



THE AFRICA-EU PARTNERSHIP
LE PARTENARIAT AFRIQUE-UE



Official Launch of the Advisory Group on R&I for Africa-Europe Cooperation

4 May 2021, 10:00 – 12:30 CEST

Minutes

Agenda

| Time | Programme Point |
|---------------|--|
| 10:00 – 10:30 | <p>Official Welcome & Launch of the AG Moderation: Maria Cristina Russo, EC RTD</p> <p>Opening statements</p> <ul style="list-style-type: none"> - Jean-Eric Paquet, EC, RTD - Marjeta Jager, EC, INTPA |
| 10:30 – 11:50 | <p>State of Play, future challenges and exchange <i>Experts set the scene and present first key messages. Each followed by Q/A.</i></p> <ol style="list-style-type: none"> 1. Africa-Europe stepped up cooperation in R&I for empowered public health systems 2. How to strengthen R&I capacities in Africa focusing on both regional and bilateral cooperation 3. Innovation & technology revolution 4. Green Transition in Africa |
| 11:50 – 11:55 | <p>Wrap up of discussions</p> <ul style="list-style-type: none"> - Marleen Temmerman, AG expert |
| 11:55 – 12:25 | <p>Closing remarks</p> <ul style="list-style-type: none"> - Birgitte Markussen, Head of the EU to the AU, Ambassador - Carla Montesi, EC, INTPA |
| 12:25 – 12:30 | <p>Conclusion and group foto</p> <ul style="list-style-type: none"> - Maria Cristina Russo, EC, RTD |

Summary

The objective of the official launch was to introduce the framework, the topics and the state of play of the Advisory Group on R&I for Africa-Europe Cooperation to a broader community of African and European R&I experts, practitioners and policy makers. The event attracted more than 80 participants and offered the opportunity to exchange on the topics of:

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

The outcome of the AG's work will be an important orientation for the future AU-EU R&I cooperation on how to make R&I a driver for sustainable development. According to the final remarks of the event's moderator, Maria Cristina Russo, the task will be to transfer the AG's recommendations into the different instruments and create synergies amongst different policies in order to improve R&I as a mainstream of sustainable and equal partnership between Africa and Europe.

Welcome

Maria Cristina Russo, Director, DG RTD, Global Approach & International Partnerships welcomed all participants, in particular all advisory group (AG) experts, Jean-Eric Paquet and Marjeta Jager. She stressed the importance of having research and innovation (R&I) at the forefront of the renewed partnership with Africa. The aim of the AG is thus to provide advice and tools needed to implement a R&I driven approach in the ECs policies and programmes with Africa, such as the comprehensive strategy with Africa, Horizon Europe (HE) and EU's Global Approach to Research and Innovation.

Opening statements

Jean-Eric Paquet, Director-General, DG RTD expressed his pleasure to jointly open the official launch with Marjeta Jager. He further warmly welcomed Ambassador Birgitte Markussen and the delegation to the African Union (AU) and all AU colleagues. He is looking forward to the output of the AG, their policy papers, their recommendations and concrete operational measures on how to best work together in R&I between the two continents. The aim is to identify capacity building mechanisms and solutions for knowledge-based economies equipping themselves with technologies, knowledge and societal innovation solutions for sustainable development and Green transformation, stating that knowledge is the basis for social and economic development. The work can take stock of the European Green Deal with its strong mobilisation for a systemic effort to identify knowledge gaps and solutions. Horizon Europe flags more than thirty research topics as relevant for the cooperation between the two continents, dedicating a significant budget for this. Taking everything into account the AG's short-term and medium-term recommendations will help African actors make good use of Horizon Europe.

Marjeta Jager, Deputy Director-General for International Cooperation and Development, DG INTPA welcomed the participants and thanked the EC hierarchy for the organisation of the event. She excused Director-General Koen Doens, who unfortunately could not be present at the launch. He however strongly endorses the work of the AG and is looking forward to its results. She that DG INTPA considers the African-European cooperation a chance to build a stronger relationship based on common values and interests which will help to overcome the pandemic, and to foster green transition, global recovery, transformation and training. Together, the AU and the EU will organise the future of science. She highlighted the importance of bridging the digital gap. Her expectation is that the AG will elaborate a positive agenda on the four topics and make a difference in striving the achievement of the Sustainable Development Goals (SDGs). The results will be taken forward to the next AU-EU Summit.

State of Play, future challenges and exchange

The opening statements were followed by the presentation of the four sub-topic pillars with subsequent discussion.

Africa-Europe stepped up cooperation in R&I for empowered public health systems

Maria Cristina Russo set the scene by highlighting the importance of the health topic to the European Commission (EC). She recalled that the EC was among the first to launch COVID-19 actions (Coronavirus Global Response), including immediate actions in R&I such as EDCTP emergency calls

and development and deployment of vaccines. However, the AG does not only take stock, but most importantly look forward and advise on future challenges in the topic of health systems and establish a sound evidence base regarding the role of R&I in health systems.

The AG high-level experts are [Marleen Temmerman](#) and [Sonia Abdelhak](#). They are assisted by their personal research assistants [Nellah Ndaka](#) and [Yosr Hamdi](#).

Challenges

- Challenges related to health systems (HS): Inequity exists in the access to health care around the globe and particularly in low- and middle-income countries (LMICs). There has been substantial focus on improving access to health services by supporting healthcare systems to ensure Universal Health Coverage. Still, health systems need strengthening and transformation, as they are often fragile and not able to face challenges such as the recent epidemics.
- Challenges related to health policy and systems research (HSPR): During the past two decades, the prominence of HPSR has grown and shifted from disease or service-specific ways of health services in LMICs towards a more integrated and systems-focused perspective, embodied both in UHC and in the SDGs. While substantial progress has been made, there are a number of outstanding challenges, as well as opportunities, going forward. Increasingly, the need is acknowledged for rigorous comparative analyses that help understand which interventions work best in specific contexts and that fuel shared learning across countries.
- Challenges related to the current global environment with global epidemics demanding strong health systems. Emergency preparedness is considered as the key to control emerging public health challenges at both national as well as international levels. Strengthening health systems and maintaining essential service delivery during health emergencies response is critical for early detection and diagnosis, prompt treatment, and effective control of pandemics, including the novel coronavirus disease 2019.

First Outcomes

| Research and Innovation | Ethics and Regulatory Environment | Bridging Research & Innovation and Policy Making mechanism |
|--|--|--|
| <ul style="list-style-type: none"> • Strengthening responsible research and innovation capacity in Africa, focusing on pandemic preparedness • Health systems research • Support for a genomic consortium and precision medicine • Technology, digitalisation and data | <ul style="list-style-type: none"> • African Medicine Agency in collaboration with EMA • ACDC and ECDC | <ul style="list-style-type: none"> • Implementation research to drive policy making |

Key Messages

- Establish a sound evidence base regarding the role of R&I within Africa-Europe cooperation in R&I for empowered public health systems
- Assess the progress made on R&I policies, developments and activities in the African-European context for empowered public health systems over the last ten years
- Responsible Research & Innovation and Open Science to empower Health Systems and improve its responsiveness to future challenges and threats and to leverage the SDGs and UHC.

Cross cutting issues

- Tech response to COVID 19 in Africa
- e-health and telemedicine in Africa
- Frugal innovation for AHS
- Human capital development (centers of excellence, BS)
- African perspective on R&I

Discussion

[Michael Makanga](#) (EDCTP) pointed out that strengthening demographic surveillance is of high importance given the fact that all diseases impact each other. An improved infrastructure, database, data management, monitoring and training facilities could help to combat a bunch of infections and diseases. [Fulvio Exposito](#) (Italy, HLPD member state representative) underlined the statement, highlighting that the short-term is the current pandemic; the long-term however pandemics that occur on regular basis on African continent. The cooperation must be prepared for this. [Marleen Temmerman](#) agreed and pointed out that more investment in datasytems is needed. [Sonia Abdelhak](#) added, that interlinks to non-communicable diseases must also be considered in the discussion.

[Felix Dakora](#) (AAS) will share his comments via e-mail in the follow-up due to technical difficulties during the meeting.

[Hans-Jörg Lutze](#) (RTD) complemented that similar developments are seen in the field of food and nutrition security, highlighting that the cooperation between the health sector and the research on food systems/nutrition outcome is of high importance. He expressed his interest to work together with the AG on this topic. [Marleen Temmerman](#) agreed. The topic will also be discussed at the next UN Summit.

How to strengthen R&I capacities in Africa focusing on both regional and bilateral cooperation?

[Maria Cristina Russo](#) highlighted the significance of R&I capacity development to the EC by recalling on successes of the cooperation. The ACP-EU Programme on Science and Technology financed by DG INTPA is one. It addresses the scientific and technological divide between ACP member states and the most industrialised countries and ensures that S&T goals and priorities are identified and mainstreamed in the national and regional strategies of relevant stakeholders. Open science has further been a recent driver in the development of the COVID-19 data platform.

The AG high-level expert is [Anneline Morgan](#). She is assisted by her personal research assistant [Barbara Dlamini](#).

Aim of study

- Review R&I Capacities in Africa focusing on regional and bilateral cooperation by assessing the status of the cooperation between Africa and Europe in R&I capacities over the past ten years.
- Develop policy options and recommendations based on the analytical work conducted to inform and strengthen R&I cooperation between Africa and Europe within the framework on the new Comprehensive Strategy with Africa and future outlook of the partnership.

Political background

- The African-European partnership in R&I is coordinated within the framework of the Joint Africa-EU Strategy (JAES) launched in 2007.
- The AU-EU High Level Policy Dialogue (HLPD) on Science, Technology and Innovation established in 2010 is a platform to facilitate policy exchanges in R&I among policy makers, experts and stakeholders from Africa and Europe.
- Africa's Agenda 2063 has recognised R&I as a key enabler and driving force to support and contribute to Africa's socio-economic and sustainable development.
- In this regard the Africa Union Science, Technology and Innovation Strategy for Africa 2024 (STISA) forms part of the key strategies and measures for implementing Agenda 2063.
- The Continental Education Strategy for Africa (CESA 16-25) aims to strengthen education, science and technology in Africa through harmonized education systems, quality education and strengthening of institutional capacities.

Challenges

- Funding for research, development & innovation key challenge in Africa: R&D funding below 1% GDP.
- Weak Intellectual Property and Technology Transfer systems and weak innovation capacities to support socio-economic development.
- Women underrepresented in STEM
- Lack of STI data and access to data a challenge.

Developments

- COVID-19 exposed Africa's weak STI capacities. At the same time pandemic highlighted important role of STI in socio-economic development and sustainable health systems.
- EU invested approx. EUR 123 million in AU partners in 310 projects under H2020: in 198 South Africa is involved, followed by Morocco (50) and Kenya (47). Main thematic areas of African-European cooperation under H2020 are: environment, food, ICT and health.
- The AU is implementing the African Union Research Grants, Kwame Nkrumah Scientific Awards, Pan-African University. Plans underway to establish proposed Africa Education and STI Fund.

Key Messages

Based on the outcomes of the study and preliminary data analysis key policy messages to inform strengthening of research, innovation and infrastructures capacities in the Africa Europe cooperation will be motivated around the following key themes or strategic focus areas:

- STI Policy Governance and Measurement
- Research and Innovation Infrastructures
- Human Capacity or Capital Development

- Research and Innovation priorities
- Funding
- International Cooperation, Partnerships and Networks
- Mechanisms for monitoring, evaluation, reporting and learning
- Crossing –cutting issues: Gender, Youth and Society

Discussion

[Fulvio Exposito](#) expressed the concern that only 0,2 % of H2020 investments benefitted African research and that this was spent predominantly in South Africa, Morocco, Tunisia and Kenya. This low participation should be reflected under Horizon Europe, the geographical network should be widened, criteria of excellence to be discussed. [Anneline Morgan](#) agreed and encouraged to analyse and diversify instruments. [Inma Peñas Jimenez](#) (RTD) added that EDCTP, funded by H2020, is supporting clinical research and research capacity building with sub-Saharan countries participation in all of them for more than 600 million€ and aligning European countries funding in the area.

Innovation and Technology Revolution

[Maria Cristina Russo](#) emphasised the EC's pilot programme on innovation, the "Africa-Europe Innovation Partnership" which is also supported by the AU. She explained that it paved the way for deeper cooperation in the innovation sector, and is being continued through the new ENRICH project. The two experts of the topic can also recall from their experience gained with the AEIP.

The AG high-level experts are [Samir Abdelkrim](#) and [Bosun Tijani](#). They are assisted by their personal research assistants [Julie Lanckriet-Goerig](#) and [Bunmi Ajala](#).

Background/scientific context

- Africa and Europe have historical ties – it is important for the two continents to come together to drive shared prosperity.
- The conversation around technology revolution/the application of innovation to drive economic growth is not new, it can be found in economic literature.
- The Cobb-Douglas theory explains that if a country wants to prosper, they have to make a choice of putting in more input (capital/labour) to get the outcome that commemorates with the input added.
- The technological efficiency factor (AK factor), explains that for a country to see real growth and superior outcome, there needs to be an application of technology – for a nation to build superior value, it needs to be able to apply science and technology in special ways to come up with the value they want to create.
- Over the last 10 years, Africa is increasingly playing a major role in the innovation and technology space and emergence of innovation intermediaries (tech hubs) across the continent. These tech hubs are driving awareness of innovation, creating platforms to support innovation, and helping people to turn ideas into prototypes.
- The shape Africa is playing in this space is different, in comparison to the West and more technologically advanced societies where economists will state that to build innovation capacity a country has to build their innovation systems and ensure that all the different elements of it can work. Unfortunately, Africa does not have the luxury to do this.

- In addition, the origins and emergence of the tech ecosystems in Africa also stem from the mobile revolution observed from 2008-2015.
- The new ideas and innovations that the African start-up ecosystem is coming up with is driving a lot of growth and productivity in different sectors across the continent. However, there is still a limit to how much growth we can see.

Outcomes

The AG experts will focus on four pillars:

Pillar 1&2 will adopt a sectorial innovation system approach as a theoretical framework to help determine what is powering technical efficiency in the following 5 critical sectors: (i) Agriculture, (ii) Financial Services, (iii) Consumer Goods, (iv) Infrastructure, and (v) Health & Education. They will also assess the impact of EU and other international innovation programmes in Africa over the last 10 years.

The goal is to fully grasp what and who is driving technology innovation in Africa i.e., looking at the startups, types of policies, knowledge and technological domains, actors and networks that are driving innovation activities.

Pillar 3&4 will be a deep dive analysis about the origins of digital innovation revolutions across Africa – identification of best practices to ensure a competitive innovation ecosystem in Africa. They will look at the roles of tech hubs in supporting innovation, Africa's response to Covid-19 and the use of technology against epidemics, as well as analyse successful AU-EU digital partnerships through tech hub partnerships based on the learning in the existing EU programme – the Africa-Europe Innovation Partnerships.

Key messages

- For Africa to continue driving innovation, it is important to take a network approach to building innovation capacity. Thus, create a strong networking with allies to support knowledge transfer and activities that will lead to African produced innovations.
- The private sector is a key driver and leading innovation in Africa. Thus, it is important to link private sector in Africa with those in Europe for them to collaborate and create shared prosperity for the continent.
- Knowledge is a key driver of digital innovation – the application of deep knowledge i.e., precision farming in agriculture, the application of strong fintech solution for farming.
- Stakeholders need to look beyond startups; research and academic institutions need to start playing a crucial role in how we perceive driving innovation in Africa.
- Tech hubs are also key drivers for innovation and tend to emerge around a federative location, often embodied by what will become the first tech hubs of their country.
- Cooperation between health authorities, tech hubs and DFIs must be organised and sustained in the long-term.
- AU-EU partnerships tend to be an opportunity for tech hubs to extend their ecosystem and networks as well as knowledge and skills transfer and exchange.
- Policy is crucial. Public sector/government in Africa are not anti-innovation, but they are struggling to catch up with innovation and ensure timely regulation on new innovations.

- Europe has a unique way of supporting innovation –it is able to protect society on one hand through regulations but still supports and encourages innovation.
- There is a need for EU funding to unlock counterpart funding locally in Africa – both by African government and private investor actors in order to encourage investment in research and innovation on the African continent.

Discussion

[Natalia Caldés Gomez](#) asked whether there is an optimal policy that can act as driver of innovation in Africa? What are the macroeconomic implications and indicators and the environmental impacts and whether these questions are tackled in the groups study. The group responded that they have chosen a unique approach using the sectorial system as a framework. This allows them extract indicators that show if technical efficiency in a sector is being driven by the growth of innovation in that sector. Furthermore, the study will include macroeconomic indicators at sectorial level.

Green Transition in Africa

Green transition in Africa is a key priority of the EC, [Maria Cristina Russo](#) recalled. This is already highlighted in the two AU-EU HLPD partnerships on Food and Nutrition Security and Sustainable Agriculture (FNSSA) and Climate Change and Sustainable Energy (CCSE) as well as the very successful Green Deal call on demonstration projects in renewable energy in Africa.

The AG high-level expert is [Daniel Nahon](#). He is assisted by her personal research assistant [Leonardus Vergütz](#).

Background/scientific context

To tackle issue of green transition the scientific context is assessed through seven main points:

- Climate change is taking a big toll on the environment
- As land surface is warming up more than oceans, this means that the northern hemisphere with higher concentration of land surface, will be hotter than the south
- World population to reach ~10 billion by 2050. Africa will show the greatest population increase – it will double in the next three decades
- Africa needs an efficient agriculture that respects the environment
- Africa holds 60% of world's arable soils, which are a non-renewable resource on the scale of the lifespan of humanity
- Agriculture consumes four times more energy than industry, which contributes 40% to climate change and consumes 86% of fresh water – therefore access to clean and sustainable energy is highly important. Especially when 60% of the African population does not have access to electricity
- Despite of four international forums arable soil degradation in Africa is still on the rise. Desertification in Sahel is still progressing, whilst several large countries around the world have exhausted their soils and are monitoring more than 100 million hectares of arable land ("land grabbing").
- This clearly shows that soil security is at the core of green transition in Africa.

Concrete actions needed

- The needed scientific knowledge to boost Africa's Green Transition must be developed in Africa by African scientists, in close collaboration with European universities/institutions, sharing Phd/Postdocs (ca. 50% in first five years)
- Creation and support of Living Labs/Lighthouses, following the European model as continuous long-lasting support to the African continent, which are the pillars for assuring the Green Transition involving stakeholders and small farmers
- Securing African soils for a resilient, sustainable and productive agricultural system, which is a complex closed-loop system between soil, water, biodiversity plants and energy. This needs a multidisciplinary, integrative research and innovation, to produce enough and nutritious food and to generate income
- To reduce by 60 % the Carbon footprint of African Agriculture by 2030, mitigating soil erosion/degradation, deforestation and loss of biodiversity, savannah and domestic fires
- To make Africa a hub for sustainable technology and innovation, creating green jobs and startups, with CIRCULAR ECONOMY to sustain healthy people and ecosystems. For instance the re-use of urban sewages.
- Urgent need for green energy solutions and electricity infrastructure and development of smart grids

Key messages

- Set-up a framework of soil, water and air observatories, to gather and assure for the quality and availability of data. Africa must become a main actor in the Global Soil Partnership
- Develop PhD & Postdoc policy between African and European universities/institutes (300 Program)
 - Define 10 institutions or universities as Living Labs and Lighthouses: Short-term (first 4 years) African universities located in the northern atmosphere, where arable land is most at risk, where droughts are most acute and where water shortages are most important but also where solar energy can be launched on a large scale
- Create an Innovative Green Entrepreneurship ecosystem – "Silicon Valley of the Green Transition", with a focus on youth, women, and CIRCULAR ECONOMY

In conclusion

As discussed also by other colleagues we really need a framework to optimize investment and to work on synergies in good governance. As mentioned earlier, data is available, and projects working on that too but where is the legacy? Especially in Green Transition we see many investments that have been made from EU, single countries and private sector all focused on improving agricultural productivity and sustainability. But as mentioned soil degradation is on the rise, productivity is very low which is a big problem with a population that is growing to double its current size in the next decades. Much research has been done but data regarding Africa is not available, eg. on soil carbon emission.

We need framework to analyse all investments and results related to the green transition. This framework will improve governance and allow to create synergies (i.e. avoiding duplication of

projects), to identify gaps, to optimize and guide investments, to gather the results helping us to solve the issues we have with these complex closed-loop systems leading to the Green Transition.

Discussion

[Latifa Bousselmi](#) (REACT) pointed out two aspects which should be part of green transition in Africa: (1) Green sanitation for resource recovery (sanitation/health, sanitation/agriculture) and (2) Green cities especially suburbs for inclusion and social cohesion (NBS, urban agriculture, adaptation to CC, ...). [Leonardus Vergütz](#) replied that these aspects are already included in their work, sewage reuse as an example. Due to time constraint they only presented the most general things. [Daniel Nahon](#) added that global predictions of antimicrobial resistance abundance in all domestic sewages will be a big threat for African populations within the next few years [Fulvio Esposito](#) agreed emphasised the need for a re-boot the One Health approach/concept.

Wrap-up of discussion

[Marleen Temmerman](#) wrapped up the presentations and discussion on all four topics. She highlighted that:

- The cooperation between Africa and Europe already has a rich history especially in the cultural, economic and social context. The R&I cooperation is becoming more and more prominent with focus on climate, gender, health and education. STI is becoming a common term.
- Trainings and (institutional) capacity building is of crucial importance to strengthen R&I in Africa. Further important issues are: strengthening the partnerships (SDG 19), digital innovation, data for survey, and regulatory frameworks. African countries and researchers need to be leaders and not only recipients of European support.
- The basic question is how to make a difference in transferring R&I into policies and implementation
- The demographic development in Africa is also a chance: the huge young generation with “technology and innovation already in the DNA” is a potential for development and growth. Women’s and youth’s rights have to be advocated to use their potential for R&I.

Closing remarks:

[Ambassador Birgitte Markussen](#), Head of the EU to the AU stated that Africa is a key partner for Europe. The work and recommendations of the AG will be of fundamental importance for the future framework and change of paradigm to a knowledge driven orientation, as R&I is a key element in addressing global issues such as climate change and health. She highlighted the importance of the comprehensive strategy with Africa for the delegation in Addis Ababa and the vision of the 5+1 partnerships comprising of: Green Transition and Energy Access; Digital Transformation; Sustainable Growth and Jobs; Peace, Security and Governance; Migration and Mobility and Recovery. The AG’s recommendations will feed directly into the ongoing consultations and also into the forthcoming AU-EU Summit and AU-EU Ministerial Meeting.

[Carla Montesi](#), Director for International Partnerships (DG INTPA) recognised the importance of the AG’s recommendations and thanked for the organisation of the event. She ensured DG INTPA’s commitment. The current COVID-19 crisis showed the importance of the cooperation in R&I and between the continents and the need of sufficient infrastructure and human resources in order to

achieve, e.g., the vaccination of 75% of the world population. Green transition needs to boost in Africa. STI should be incorporated into more national and regional programmes. There it is of high importance to foster collaborative research with African partners. As an example for good R&I cooperation, she mentioned the DeSIRA programme in the agricultural sector. The AG's important analytical input will feed into the EU's global approach on R&I and into the next AU-EU Summit.

Conclusion

[Maria Cristina Russo](#) recalled that the commitments expressed prove what can be achieved with R&I in order to build the partnership wanted Africa and Europe. It is impressive how much has already been achieved. The task is now to tap into the potential of the different instruments and create synergies amongst different policies in order to really put R&I at the service of this sustainable and equal partnership we want to develop between Africa and Europe. The AG and their advice comes at the right time to feed into the programmes the EC is currently developing (such as Horizon Europe programme, R&I programme). The advice of the AG will be taken into account to develop the next steps, strategise actions which are not only oriented towards the development of current programmes but also in the future, in the development of new programming cycles, which is a process the EC is starting now.

She thanked all participants and colleagues, and encouraged the continued exchange on the AG's topics.

Attachments

- Presentation
- List of participants
- Group photo