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NOTE

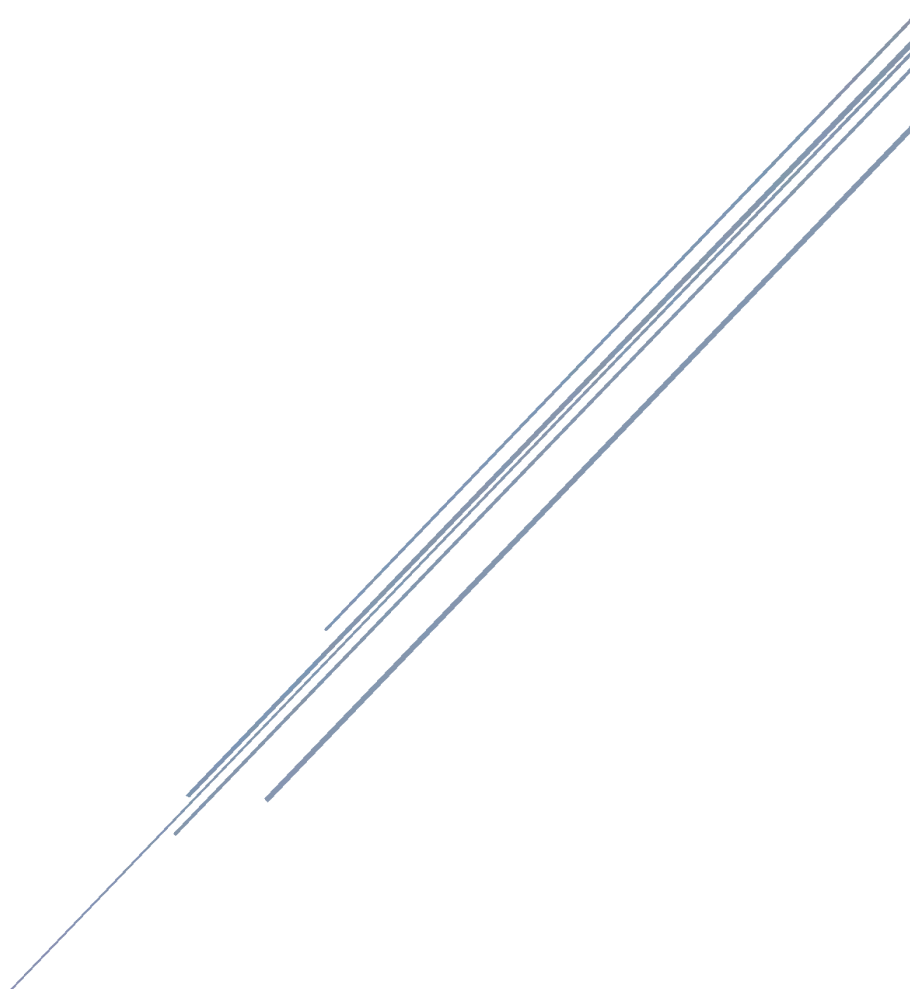
From: SFIC Secretariat
To: SFIC delegations

Subject: EUROPEAN COUNTRIES' INNOVATION COLLABORATION WITH
AFRICA - SFIC Africa Working Group - Innovation Survey Results

Delegations will find attached the report on EUROPEAN COUNTRIES' INNOVATION
COLLABORATION WITH AFRICA - SFIC Africa Working Group - Innovation Survey Results

EUROPEAN COUNTRIES' INNOVATION COLLABORATION WITH AFRICA

SFIC Africa Working Group - Innovation Survey Results



April 2021

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Introduction

This report responds to one of the objectives of the SFIC Africa Working Group¹, that of understanding innovation capacities and relations that the European countries have in and with African stakeholders.

The document includes a brief [Methodology](#) section that describes the process of analysis, a [Findings](#) section that illustrates and analyses the answers received, and a [Conclusions](#) section that summarises the study.

The [Innovation Survey](#) was answered by 15 European countries: Austria, Belgium, Czech Republic, Finland, France, Germany, Greece, Italy, Malta, Norway, Poland, Portugal, Romania, Spain, and Sweden.

SFIC, its delegations and the European Commission, are welcome to use the information on the report for enhancing the collaboration they have with Africa and African stakeholders in the implementation of the broader context of the EU-Africa strategy.



Methodology

The survey included 17 questions, out of which, the first 12 were a single choice question, where delegations were asked to answer with a “yes”, “no” or “do not know”; and in case of an affirmative answer, they were given space to give more information.

The timeline of the survey included: the design approved by the SFIC Plenary in December 2020, the data from the countries received in January-February 2021, the analysis carried out in February -March 2021 and revisions included during April 2021.

The **methods for analysis of the retrieved information are qualitative**. Firstly, we resume the questions to the brief topics they ask about; then, we summarise the single choice answers stating the countries and their answers; and finally, we review the information given on the affirmative answers.

¹ The Strategic Forum for International Cooperation (SFIC) Africa Working Group is composed by delegations of Austria, Belgium, Germany, France, Finland, Italy, Norway, Portugal, Spain and the European Commission (DG R&I and DG EAC), operates with the mandate [WK 11317/2020 INIT adopted at SFIC Plenary](#).

This **summative approach** can be brief and comprehensive at the same time, with the objective to give a snapshot of the information. Some of the **limitations** that occur are the ones that do not take on board the full details of every answer. This could be mitigated through the inclusion of the textual answers such as retrieved by the European Survey tool in an excel sheet as an Annex, available upon request.

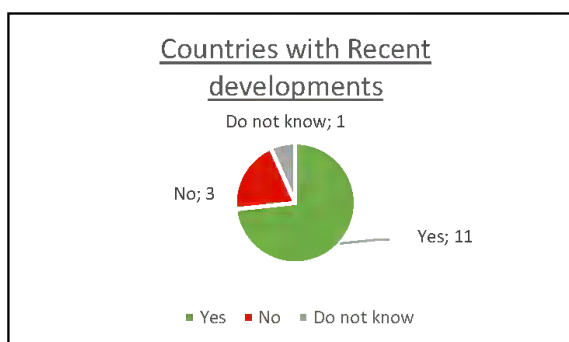
Findings

Recent developments

The delegates were asked if in terms of innovation-oriented cooperation with Africa, there are any recent developments in their country/region regarding Strategy Development, setting up of expert groups, networks, platforms, etc. with a focus on encouragement of innovation (e.g. science/business/research, technology and innovation strategy).

Most of the countries have recent developments for encouraging innovation cooperation with Africa.

The countries that have answered affirmatively are Austria, Belgium, Czech Republic, Finland, France, Germany, Greece, Italy, Malta, Portugal, Spain and Sweden.



These developments are:

- New strategies:
 - o [Malta and Africa: A Strategy for Partnership 2020 – 2025](#), launched by Malta.
 - o [Finland's Africa strategy](#) to be launched in 2021 focused on "Climate, environment and natural resources" and "Education and competence".
 - o "[A Partnership with Africa](#)" by Italy.
- New institutional arrangements:
 - o New research centres, such as the Atlantic International Research Centre ([AIR Centre](#)), launched by Portugal.
 - o The "International Centre for Advanced Training of Scientists from Portuguese Speaking Countries in Basic Sciences, as a category 2 centre, under the auspices of UNESCO "[Ciência LP](#)"
 - o [Supporting the Tunisian innovation system](#), by Spain.
 - o Alliance Sahel Roadmap, by France.

- Task Force “Austria's Partnership for Sustainable Development and Inclusive Growth in Africa” of the Federal Chancellery of Austria.
- Summits, conferences, etc.
 - [One Planet Summit](#) and sustainable development oriented innovation by France.
 - [Saison Africa 2020](#), Key action 2 - Innovation cooperation and exchange of good practices, by France
 - Summit of the two shores ("Sommet des deux rives") for the Mediterranean region, by France.
- New initiatives:
 - The Initiative Knowledge for Development ([KfD](#)), launched by Portugal.
 - [Meet Africa Programme](#), co-funded by the French Development Agency (AFD) and the EU.
 - [Dialogue 5+5 Research, Innovation and Higher Education](#), high-level dialogue for the Eastern Mediterranean countries. Several countries participate.
- Prizes:
 - [The prize D4D](#) is awarded to “outstanding initiatives that use digitisation and (new) technologies as a lever for development towards achieving the Sustainable Development Goals”. It is a biannual initiative of the Royal Museum for Central Africa (RMCA) and supported by the Belgian Development Cooperation.
- New business associations:
 - [GO GLOBAL MISSIONS](#) for innovation cooperation and start-ups in Africa, initiative launched in Belgium.
- New platforms:
 - The King Baudouin Foundation's (KBc) initiative Business Partnership Facility, by Belgium.
 - [Afric'innov platform](#), launched by the French Development Agency (AFD) (Bénin, Guinée, Burkina Faso, Niger, Sénégal), by France.
- Focus on entrepreneurship:
 - “Entrepreneurs for Entrepreneurs” ([OVO](#)) invests in entrepreneurship in developing countries, by Belgium.
- Focus on universities:
 - The [Africa Platform at Ghent University Association](#)
 - The [Africa-UniNet | The Austrian-African Research Network](#)
- Funding schemes:
 - Trilateral scheme Greece- Cyprus- Egypt under bilateral collaboration, by Spain.
 - Bilateral cooperation:

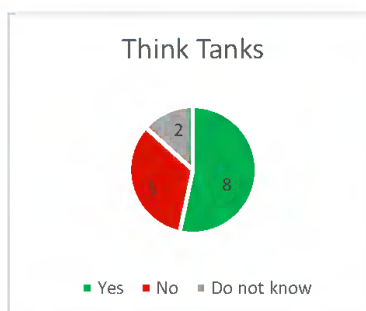
- [Bilateral calls with Morocco, Algeria and Egypt](#), by Spain.
- A [JOINT SCIENCE AND TECHNOLOGY COOPERATION between Italy and Egypt](#) has been signed in 2019, by Italy.
- German-Moroccan Cooperation in R&D and Innovation: Bilateral call for projects under the "Programme Maroc-Allemand de Recherche Scientifique" (PMARS), launched jointly by the German Federal Ministry of Education and Research (BMBF) and the Moroccan Ministry of National Education, Vocational Training, Higher Education and Scientific Research (MENFPESRS)
- Multilateral calls:
 - [PRIMA](#)
- Supporting innovation in [unilateral calls](#) from Spain to Morocco, Algeria, Tunisia, Egypt, Mauritania, Cape Vert, Senegal, Ghana and Ivory Coast
- Research collaboration:
 - Cooperation with South Africa. Research Councils have been increasing their cooperation with SA counterparts. Research collaboration with Ethiopia, Uganda, Tanzania (and a few more) using aid funding, by Sweden.

Think tanks or centres that advance on strategic knowledge

Eight countries have identified think tanks and centres of excellence that contribute to advancing the strategic knowledge on innovation in/with Africa.

The countries that have answered affirmatively are Belgium, France, Germany, Italy, Malta, Portugal, Spain and Sweden.

The given examples are:



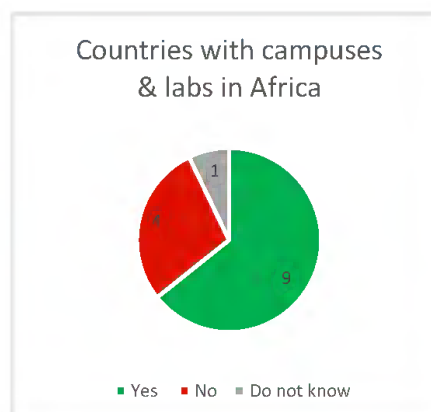
- [The Commonwealth Small States Centre of Excellence](#) in Malta.
- The "Ciência LP" – International Centre for Advanced Training of Scientists from Portuguese Speaking Countries in Basic Sciences, in Portugal.
- [The Centre of African Studies of Porto University](#) (CEAUP) in Portugal.
- [The Global Health and Tropical Medicine \(GHTM\)](#) in Portugal.
- The Research Centre in Biodiversity and Genetic Resources (CIBIO-InBIO) from Portugal have established a network of [TwinLabs in Africa](#).
- [The SKAN Platform](#) – knowledge and technology sharing in agriculture, food-industries, forestry and natural resources, in Portugal.

- VITO (Strategic Research Center in the area of cleantech and sustainable development): African Knowledge Center for Nationally Determined Contributions (“NDC Support Center) in Belgium.
- The Africa platform of University of Gent in Belgium.
- The Institute of Tropical Medicine Antwerp (ITM) in Belgium.
- “[Casa África](#)” in Spain.
- The [Nordic Africa Institute at Uppsala University](#) in Sweden.
- [Czech University of Life Sciences Faculty of Tropical AgriSciences Prague](#) in the Czech Republic.
- [Innovation Campus of the IRD : Bond’Innov](#), the [Innovation hub in South Africa Pretoria, CNRS, IRD, CIRAD](#), the 2iE Incubator in Ouagadougou, Burkina Faso, The [Center of excellence in Mathematics, Computer science and ICT \(“CEA MITIC”\)](#) in Senegal, the [French-South African Tech Transfer Bridge Program](#) and the Partnerships with African higher education institutions ([through the PEA programme](#)), [also funding innovation projects \(BioValor\)](#) in many African countries; by France.
- [Fondazione “Italian Higher Education with Africa”](#) by Italy.
- [The Southern African Science Service Centre for Climate Change and Adaptive Land Management \(SASSCAL\)](#), [The West African Science Service Centre on Climate Change and Adapted Land Use \(WASCAL\)](#), The Merian-Zentren, the Centre for Interdisciplinary African Studies (ZIAF), the GIGA Institute, the [Arab-German Young Academy \(AGYA\)](#); the [Clusters of Scientific Innovation in the Middle East and North Africa \(COSIMENA\)](#) by Germany.

European campuses, research labs, etc. established in Africa

Nine countries have shown awareness on campuses, research labs, offices/locations, platform, associations etc. established in Africa.

- Twin labs abroad by Portugal, mentioned above.
- The implementation of a battery test bed in between EnergyVille and CSIR, South-Africa; a cloud-based climate information platform for the agricultural sector in Africa (AgroClim), the Climate information platform for adaptation in the agricultural sector in Africa KIMPALA-project, by Belgium.
- [The Impact Hub Vienna](#); the [Impact Hub Global Community](#) and the [Advantage Austria](#), by Austria.



- Makerere university centres, by Sweden.
- [The Nansen - Tutu Centre for Marine Environmental Research in Cape Town](#) by Norway.
- The 2iE Incubator in Ouagadougou, Burkina Faso; the Center of excellence in Mathematics computer science and ICT (CEA MITIC) in Senegal (Dakar), French-South African Tech Transfer Bridge Program, and more than 50 support structures for innovative entrepreneurship (SAEI) settled in Africa and involved in the Afric’innov Program (Agence Française de Développement- AFD). Some dedicated innovation centres: CTI C (Sénégal), Saboutech (Guinée), La Fabrique (Burkina Faso), Etrilabs (Bénin), CIP MEN Niamey (Niger). The IRD Innovation Campus in Sénégal; the Fab Labs Network of engineering schools in Senegal (Labs Xalaat Defar), the Francophone Network of West African Fablabs (association bringing together Fablabs in West Africa); the [ACTIF, program of the Agence Universitaire de la Francophonie](#), the [AFD's Programme for incubators and startups](#) (e.g. setting up of incubator STARTX 241 in Gabon and the surrounding francophone region); by France.
- The "Luigi Broglio" Space Center in Kenya managed by the Italian Space Agency (ASI); the “Biotechnology Center” established at Eduardo Mondlane University in Mozambique; by Italy.

Presence of the African countries beyond embassy level

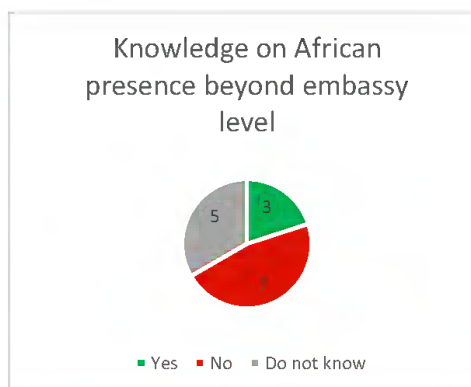
The delegates that are aware of the African presence beyond embassy level in their country are three, i.e.: Belgium, France and Germany.

The Belgium delegation responds the following:

To a very limited extent, we know of the existence of a growing number of non-governmental organisations like African Digital Story, out of the DR Congo, which are building up a presence in Brussels. Several other incubators and innovation hubs (as, e.g. listed by AfriLabs) are building up presences in Europe, even though these are more aimed at lobbying and networking with local organisations.

The French delegation identifies several entities:

The [French Council of investors in Africa](#); the [French-African Foundation](#), the “Science Po.” Europe-Africa partnership; the Alumni networks (Gabon,



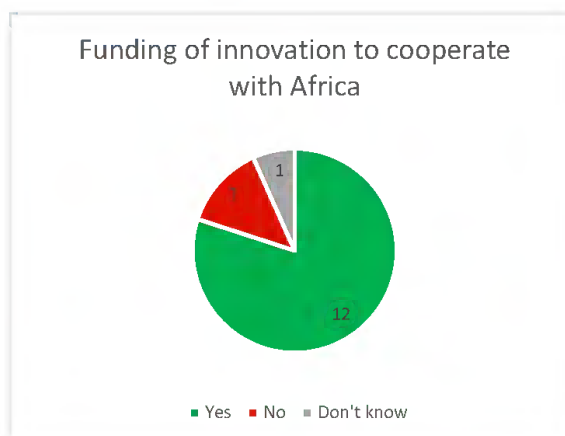
Cameroon, Burundi, Madagascar, Senegal...); the Network of Euro-Mediterranean universities (Aix-Marseille University) and the ANIMA investors network.

The German delegation indicates that [SASSCAL](#) (mentioned above) is one of them.

European funding instruments used

Most of the countries have replied positively to the question of existing funding instruments related to innovation, entrepreneurship and brain circulation with Africa.

These countries are: Austria, Belgium, Czech Republic, France, Germany, Greece, Italy, Malta, Norway, Poland, Portugal and Spain.



A summary of the instruments is as follows:

- PRIMA, mentioned by Malta, Greece, and Spain.
- The Earth Observation Laboratory and the Air Centre Scholarship Programme, the "Ciência LP", the "Science 4 COVID-19" platform, and the Square Kilometre Array Observatory (SKAO) convention, mentioned by Portugal.
- VLIR-UOS partnerships between Flanders and the South, Doctoral support for innovation ecosystems in Tanzania, mentioned by Belgium.
- The [Technology Agency of the Czech Republic \(TACR\) funds projects](#) mostly with South Africa, mentioned by Czech Republic.
- [NORHED II](#) by the Norwegian Agency for Development Cooperation (Norad) university partnerships; a [Visjon2030](#), a formative dialogue research project within health and education; bilateral calls with South Africa, [UTFORSK](#) that supports the establishment of long-term partnerships, [INTPART - International Partnerships for Excellent Education, Research and Innovation](#), and [SANOCEAN](#), a bilateral programme with South Africa for enhanced knowledge-based policies and decisions for sustainable development in the areas of oceans and ocean space, environment, climate change and sustainable energy by Norway.
- The French Development Agency (AFD); University agency of the Francophonie (AUF); Ministry for European and Foreign Affairs; Ministry for Economy and Finance (DG Trésor): Private sector study and aid funds (FASEP) funding [demonstrators and pilot projects for French SMES with a local partner in Africa](#)

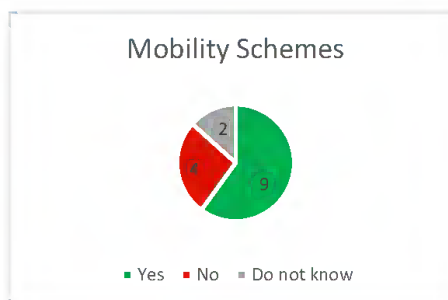
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- (e.g. desalination through renewable energy unit funded in South Africa) by France.
- Cooperation between the National Center for Research and Development (NCBR) and the National Research Foundation of South Africa (NRF) and Individual cooperation of the Polish Academy of Sciences, mentioned by Poland.
 - [Fondazioni4Africa Cariplo foundation](#), by Italy.
 - "[Contract Africa](#)" funding call of BMBF; currently nine funded projects with partners from South Africa, Cameroon, Uganda, Tanzania, Morocco, Ghana, Ethiopia, Kenya; Establishing Contract Research in African Innovation systems funding programme "German-African Innovation Incentive Award" (GAIIA); 2+2 Call with Tunisia in 2018 and [2020](#); BMBF announcement: [Fostering innovations ecosystems in MENA countries](#); UNESCO-TWAS Programme: Seed Grant for African Principal Investigators; Joint Research Projects in frame of the "German-Egyptian Research Fund (GERF), launched jointly by the German Federal Ministry of Education and Research (BMBF) and the Egyptian Science and Technology Development Fund (STDF); Joint research projects (tandem projects; working group projects/ meetings; research mobility projects etc. in frame of the "[Arab-German Young Academy \(AGYA\)](#)"; Clusters of Scientific Innovation in the [Middle East and North Africa \(COSIMENA\)](#).
 - R&I funding programmes which could be utilized for cooperation with Africa:
 - o Frugal Innovation | [Innovation for a Better World - Advanced Solutions for Sustainable Development](#)
 - o [Impact Innovation](#)

Mobility schemes with African stakeholders

Most of the countries confirm to have mobility schemes focused on innovation with African stakeholders.

These countries are: Czech Republic, France, Germany, Italy, Malta, Norway, Poland, Portugal and Sweden.



- The University of Malta has funded a number of doctoral students from Africa, mentioned by Malta.
- FCT has mobility schemes to innovation activities under several programs: The [Air Centre Scholarship Program](#), the Knowledge for Development Initiative; Science 4 COVID-19; Ciência LP Scholarships and under all the bilateral programs with African countries (Cape Verde, Mozambique, Angola, Morocco, Tunisia, Algeria and South Africa), mentioned by Portugal.

- Sweden offers support for “Sandwich education” (alternate studies in home country and in Sweden) at graduate level for African students.
- Mobility programmes MEYS, mentioned by the Czech Republic.
- [Norec](#) provides exchange grants, follow-up and training to organisations, institutions and private businesses in Norway and Africa: Ethiopia, Madagascar, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia, Rwanda, Burundi, Zimbabwe and Ghana.
- “Partenariats Hubert Curien” dedicated to research mobility and innovation with the following countries: Morocco, Algeria, Tunisia, Egypt, South Africa, Kenya, Mauritius, Soudan, and the Young African Scientists in Europe (Association YASE), mentioned by France.
- Cooperation between the National Center for Research and Development (NCBR) and the National Research Foundation of South Africa (NRF), mentioned by Poland.
- [TWAS-SISSA-Lincei Research Cooperation Visits Programme](#), mentioned by Italy.

Participation in EU or other international funded programmes

Eleven countries participate in EU or other internationally funded programmes together with African countries.

These countries are: Austria, Belgium, France, Germany, Greece, Finland, Italy, Malta, Norway, Portugal, and Spain

The programmes or initiatives mentioned are:



- [PRIMA](#): Partnership for Research and Innovation in the Mediterranean Area.
- [ENI CBC Med Programme](#) (2014-2030) & NEXT MED (2021-2027).
- [Interreg MED Programme](#) (2014-2020).
- [Dialogue 5+5 Research, Innovation and Higher Education](#).
- [AU-EU High Level Policy Dialogue on STI](#), its Bureau and the experts group.
- [LEAP-RE](#)- Long-Term Joint EU-AU Research and Innovation Partnership on Renewable Energy.
- [LEAP4FNSSA](#) – Long-Term EU-AU Research and Innovation Partnership for Food Nutrition Security and Sustainable Agriculture.
- UfM Regional Platform on R&I, and Bureau.
- [BlueMed Initiative](#).

- [EDCTP](#): European and Developing Countries Clinical Trials Partnership' initiative
- [AANChOR](#): All AtlaNtic Cooperation for Ocean Research and innovation
- [ENRICH in Africa](#) - A Multi-sided Platform Business Model for supporting the EU-African Innovation Community.
- EUREKA: [Multilateral Call for Proposals for Joint Research and Development \(R&D\) Projects on Disruptive Technologies between South Africa, Austria, Spain, South Korea and Germany.](#)
- European Space Agency ([ESA](#)).
- [Globalstars](#) multilateral call with Singapore (incl. South Africa).
- [ESASTAP 2020 | Strengthening Technology, Research and Innovation Cooperation between Europe and South Africa 2020.](#)
- [Emorj](#) (Support program for Education, Mobility, Research, Innovation in Tunisia).
- [MeetAfrica](#).
- [Next Einstein Forum](#) and dedicated related actions.
- [SQUARE KILOMETER ARRAY SKA](#) an international project whose goal is to build the largest radio telescope in the world in two different locations, Australia and South Africa
- ERA NETS: MarTERA, ERA-NET LEAP-AGRI, ERA-Min2 and ERA-Min3; M-ERA.NET II; [M-ERA.NET 2](#) , [M-ERA.NET3](#), [EnerDigit](#) , ERA-NET MED.

Using novel financial instruments to stimulate innovation

The delegations were asked to what extent their country is using innovative, novel financial instruments (e.g. blended financing) to stimulate innovation with Africa. Ten countries have replied: Austria, Belgium, France, Germany, Greece, Malta, Norway Portugal, Spain and Sweden.

Countries that inform that they are not aware of the use of novel instruments are: Greece, Malta and Sweden.

The German delegate indicates that these instruments are rarely used in the two initiatives mentioned above: WASCAL and SASSCAL.

The ones that give concrete examples are the following:

Portugal:

In the Air Centre, The Earth Observation (EO) Laboratory (EO Lab) - has been established and fully operational since September 2019 and comprises a team of highly qualified and multidisciplinary staff in the fields of interest of the AIR Centre. A laboratory to set-up an institutional link between academia, high-tech enterprises, research institutions and European Space Agency to explore innovative applications of space technologies of observation in the Atlantic area. [ESA_LAB@Azores](#) activities also aim to:

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Attract and educate young and talented people to get involved in an accelerated space for creation, innovation and joint ventures; Contribute to the European autonomy in accessing and using space in a safe and secure environment, by diversifying, extending, consolidating, connecting and protecting its infrastructures across all the regions; Connect Azores region into a globally competitive European space sector.

The Air Centre Scholarship Program aiming to enhance scientific research and technological development to better respond to national priorities and global challenges in the Atlantic. Scholarships are annual, renewable up to 4 years, and doctoral research work will be carried out entirely or partially in a Portuguese institution.

Belgium:

- The Belgian Government is an 'outcome funder' in the world's first 'Humanitarian Impact Bond', aimed at stimulating technological innovation in the sector, specifically aimed at African countries.
- The government's investment bank aimed at supporting (established or starting) African companies, BIO, has several financial instruments that can be called innovative. Its SDG Frontier Funds, for example, is described as 'A closed-ended self-managed private equity fund of funds (FoF), focusing on SME's across sectors in frontier markets of Africa and Asia to promote job creation and sustainable economic growth'. BIO's investments do not prioritise innovation as such, but are aimed at small and medium-sized enterprises, financial institutions, and infrastructure projects, contributing to socio-economic growth in developing countries.

Austria:

[Oesterreichische Entwicklungsbank \(OeEB\)](#). OeEB is the development bank of the Republic of Austria. OeEB's mission is to promote economically, environmentally and socially sustainable development by investing in profitable private sector projects in developing and emerging countries. To accomplish the mission, OeEB have three product lines: a) investment finance, b) equity participations and c) business advisory services.

Norway:

Norfund is the Norwegian Investment Fund for developing countries. With the aim of creating jobs and to improve lives by investing in businesses that drive sustainable development Norfund - Creating Jobs - Improving Lives. Although open for investments in developing countries throughout the world, more than half of the investments are made in Africa, particularly within renewable energy.

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France:

Mainly blended financing with international agencies of the UN or with the World Bank, the African Union and the European Union.

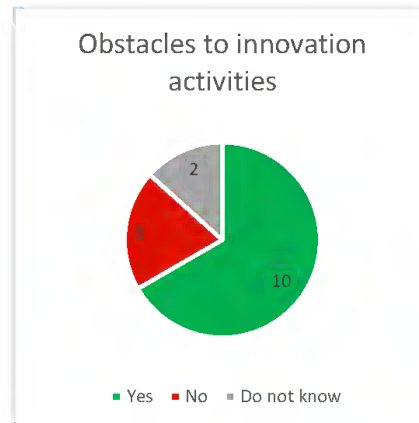
The French Development Agency (AFD), through his subsidiary company PROPARCO, is developing partnerships with investment funds in Africa (e.g. Energy Access Ventures Fund in partnership with FISEA investment fund in Kenya, for the development of small hybrid power plants).

Obstacles to innovation-oriented activities

The delegations were asked if there are any specific issues in the cooperation with/in African countries that could pose an obstacle to innovation-oriented activities (e.g.; IPR rights, administrative procedures, investment landscape and traditional funding models etc.).

Most of the countries consider there are some obstacles.

The countries that do not see any obstacles are Finland, Norway and Poland.



The countries that have answered "Do not know" are Portugal and the Czech Republic.

The identified obstacles are:

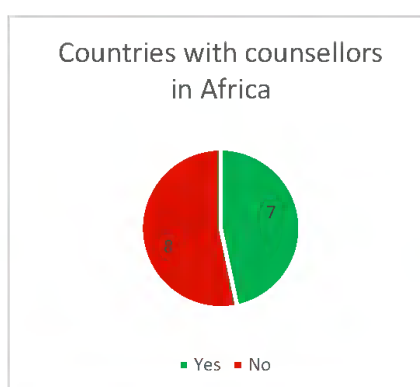
- **Administrative issues:** administrative procedures are slow and the administrative burden is too heavy, the administrative communication is little effective, high bureaucracy levels. This may mean there is a limited capacity in administrative and/or managerial skills (see below). The financial stability and issues like visa for visiting researchers, administrative procedures for customs (in various countries e.g. South Africa regarding visas).
- **Budgetary issues,** such as a limited dedicated research funding (no National Research Foundations), very limited private sector investment and private-public sectors collaboration. The investment landscape is very limited.
- **Framework conditions and facilities.** Lack of performing infrastructures and framework conditions. Technical limitations, e.g. insufficient quality of the internet connection. Lack of subscription to online resources (ref. budgetary issues, see above). Limited data sharing and open resources.

- **Capacities related to human resources.** Limited human resources, lack of specialists and governmental structures dedicated to tech transfer/valorisation (from the lab to the market), among others.
- **Development of R&I systems.** The R&D Systems are too oriented to basic research and less to innovation, even though they are slowly shifting towards innovation too.
- **IPR.** Insufficient guarantees on IPR rights and follow-up of IPR procedure.
- **Research culture issues:** Not always consensus on common project evaluation procedures.

Counsellors in Africa

The delegations were asked if their countries have Science, Research, Technology or Innovation Counsellor(s) in Africa.

The countries that have answered positively are: Belgium, Finland, France, Germany, Italy, Norway and Spain.



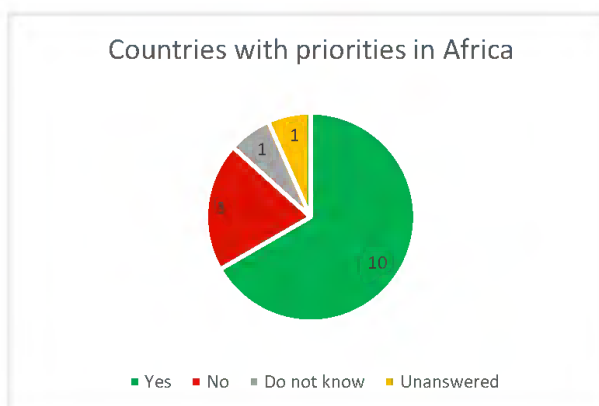
- Belgium is represented through the Flanders Investment and Trade representation (Flemish) and their Brussels/Walloon counterpart either at embassy level, or separately.
- Finland through Team Finland Knowledge / Science Counsellor in Pretoria, South Africa.
- Spain through the CDTI-Spanish Agency of Innovation that has its delegate for the Middle East and North Africa (MENA) region based in Morocco.
- Norway through [Innovation Norway](#), the Norwegian Government's most important instrument for innovation and development of Norwegian enterprises and industry, maintains an office in Nairobi, Kenya.
- France: In every major French embassy, at least one dedicated person is in charge of Higher Education/Research and Innovation subjects. In some African countries (e.g. South Africa) a dedicated person is in charge of innovation and related questions. In Southern Africa, the French National Centre for Scientific Research (CNRS), the National Research Institute for Sustainable Development (IRD) and the Agricultural Research Centre for International Development (Cirad) have a joint office located in Pretoria. Part of this office is dedicated to innovation: "[Innovation hub](#)".
- Italy has counsellors dedicated scientific and technological attachés in Kenya, Egypt and South Africa.

- Germany through [the Regional Coordinator for Maghreb in Tunis](#): in frame of AGYA and the [Clusters of Scientific Innovation in the Middle East and North Africa](#).

Priority topics/roadmaps in innovation cooperation

The delegates were asked if their countries have an overview about the priority topics and/or specific roadmaps in innovation cooperation with African countries.

The countries that have answered positively are Finland, France, Germany, Greece, Italy, Malta, Norway Portugal, Romania, and Spain.



- Malta indicates that although there is not a formal roadmap in innovation cooperation with African countries, the Malta and Africa: A Strategy for Partnership 2020-2025 gives a comprehensive overview of the priority topics of interest to Malta to pursue with Africa.
- Portugal brings the case of Air Centre and Centre LP (see above).
- Greece shows the fields such as climate change, food safety renewable energy, biodiversity inland waters Mediterranean marine environment studies (especially with African Mediterranean countries due to vicinity with Greece).
- Finland states the [Finland's Africa strategy](#) that is being prepared and will be ready this year (2021). Themes include "Climate, environment and natural resources" and "Education and competence" that are closely related to innovation oriented cooperation. Thereafter the roadmap will be prepared.
- Spain includes as main priority areas: agriculture, climate change, energy and ICT.
- Romania indicates the priority areas with South Africa: ICT, bioeconomy, new materials, and human and social sciences.
- Norway shows that the priority topics vary within the different supporting schemes, though health, renewable energy and oceans are recurring themes. The Government's Panorama—strategy for cooperation on higher education and research with selected countries outside the EU includes South Africa as the sole African country(regjeringen.no). South Africa is also the only country on the continent for which there is a specific roadmap for cooperation on higher education and research with south africa 2018.pdf (forskningradet.no).

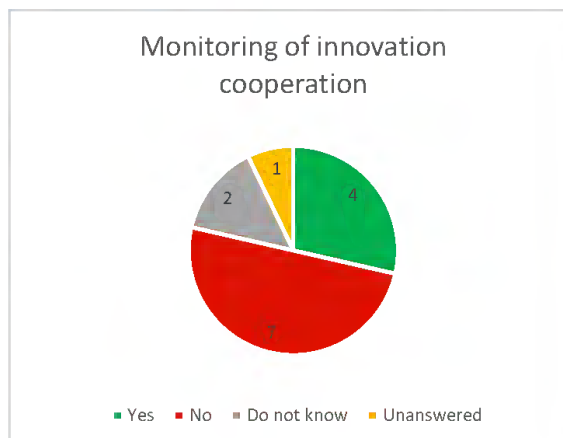
- France includes: 1) "Initiative verte pour le Sahel » Food security and agroecology in the Sahel region, along with the "Grande muraille verte" project cofunded by France-UN-World Bank. 2) Sustainable and smart cities in Africa (main priority of the next Africa-France Summit in 2021). 3) Energy transition (Energy strategy implemented by the AFD). 4) Alignment of priorities on the UN sustainable development goals and the Paris Climate Accord objectives (implementation by an interministerial committee on international cooperation and development).
- Italy recalls what was mentioned above (1) : "a partnership with Africa", Sustainable development, development cooperation and fight against climate change and Cultural and scientific cooperation are thematic priorities, together with health also in perspective of the current COVID-19 emergency.
- Germany states the Africa Strategy of the BMBF and the priorities: 1) Morocco: Practical education and research projects on sustainable energy and water supply, food production as well as environment and climate change adaptation. 2) Priorities EGYPT in frame of bilateral Cooperation: Agricultural Research and Natural Resource Management (including Water Resources, Food Production and Food Safety); Renewable Energy (wind, solar, biomass); Digitalization & ICT; Material Sciences and Engineering; Health Sciences; Urban Planning (including Transportation resp. Traffic Planning and Management)

Monitoring the innovation cooperation

The delegates were asked if their countries track the outcome of the innovation cooperation with Africa (incl. fostering value chain development).

Five countries have answered positively and these are: France, Germany Poland and Spain.

A description on the answers is only given by the following:



- Spain tracks the activity through the CDTI, the Innovation Agency.
- France indicates that there exists no common instrument, but typically each individual scheme has specific procedures in place to monitor and evaluate.

- Germany under the processes of evaluation of funding programmes & funding activities.

Challenges and mutual benefits

The delegates were asked where they see challenges and (mutual) benefits of innovation cooperation with Africa in a changing rather tech-centric geopolitical system.

The countries that have replied to this question are: Belgium, France, Germany, Italy, Malta, Portugal, Romania, Spain and Sweden.

The summarised challenges and benefits are as below:

- Challenges:
 - o Some challenges with respect to the availability of technological infrastructure across African countries may hinder successful cooperation, however access to the African markets, and the European markets respectively.
- Benefits:
 - o Economic growth. The continent is growing economically and innovatively too. Innovation has become a trend in the region and they are used to think out of the box. Several African countries are very promising in economic terms but also have high potential for innovation.
 - o Young population. The youth of its population is an important asset to encourage innovation.
 - o Great potential of cooperation in many fields of science. A lot of (unexplored) research opportunities in basically all scientific domains
 - o SDGs - clean energy, water, sustainable cities and communities, climate and health research collaboration opens for business collaboration and recruitment of specialists
 - o Low Tech innovative solutions that could foster the settlement of fab labs in Africa (mix between ancestral solutions/ICT/ collective intelligence).
 - o Short/Middle/long term innovation : depending on the development of infrastructures; e.g. (bank/payment) services operated via smartphones (short innovation) but unsuitable for applications and innovations requiring high speed and robust internet connections.
 - o Cultural bonds
 - o Countries mentioned specifically:

- Morocco: As an emerging country in the Maghreb and one of the pioneers in renewable energies, it offers particularly good conditions for the production of green hydrogen.
- Egypt: As a focal country of German-African/Arab cooperation at the interface with Africa and the Middle East and one of the pioneers in renewable energies (wind, solar), it offers particularly good conditions for the production of wind and solar energy and, in the medium term, green hydrogen.

Expectations on innovative joint approaches

Delegates were asked on the expectations/ideas they have regarding innovative joint approaches towards and with Africa on EU level.

The countries that have replied to this question are: Austria, Belgium, France, Germany, Italy, Malta, Norway, Portugal, Romania and Spain.

The summarised expectations are as below:

- To result in mutual beneficial outcomes and to have bigger impact.
- To encourage innovation cooperation with African countries as much as possible because it is necessary to back these countries and their challenges, especially population growth and climate change threats. To have the transversal priority on Innovation of the HLPD, based on funding opportunities in Horizon Europe.
- To have more mobility schemes for students and researchers and to incentivise return to Africa. To have more investment in training and capacity development in Africa.
- To build longer term partnerships (min. 10 years).
- To enable more African research funding, possibly through a framework between the EU and African governments.
- To support the generation of employment through innovative approaches, entrepreneurship, job creation, creation of small businesses (whether with friends or family).
- To support private companies in their attempts to invest in Africa. To support research and innovation cooperation between European and African companies (in particular small and medium enterprises) on a lower tech and innovation level.
- To support the key strategic priorities of European research and innovation cooperation: e.g.: to deliver on the ambitions of the European Green Deal and support the green transitions, while cooperation on global and public health would increase both the effectiveness and impact of the efforts made.

- To have more globalisation efforts and activities of the new European Partnerships towards Africa (or selected African countries) where themetically relevant.

Initiatives for the future

The delegates were asked what are some concrete and joint initiatives in the area of innovation cooperation and especially innovation activities with Africa that they would like to see in the future.

The countries that replied to the question are: Austria, Belgium, France, Germany, Italy, Malta, Norway, Portugal, Romania and Spain.

The summarised initiatives are as below:

- Building capacity (and funding) for research intensive universities and their tech transfer offices for the long term.
- Encourage start-ups. Set up incubators with senior experts specialised in tech transfer.
- Encourage data management, open science, IA, network of excellence, brain circulation, shared infrastructures.
- Contribution to the creation of infrastructures that therefore would require the maintenance, repair, installation, and preparation of this infrastructure, contributing to the creation of jobs.
- Develop mobility schemes.
- Implementing an EU-Africa Industrial PhD scheme to improve qualifications of research and innovation staff in companies and non-university research institutions.
- Develop joint actions fields such as logistics, renewable energy, sustainable forestry, seafaring, circular economy, health technologies, digital field, agriculture, green hydrogen.
- Encourage entrepreneurship & career guidance; employability; social innovations (e.g. citizenship; transition processes etc.) & innovation management.
- Develop a regional vision on innovation hubs, mixing high level universities/research organizations and start-ups on various themes (regional specialization with multi-funding public/private from various countries). This is rather similar to the Pan-African universities and specialized institutes concept that could also be applied to innovation.
- Encourage collaboration between all stakeholders, academia, private sector, etc.
- More EU funded projects/initiatives such as "LEAP-RE | Long-Term Joint EU-AU Research and Innovation Partnership on Renewable Energy".

- Implementation of frugal innovation (joint funding) programme(s) on EU level. A pilot initiative should look into the feasibility and implementation possibilities of a new funding scheme for frugal innovation with African countries.
- Exercises similar to the EU's Smart Specialization Strategies (RIS3 Strategies) so that EU and African countries are in a better position to match their cooperation activities.

Topics that are complementary

The delegates were asked on more ideas, and on the topics or questions that they thought could complement the study of the European Commission.

The countries that replied to the question are: Belgium, France, Germany, Greece, Italy, Malta and Romania.

A summary of the answers is given below:

- To study how R&I investments in Africa by specific countries/organizations have affected trade relationships, possibly moving away from development aid and more towards partnership in specific sectors.
- To support bottom-up initiatives.
- To fund skills development in an international environment.
- To encourage public/private partnerships, mainly in the scope of blended funding and partnerships for research and innovation infrastructure.
- To support "High speed innovation" and solutions that could help respond to emergency situations (e.g. pandemics).
- To focus on basic solutions (e.g. 3D printers) that could help increase the impetus on innovation cooperation in various countries.
- To understand:
 - o How does the COVID pandemic affect innovation and innovation-related topics and activities?
 - o To what extent are social innovation activities included in research agendas and roadmaps with the region/sub-region/country?
 - o The informal sector, which plays an important role in many African societies / economies?

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Finally, the delegates were asked if there is anything else they would like to add with the purpose of sharing information on the innovation-oriented cooperation with Africa.

The countries that replied to the question are: Czech Republic, Greece, France, Romania and Portugal.

A summary of the answers is given below:

- A common platform gathering all innovation initiatives of MS/AC with Africa would be very helpful.
- Projects cannot be just about capex and investment (focused on the hardware), but there must be software measures to make this hardware more dynamic, such as the training of the local agents. To sum up, there are 3 inseparable steps in the innovation-oriented cooperation that need to be taken into consideration: 1. investment in assets; 2. Empowerment of the locals; 3. Creation of a model of governance (to assure that the projects continue after being funded).
- Cutting-edge African achievements and information on existing research infrastructure should be further popularized in the EU so as to increase interest in collaboration.
- The majority of African countries except for them that form Emerging Africa countries, face challenges including terrorism, conflicts, border closures, immigration, natural disasters, budgetary issues, inadequate infrastructures, no access to health (ebola, aids) and education. It is a huge continent and the approach is not possible through conventional schemes.

Conclusions

This report includes the findings from **the Innovation Survey the SFIC Africa Group** carried out in January 2021 to the SFIC delegations.

Fifteen countries have contributed to the survey, beyond the Africa Working Group participation, indicating an interest from the European countries regarding innovation related activities with Africa.

The data is generally **informative** and consultative. The methodology used for its processing has been mainly **summative**.

Briefly the **results of the survey indicate the following**:

- Countries seem to have [recent developments](#) in terms of new activities related to innovation with Africa.
- There are **a few think thanks** spread in Europe that contribute to advancing the strategic knowledge on innovation in Africa.
- Nine countries have shown **awareness to have [campuses and research labs](#)** established in Africa.
- Three European countries have [African presence related to innovation beyond embassy level](#), and these are Belgium, France and Germany.
- Most of the countries **use European [existing funding instruments](#)** related to innovation, entrepreneurship and brain circulation with Africa.
- Some of the European countries confirm to have [mobility schemes](#) **focused on innovation** with African stakeholders.

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- The cooperation between European and African stakeholders in [EU and international funded programmes](#) is widely used.
- There is **some evidence of the use of [novel financial instruments to stimulate innovation](#)** by some countries and examples are given.
- Countries have listed [obstacles to innovation-oriented](#) activities with Africa, being these related to administrative and budgetary issues, to framework conditions and capacities, and to IPR.
- European [innovation-related counsellors](#) exist in a few countries and through different institutions, being those Innovation agencies, embassies, etc.
- Most of the respondents have strategies and [priority topics](#) at national level in innovation cooperation with African countries.
- [Monitoring and evaluation of the ongoing innovation activities](#) with Africa is rare in Europe. It is done in France, Germany and Spain.
- Countries are able to identify [more benefits](#) than challenges regarding innovation cooperation with Africa.
- There exist clear [expectations for joint approaches](#) in innovation with Africa, among which the boost of innovative capacities in Africa and the establishment of longer term cooperation for a mutual benefit.
- The delegations have identified the [desired initiatives](#) for the future cooperation related to innovation activities and they have given topics that can be [complementary](#) with the existing ones.
- Finally, the respondents have included a few [more ideas](#) to **encourage innovation between Europe and Africa.**

The information gathered by the survey expresses the opinion of the SFIC delegations and can be used with the objective to enhance the collaboration between Europe and Africa.