

Deepening Africa-Europe collaboration on climate change and sustainable energy

*Ideas and options for the Research and
Innovation Partnership*



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Preamble

Africa-Europe collaborations on Science, Technology and Innovation (STI) are critical in the pursuit of political targets to address the causes and effects of climate change and to increase access to sustainable energy. As such, the bigger-picture framing these collaborations is the Nationally Determined Contributions (NDCs) to the Paris Agreement of the UNFCCC and Sustainable Development Goal #7 on access to clean energy. More specifically, this report offers a summary of funding and collaboration opportunities for African and European researchers and technology and business developers working in the area of climate change and sustainable energy regarding the opportunities for funding from various sources within the Africa-EU STI space. This information reflects the interests and needs expressed by the stakeholders gathered at the EU-AU High-Level Policy Dialogue platform (HLPD) stakeholder forum held in Brussels in October 2017. The report is written from the perspective of the CAAST Net Plus consortium, which is focused on understanding and communicating the various ways and means for relevant African and European partners to collaborate for the greater good. As such the audience for this report isn't the HLPD itself, rather the wider STI community which aims to realise the vision of the HLPD in support of the new partnership on climate change and sustainable energy.

Funding for Africa-Europe STI collaborations on Climate Change and Sustainable Energy

The European and African Unions have agreed to focus on Climate Change and Sustainable Energy (CCSE) as the second thematic priority for the Partnership on STI. More specifically, there is a focus on renewable energy, energy efficiency and climate data and services. However, as of yet, there is no new or distinct implementation plan for the Partnership, though there is a [roadmap](#) prepared by RINEA. As such, cooperation is mostly likely to be supported through conventional mechanisms, such as the Horizon 2020 Work Programme 2018-2020 which has earmarked 40 million EUR to invest in STI for climate services and renewable energy, in Africa. Specific opportunities include the following calls:

http://ec.europa.eu/research/iscp/pdf/policy/ccse_roadmap_2017.pdf#view=fit&pagemode=none

- "[EU – Africa: Collaborating in developing renewable energy technologies](#)", to be published soon (H2020 Work Programme for R&I 2018-2020)
- "[Climate Services for Africa](#)", budget of ca. 30 billion EUR (H2020 Work Programme for R&I 2018-2020).
- Intra-ACP (Africa, Caribbean and Pacific) on "[Climate Services and Related Applications](#)" with a budget of ca. 85 million for 60 months

The funding available in the above calls is significant, though more resources could be unlocked if climate change were made a requirement to be included in all future EC-funding mechanisms,

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beyond the H2020 framework. Indeed, the cross-cutting nature of climate change is still to be fully recognised across all EC directorates, which is reflected in the focus of sector-specific calls. Intergovernmental and bi-lateral frameworks, such as the Climate JPI (Joint Programming Initiative) are also likely to create new opportunities for bi-regional research funding, possibly in the form of an Africa-Europe co-fund. Within the EU umbrella there are other inter-governmental tools for supporting collaboration among research institutions through public-to-public (P2P) partnerships, again within the H2020 umbrella. In the following table are listed some specific opportunities open to African partners.

Table 1: Intergovernmental tools in the EU

Tool	Description	Beneficiary	Duration	Participating State contribution	EU contribution
Article 185	Article of the TFEU allowing the EU to contribute to joint research programmes between Member States and thus integrating national programmes into a single initiative.	Designated implementation structure	Typically 10 or more years	Defined in the basic act, usually cash but can be in-kind if justifiable.	Defined in the basic act, in most cases matching the contributions of PS.
ERA-Net Co-fund	Brings research funders together, whom with national programmes, can jointly launch a single transnational call for research. Min. EUR 5m funding.	Typically research funders, research performing organisation in exceptional cases	5 years, with one year reporting periods	Normally cash, possibility to allow in-kind with research organisations involved	Reimbursement rate set at 33%
EJP Co-fund	A co-fund action designed to support coordinated national R&I, demonstration and coordination activities. Allows a broad range of activities through mini programs. No maximum funding amount.	Typically research performing organisations, research funders in addition.	Maximum 6 years, typically 5 years.	Normally in-kind, but possibility to include cash contributions from research funders.	Reimbursement rate set in WP, max. 70%.

All of the above are tools that can be used to prepare for H2020 calls. However, the above tools can prove cumbersome, thus we offer the following observations and critiques:

- The Article 185 Requires an EU Member State to prepare a proposal for legislative approval and is limited to the priorities of the framework programme. As it is a longer process, alternatively the ERA-Net Co-fund, EJP Co-fund or a CSA can be used to prepare for the next framework programme.
- For the ERA-Net and EJP Co-funds, EU partners often have research funders, whereas, African partners may not have any. European funders may be in a situation where they can fund partners from non-EU countries on their own, and allow for collaboration with African partners.
- It is necessary for project developers to have a clear focus and state the expected outcomes, as well as the target group. Developing a clear theory of changes will also increase the

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chances of successful funding, with an emphasis on communicating anticipated projects outcomes, beyond outputs.

Other relevant platforms that African and European research partners can connect with include Future Earth, an international research platform, and the Belmont Forum, a growing research funder's network. However, a sharper focus on outcome thinking in the project design phase developed with the support of a Coordination and Support Action (CSA) to identify specific topics and collaborations, these barriers to funding can be overcome. This is one of the key aims of the SINCERE project, a CSA to operate by the JPI-Climate over a 4 years period (see below). With regard to technology development and/or the commercialisation of research based knowledge, relevant experience can be drawn from the Climate Innovation Centres funded by the World Bank. In concrete terms this means forming new partnerships to commercialise publically-funded research (knowledge creation) in terms of low-carbon and climate technology development and transfer / diffusion.

Green economic growth, EU-Africa capacity building programmes and ODA for human development

In light of the EU-Africa Summit's focus on youth and jobs through innovation, there is significant potential to integrate these objectives into the CCSE partnership. Discuss on this point was limited at the HLPD Stakeholder Meeting in Brussels. However, a number of projects were presented, such as efforts to create and scale up markets for renewable energy in Africa, through innovation and skills development in the Africa-Europe Energy Partnership (AEEP). This includes the creation of an Energy Research Centre at the National University of Lesotho and the Young Scientists and Entrepreneurs Programme (with UniPID). More action is needed, especially when it is a priority of the AU to harness Africa's demographic dividend through investments in youth. Connecting this priority to climate change mitigation or adaptation could be key in the Partnership, inform new projects and collaborations with partners beyond the 'traditional' realm of climate change and sustainable energy. Specific ways to do so could be through new educational methods such as MOOCs or exchange programs like Erasmus+, or scaling up of Climate Innovation Centres etc., at the entrepreneurial / technology development end of the spectrum.

Such projects and programmes help put flesh on the rhetorical bones of the Green Economic Growth agenda, which can inform strategies to stimulate investment in low-carbon technology, improving quality of life, and ensuring minimal unsustainable exploitation of natural resources. While the funding opportunities mentioned above are not to be disregarded, nor the potential of the private sector towards investments in entrepreneurial environments, Official Development Assistance will continue to drive STI partnerships between African and European agencies. Indeed, the EU have committed to allocate minimum 20% of their ODA to human development and social inclusion. This can be seen as a continuation of the EU and AU's focus on education, to promote STI as an enabling framework for sustainable development in the field of energy and climate change. This could both facilitate knowledge creation as well as diffusion/transfer of low-carbon skills across the continents.

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EC-funded CSA projects, such as CAAST Net Plus, will continue to play a key role in identifying new collaboration and funding opportunities for African and European research organised, focused on climate change and sustainable energy. Starting in early 2018, UNEP DTU Partnership and the African Academy of Sciences (AAS) will be involved in the SINCERE project, which aims to 'internationalise European climate change research' under the Joint Programming Initiative (JPI) led by EU member

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state agencies for STI. Specifically, UNEP DTU will be leading the work on developing 'flagship actions' for both Africa and South America, where AAS is the lead African partner in the project. As such, SINCERE will be following up on the work of RINEA by helping to pursuing the objectives of the Africa-EU joint programme on climate change and sustainable energy, focusing on the role of research collaborations. Initial discussions indicate a willingness to design and implement a co-fund for climate change and energy research, akin to the LEAP-Agri model, which CAAST Net Plus was instrumental in designing. As such, the legacy of CN+'s work on climate change will manifest in other, related, forums and agendas, thus ensuring that CN+ continues to make a difference beyond the life of the project. In pursuing its work, SINCERE aims to understand how climate, development and STI agendas and financing can be better integrated, by identifying existing synergies, common agendas and interests. It may also seek to engage with Nationally Designated Entities for climate and environment in Africa, to understand the relationship between research and innovation in support NDCs. For example, researchers can work in partnership with government agencies and local businesses to understand how countries can secure a greater share of the economic value chain in the transition to low-carbon energy systems, in support of the 'Green Growth' agenda. Thinking one step further, applied research can also be used to inform projects eligible for climate financing open to developing countries, for example under the Green Climate Fund (GCF). Here, various EU-funding mechanisms could be accessed to support African partner countries to harness STI in support of the Paris Agreement and SDG7.