



Advisory Group Exchange
29 June 2021, 14:00 – 16:00 CEST

MINUTES

Time	Programme point
14:00 – 14:30	Welcome & Input on latest developments
14:30 – 15:30 Parallel sessions and Q/A	Session 1: Africa-Europe stepped-up cooperation in R&I for empowered public health systems <i>With: Sonia Abdelhak, Marleen Temmerman, Yosr Hamdi and Nellah Ndaka</i>
	Session 2: Strengthening R&I capacities in Africa focusing on both regional and bilateral cooperation <i>With: Anneline Morgan and Barbara Dlamini</i>
	Session 3: Innovation & technology revolution <i>With: Samir Abdelkrim, Bosun Tijani, Bunmi Ajala and Julie Lanckriet-Goerig</i>
	Session 4: Green transition in Africa <i>With: Daniel Nahon and Leonardus Vergütz</i>
15:30 – 16:00	Wrap-up, conclusions and next steps

Summary

The mission of the AG high-level experts and their research support team is to advise the European Commission on how to boost the potential of R&I into Africa-Europe cooperation. They are tasked to write four policy studies, which will serve as policy advice for the future cooperation between the continents.

The AG Exchange on 29 June 2021 provided African and European R&I stakeholders with the opportunity to exchange with the AG on the latest draft of their recommendations. More than 120 participants took the chance and discussed in four parallel working sessions. Key findings include:

1. To empower **health systems** human capital development, genomics and precision medicine, technology transfer, digitalisation and open science must be supported.
2. **R&I Capacities** can be strengthened through improved R&I policy governance, R&I infrastructure, human capital development, international cooperation, partnerships and networks and monitoring mechanisms.
3. To revolutionise the African **innovation & technology** sector one must gain an understanding of what is driving current innovation systems, how traditional research can be brought together with innovation and how innovation ecosystems around emerging technologies can be transferred into the relevant sectors (e.g. agricultural sector). Networks will play a critical role in achieving the goals.
4. Agriculture is at the core of **green transition** in Africa. Major challenges for R&I will concern (i) agriculture, (ii) water resources and pollution, (iii) air quality, and the (iv) access to green energies.

Welcome

Tanja Gillmann, International Service Facility in Support of Cooperation in Research and Innovation welcomed all participants to the second exchange opportunity with the AG and stressed the point, that the AG Exchange is part of a series of events to enable a lively exchange between policy makers, researchers and practitioners from across Africa and Europe, the experts and their team. She continued to explain that the purpose of the meeting is to provide the opportunity for the community to ask questions, give inputs and ideas on the current policy study drafts and to discuss with the experts in parallel sessions. This exchange should lead to an improved quality of the policy papers through participatory assessment and feedback; provide feedback on the relevance and the added value of the policy studies to the framework policies (e.g. Global Approach to R&I, HEUR Africa-Initiative, NDICI programming exercise, Agenda 2063) and initiate networking among participants.

Introduction

Jana Schnieders, European Commission DG RTD thanked the AG members in the name of Fadila Boughanemi, Deputy Head of Unit, European Commission DG RTD for their valuable inputs on making R&I part of a positive cooperation agenda between Africa and Europe. She continued to explain that the AG's work contributes to support the participation of the African continent in global knowledge exchange, as a crucial path to enhanced sustainable development in Africa as anywhere else.

The groups work takes place within a strengthened Africa-Europe cooperation, recognising Africa as a strategic partner for the EU. This is displayed in the latest policy developments, including the Neighbourhood, Development and International Cooperation Instrument (NDICI) where a substantial part is devoted to strengthening R&I in Africa, both at regional and national levels with at least €29.18 billion of the overall budget of €80.59 billion dedicated to Sub-Saharan Africa. Further important milestones are the Africa Initiative within Horizon Europe, the African, Caribbean and Pacific (ACP) Partnership Agreement and the African Research Initiative for Scientific Excellence (ARISE) pilot programme which currently calls for applications. For more information please also refer to the attached presentation.

Parallel sessions with the four AG topic groups

After the general introduction participants split into four working sessions with the AG experts to discuss the first outcomes of their policy studies (in line with AG topic groups). The break-out sessions were moderated by the AG experts.

The participants chose their preferred session when registering to the event. After registration, participants received the draft policy studies and were invited to share questions and feedback with regard to the drafts before the meeting.

The draft policy paper and presentations from the four AG topic groups can be found in the info package.

Health systems

At the beginning of the session a short introduction on the background and scientific context was provided by [Sonia Abdelhak](#), [Marleen Temmerman](#), [Yosr Hamdi](#) and [Nellah Ndaka](#):

Highlights and key take-aways from the discussion are:

- Attend the double challenges of epidemiological and demographic transitions, infectious diseases as well as life style changes with new diseases and non-communicable diseases,
- Strong need for integrated approaches/multidisciplinary approaches made visible by Ebola and Covid-19:
 - Integrate social sciences and humanities into research and development on infectious diseases and non-communicable diseases,
 - Behavioral science to tackle the translation gap for a behavior change,
 - Risk of cross-diseases,
 - Include geography / geospatial studies to collect data,
- Data governance is highly important to inform on and implement policies,
- Need for policy research on health, (and also: energy housing, transport, social justice and gender equality),
- Attract African diaspora researchers back to the continent,
- Ethical issue: Europe trying to attract the best scientists,
- Highlight the mega trends in Africa:
 - Infections: increased interaction between NCD and CD (change in disease profiles?),
 - Social determinants of health: (peri-)urbanisation, growing young population with different health needs,
 - Growing threat of microbial antibiotic resistance, and climate-borne diseases,
- Web mapping applications are highly important to identify hotspots of infections,
- Assess infrastructure needed for disaster response (e.g. lack of internet connectivity),
- Translate recommendations into tangible action: how to transfer to the local level?
- Need of empowering local communities, enhancing skill-sets, combine research & education,
- Solution for health challenges around migration/growing number of refugees,
- Funding instruments should ensure continuity esp. with regard to preparedness, however no coherent interests from different international agencies,
- Need of regional trade regulations, not taking into consideration health products. Cross sectorial approaches are necessary to be sure that health products are also considered,
- Link health demographics and health research and innovation, to stimulate local financing to be leveraged, the more sustainable outcome,
- Engagement of local communities and governments important.

R&I capacities

At the beginning of the session an introduction on the background and scientific context was provided by [Anneline Morgan and Barbara Dlamini](#):

The discussion led to various aspects on how to strengthen capacities in R&I:

- Development of human capital as well as better research structures are essential to enhance the objectives of strengthening innovation capacities and supporting the socio-economic development,
- With regard to frugal innovation it is important to dedicate more attention to traditional knowledge,
- Need for mapping of all funding opportunities, networks and partnerships for African researchers, as currently a huge lack of information can be seen. → As a direct response one participant draw attention to *The African Knowledge Platform* developed by EC, JRC. Its aim is to enhance and coordinate JRC scientific knowledge on Africa; convey science-for-policy messages, and put together datasets, narratives, interactive tools and partnerships across more than 30 disciplines and policy priorities of the [EU Africa-Strategy](#). The platform will be officially launched early Autumn 2021 (prototype accessible via: at <https://africa.gis-ninja.eu/>),
- Need of policies on: freedom of science, ethical standards and a government of science,
- In the field of climate and environment there is a special need of human capacity and capital development,
- The fundamental role of space research and digital technologies in Africa, specially in the area of health, environment and transport was highlighted,
- As an example in this regard, one participant mentioned the [Global Collaboration and Integration Development Initiative of the Europlanet](#). Its target is to strengthen and expand the European planetary science community by providing opportunities for collaborative and culturally agile engagement with the international planetary science community,
- Previous programmes should be evaluated to avoid making the same mistakes – need of mechanisms for monitoring, evaluation, reporting and learning,
- A common practice in African academia is consulting services. How can this practice be elaborated into R&I and startups?

With direct regard to the AG's policy paper it was addressed that it should put a strong focus on cross-thematic developments such as ICT, earth observation, AI, intellect property, women and youth in science and open science. It was also commented that the draft paper could be improved by including a section on strong and weak practices on the ground.

Innovation & Technology

At the beginning of the session a short introduction on the background and scientific context was provided by [Samir Abdelkrim](#), [Bosun Tijani](#), [Julie Lanckriet-Goerig](#) and [Bunmi Ajala](#):

They highlighted that there is a strong link between the economic-growth of a country and innovation. The study will therefore aim to answer the question on what is driving technological innovation in Africa.

The introduction was followed by a round of questions and answers between the AG and the stakeholders, highlighting that:

- The role of R&I in catalysing the private sector engagement inside local value chains to create inclusive value to enhance agriculture development is strong. For this reason, the paper mentions immersive technologies such as building mobile apps around agriculture or applications like [AgNeo](#). We still think there are not enough of those activities. However, there is a need for further activities in this regard, also connecting the applied research sector with the digital agriculture sector,
- The problem of smallholder agricultural value chains lacking an organised system, preventing any sizeable investment and stunting growth can be met by good networks,
- The role of China in the African Innovation & Tech sector is growing. China is becoming a major provider of hardware (e.g. phone infra, IoT). On the positive side lower prices lead to a higher adoption- and affordability-rate. On the downside China focuses more on the transaction level instead of building networks and ecosystems (compared to what Europe is doing). Overall the US remain the biggest donor in Africa, furthermore there is no Chinese venture capital currently active in Africa. An interesting pro-start-up initiative from China is the [Africa's Business Heroes programme](#),
- Networks are very important in the innovation ecosystem and will allow African countries to become more innovative. Some of these aggregators are used for KYC in financial services,
- SFIC recently published a [report](#) on African-European innovation collaboration where one can find further information on the topic.

Green transition

At the beginning of the session a short introduction on the background and scientific context was provided by [Daniel Nahon and Leonardus Vergütz](#):

The presentation of the first findings was followed by a lively discussion, leading to a set of recommendations and questions:

- Continuous imbalance between ground water extraction and recharge led to 20-50 m decline of ground water levels in past 30 years → focus on agriculture at the heart of green dimension,
- Logistical challenge of getting produce to point of sale and redistributing the produce within a country becomes a challenge with growing populations and urbanisation,
- Natural wealth must be introduced into the calculation of GDP to realise green transition,
- 600 million hectares of arable soil remains to feed the growing world population, the majority of this is concentrated in Africa. Agriculture is cross-cutting between many different aspects such as biodiversity, water, economy, social development etc. Urgent need to feed people to prevent diseases, and allow for strong economies.
- Water shortage is a major issue in Africa which needs to be managed - shortage contributes to strong erosion of soils. Focus needs to be on how to grow crops with water scarcity,
- Urbanisation, globally and in Africa is affecting the quality of soils. A new factor to consider is black carbon with the fine particles affecting health locally but also regional and global climate. This is a complex aspect in combination with the culture of burning wood,
- Global warming will increase the temperature on lands by 4-10 degrees affecting greatly agricultural practices on the African continent,
- More research is needed on how to transport desalinated water to Sub-Saharan countries needed for irrigation in the agricultural sector and on the effects of planting plants along the coast to reuse their brines as energy source,
- Collaboration between farmers in African is required to realise green transition,
- Created research-boundaries within disciplines do not exist in nature: multidisciplinary approaches needed, e.g. experts on climate, water, food quality, economy etc working together to solving the same problem and combining all capacities. This applies also to the organisation of governments: with ministries of agriculture, ocean & fisheries, energy & transport etc. to collaborate,
- Urbanisation has an immense impact on crop land and is becoming an important issue for Africa: A recent [paper](#) highlights the extent for China. It also causes problems as it covers arable land, making it non-productive, and leads to antimicrobial resistance in urban sewage enhancing soil intrinsic antibiotic resistance genes (ARG), as well as introducing new ones,
- Regulatory frameworks on country and regional level could help to accelerate transition,
- Drip irrigation will be key for water-scarce arid regions in Africa,
- Develop the knowledge that Africa needs in Africa by Africans, to empower specially women and youth to lead the Africa transformation. The knowledge developed should reach the farmers (specially smallholder farmers) through start-ups (Silicon Valley of the Green) and big extension projects to be initiated and supported especially by the Living Labs and Lighthouses,
- Need for fertile, C rich, and healthy soils.

Closing

The exchange was concluded by the AG experts who wrapped-up the outcomes from the working sessions.

[Tanja Gillmann](#) highlighted again the opportunity to stay in touch with the experts and send any further contributions, suggestions, questions to AUEURI@dlr.de. Furthermore, a new R&I AG Information and Exchange Hub is currently being set-up with the EC tool CIRCABC. It will provide a secured working area to share information and will invite R&I stakeholders to exchange with the experts on the policy recommendations. An invitation link will be shared with participants in the coming weeks.

The meeting was closed by [Fadila Boughanemi](#), European Commission DG RTD. She thanked all participants and AG members for the valuable insights given on the four cooperation topics between the AU and the EU.

Next opportunities

- 28 June – 9 July 2021, Horizon Europe Info Days 2021
- 8 July 2021: Horizon Europe Regional Workshop, Southern Mediterranean

Horizon Europe Regional sub-Saharan African Webinars:

- 9 July 2021: sub-Saharan Africa, French
- 12 July 2021: sub-Saharan Africa, Portuguese
- 15 July 2021: sub-Saharan Africa, English
- 16 July 2021: South Africa
- **7 September 2021: R&I AG Policy Workshop**