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NOTE

From: SFIC Secretariat
To: Delegations
Subject: Final report of the SFIC Africa Task Force

Delegations will find in Annex the final report of the SFIC Africa Task Force, as approved by SFIC by written procedure.

Strategic Forum for International Cooperation (SFIC)

SFIC Africa Task Force Strategic Report

This document includes the SFIC Africa Task Force's analysis and orientations for future European-African cooperation in science, innovation and higher education.

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08/05/2020

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o. INTRODUCTION

The SFIC Africa Task Force strategic report is an **analysis and orientation document** expressing the views of the delegations of 11 European countries¹ and the European Commission on policy for collaboration with Africa in relation to various aspects of research, innovation and higher education.

The Strategic Forum for International Cooperation (SFIC) is a preparatory body of the Council of the EU that works on the development of the European Research Area. Its Africa Task Force, coordinated by Spain, was established² with the goal of taking advantage of the political momentum in order to understand, enhance and develop policy related to collaboration with Africa.

The report was compiled in consultation with over 40 European, African and international stakeholders, beyond the European national delegations and the European Commission, in March 2020 at the first SFIC Africa Strategic Workshop in Brussels. The different stakeholders' views have been incorporated into the document.

The SFIC Africa Task Force strategic report is structured as follows:

- Section 1. **Motivation** outlines the main drives for working on this paper at this point in time.
- Section 2. **Analysis** summarises the current activities and priorities, highlights remarkable initiatives, and enumerates some constraints that need to be mitigated in future collaborations.
- Section 3. **Strategic Orientations** indicates the main principles for collaboration and states orientations both in terms of instruments and thematically.

¹ AT (Austria), BE (Belgium), DE (Germany), FI (Finland), FR (France), EE (Estonia), ES (Spain), HU (Hungary) MT (Malta), NO (Norway), and PT (Portugal).

² SFIC documents WK 10692/2019 INIT (1 October 2019), WK 13794/2019 INIT (5 December 2019), and WK 14457/2019 INIT (20 December 2019).

- Section 4. **Recommendations and Opportunities** includes the main implementation recommendations and highlights the opportunities that may enable uptake of the strategic orientations.
- Section 5. **Conclusions** briefly points out the final intended outcome of this document.
- Section 6. **Bibliography**, section 7. **List of contributors**, and section 8. **Annex** finalise the report with additional relevant information.

The document was written between January and May 2020 with the support of the Task Force delegations and the Strategic Workshop contributors.

1. MOTIVATION

Any global perspective on the future of science must include Africa. (Nature, 2019)

Work on this report started in January 2020, with all SFIC Africa Task Force participants committed to bringing out a **consolidated opinion from 11 European countries and the European Commission** on the future of European-African collaboration in research, innovation and higher education.

Our work has started in a unique time, when the Sustainable Development Goals are being implemented, the new Commission has placed Africa at the cornerstone of international collaboration, the European Research and Innovation programme Horizon Europe is being prepared, and the narrative of the new European Research Area is being developed. As we worked on our report, the COVID-19 pandemic set off an unprecedented crisis, which is having devastating effects on countries and extraordinary consequences for the world as a whole. This crisis is another **motivation for our work – for establishing sustainable collaboration** with our African partners and laying the foundations for the mitigation of shared challenges that may arise in the future.

Africa, our neighbour continent, is **home to the world's youngest rising population**. It holds some of the planet's most abundant intellectual capacities and has wide-ranging potential for sustainable development.

For more than a decade now, the European Union and the African Union have built a **solid strategic and political partnership**, anchored in reciprocal commitment and based on shared values and interests.

Both continents are facing the same key challenges: the need to promote sustainable growth and jobs, the green transition, digital transformation, mobility, security and good governance, and nowadays, most crucially, a pandemic. This makes enhanced collaboration between Europe and Africa even more relevant in a fast-evolving, interconnected global environment.

Research and innovation are widely recognised as strong and effective engines for sustainable development, and – as we are seeing in the present moment – they are enablers for bringing solutions to the table. The role of research and innovation activities and policy is becoming key and urgent in facing Africa and Europe’s shared challenges.

This is part of the reason why one of the pillars proposed in the Communication from the European Commission to the European Parliament and the Council ‘**Towards a comprehensive strategy with Africa**’ is dedicated to the enhancement of learning, knowledge and skills, and research and innovation capacities, particularly for youth and women. In line with the Sustainable Development Goals, this priority is fully supported by the Task Force and serves as a motivation for our work.

The SFIC Africa Task Force believes that **research, innovation, and higher education policy are enablers** of positive change, and takes inspiration from this as it works towards enhanced collaboration between the continents.

2. ANALYSIS

CURRENT ACTIVITIES

In 2019, the SFIC Benchmarking Working Group³, coordinated by France, carried out a **mapping exercise of international collaboration initiatives** that the governments and funding agencies of SFIC countries have established with third countries. This exercise showed that, at the level of governmental and research-funding organisations, 24 European countries⁴ are engaged in active collaborations (either bilaterally or multilaterally) with 34 African countries.



Figure 1. Countries with activities in Africa. MT is one of them, although not visible on the map.



Figure 2. Countries with active agreements with Europe. Cabo Verde is one of them, although not visible on the map

The **African countries that hold the most active agreements** with European governments and/or European state funding agencies are South Africa (15 agreements), Egypt and Morocco (9 each), Tunisia (6), Ethiopia (5), Algeria, Kenya and Tanzania (4 each).

³ ST 1359/2019 INIT (20 December 2019)
<https://data.consilium.europa.eu/doc/document/ST-1359-2019-INIT/en/pdf>.

⁴ AT, BE, CH, CY, CZ, DE, DK, EE, EL, ES, FI, FR, HU, IE, IS, LT, MT, NL, NO, PL, PT, RO, SE and SI.

The SFIC Africa Task Force **compiled the priorities of collaboration with Africa**, in terms of geographical areas and topics of cooperation, of 10 of the countries participating in the TF. Word representations of that exercise are given in Figure 5.

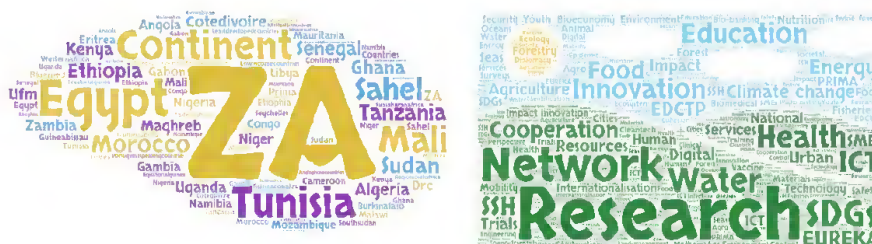


Figure 5. The countries/areas and topics most often mentioned.

REMARKABLE INITIATIVES

With the objective of providing a **portfolio of successful strategies, initiatives and activities**, the SFIC Africa Task Force would highlight the ones mentioned below. For each one, the full name of the initiative, a hyperlink and a footnote with the webpage are provided. A short description of each activity can be found in the **Annex**.

At a European level

- [AU-EU High-Level Policy Dialogue on STI](https://www.africa-eu-partnership.org/en/projects/eu-africa-high-level-policy-dialogue-hlpd-science-technology-and-innovation-sti)⁷: food and nutrition security and sustainable agriculture (FNSSA, implemented through LEAP-Agri⁸ and LEAP4FNSSA), climate change and sustainable energy (CCSE, implemented through LEAP-RE⁹), and the Innovation Partnership¹⁰.
- [The European & Developing Countries Clinical Trials Partnership \(EDCTP\)](https://www.edctp.org/)¹¹.
- [The Partnership for Research and Innovation in the Mediterranean Area \(PRIMA\)](http://prima-med.org/)¹².

⁷ <https://www.africa-eu-partnership.org/en/projects/eu-africa-high-level-policy-dialogue-hlpd-science-technology-and-innovation-sti>.

⁸ <https://www.leap-agri.com/>.

⁹ <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-details/lc-sc3-ja-5-2020>.

¹⁰ <https://africaeurope-innovationpartnership.net/>.

¹¹ <https://www.edctp.org/>.

¹² <http://prima-med.org/>.

- The Union for the Mediterranean (UfM) Regional Platform in Research and Innovation (formerly EU-MED GSO)¹³.
- Erasmus+ for Africa¹⁴.
- Intra-Africa Academic Mobility Scheme¹⁵.
- Marie Skłodowska Curie Actions (MSCA)¹⁶.
- The Development Cooperation Instrument (DCI)¹⁷.
- The collaboration between the African Research Universities Alliance (ARUA)¹⁸ and the Guild of European Research-Intensive Universities (The Guild)¹⁹.
- Mediterranean Innovation and Research Coordination Action (MIRA)²⁰ (2008-2012).
- Mediterranean Science, Policy, Research & Innovation Gateway (MED-SPRING)²¹ (2013-2017).
- The Network for the Coordination and Advancement of Sub-Saharan Africa-EU Science and Technology (CAAST-NET) (2008-2012)²²; and Advancing sub-Saharan EU cooperation in research and innovation for global challenges (CAAST-NET Plus)²³ (2013-2017).
- Research and Innovation Network for Europe and Africa (RINEA)²⁴ (2015-2018).
- Developing African-European joint collaboration for Science and Technology (ERA-Net ERAfrica)²⁵ (2011-15).
- Belém Statement implementation (CSA Building and All Atlantic Ocean Community – Aanchor)²⁶.
- IST-Africa²⁷.

¹³ <https://ufmsecretariat.org/>.

¹⁴ https://ec.europa.eu/programmes/erasmus-plus/news/erasmus-africa-and-eu-africa-strategy_en.

¹⁵ <https://eacea.ec.europa.eu/intra-africa>.

¹⁶ https://ec.europa.eu/research/mariecurieactions/msca-actions_en.

¹⁷ <https://eur-lex.europa.eu/legal-content/EN/LSU/?uri=CELEX%3A32014R0233>.

¹⁸ <http://arua.org.za/>.

¹⁹ <https://www.the-guild.eu/>.

²⁰ This project has ended. <https://cordis.europa.eu/project/id/211359>.

²¹ This project has ended. <https://cordis.europa.eu/project/id/311780>.

²² This project has ended. <https://cordis.europa.eu/project/id/212625>.

²³ This project has ended. <https://cordis.europa.eu/project/id/311806>.

²⁴ <https://www.africa-eu-sti-portal.net/>.

²⁵ This project has ended. <https://www.erafrica.eu/>.

²⁶ <https://www.allatlanticocean.org/>.

²⁷ <http://www.IST-Africa.org/>.

- Africa Connect²⁸, funded by the European Development Fund (EDF) to establish high-capacity Internet networks for research and education across Africa and to strengthen links with Europe to facilitate global collaboration.
- Digital4Development²⁹ framework, developed by the European Commission to mainstream digital technologies across main priority areas.

Multilaterally

- The '5+5 Dialogue' of the West Mediterranean Forum for Research, Innovation and Higher Education³⁰.

Bilaterally

- The Austrian Partnership Programme in Higher Education and Research for Development (APPEAR)³¹.
- The Memorandum of Understanding between Estonia and the African Union, funded by the UNDP, on digital transformation for achieving the SDGs.
- The BMZ German programme Make-IT Digital in Africa³² supporting the creation and clustering of start-ups.
- The Finnish programme FinCEAL Plus BRIDGES³³ supports research cooperation between researchers based in Finnish institutions and the research community in Africa.
- The Climate Service Centres SASSCAL³⁴ and WASCAL³⁵ are a German initiative run in cooperation with several Southern and Western African countries.

²⁸ This project has ended. <https://www.africaconnect2.net/>.

²⁹ <https://ec.europa.eu/digital-single-market/en/blog/digital4development-new-approach-eus-development-tool-kit>.

³⁰ <http://www.fiveplusfiveithe.org/>.

³¹ <https://appear.at/en/>.

³² <https://www.deutschland.de/en/topic/business/make-it-in-africa-germany-supports-start-ups>.

³³ <https://www.unipid.fi/finceal/what-is-finceal/>.

³⁴ <http://www.sasscal.org/>.

³⁵ <https://wascal.org/>.

- The German-African project ‘Atlas of Green Hydrogen Production potential in Africa³⁶’ is analysing opportunities for establishing a hydrogen economy in Africa. It involves all ECOWAS³⁷ and SADC³⁸ member countries.
- New joint university hubs that France has created with Tunisia³⁹, Senegal⁴⁰ and Côte d’Ivoire to promote students’ and researchers’ mobility. Africa is a focal point in France’s international strategy, with ambitious objectives in terms of student and researcher mobility and the new joint university hubs mentioned above. A joint approach with Germany is also planned for climate research.
- Initiative Knowledge for Development⁴¹: collaborative research projects between Portuguese and African countries and Aga Khan Development Network research and academic institutions, which aim to help develop initiatives that can have a meaningful impact by consolidating research capacity in Africa.
- The VLIR-UOS comprehensive programme⁴² in Belgium is built on a portfolio of diverse complementary instruments and works with 10 target African countries for long-term cooperation between research and higher education universities.

Internationally

- The African Centres of Excellence (ACE)⁴³, funded by the World Bank.
- LIRA (Leading Integrated Research for Agenda 2030 in Africa)⁴⁴ and the African Open Science Platform⁴⁵ by the International Science Council⁴⁶.

SUCSESSES AND CONSTRAINTS

Some of the **aspects that have made these initiatives remarkable** are:

³⁶ <https://www.fona.de/en/workshop-to-map-potential-of-green-hydrogen-in-africa> (project site in progress).

³⁷ <https://www.ecowas.int/>.

³⁸ <https://www.sadc.int/>.

³⁹ <http://uftam.net/>.

⁴⁰ <https://www.campusfrancosenegalais.org/>.

⁴¹ https://www.fct.pt/apoios/cooptrans/imamat_ismaili/index.phtml.en.

⁴² <https://www.vliruos.be/en>.

⁴³ <https://ace.aau.org/>.

⁴⁴ <https://council.science/what-we-do/funding-programmes/leading-integrated-research-for-agenda-2030-in-africa/>.

⁴⁵ <http://africanopenscience.org.za/>.

⁴⁶ <https://council.science/>.

- The **collaboration** involved in the co-creation, co-funding and joint implementation of the whole process behind each initiative.
- The **involvement** of political stakeholders and institutions that support research, innovation and higher education as engines for growth and transformation to help face global challenges.
- The **creation of joint working platforms** where decisions are worked upon with a variety of stakeholders.

Some of the **barriers or constraints** that have been encountered during the collaborations and that, to a certain degree, hinder the desired effects have been examined in the report 'Mapping of best practice regional and multi-country cooperative STI initiatives between Africa and Europe' (European Commission, 2015)⁴⁷.

In its analysis, the report enumerates **several constraints**, among which the SFIC Africa Task Force would highlight the following:

- **Few established joint funding mechanisms/arrangements.**
- **Low level** of engagement between academia, the private sector and civil society/communities.
- **Lack of established science councils** in most African countries.
- **Limited predictability** of disbursements of STI funds once granted.
- **Missing links** between science, technology and innovation policy and other domains, including but not limited to higher education.
- **Low SME participation**, especially in Africa.

However, **more thorough analysis is needed, drawing on the evaluations of the different initiatives**, where they exist. The need to understand what works best in which conditions is important for each of the initiatives put in place, but this requires evaluation expertise in the longer term, which is beyond the scope of the SFIC Africa Task Force.

⁴⁷ <https://op.europa.eu/en/publication-detail/-/publication/ef7e4af8-916e-425e-94b2-53bbeecace7e>.

3. STRATEGIC ORIENTATIONS

The SFIC Africa Task Force orientations focus on future **cooperation with Africa in research, innovation and higher education policy** in the timeframe of five to seven years, including some immediate actions. The document addresses complex policy issues mainly related to (but not limited to) research, innovation and higher education policy.

The orientations follow the **principles of co-creation and co-ownership, sustainability and openness**, and take into account the need to continuously evaluate and learn at all levels, from policy design to implementation.

INSTRUMENTS

In terms of **instruments**, the SFIC Africa Task Force recommends that stakeholders:

1. **Find mechanisms that encourage and make more effective the wider involvement of European countries and the Commission** in supporting and contributing to the High Level Policy Dialogue (HLPD) and the Union for the Mediterranean (UfM) Regional Platform in Research and Innovation. The mechanisms should support the policy dialogues by ensuring comprehensive stakeholder involvement in co-creation, facilitating effective planning for smart directionality, and enhancing communication and outreach.
2. **Enable instruments that can take forward existing programmes and projects** running between European partners and their counterparts in Africa that enable the knowledge triangle⁴⁸ and place special focus on youth through capacity building, fostering entrepreneurship and co-creation.
3. **Enhance African participation in instruments such as COST, EUREKA, Erasmus+ and the MSCA Actions**, and other **ERA options for expansion**, such as the Twinning and Teaming instruments, which can encourage the strengthening of institutions and promote excellent science in Africa. **Capacity-building** projects

⁴⁸ The knowledge triangle model could be inspired by the model of the European Institute of Innovation and Technology (EIT, <https://eit.europa.eu/>) and adapted to the African context.

should also be enhanced to promote the exchange of good practices between Africa and Europe, such as the PanAfGeo Project, where African and European scientists together led a comprehensive geoscientific training programme.

4. Support **co-funded mechanisms based on variable geometry** that can be used as a common standard to make co-funding faster, easier, more usable and more efficient. Feasible options for public-private partnerships should be included. A good example of successful cooperation in this respect is the PRIMA programme that is currently co-funded by participating states and the European Commission.
5. Support the collaboration with Africa under way as part of **Horizon Europe's Clusters, Missions and Partnerships**, and particularly those related to the food-water-energy nexus. Better integration of African countries should be fostered through their national funding bodies in Partnerships.
6. Support **science diplomacy mechanisms** through more effective coordination for policy coherence and joint structures and/or delegates that serve as nodes of information and support. Alumni and diaspora should be involved, and dialogue and cooperation should be established with the RECs in Africa.
7. Promote **world-class research infrastructures**, both through facilitating access to such structures for African stakeholders and through establishing them in the continent.
8. Create **dialogue platforms for smart triangular cooperation** with third countries, such as the USA, Japan and South Korea. These platforms could be created both at a general level and in specific domains of common interest.

THEMES

In terms of **thematic collaboration** and responding to the Sustainable Development Goals framework, the SFIC Africa Task Force recommends that stakeholders:

1. **Include the youth perspective** in future research, innovation and higher education collaboration, in line with Action 5 proposed in the Commission Communication 'Towards a comprehensive Strategy with Africa' and following

the Orientations for the Horizon Europe Strategic Plan⁴⁹ (European Commission, January 2020) by, for example:

- **promoting synergies** between the Erasmus+, Horizon Europe and other relevant EU programmes, and fostering consistency and complementarity between EU and national programmes;
- creating **doctoral schools** to help significantly increase the number of top-quality scientists, which will enable the strengthening of African universities in a sustainable way; working hand in hand with European universities and reinforcing the supervisory capacities of doctoral candidates in Africa;
- providing co-funding to ensure that **early-career researchers** can develop world-leading research agendas in Africa.

2. Encourage **innovation**:

- a) Following the establishment of the **HLPD Innovation Partnership** and of ENRICH centres, look into relevant activities of the countries in order to invest in synergy potentials. Include initiatives supporting **technology transfer**. Support research and innovation cooperation between European and African companies (in particular **small and medium enterprises**) on a lower-tech and innovation level (e.g. frugal innovation programmes); make smart use of local intelligence and adapted business-driven models (e.g. in sectors like agro-food-nutrition, circular economy – both green and blue, One Health, raw materials, etc.), while also using digitalisation and artificial intelligence as transversal enablers.
- b) **Engage in new forms of cooperation with Africa** including through the use of **innovative financial engineering**. Africa can be targeted for cooperation by the World Economic Forum initiative (the ‘Global Climate Tech Equity Fund’), the European Green Deal, etc. Enhance cooperation relating to **digital transformation** from the infrastructure, application and skills perspectives.

⁴⁹ https://ec.europa.eu/research/pdf/horizon-europe/ec_rtd_orientations-towards-the-strategic-planning.pdf.

3. Use the **European Green Deal as an attractive, comprehensive cooperation package** for African-European cooperation in research, innovation and higher education. Engage African partners in the European Green Deal compromise, particularly in the Farm-to-Fork area, where appropriate, and promote the development and application of new digital technologies. Specific calls made under the European Green Deal need to target collaboration with Africa in line with the strategic orientations included in this report.
4. **Encourage intra-African cooperation** in line with the existing **AU-EU Higher Education Programme**, under the Africa-EU Partnership. A good example is the alliance between The Guild and the African Research Universities Alliance (ARUA).
5. **Boost research on social sciences**, with a special focus on youth and demographic studies, mitigation and management of international crises, and culture and humanities. Include the social science perspective in research projects with Africa, such as H2020 calls on migration and climate, and cross-cutting issues such as information systems and open data policy studies.
6. **Make effective efforts to close the gender gap**. Capturing the full potential for greater involvement in research, innovation, higher education, digitalisation and entrepreneurship is key. Enhance massive online capacity-building schemes.
7. **Engage in the green and blue economy**. In the HLPD partnerships for FNSSA and CCSE, as well as in the areas of the Green Deal, special attention should be given to the potential of the blue economy (marine sciences and applications), space sciences and applications (in particular Earth observation), the development of nature based solutions and the green economy.
8. Engage in close collaboration on the **prevention, mitigation and management of urgent international crises** and – more specifically to public health – the COVID-19 pandemic. Find ways to effectively unite research enablers and efforts in every dimension of crisis prevention and management. Foster open science practices.

4. RECOMMENDATIONS AND OPPORTUNITIES

RECOMMENDATIONS

Following the strategic orientations given above, the SFIC Africa Task Force recommends **improved integration of research, innovation and higher education** activities at different levels of policy-making, and more specifically at the European Commission level. The **complementarity and synergetic aspects** of these activities need to be emphasised.

The Task Force would recommend making cooperation mechanisms **more transparent, simpler and easier to understand** in order to make collaboration more attractive, particularly for African partners. Simplifying participation by **keeping cooperation flexible**, whilst framing it in a holistic, long-term and sustainable perspective, is recommended.

The SFIC Africa Task Force highlights the need for **actions proposed under the strategic orientations to be financially sustainable**, with continuous evaluation and ongoing improvement of the initiatives.

OPPORTUNITIES

The SFIC Africa Task Force sees **several opportunities which may pave the way for uptake** of its orientations in the near future:

- The **European Commission's International Strategy** and the development of the international dimension of the European Research Area, expected in summer 2020.
- The **international cooperation negotiations under the Framework Programme** for European Research and Innovation, Horizon Europe 2021-2027.
- The **definition of a joint partnership agenda** at the upcoming 6th EU-AU summit in October 2020, in preparation for which the European Commission has published the Communication to the European Parliament and the Council '**Towards a comprehensive strategy with Africa**'.

- The **implementation of the European Green Deal compromise** that started during H2020 and will be continued during 2021-2027.
- The **New Development and International Cooperation Instrument (NDICI)** – which can help build and strengthen research, innovation and higher education capacities.
- The continuous development of the **HLPD Bureau's effective work**.
- The **Union for the Mediterranean (UfM) Regional Platform in Research and Innovation** – creating potential bridges between the various geographical dialogues, especially for Neighbourhood partners.

5. CONCLUSIONS

The **SFIC Africa Task Force strategic report** is an **analysis and orientation document** expressing the views of the delegations of 11 European countries⁵⁰ and the European Commission, and taking into account the input of over 40 European, African and international stakeholders, on policy for collaboration with Africa on various aspects of research, innovation and higher education.

The report starts with an **analysis of the current activities and priorities**, highlights remarkable initiatives, and enumerates some constraints that need to be mitigated in future collaborations.

Sixteen strategic orientations for future collaboration have been developed as the core part of the SFIC Africa Task Force's work. The objective of these orientations is to enhance collaboration of stakeholders at different levels and give impetus and direction to European-African collaboration on research, innovation and higher education in the coming years.

Due to the diversity of the collaborative activities under way in the fields of research, innovation and higher education, stakeholders must strive to **continuously enhance collaboration and place more focus on ensuring effectiveness**.

The work completed in the framework of the SFIC Africa Task Force aims to be **complementary to the ongoing strategic initiatives** at all levels.

This report will be disseminated to all interested stakeholders.

⁵⁰ AT (Austria), BE (Belgium), DE (Germany), FI (Finland), FR (France), EE (Estonia), ES (Spain), HU (Hungary) MT (Malta), NO (Norway), PT (Portugal).

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Hans-Joerg Lutzeyer	Senior Expert, Food 2030	DG R&I, European Commission
Inmaculada Peñas-Jimenez	Policy Officer	DG R&I
Cecilia Neyroud	Scientific Advisor	State Secretariat for Education, Research and Innovation, Switzerland
Johanna Hakala	Manager, International Affairs	Academy of Finland
Diego Intrigliolo	Chair of Scientific Advisory Board	PRIMA
Abdur Rahim	H2020 Project Coordinator	Open Platforms and Enabling Technologies for the Internet of Things
Andres Martinez	Director	SOST Spanish Office of Science and Technology, CDTI, Spain
Andrew Sherriff	Head of the European External Affairs Programme	European Centre for Development Policy Management
Christine Hackensch	H2020 Project Coordinator	German Development Institute, Germany
Daria Codek	Senior Specialist, Department of Non-European Affairs	Ministry of Science and Higher Education, Poland
Davide Shingo Usami	H2020 Project Coordinator	University of Roma I
Dominik Reinertz	Representative from Fraunhofer	EARTO
Enrique Diaz	Coordinator Angola Project	IGME Spanish Geological Survey, Spain
Florence QUIST	Scientific Officer	Fonds de la Recherche Scientifique-FNRS, Belgium
Ivana Didak	Senior Policy Officer	The Guild
Johan Malin	Project Manager International Financial Institutions	Flanders Investment & Trade, Belgium
Jorge Liz	Representative	EUREKA network
Juan Suárez Beltrán	H2020 Project Coordinator	Enhancing Food Security in African AgriCULTUral Systems with the Support of REmote Sensing

Katalin Alfoldi	Policy Office Responsible for International Relations	COST Association
Katsia Paulevets	Manager of LIRA 2030 Programme	International Science Council
Laia Piñol	Representative	World Association of Industrial and Technological Research Organisations (WAITRO)
Luisa Bunescu	Representative	European Universities Association (EUA)
Maria Jose Escorihuela	H2020 Project Coordinator	Accounting for Climate Change in Water and Agriculture Management
Mathilde Begrand	Head of the higher education unit at the French national Erasmus+ Agency	Erasmus+ Agency, France
Maud Evrard	Head of Policy Affairs	Science Europe
Miriam Cunningham	H2020 Project Coordinator	IIMC and IST-Africa Institute
Moira Torrent	Policy Expert	Spanish National Research Council (CSIC), Spain
Mónica Martín-Lanuza Olmeda	Representative	Spanish National Research Council (CSIC), Spain
Murray Biedler	Representative	UNESCO
Pietro Ceccato	H2020 Project Coordinator	Nurturing Agriculture in Africa with Earth Observation and Digital Platform
Philippe CURY	Representative	Institut de Recherche pour le développement (IRD), France
Radika Van Hameren	NL Research Attaché	NL Representation to the EU, Netherlands
Sabina Asanova	H2020 project coordinator	Integrated Urban Electric Mobility Solutions in the Context of the Paris Agreement, the Sustainable Development Goals and the New Urban Agenda (Solutions plus)
Susanne Johansson	Representative	Formas – A research council for sustainable development, Sweden
Tove Hammarberg	Representative	Forte – Swedish Research Council for Health, Working Life and Welfare, Sweden
Veronika Jorch	H2020 Project Coordinator	Coordination Thünen Africa Concept and Project Coordination SEACRIFOG
Zied Kbaier	AGYA Regional Coordinator for the Maghreb	Arab-German Young Academy of Sciences and Humanities (AGYA)

8. ANNEX: DESCRIPTION OF THE INITIATIVES

At a European level

HLPD activities:

Priority 1. AU-EU FNSSA Partnership

Science and technology cooperation for a 10-year period, adopted in April 2016. Funding from EU Horizon 2020, African Union Research Grants, EU and AU member countries of more than EUR 160 million foreseen until 2020. Currently three funding programmes are active:

- African Union Research Grants: small projects, often an African coordinated AU-EU partnership;
- ERA-Net Cofund LEAP-Agri – Joint funding from 9 African + 10 European Countries – 27 projects: mid-size projects;
- CSA LEAP4FNSSA, which supports the HLPD Bureau and the Working Group on Food and Nutrition Security and Sustainable Agriculture (FNSSA-WG) in implementing the AU-EU FNSSA Roadmap.

Horizon 2020: large projects, e.g. PROIntenseAfrica operates a large database of previous and ongoing projects, currently holding general information on 102 projects, with 41 still ongoing. Three new topics launched in 2019/2020 with a budget of approx. EUR 60 million.

Priority 2. AU-EU CCSE Partnership

CCSE Roadmap acknowledged in November 2017 by the EU-AU Abidjan summit (Article 29 of summit conclusions).

So far one project finished in August 2019, aiming to jointly design a strategic R&I agenda, foster long-term AU-EU collaboration in the field of renewable energy, and empower local R&I through EU/AU cooperation.

A CSA-type action on 'Bioclimatic approaches for improving energy performance in buildings in Africa and Europe' under preparation and one call open on 'Long-term EU-Africa Partnership for Research and Innovation actions in the area of renewable energy' (RIA).

Next steps: nomination of EU/AU experts for a Working Group and preparing action plan.

Priority 3. Africa-Europe Innovation Partnership

Launched in September 2019 in Nairobi.

Adopted as third pillar of the HLPD in November 2019 during the Senior Officials Meeting of the HLPD.

Aims to foster synergies between the African and European start-up ecosystems, identify relevant start-up incubators and accelerators through networking events, facilitate information and technology exchange, and promote cooperation in general. A call under H2020 was launched in order to support priority 3 and will start next autumn.

Other relevant EC information:

DG RTD H – ENRICH call 2020

On the Innovation Partnership: Extending the network of the world's most dynamic and innovative countries and regions (India/Africa/third region) that connect and support EU researchers and entrepreneurs globally.

New Africa-Europe Alliance announced in 2018

- Investment programme
- Technical support
- Joint EU/AU experts working groups (4 Task Forces)
 - Digital Economy report
 - Rural Africa report
- DG EAC – MSCA and Erasmus+

The **EDCTP**⁵¹ and **PRIMA** are Article 185 initiatives via which the European Commission, through the Framework Programmes, and the Member States (with variable geometry) co-fund strategic agendas that are co-created with African stakeholders and implemented over a period of several years.

PRIMA⁵² (Partnership for Research and Innovation in the Mediterranean Area) is a successfully running initiative that can serve as an example of effective multilateralism. Regarding the fostering of innovation, however, there is room for improvement in the pillars that are funded by the Member States. Support of private sector entities with the funding of the states involved in PRIMA is, for some countries, complex or impossible due to national regulations. However, for projects funded by the EC (section 1), industry participation is considerable, particularly for the innovative actions developed so far.

The Union for the Mediterranean (UfM) Regional Platform in Research and Innovation (former EU-MED GSO, Group of Senior Officers for Euro-Mediterranean cooperation) was created in 1995 to monitor and promote cooperation in research, science and innovation. This bi-regional cooperation was given new impetus at the Paris summit in 2008, when the UfM was launched. In addition to bilateral policy dialogues, EU-MED GSO plays a key role as a bi-regional policy dialogue platform bringing together EU Member States and all Mediterranean Partner Countries⁵³. Since the adoption of the Valletta Ministerial Declaration (May 2017), the following has been achieved: 1) the BLUEMED initiative, 2) the Partnership for Research and Innovation in the Mediterranean Area (PRIMA) and 2) research-related migration. The EU-MED GSO is currently working towards the possibility of setting up a Working Group on Research and Innovation and a renewed strategy.

CAAST-NET (and CAAST-NET+⁵⁴) was a coordination and support action funded by FP7 that served as a platform for coordination, analysis and outreach in research and innovation collaboration between the two world regions. The focus on the second phase was on three thematic areas: food security, climate change and health.

⁵¹ <https://www.edctp.org/>.

⁵² <http://prima-med.org/>.

⁵³ This initiative involves the following countries: Portugal, Spain, France, Germany, Italy, Malta, Greece, Cyprus, Turkey, Lebanon, Israel, Palestine, Jordan, Egypt, Algeria, Tunisia and Morocco, under the co-presidency of the European Commission and the Hashemite Kingdom of Jordan.

⁵⁴ <https://caast-net-plus.org>.

Erasmus+ for Africa⁵⁵ is an initiative that supports the exchange of students and staff between European and sub-Saharan African universities.

International dimension of Erasmus+ in Africa⁵⁶. Via its international dimension, Erasmus+ funds mobility schemes for students, researchers and staff between European and African countries, as well capacity-building activities for higher education institutions and systems. Africa has become a priority for the international dimension of Erasmus+ over the last years.

The **Marie Skłodowska Curie Actions (MSCA)**⁵⁷ are the EU flagship programme for supporting researchers' mobility and training at doctoral and postdoctoral levels. The MSCA support researchers in all scientific domains, promote collaboration between the academic, scientific and business communities, boost the careers of scientists at all stages and develop excellent doctoral training through international and intersectoral mobility. The MSCA are the most international component of Horizon 2020, representing more than half of the total participation by third countries. A total of more than 1 300 African researchers from 43 different countries are currently involved in the programme, which also counts more than 220 participations by 161 different African organisations.

The **Intra-Africa Academic Mobility Scheme**⁵⁸ is funded under the DCI's Pan-African Programme and supports higher education cooperation between countries in Africa, by providing financing for student and staff mobility.

The **African Research Universities Alliance (ARUA)**⁵⁹ is composed of 16 leading universities in Africa. It aims to enhance research and graduate training in member universities through a number of channels, including the setting up of Centres of Excellence (CoEs) at its member universities. Addressing key challenges of Africa's sustainable development, ARUA CoEs are intended to be focal points for aggregating world-class researchers from member universities and elsewhere to undertake collaborative research in priority thematic areas while providing opportunities for graduate students from the region and elsewhere to work with the researchers.

The **Guild of European Research-Intensive Universities (The Guild)**⁶⁰. Founded in 2016, the Guild comprises 19 of Europe's most distinguished research-intensive universities in 14 countries and is dedicated to amplifying the voice of academic institutions, their researchers and their students. The Guild is committed to the pursuit of excellence, the importance of truth-seeking and trust-building as the foundation of public life, and the creation of new knowledge for the benefit of society, culture, and economic growth.

ERA-Net ERAfrica⁶¹ was a ground-breaking initiative that for the first time brought together European and African research funding agencies to plan, organise and launch the first call ever for transnational collaborative projects aiming at funding researchers from their own countries. The current ERA-Net Co-fund project **LEAP-Agri** is to a large extent built on the ERAfrica model with a top-up by the EC.

⁵⁵https://ec.europa.eu/programmes/erasmus-plus/news/erasmus-africa-and-eu-africa-strategy_en.

⁵⁶https://ec.europa.eu/programmes/erasmus-plus/news/erasmus-africa-and-eu-africa-strategy_en.

⁵⁷ https://ec.europa.eu/research/mariecurieactions/msca-actions_en.

⁵⁸ <https://eacea.ec.europa.eu/intra-africa>.

⁵⁹ <http://arua.org.za/>.

⁶⁰ <https://www.the-guild.eu/>.

⁶¹ <https://www.erafrica.eu/>.

IST-Africa⁶² is a strategic partnership between IIMC and the IST-Africa Institute (Ireland) and ministries and national councils responsible for innovation, science and technology adoption, policy and research in 18 African Member States. IST-Africa has been supporting strategic engagement with Africa focused on international research, innovation and policy cooperation since 2005. IST-Africa has published comprehensive mapping of research and innovation capacity, research priorities and Innovation Spaces to inform future Africa-focused calls and mapping of bilateral and multilateral cooperation.

AfricaConnect⁶³ was funded under EDF10 (2011 - 2015) and EDF11 (2015 - 2019) to establish high-capacity Internet networks for research and education across Africa, and to strengthen links with Europe to facilitate global collaboration. It aimed to contribute towards the SDGs, open up research activities in the region, build cooperation with the rest of the world, and reduce poverty, brain drain and the digital divide, through the creation and use of National Research and Education Networks.

The **Digital4Development**⁶⁴ framework was developed by the European Commission to mainstream digital technologies across several priority areas. Five short-term projects focused on Africa were funded: 1) The Multinational Trans-Saharan Backbone (TSB) Optical Fibre Project; 2) The Central Africa Backbone (CAB) Project – Central African Republic (CAR) Component, 3) Cyber4D, 4) PRIDA and 5) Digital4Inclusion. The projects started in 2018. Preparatory work to support medium-term actions was undertaken in the areas of e-governance, health, agriculture and education.

Multilaterally

The **'5+5 Dialogue' Forum for Research, Innovation and Higher Education** is an initiative that builds cooperation in the western, southern and northern Mediterranean countries⁶⁵ with the objective of fostering networking in research, innovation and higher education. The forum signed the 2019 Rome Declaration 'Strengthening cooperation in research, innovation and higher education for promoting sustainable economic growth, social inclusion and creating new opportunities for youth in the Western Mediterranean Region' that marks its strategy for the future.

The **Atlantic International Research Centre (AIR Centre)**⁶⁶ is a network for international cooperation along and across the Atlantic, with an integrative approach to the advance and sharing of knowledge of space, the atmosphere, oceans, climate change, energy and data science, as well as their interactions. Its central theme is North-South and South-North, East-West and West-East Atlantic cooperation. The AIR Centre is the result of a two-year process of Portuguese scientific diplomacy, under the 'Atlantic Interactions' research and innovation

⁶² <http://www.ist-africa.org/home/>.

⁶³ <https://www.africaconnect2.net/>.

⁶⁴ <https://ec.europa.eu/digital-single-market/en/blog/digital4development-new-approach-eus-development-tool-kit>.

⁶⁵ Algeria, France, Italy, Libya, Malta, Mauritania, Morocco, Portugal, Spain and Tunisia.

⁶⁶ <https://aircentre.org/>.

agenda that was initiated on June 10, 2016 and led to over 30 other thematic scientific and policy workshops around the world⁶⁷.

Bilaterally

In higher education and scientific cooperation, the **Austrian Partnership Programme in Higher Education and Research for Development (APPEAR⁶⁸)** funds well-designed collaborative and innovative projects, responding to the needs and demands identified in the countries and institutions addressed. APPEAR is supporting a new ‘Higher Education and Scientific Cooperation’ strategy in support of higher education and research for development on an academic institutional level in the priority regions.

In digitalisation, major **interinstitutional UNDP-funded projects on digital transformation** aim to achieve the SDGs in the framework of the Memorandum of Understanding between Estonia and the African Union.

The BMZ German programme **Make-IT Digital Africa⁶⁹** supports the **creation and clustering of start-ups in Africa**.

In research and innovation cooperation, the Finnish FinCEAL Plus BRIDGES⁷⁰ initiative supports research cooperation between researchers based in Finnish institutions and the research community in Africa on activities that align with the 2030 Agenda for Sustainable Development and its 17 goals. In addition, FinCEAL Plus BRIDGES supports research with African partners on themes derived from the AU-EU cooperation priorities in science, technology and innovation. The Joint AU-EU Strategy and the AU-EU High-Level Policy Dialogue on Science, Technology and Innovation highlight thematic areas of priority. The programme will end in 2020.

The Climate Service Centres SASSCAL⁷¹ and WASCAL⁷² are a German initiative run in cooperation with several Southern and Western African countries respectively. They present a unique blend of top-tier research, science-based advisory services for policymakers and stakeholders/practitioners (such as farmers), and capacity building through specialised programmes and the creation of graduate schools. The challenge behind this endeavour was to find ways of directly transferring available funds to the service centres in Africa. An intermediary had to be identified who could administrate the funds and comply with national regulations regarding accounting and documentation. While this has been solved by utilising the German Development Bank, a second challenge remains: the initiative’s vision is to transfer the service centres into full African ownership. However, the partner countries involved have not yet been able to raise the necessary funds for the independent support of the service centres. This, in turn, raises the question of whether pre-financing by a donor country is the right way forward, if long-term ownership by the African partners is expected.

⁶⁷ <http://www.atlanticinteractions.org/events/>.

⁶⁸ <https://appear.at/en>.

⁶⁹ <https://www.deutschland.de/en/topic/business/make-it-in-africa-germany-supports-start-ups>.

⁷⁰ <https://www.unipid.fi/funding/fc-funding/>.

⁷¹ <http://www.sasscal.org/>.

⁷² <https://wascal.org/>.

The Nordic Africa Institute⁷³ is located in Sweden. Its objective is to strengthen collaboration between Nordic and African research communities.

Centro Ciência LP⁷⁴ – International Centre for Advanced Training in Fundamental Sciences of scientists from Lusophone countries. The Centro Ciência LP is an outcome of the signature of an agreement between the Portuguese Government and UNESCO.

Swiss institutions as Leading Houses in Africa during the 2017-2020 period, funded by the Swiss State Secretariat for Education, Research and Innovation (SERI): 1) The HES-SO University of Applied Sciences and Arts Western Switzerland acts as Leading House for the North African region. Its overall goal is to develop scientific collaborations between Switzerland and countries of the MENA region. Various funding instruments, such as Innovation Starting Grants and Seed Money Grants have been launched. 2) The Swiss TPH, supported by the University of Basel, is the Leading House for bilateral research collaboration with partner institutions in the sub-Saharan African region. Leading House Basel promotes and fosters scientific cooperation with key institutions in sub-Saharan Africa for the 2017-2020 funding period. Cameroon, Ghana, Kenya and Uganda have been designated as key countries with which to strengthen cooperation during this phase, in addition to intensifying the existing ties with Côte d'Ivoire, South Africa and Tanzania.

Internationally

African and European countries are also partners in a number of relevant global initiatives with special activities directed towards Africa. They include:

- The **International Science Council (ISC)** <https://council.science/>, which has a five-year programme focused on Africa and an African regional office.
- The **Global Research Council (GRC)** <https://www.globalresearchcouncil.org/>; the World Bank has financed the establishment of **African Centres of Excellence (ACE)** <https://ace.aau.org/> to facilitate partnerships with researchers in Europe and elsewhere.

Some European funders are part of the Science Granting Council Initiative in Africa <https://sgciafrica.org/en-za/home>, while others are part of the International Research for Development Funders (IRDF), including private foundations such as the Volkswagen Stiftung and the Wellcome Trust.

⁷³ <https://nai.uu.se/>.

⁷⁴ <https://www.ciencialp.pt/>.