The joint AU-EU Innovation Agenda: when Science, Technology and Innovation (STI) stand for Sustainable Tangible Impact

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Highlights:

- Science, technology and innovation (STI) are crucial to sustainable development.

- Cooperation on STI allows mutual gains and global value chains' enhancement.

- African and European innovation ecosystems should be leveraged for tangible impact.

- The AU-EU Innovation Agenda will turn STI into businesses, services and jobs.

- An online consultation seeks feedback on the Agenda's working document.

Abstract

Science, Technology and Innovation (STI) are essential contributors to sustainable socio-economic development. In this view, cooperation on STI is crucial to ensure mutual gains at national, regional and continental level, as further shown by the COVID-19 pandemic. The African Union (AU) and the European Union (EU) hold a long-standing cooperation in Research and Innovation (R&I), which is governed under the High-Level Policy Dialogue on STI. Within this framework, the first AU-EU R&I Ministerial Meeting, in July 2020, acknowledged the need to better translate R&I efforts into business and employment opportunities in Africa and Europe. Ministers therefore agreed develop a joint "AU-EU Innovation Agenda" aiming to turn R&I investments into tangible products, services and jobs. This AU-EU Innovation Agenda proposes specific objectives with short-, medium- and long-term actions for all four priority areas of the AU-EU cooperation in STI, namely (i) Public Health, (ii) Green Transition, (iii) Innovation and Technology and (iv) Capacities for Science. The present paper aims to raise awareness on the AU-EU Innovation Agenda and the ongoing public consultation on its working document, which will remain open until 30 June 2022. This consultation will gather feedback and input from citizens, stakeholders and their respective organisations, by the means of an online survey (https://ec.europa.eu/eusurvey/runner/IAPublicConsultation). This is done to ensure that the Agenda will address actual unmet needs on the ground, to ultimately maximise chances to provide for sustainable and inclusive growth in both Africa and Europe.

Key words: European Union; African Union; Science, Technology and Innovation; Policy; International Cooperation; Sustainable Development

1. Introduction: Research & Innovation as key to sustainable development and to the African Union – European Union Cooperation

Science, Technology and Innovation (STI) have been recognised as pivotal for their contribution to sustainable and inclusive socio-economic development and for the attainment of the United Nations' 2030 Agenda on a global scale (UNCTAD, 2017; Giovannini and Roure, 2017; Chaturvedi et al., 2019; Adenle et al., 2020). Over the centuries, technological progress across all fields, from energy to health, from transport to communication, has shown to be positively correlated with communities' productivity and overall prosperity (Mokyr, 2018). Most recently and still presently, the COVID-19 pandemic has more than ever unveiled the strong interdependence between STI and societal well-being, before even wealth (UN, 2021). In these times of transition from the fourth (i.e. "Industry 4.0") towards the fifth industrial revolution (i.e. "Industry 5.0") vision, recognising the power of industry to create sustainable, human-centred and resilient societies, beyond jobs and growth (Xu et al., 2021), the role of research and innovation (R&I) is even further accrued by the challenge of providing solutions to secure preservation of resources, counteract climate change and ensure social stability (European Commission, 2022a).

In this view, and as blatantly shown by the COVID-19 crisis, international cooperation on STI, bilaterally and multilaterally, is essential to reduce inequalities among nations and ensure mutual gains are reaped at national, regional and continental level

(UNESCO, 2022). Numerous win-win opportunities can indeed be unlocked and seized through scientific cooperation, including sharing of technologies, R&I procedures and infrastructures, skills and outcomes (e.g. data and intellectual property rights), development and enhancement of global value chains across different sectors, training and continuing education as well as mobility for students and researchers, etc. (UNESCO, 2022). Within this context, science diplomacy in all its forms (e.g. global health diplomacy) represents a fundamental instrument through which cooperation dialogues can occur and be strengthened (Van Langenhove, 2016; EEAS, 2022).

The African Union (AU) and the European Union (EU) hold a long-standing collaboration in R&I (European Commission, 2022b), which reflects the overall strategic priority of the Africa-Europe relationship in each other's political agenda (AU, 2022; European Commission, 2022c). Because of the long-term and necessarily collaborative nature of R&I endeavours, cooperating on STI provides the unique opportunity, in the AU-EU relationship, for a forward-looking, durable and equitable partnership. Since 2010, this cooperation has been governed under the aegis of the High-Level Policy Dialogue (HLPD) on STI (European Commission, 2022b). This is the platform through which regular exchanges on R&I policy take place and where long-term priorities to strengthen this cooperation are established (European Commission, 2022b). It is co-chaired by the European Commission (EC) Directorate General for Research and Innovation (DG RTD) and the AU Member State holding chair of the Specialised Technical Committee (STC) on Education, Science and Technology of the AU, which generally rotates every two years (European Commission, 2022b). Under this framework, major efforts have been put to enhance cooperation between European and

African R&I institutions, including higher education and research organisations, start-ups and tech-hubs (European Commission, 2022d). Over the years, the role of R&I cooperation and of the HLPD on STI has become increasingly instrumental to address Africa's and Europe's common challenges, such as the need to promote sustainable growth and jobs, food security, green transition, digital transformation, mobility, security and good governance, besides, as aforementioned, the necessity to tackle the COVID-19 pandemic. The AU-EU cooperation on STI has indeed enabled the establishment of a sustainable collaboration model, based on reciprocal commitments and shared values and interests, with joint investments and funding (European Commission, 2022b, 2022d).

This cooperation led to the organisation of the first ever R&I Ministerial Meeting in July 2020, gathering (virtually) EU and AU Ministers of STI. There, it was agreed that the AU-EU cooperation on STI would focus on four priority areas, namely (i) Public Health, (ii) Green Transition, (iii) Innovation and Technology and (iv) Capacities for science (European Commission, 2020a). On this occasion, African and European Ministers of STI acknowledged the enormous growth potential of innovation ecosystems in the AU and the EU, which are currently expanding rapidly (European Commission, 2020a). At the same time, they also recognised the need to improve innovation performance and capacities across both continents, and reduce time to market of R&I activities (European Commission, 2020b). They therefore agreed to direct future strategic efforts towards the translation of R&I projects and programmes into tangible positive impact on the ground. In particular, it was decided that joint endeavours should aim for creating more efficient and more targeted, or strengthening, innovation ecosystems (European

Commission, 2020b). This realisation and vision inspired the conception of the “AU-EU Innovation Agenda”.

2. The AU-EU Innovation Agenda

2.1 Background & political context

The joint AU-EU Innovation Agenda aims therefore to accelerate the translation of R&I efforts into tangible business, development and employment opportunities in both Africa and Europe (AU-EU, 2022). Importantly, for this Agenda to succeed, it will be essential for it to include, from conception to implementation, all stakeholders involved in the AU and EU innovation landscape. This not only would span public and private R&I institutions, technology and innovation hubs, higher education, civil society organisations, and financial institutions, but it would also need to include the private sector (i.e. micro, small and medium sized-enterprises, as well as corporations) (Fig. 1), which play a unique role in job creation and in delivering innovative solutions to the market place. In Europe, indeed, small and medium-sized enterprises (SMEs) represent 99% of all business, employing two out of three (i.e. at least 66%) workers, accounting for more than half of Europe’s Gross Domestic Product (GDP) and are instrumental in adding value in every sector of the economy (European Commission, 2020c). In Africa, the private sector accounts for over 80% of total production, two thirds of total investment, and three fourths of lending within the economy; providing jobs for approximately 90% of the employed working-age population. As in Europe, SMEs are the backbone of the African private sector, representing over 90% of businesses and

translating to 63% of employment in low-income countries, while contributing to over 50% of the GDP (AU, 2021).

With specific reference to Africa, where more than 60% of citizens is presently below the age of 25 years (AFD, 2020) and the overall population is expected to grow from current 1.4 billion to 2.5 billion in in 2050 (INED, 2022), the AU-EU Innovation Agenda is expected to leverage the continent's demographic dividend to empower the youth, which, in turn, is increasingly promoting and implementing radical innovations, thanks to its entrepreneurship (Etoka-Beka & Samba-Louaka, 2022). It is therefore imperative that the work of the Agenda ensures participation and ownership of youths, providing them with opportunities to engage durably and thrive in R&I and innovation-driven industries, in Africa and Europe. Similarly, given the fundamental role played by women in science and by women scientists in socio-economic development (WHO, 2022), the Innovation Agenda will also be particularly scrupulous in ensuring gender equality across all its steps, from stakeholder consultation to all its implementation phases, embracing the UN call for participation of more women and girls in science and for more science to focus on women's needs and specific concerns (UNCTAD, 2017, 2018).

Moreover, the AU-EU Innovation Agenda will also count on the involvement of civil society organisations (e.g. workers' and students' associations, African diaspora groups, etc.) as well as Indigenous Peoples and Local Communities, from conception to execution steps.

From a policy viewpoint, the work of the AU-EU Innovation Agenda reflects major AU, EU and global policy orientations. At global level, the objectives of the Agenda respond to the United Nations 2030 Agenda and its 17 Sustainable Development Goals (SDGs)

(Giovannini and Roure, 2017; UNCTAD, 2017; UN 2019, Adenle et al., 2020). At AU level, the Agenda takes up on recommendations from the AU Agenda 2063, the Science, Technology and Innovation Strategy for Africa (STISA) 2024 and the AU Commission (AUC) Digital Transformation Strategy (DTS) for Africa 2020-2030 (AU, 2020a,b; AU, 2022; AU-EU, 2022). At EU level, the work of the Agenda follows the policy orientation of the communication "Towards a comprehensive Strategy with Africa", published in 2020, recommending to scale up scientific and academic cooperation with the African continent, and of the EU Global Approach to Research & Innovation of May 2021, envisaging special openness and cooperation with African countries that wish to thrive as knowledge-based economies and accelerate their sustainable and inclusive development (EU, 2020; European Commission, 2021a; AU-EU, 2022).

From an implementation viewpoint, on the EU side, the AU-EU Innovation Agenda is a flagship initiative of the Global Gateway Africa – Europe Investment Package that was announced at the EU-AU Summit of Heads of State and Government in February 2022 (European Council, 2022), providing an outline of actions to be taken in partnership with Africa in order to "boost smart, clean and secure links in digital, energy and transport and strengthen health, education and research systems across the world" (European Commission, 2022e).

2.2 The "living" Working Document of the AU-EU Innovation Agenda and its online public consultation

A preliminary, working version of the Innovation Agenda was drafted in 2021 by the AU and the EU Commissions, with contributions from AU and EU Member States and the AU Development Agency (AUDA) – New Partnership for Africa's Development (NEPAD). This work was also supported by an ad-hoc Advisory Group on R&I for Africa-Europe Cooperation that advised the EC on how to strategically mainstream R&I in Africa-Europe partnerships, and stimulate the cooperation between the two continents in these regards (EU, 2022).

This working document of the AU-EU Innovation Agenda outlines objectives and short- (i.e. within the next 3 years), medium- (i.e. within 5-6 years) and long-term (i.e. within the next 10 years) set of actions for implementation, according to the four priority areas of cooperation (i.e. Public Health, Green Transition, Innovation and Technology, and Capacities for science) (AU-EU, 2022). Following a very positive reception by a Senior Officials' Meeting (SOM) of the AU-EU High-Level Policy Dialogue on STI of 27 January 2022, the draft Innovation Agenda was acknowledged by the Declaration of 6th AU-EU Summit 2022 of Heads of State and Government of 17-18 February 2022 as a means to step up scientific cooperation, to develop knowledge jointly and share technology and expertise (EU-AU, 2022). This initiative is also fully supported by the African Research Universities Alliance (ARUA) and The Guild of European Research-Intensive Universities (The Guild and ARUA, 2022).

The draft, working version of the AU-EU Innovation Agenda is considered as a "living document" as it will indeed be updated in the months to come, based on the feedback and input received from stakeholders, citizens and their organisations, as part of a continued stakeholder dialogue taking place throughout the year 2022. In particular,

stakeholders' inputs and views will be gathered through two main initiatives, namely (i) an online public consultation (https://ec.europa.eu/eusurvey/runner/IAPublicConsultation) and (ii) a Stakeholder Event, to take place in November 2022, possibly in Africa (venue yet to be confirmed). The online public consultation aims indeed to ensure the Innovation Agenda will address societal needs by seeking input and feedback from citizens, stakeholders and organisations on the objectives and set of actions proposed, being open to suggestions and ideas on additional work streams. This will allow the Agenda to deliver tailored initiatives and maximise opportunities for sustainable and inclusive growth in Africa and Europe. Launched on 14 February 2022, the consultation will remain open until 30 June 2022. Responses received, in the format of multiple choice answers and answers to open questions, will then be analysed and integrated in the finalised version of the AU-EU Innovation Agenda, expected to be presented at the second AU-EU R&I Ministerial Meeting at the beginning of 2023. A report summarising the input and feedback received through the online public consultation will also be published in the meantime.

3. AU-EU R&I Partnerships in the context of the Innovation Agenda

Four R&I partnerships have so far been initiated as tools to implement the AU-EU Cooperation in STI. These are the AU-EU R&I Partnerships on (i) Food and Nutrition Security and Sustainable Agriculture (FNSSA) and (ii) Climate Change and Sustainable Energy (CCSE), falling within the priority area of Green Transition, (iii) the European and Developing Countries Clinical Trials Partnership (EDCTP), in the priority area of Public Health, and (iv) partnerships in the priority area of Innovation and Technology,

such as the Africa-Europe Innovation Platform (AEIP) and ENRICH in Africa (EiA). While the work of the AU-EU Innovation Agenda will build on the accomplishments of each of these partnerships, the continuation of the latter will ensure the realisation of certain actions of the Agenda in the respective priority areas.

3.1 Food and Nutrition Security and Sustainable Agriculture (FNSSA)

Established in 2016, the AU-EU R&I partnership on FNSSA has so far channeled a joint investment of 710 million euros (MEUR) for more than 300 projects, focused on four thematic priorities, namely (i) sustainable intensification, (ii) agriculture and food systems for nutrition, (iii) expansion and improvement of agricultural trade and markets and (iv) cross-cutting topics (LEAP4FNSSA, 2022). These projects have thus far involved 27 EU and 47 AU countries, encompassing a total of 875 EU and 557 AU partners (European Commission, 2022c). Being the longest-lived of the AU-EU R&I partnerships, the one on FNSSA includes by now numerous projects ($n \cong 200$) with a high degree of maturity, that have either reached or are close to completion. For this reason, FNSSA partnership projects were chosen to be subject to a mapping exercise that was conducted in 2021 as a propaedeutic pilot experience for the work of the AU-EU Innovation Agenda. This mapping aimed to assess projects for (i) their innovation and (ii) their business potential, according to several socio-economic and environmental key performance indicators (KPIs), based on which R&I projects were evaluated and ranked accordingly (Horizon Results Booster, 2022). The same exercise, moreover, allowed the identification of unmet needs of the top-ranking projects (according to their KPI-based scoring) that should be addressed for such projects to turn into tangible

business and development opportunities, and reach the marketplace and/or end-users as products and/or services (Horizon Results Booster, 2022). Results show that the best-performing projects would need support in scale up, development and/or enhancement of transformative value chains, intellectual property securisation and management thus product registration and commercialisation (Horizon Results Booster, 2022). This work was accomplished to orient the devising of tailored support strategies to be rolled out in the context of the AU-EU Innovation Agenda and to enable the most promising R&I projects to develop into actual socio-economic development in Africa and Europe. The importance of strengthening cooperation in the area of FNSSA is even further accrued by the ongoing war in Ukraine, which exacerbates the already existing food insecurity in West Africa and the Sahel region (Ehui et al., 2022), requiring sustained and course-changing interventions.

3.2 Climate Change and Sustainable Energy (CCSE)

Launched in 2017, the AU-EU R&I Partnership on CCSE has so far gathered an investment of 106 MEUR to support projects focused on climate services, renewable energy and energy efficiency to bolster adaptation and mitigation efforts in various sectors in Africa, as well as the implementation of the Paris Agreement on Climate Change. Eleven projects have been funded thus far under this partnership, entailing the involvement of 11 EU and 20 AU countries, with 150 EU and 105 AU partners involved (European Commission, 2022f). The CCSE Partnership is organised in two pillars. Pillar 1 is focused on adapting to and mitigating climate change, through the generation and translation of climate-related data and the application of technological solutions that support

information management and dissemination, as well as the development of an integrated knowledge approach to climate action. Three projects, supported under the EU Framework Programme for R&I Horizon 2020, are currently carried out under this pillar: Co-production of Climate Services for East Africa (CONFER) (CORDIS, 2022a), DOWN2EARTH: Translation of climate information into multilevel decision support for social adaptation, policy development, and resilience to water scarcity in the Horn of Africa Drylands (CORDIS, 2022b), and (iii) FOCUS-Africa: Full-value chain Optimised Climate User-centric Services for Southern Africa (CORDIS, 2022c). Pillar 2 focuses on renewable energy (i.e. developing and integrating renewable energy in the energy system, planning and modelling sustainable energy systems, and strengthening basic research and technological development) and energy efficiency (i.e. increasing efficiency of production and promoting energy savings). This is line with the AU's Agenda 2063 highlighting renewable energy as a critical area for ensuring the sustainable development of the African continent, where 70 to 80% of used energy is generated from traditional biomass (e.g. wood fuel), and with the vision of the European Green Deal, reinforcing Europe's commitment to developing and improving renewable energies domestically and abroad (European Commission, 2022f). Accordingly, pillar 2 of the CCSE Partnership encompasses, amongst others, the "Long-Term Joint EU – AU Research and Innovation Partnership on Renewable Energy (LEAP-RE)" Programme, which seeks to create a model of long cooperation between African and European stakeholders in the field of renewable energy. Funded under Horizon 2020 for a five-year period (i.e. from 1 October 2020 till 31 December 2025), LEAP-RE aims to represent a long-term partnership between African and European stakeholders across several sectors (i.e. government, research institutions and academia, private sector and civil society). It brings together a large-scale consortium of 83 partners (39 from Africa and 44

from Europe), including one international organisation (i.e. United Nations Environment Programme). Within this framework, partner stakeholders will share knowledge and methods to effectively contribute to fighting climate change while enabling access to clean energy for all (LEAP-RE, 2022a). LEAP-RE is structured around three pillars: pillar 1, foresees the implementation of transnational calls for proposals for R&I and capacity building, funded by national/regional funding agencies and by the EU; pillar 2, is a cluster of individual R&I and capacity building projects implemented by members of the consortium [e.g. Mapping geothermal resources for the development of African electricity production and for water use applications (Geothermal Atlas for Africa), Productive Use in Rural African Markets using Standalone Solar (PURAMS), Micro-grid technology for a widespread use of renewable energy sources in Africa (LEOPARD), Renewable Energy for African Agriculture: Modelling Excellence and Robust Business Models (RE4AFAGRI), Sustainable Energy Transition and Digitalization of Smart Mini-Grids for Africa (SETADISMA)] (LEAP-RE, 2022b), and pillar 3 focuses on the long-term dissemination and use of project results. Bringing together 16 African and European funding agencies within the LEAP-RE consortium, pillar 1 showcased the LEAP-RE Cofund Call 2021 (“Europe-Africa Research and Innovation call on Renewable Energy”) aiming to support research, applied research and experimental development projects that are 12-36 months long. This includes transnational joint calls for proposals co-funded by European and African national research funding agencies, with an additional support from the EU. Each project consortium applying for funding under pillar 1 must consist of research teams from a minimum of four countries from the two continents (e.g. at least 2 from Europe and 2 from Africa) (LEAP-RE, 2021). The LEAP-RE Cofund Call 2021 resulted in 124 applications being received from candidates including companies, non-profit associations, research institutions and foundations, from more than 38 African and European countries. Of these, 36 pre-proposals were pre-selected, 32 proposals were eventually

submitted, and 13 projects were finally selected for funding, to be started in the year 2022. Selected proposals benefit from a global funding of 10.36 MEUR (of which 7.8 MEUR from funding agencies and 2.5 MEUR from the EC). They include a total of 82 partners from 9 African countries (i.e. Algeria, Egypt, Ethiopia, Morocco, Mozambique, Nigeria, South Africa, Togo and Tunisia) and 8 European countries (i.e. Belgium, France, Finland, Germany, Portugal, Romania, Spain and the UK) (LEAP-RE, 2022c). Projects funded under the calls will focus on achieving goals of mutual benefit based on a balanced and cooperative approach. The LEAP-RE transnational Call also welcomed potential partnerships with proposals submitted to calls funded under the EU Horizon 2020 Call “Building a low-carbon, climate resilient future: Research and innovation in support of the European Green Deal (H2020-LC-GD-2020)” launched in September 2020 (LEAP-RE, 2021), of which one topic was dedicated to demonstration projects in Africa on renewable energy technologies and an indicative budget of 40 MEUR. For this, 142 proposals were received and 5 projects were eventually funded and started at the end of 2021 [i.e. Smart Energy Solutions for Africa (SESA), Sustainable off-grid solutions for pharmacies and hospitals in Africa (SOPHIA), ENERGy access and green transition collaboratively demonstrated in urban and rural areas in AfrICA (ENERGICA), Innovative Large-Scale Production of Affordable Clean Burning Solid Biofuel and Water in Southern Africa: transforming bush encroachment from a problem into a secure and sustainable energy source (STEAMBIOAFRICA), Renewable energies for Africa: Effective valorization of agri-food wastes (REFFECT AFRICA)] (SESA, 2022; CORDIS, 2022d; CORDIS, 2022e; REFFECT AFRICA, 2022).

3.3 European and Developing Countries Clinical Trials Partnership (EDCTP)

Established in 2003 and renewed in 2014 and again in 2022, the EDCTP represents the main initiative in terms of EU-AU cooperation in global health research. The EDCTP aims to enhance research capacity and accelerate the development of novel or improved tools for the diagnosis, treatment and prevention of poverty-related infectious diseases, including emerging and re-emerging diseases in sub-Saharan Africa (SSA), through all phases of clinical trials, with emphasis on phase II and III trials (EDCTP, 2022a). The partnership includes, by now, 16 member countries in Africa (i.e. Burkina Faso, Cameroon, Congo, Ethiopia, Gabon, The Gambia, Ghana, Mali, Mozambique, Niger, Nigeria, Senegal, South Africa, Tanzania, Uganda and Zambia) and 14 member countries in Europe (i.e. Austria, Denmark, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden and the UK), with Angola and Switzerland participating as aspirant members of the EDCTP Association (EDCTP, 2022b).

During its first programme (2003-2015), the EDCTP1 supported clinical trials for the development of drugs, vaccines and diagnostics for HIV/AIDS, tuberculosis and malaria. EDCTP1 provided professional training to 514 African scientists and medical doctors, including 56 Career and Senior Fellows, as well as more than 406 Master's and PhD students. The EDCTP1 programme also resulted in the establishment of four African Regional Networks of Excellence for clinical research and contributed to the strengthening of ethics' review capacity and national regulatory authorities in many African countries. Accordingly, the EDCTP was the main funder of the African initiative to establish the Pan African Clinical Trials Registry (PACTR), which is now an official WHO Primary Clinical Trials Registry (EDCTP, 2022a).

The second EDCTP programme (EDCTP2) was launched in 2014 under the EU Framework Programme Horizon 2020. Running until 2024, the EDCTP2 was built on the objectives of EDCTP1, with a further focus on neglected infectious diseases, diarrhoeal diseases, lower respiratory tract infections, and emerging and re-emerging infections affecting SSA (i.e. Ebola, yellow fever and COVID-19), in addition to HIV, TB and malaria. The legal structure for its implementation evolved from EDCTP1, through the establishment of an “EDCTP Association” in 2014 (under Dutch law, due to the EDCTP secretariat being based in The Hague, The Netherlands) to allow EDCTP2 membership to include also sub-Saharan African countries, in the spirit of a true European-African partnership. Within this framework, “Participating States” and “EDCTP Partners” (e.g. industry, product development partnerships, development cooperation organisations and research institutions), could also make contributions, cash or in-kind, to EDCTP2 calls (EDCTP, 2022c). This led to a total raising of over €1.4 billion euros (BEUR). Of these, 684.50 MEUR enabled the support of 140 collaborative clinical research projects, with over 60% of funding being addressed to TB, malaria and HIV; 85.47 MEUR were used for 90 grants aiming to strengthen the enabling environment for clinical trials and 44.48 MEUR allowed the funding of 205 fellowship projects with a focus on career development of African scientists (EDCTP, 2022c).

In May 2022, the Global Health (GH) EDCTP3 Joint Undertaking (JU) was launched, to represent a partnership between the EC and the EDCTP Association, representing the governments of European and sub-Saharan African countries participating in the programme (“Participating States”). With a total budget of 1.6 BEUR (0.8 BEUR from the EU, 0.4 BEUR from the EDCTP Association and 0.4 BEUR from other contributing

partners, such as industry and philanthropic organisations), the GH EDCTP3 JU will support international research partnerships accelerating clinical development of drugs, vaccines and diagnostics for key infectious diseases affecting SSA (e.g. HIV, TB, malaria, lower respiratory tract infections, diarrhoeal disease and neglected infectious diseases), as well as novel approaches for surveillance and control of emerging and re-emerging infections, focusing also on antimicrobial resistance and on the impact of the climate crisis on infectious diseases. It will also strengthen clinical research capacity in SSA. Building on the two previous EDCTP programmes, the GH EDCTP3 JH will ensure that more people gain access to new medical interventions and help to protect regional and global health security. Established until end-2031, the EDCTP3 aims to progress to license at least two new health technologies tackling infectious diseases, and to support at least 100 research institutes in 30 countries to enable effective and rapid research response to develop health technologies against re-emerging epidemics (EDCTP, 2022d).

The first Work Programme of the GH EDCTP3 was recently published and encompasses two calls for proposals, with deadline for applications set for 30 August 2022 (more details available on: https://ec.europa.eu/info/sites/default/files/research_and_innovation/research_by_area/documents/ec_rtd_global-health-edctp3-wp-annex1.pdf) (European Commission, 2022f).

On the whole, the GH EDCTP3 JH will enable the implementation of some of the actions foreseen by the Innovation Agenda for the priority area of Public Health. This will happen in synergy with other major cooperation initiatives carried out in the domain

of global health, such as the “Team Europe Initiative for the Manufacturing and Access to Vaccines, Medicines and Health Technologies in Africa” (European Commission, 2021b).

3.4 AU-EU Partnerships in Innovation and Technology

The Africa-Europe Innovation Partnership (AEIP) is one of the cooperation initiatives undertaken by the AU and the EU in the cross-cutting priority area of Innovation and Technology. It aimed to support and connect innovation and technology incubators and accelerators in both continents, to allow them to expand their networks, establish new partnerships and enhance their market access (European Commission, 2022g). Launched in 2019 with the support of both the EC and the AUC, the AEIP ran until September 2021. Among other achievements recorded, the programme witnessed 127 European and African business incubators and accelerators joining the network, 42 partnership agreements being executed between European and African entities, more than 1,000 stakeholders engaged, 44 actors involved in the Community of Practice for Technology Transfer, and 5 capacity building trainings being organised, involving more than 90 participants.

ENRICH in Africa (EiA) is a project started in January 2021 to build on the achievements of the AEIP. Funded by the EU under the Horizon 2020 Framework Programme, it will run for a three year-period, until December 2023 (CORDIS, 2022f). It brings together European and African innovation stakeholders, to support and strengthen the two regions’ innovation ecosystems. The project is setting up a network of incubators and accelerators and supports their capacity development, with bootcamp

trainings, through a “virtual academy” and with mentoring support. This is undertaken through a well-rounded membership programme that enables incubators and accelerators to become “EiA Champions”. EiA services to entrepreneurs complement the work of EiA Champions including Open Innovation Challenges, Advisory Support Services, Incubation and Acceleration programmes, networking opportunities, etc. EiA project activities are not sector-specific, with all innovation stakeholder being welcome to participate. The overarching aim of ENRICH in Africa is to build a framework, set up the main infrastructure and pilot a business model, which will trial an array of support services and lay the foundations towards the establishment of the “EiA Centre”, an office coordinating a membership-based network of incubator and accelerator hubs (i.e. “Champions”) across the AU and the EU. This EiA Centre will be located in Cape Town, South Africa, and is expected to be operational from the end of 2022. It will therefore constitute the self-sustaining legacy of the project, continuing to deliver the piloted services and bringing value to the AU and EU innovation ecosystems beyond the mere duration of EiA (EiA, 2022).

Therefore, on the way forward, the AU-EU Innovation Agenda will build on the successes of partnerships such as the AEIP and EiA, to continue bolstering incubators, accelerators and technology transfer offices, due to their key role as support and networking agents for start-ups and SMEs.

4. Funding instruments

In light of its cross-cutting nature, the work of the AU-EU Innovation Agenda will warrant investments from different programmes and sources, thus unfolding and leveraging

synergies among research and development policies and building on the successful experiences previously illustrated. Foreseen actions are expected to be supported through the Framework Programme Horizon Europe and other funding mechanisms, such as Global Europe: Neighbourhood, Development and International Cooperation Instrument (NDICI) and the European Fund for Sustainable Development Plus (EFSD+), deployed under the Global Gateway Africa – Europe Investment Package. In particular, some of the short-term actions of the Agenda will likely be supported through tailored calls for proposals within the Work Programme 2023-2024 of Horizon Europe (to be published in December 2022), ensuring continuation of the "Africa Initiative" of the first Work Programme 2021-2022 (i.e. a package of 35 topics under calls for proposals targeted at EU-AU cooperation in R&I in the four priority areas) (EU Commission, 2022d). Similarly, short-term actions in the priority area of Public Health will be party addressed also through the first Work Programme of the GH EDCTP3 (more details available on: https://ec.europa.eu/info/sites/default/files/research_and_innovation/research_by_area/documents/ec_rtd_global-health-edctp3-wp-annex1.pdf). For all actions, additional support mechanisms are currently being explored, to possibly involve bilateral and multilateral financing institutions. The months preceding the finalisation of the Agenda will allow for the consolidation of tailored support strategies and implementation plans.

5. Ending remarks

With actions foreseen for the next decade from now, the AU-EU Innovation Agenda will represent the mainstay of the AU-EU cooperation in STI for the years to come. Aspiring

to render R&I efforts into businesses, services and jobs, the Agenda holds the promise to contribute holistically and substantially to sustainable socio-economic development in both Africa and Europe. It also provides for an unprecedented opportunity to establish an impact-driven collaboration model between Africa and Europe, which can boost the AU-EU cooperation as a whole, beyond the mere domain of science. Within this framework, the work of the Agenda will also need to be synergistic with other cooperation initiatives, launched at multilateral (AU-EU) and bilateral (between AU and EU Member States) level, as this would allow to maximise results on the ground. To make this attainable, the work of the Innovation Agenda will need to be as inclusive as possible and encompass all major actors of the innovation value chain, including, among others, citizens, scientists, research and higher education institutions and business enterprises of all size. If you are reading these passages, we warmly encourage you to engage in the shaping of the AU-EU Innovation Agenda: please join the public consultation and contribute to, literally, translating STI in “sustainable tangible impact”.

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Fig. 1. Stakeholder groups expected to be involved throughout all phases of the AU-EU Innovation Agenda, from conception to implementation.