decision makers who manage, analyse and use data to better respond to health issues and inform policy & decision making.

- **Ethics and regulation framework:** create adequate and harmonised regulatory and ethical systems in all fields related to health, in particular health research and clinical trials in Africa, to further promote practices that respect international guidelines and protect human rights and dignity.
- **Applying solutions in practice in health policies** (the 'know-do gap') : While academics have produced solutions to many health challenges, these need to be translated into policies, laws, guidelines and practices.
- Expand and **empower health R&I networks**, based on equity, and agendas driven by local, national and regional needs. Co-creation is important, not only at the implementation level but at the design development phase. Allow African institutions to lead large programmes, based on merit and capacity.
- Encourage the creation of more **EDCTP-modelled collaborations** in other priority areas of health cooperation that complement and maximise the impacts of the EDCTP, thus creating a more sustainable and enabling environment for health R&I in Africa.
- Strengthen and **promote collaboration of national ethics committees and national regulatory authorities** to facilitate long-term development plans towards regional harmonisation goals.
- **Support the participation of civil society and patients** in the design, implementation, monitoring and evaluation of health R&I policies, for example in the AU-EU High-Level Policy Dialogue (HLPD) on Science, Technology and Innovation and other relevant platforms.
- **Invest in knowledge synthesis and translation and in Science and Health diplomacy.**
- **Blended financing mechanisms** with domestic funding (1% of GDP) and external funding, applying simplified external funding instruments, are required.
- **High-level coordination** between DG RTD and DG INTPA, the AU, delegations in member states and other global partners, has the potential to improve the impact of joint strategies and programmes.

Strengthened R&I capacities

Anneline Morgan showcased the main findings from the R&I capacity pillar. She highlighted that both funding instruments and policy platforms of the AU-EU in R&I cooperation have only limited awareness, making an awareness campaign necessary. Simultaneously, representation and diversity of sectors in the AU-R&I cooperation and partnership should be enforced. Further found obstacles include: lack of R&D investment, and poor capacity of translating research into commercial outcomes. Policy steps are required to improve the environment for higher levels of business sector R&D, education, infrastructure, and ICTs, as well as closer alignment between research agendas and socio-economic challenges.

Responding to the key policy frameworks and strategies by AU and EU and the findings of the study, the R&I capacities pillar proposed the following **policy recommendations**:

- **Strengthen R&I policy and governance** by designing programmes to strengthen the policy capacities of science academies in Africa as independent think tanks and knowledge institutions. Improve the data-collection on R&I through capacity building programmes and strengthening the capacities of national statistical offices in member states. Support existing

programmes coordinated by AUDA-NEPAD on R&I indicators and strengthen the human and institutional capacities of the AU observatory on STI. Encourage policy learning through policy dialogues and think-tanks.

- **Investment in human and institutional capacities** by setting up programmes to support Africa intra-mobility schemes drawing from lessons learned from the implementation of programmes such as MSCA. Advocate for inclusivity in STEM by investing in programmes that target gender, people living with disabilities. Invest in programmes targeting developing skills within the context of 4IR while establishing key networks with and R&I management capacities at HEI and RTOs. Support emerging researchers, incl. the training of the next generation of science communicators for the purpose of disseminating research results. Design capacity building programmes to strengthen, research ethics in the public sector, HEI, and RTO.
- **Strengthen innovation ecosystems, technology transfer and intellectual property (IP)**, informal innovation and frugal innovations by designing capacity building programmes for SMEs in areas of technology transfer and IP-rights. Design incubation support programmes in key priority industrial value chains to boost small businesses and enterprises.
- **Investment in R&I infrastructures** to provide tools for researchers in advancing science.
- **Promotion of open and free access to scientific data and knowledge** to create a level playing field in North-South and South-South R&I cooperation.
- **Investment and promotion of digital transformation and emerging technologies** to advance scientific excellence and competitiveness and support inclusive development.
- Increased **investment in R&I funding** by strengthening existing funding instruments but also establishing new and flexible funding programmes at all levels to diversify funding partners. An Africa EST fund should be established with pledges made by some of the member states
- **Foster international cooperation and partnerships in R&I** by strengthening existing partnerships/platforms, creating synergies with other bi-regional and multilateral partnerships and advancing inclusive and equal participation of women, youth and disadvantaged groups.
- **Strengthen governance mechanisms** of the partnership and create synergies with existing policy structures at AU and EU Commissions.

Innovation & technology revolution

Bosun Tijani and Samir Abdelkrim jointly presented the propositions from the innovation and technology pillar on the role of innovation and technology as contributors to socioeconomic development. Through four research questions: (1) What is driving technological innovation in Africa? (2) What is the impact of EU innovation support programmes in Africa? (3) What are the origins of the digital revolution within African societies, best-practice identification towards a competitive innovation ecosystem? (4) What is the capacity of technological ecosystems and their communities to initiate collective actions and structured dynamics? the group finds that the dynamics of technological innovation vary by **economic sector**.

- For **agriculture** the emergence of a digital innovation ecosystem on the African continent is found. Even though continuous investment in public sector funding is seen, the actual innovation in agriculture is currently funded by the private sector. Thus, the following is need in the future: know-how and technology application, thematic networks, co-investment in

start-ups and enhanced capacities for proactive policy development. Collaborative research in areas such as remote sensing applications should be supported, alongside acceleration programs for start-ups in technology areas such as artificial intelligence. Space and satellite technology should be transferred from Europe to Africa and talent development programs for early-stage researchers in agritech be considered. Capacity-building programs for public officials and harmonisation of agricultural policies under the African Continental Free Trade Agreement (AfCFTA) could help.

- With regard to **financial services** it was shown that a digital innovation system is emerging on the African continent, which led to a surge in financial services innovation., advancement in payment technologies, growth of e-commerce market and digital economy as well as virtual currency as alternative mean of exchange. This leads to an urgent need to accelerate proactive policy formulation to bridge the gap between innovation and policy, an advisory group on virtual money should be set up. Knowledge should be exchanged on the role of big data and machine learning. Financial literacy and capacity-building programs for policy makers should be considered. Payment interoperability for cross-border trade in the AfCFTA should be supported.
- In **healthcare**, it is shown that a disconnect between traditional actors and the mostly private actors from the emerging innovation ecosystem. To drive better outcomes from investments in the health sector, there is an urgent need to strengthen the capacities of governments. Furthermore, applied collaborative research programs should be supported. Knowledge transfer on telemedicine, smart devices and informatics could also be facilitated. Scholarships for early-stage researchers in this area could be considered.
- Looking at **education** it was shown, that governments and key stakeholders are partnering with technology start-ups to address the education crisis. To accelerate the growth of economies across Africa, investment in education must capture the opportunities of technology to achieve better learning outcomes. AU and EU should jointly drive inclusive through technology by linking academics, EdTech start-ups and investors for mutual benefit.

Green transition

Daniel Nahon highlighted that the green transition in Africa is key for fulfilling the 2063 Agenda, and helping the world meet the SDGs set out in the UN 2030 Agenda. The green transition will help address the African and European continent's most pressing societal challenges: water security, food security, energy security, climate change, loss of biodiversity and ecosystem services delivery. These challenges are global, complex and interrelated, which makes them difficult to solve.

According to the **research-findings** of the green transition study and derived from dialogue with African and European stakeholders, Nahon said that the root cause of societal challenges and the main obstacle to the green transition in Africa is the lack of **healthy soil**. African economies and lives are heavily dependent on **agriculture**, especially in the lower income countries. Healthy soils would provide a range of ecosystem services that can help address many of their challenges. Developing sustainable, profitable and inclusive agriculture that ensures healthy soils, is therefore central to resolving societal challenges, transforming **food systems** and supporting the green transition in Africa. Developing this type of agriculture would require an in-depth knowledge of how to deal with the rather contrasting edaphoclimatic conditions in Africa, especially the largest pool of old and naturally poor soils found all around sub-Sahara Africa.

Access to **clean and renewable energy** is also important for sustainable agriculture, which consumes more energy than industry. Sustainable agriculture must go hand-in-hand with African urbanisation, fuelling Africa's **economic growth** and redesigning **greener and smarter cities**, generating businesses from agricultural products, solving the housing crisis, reducing greenhouse gas emissions, improving people's health and boosting the circular economy in cities.

To develop the solution-oriented knowledge needed for Africa's green transition, the paper of the green transition pillar proposes several interlinking **solutions**. One of the most important aspects is **capacity building**, both in terms of people and institutions. To cover this, the **300 Programme and the Lighthouses initiative** is proposed to be carried out by African and European institutions working in close partnership. With their knowledge and expertise, the Lighthouses, dispersed across the whole continent, will literally shed continuous light across Africa. This capacity-building exercise could form the foundation for further programmes, training for farmers on the technical aspects of sustainable cropping systems, and initiatives related to entrepreneurship.

For the green transition to be successful and support the sustainable development of Africa, all activities related to the AU-EU partnership on R&I must comply with the principles of **good governance and high ethical standards**. Good governance will ensure the overall direction, effectiveness, supervision and accountability of the partnership, while a strong sense of ethics will ensure that the science we are producing will help, not threaten, our society. Finally, to ensure a sustainable economic development that respects people and nature, Nahon highlighted that a fair value must be given to our common natural goods - soil, water, forest and air.

Advisory Group panel

The AG panel consisted of all six AG experts; **Marleen Temmerman** and **Sonia Abdelhak** for the health pillar, **Anneline Morgan** for the R&I capacity pillar, **Samir Abdelkrim** and **Bosun Tijani** for the innovation & technology pillar and **Daniel Nahon** for the green transition pillar. During the panel discussion the group took up questions from participants and explained for example the challenging aspects of writing the paper given the limited timeframe and scope as well as the lack and the limited accessibility of data. Moreover, they highlighted that the development of the paper has been a constant learning opportunity for co-creation so that the lessons learned from this work could be applied for future and further collaborations. It was also discussed that innovation is viewed differently and should not only be measured from an academic point of view. Furthermore, it was stressed that R&I needs to be transdisciplinary and cross-cutting. A huge emphasis was also laid on the aspect of inclusiveness. Thus, smaller stakeholders should likewise be brought into research. Moreover, funds should invest in local start-ups and create business opportunities for the youth. Especially emphasised was equity in relationships/partnerships and that Europe should focus more on co-leadership.

Key messages from the experts to AU-EU leaders include:

- Create synergies between disciplines, continents, levels etc. and build upon already existing partnerships/programmes.
- Move beyond concepts into concrete actions.
- Include a wide range of stakeholders from Africa with the emphasis on inclusiveness. Include weaker countries to avoid sharpening inequality.
- Africa's strength lies within its youth.
- African representation, co-leadership and cooperation between Africa and the EU is needed.

- There is a need to come together in the technological race.

Closing remarks and next steps

The successful and well-attended event was closed by **Marjeta Jager**, Deputy Director-General for International Partnerships, European Commission. She acknowledged the excellent work of everyone involved, especially the AG members. She stressed the importance of R&I for shared challenges. The pandemic has shown that a more resilient society must be forged and that the exchange of knowledge and resources is crucial. Moreover, it is essential to build a new generation of cooperation and partnerships. Thus, she assured the EU will support development efforts and include science and technology in the cooperation. She stressed the need of access to vaccines and that local research as well as innovation needs to be stimulated. The identification of synergies between different financing instruments is likewise as crucial. The recommendations developed by the AG will enrich future actions. She also emphasised that the challenge now is to create a concrete follow up to these recommendations. The Innovation Agenda that DG RTD and DG INTPA are jointly preparing in view of the "AU-EU Summit" represents a significant opportunity in this regard.