



#HorizonEU

THE EU
RESEARCH &
INNOVATION
PROGRAMME 2021 – 27

Research and
Innovation

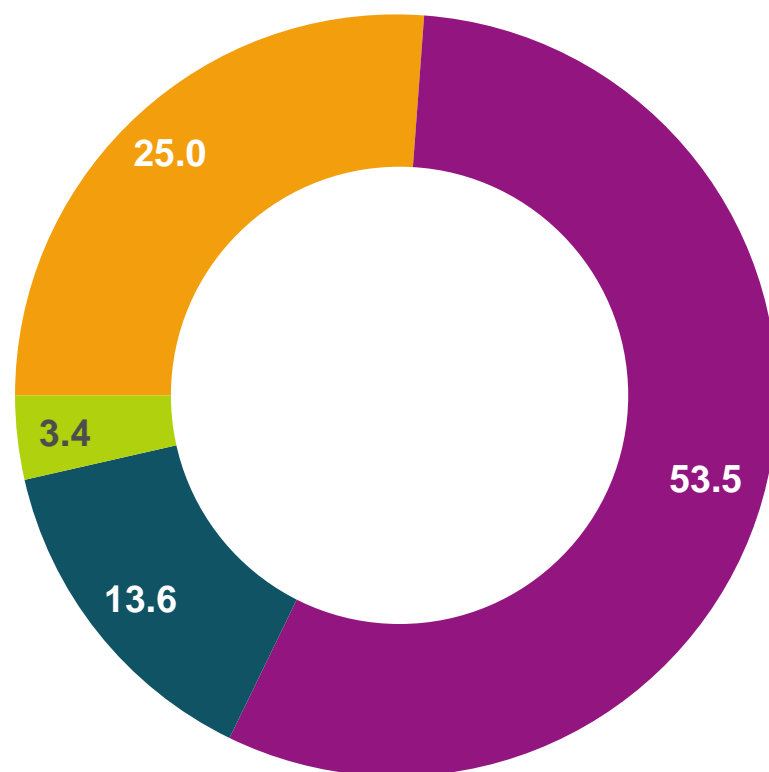
Overview

- Horizon Europe
- Africa Initiative



Horizon Europe Budget: €95.5 billion (2021-2027)

(including €5.4 billion from NGEU – Next Generation Europe – programme of EU for Recovery from COVID-19 crisis)



€ billion in current prices

- Excellent Science
- Global challenges and European ind. comp.
- Innovative Europe
- Widening Part and ERA

HORIZON EUROPE

EURATOM

SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND

*Exclusive focus on
defence research
& development*

Research
actions

Development
actions

SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT*

Exclusive focus on civil applications



Pillar I EXCELLENT SCIENCE

European Research Council

Marie Skłodowska-Curie

Research Infrastructures



Pillar II GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS

Clusters

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre



Pillar III INNOVATIVE EUROPE

European Innovation
Council

European Innovation
Ecosystems

European Institute of
Innovation & Technology*

WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

Fusion

Fission

Joint
Research
Center

* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

International cooperation in R&I: EU-AU policy background



THE AFRICA-EU PARTNERSHIP
LE PARTENARIAT AFRIQUE-UE



Africa-EU Partnership

Formal political channel between the EU and the African Union (bi-continental)

Joint-Africa-EU Strategy

Adopted in 2007, strategic roadmap with multi-annual action plans on defined priority areas

High-Level Policy Dialogue (HLPD) on STI

Official bi-annual dialogue platform on STI policy exchange and definition of joint STI priorities

EC Joint Communication “Towards a comprehensive strategy with Africa”

Proposed by EC in 2020 for **2021-2040** period

5 newly proposed EU-Africa Partnerships:

1. Green transition and energy access
2. Digital transformation
3. Sustainable growth and jobs
4. Peace and governance
5. Migration and mobility

International cooperation in R&I: EU-AU policy background



THE AFRICA-EU PARTENRSHIP
LE PARTENARIAT AFRIQUE-UE



High-Level Policy Dialogue (HLPD) on STI

Official bi-annual dialogue platform on STI policy exchange and definition of joint STI priorities

Three EU/AU HLPD working groups

- Food and Nutrition Security and Sustainable Agriculture
 - Climate Change and Sustainable Energy
 - Innovation – cross cutting
- Plus the European and Developing Countries Clinical Trials Partnership (EDCTP)

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1. Green transition and energy access
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Global approach to research & innovation

*Europe's strategy for international cooperation in a changing world**

WHAT IS THE AIM OF THE GLOBAL APPROACH TO RESEARCH AND INNOVATION (R&I)?

To preserve openness in research and innovation international cooperation while promoting a level playing field and reciprocity underpinned by fundamental values.

To strengthen multilateral partnerships to deliver new solutions to green, digital, health and innovation challenges.



HOW WILL THIS BE ACHIEVED?

Modulating bilateral cooperation in line with European interests and values and EU's open strategic autonomy.

Accelerating sustainable and inclusive development, and the transition to resilient, knowledge-based societies and economies in low and middle-income countries.

Using a *Team Europe* approach, with actions by the EU, its financial institutions and Member States.





Horizon Europe

Africa Initiative

2021 – 2022

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Africa Initiative

*In the first Work Programme of Horizon Europe
2021-2022*



- Immediate outcome of the first ever **EU-AU R&I Ministerial** (July 2020), it will strengthen **long-term cooperation** in finding solutions to enhance **global public health**, **socio-economic development** and **recovery from the COVID-19 pandemic**.
- A total budget of **~350 MEUR** through **36 topics** under **calls for proposals** targeted at **EU-Africa R&I cooperation**, responding to **four joint policy priorities**:
 1. *Public Health* (40 MEUR) 
 2. *Green Transition* (215 MEUR) 
 3. *Innovation & Technology* (11 MEUR) 
 4. *Capacities for Science* (91.9 MEUR) 
- Adoption of **Horizon Europe Work Programme: 16 June 2021**
(**[EU funding & tenders' portal](#)**).

1. Public Health



Calls	Year	Budget (MEUR)
1. Innovative approaches to enhance poverty-related diseases research in sub-Saharan Africa	2021	40

- **EDCTP 3** expected to launch calls for proposals **from 2022**, as part of: EU-Africa Global Public Health Partnership proposal
 - Evolution to a Public-Private Partnership
 - Proposed EU contribution: 800 MEUR, plus leverage of expected 400 MEUR from other sources

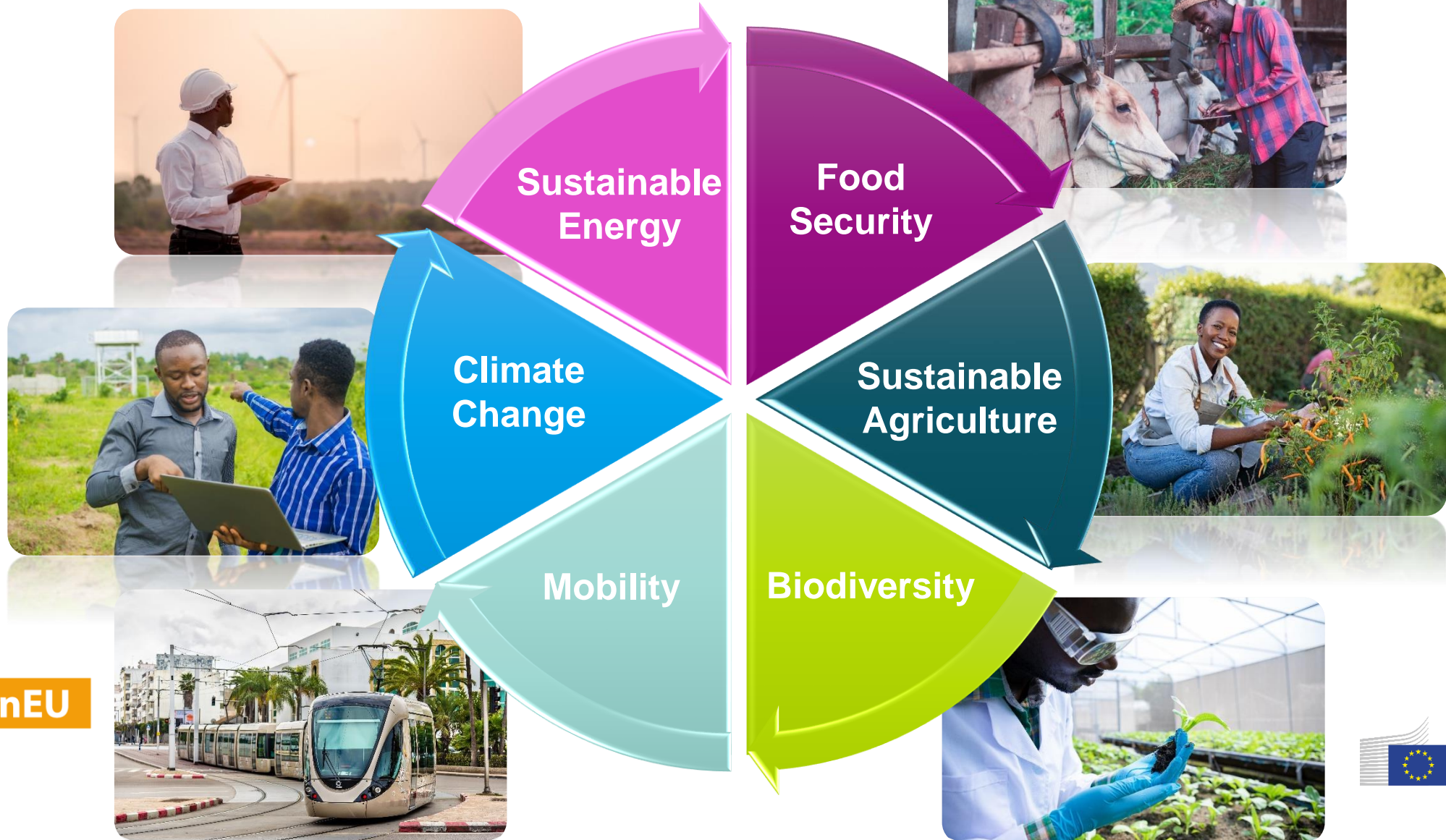


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2. Green Transition



R&I areas:



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2.1 Green Transition

Calls	Year	Budget (MEUR)
1. Development of high-resolution Earth system models for global and regional climate change projections	2022	20
2. AU-EU Water Energy Food Nexus	2021	5
3. Demonstration of innovative plug-and play solutions for system management and renewables storage in off-grid applications	2022	10
4. AU-EU Energy System Modelling	2022	5



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2.2 Green Transition

Calls	Year	Budget (MEUR)
5. New generation of full electric urban and peri-urban Bus Rapid Transit systems to strengthen climate-friendly mass transport (2ZERO)	2022	25
6. Stimulating Road Transport research and innovation dissemination and implementation in Europe and around the World	2022	2
7. Radical improvement of road safety in low and medium income countries in Africa	2021	8



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2.3 Green Transition

Calls	Year	Budget (MEUR)
8. One Health approach for Food Nutrition Security and Sustainable Agriculture (FNSSA)	2021	18
9. Agro-ecological approaches in African agriculture systems	2022	28
10. AU-EU Combatting all forms of malnutrition	2022	11
11. African Food cities	2022	12
12. Expertise and training centre on rural innovation	2021	5
13. Socio-economic empowerment of the users of the sea	2021	6



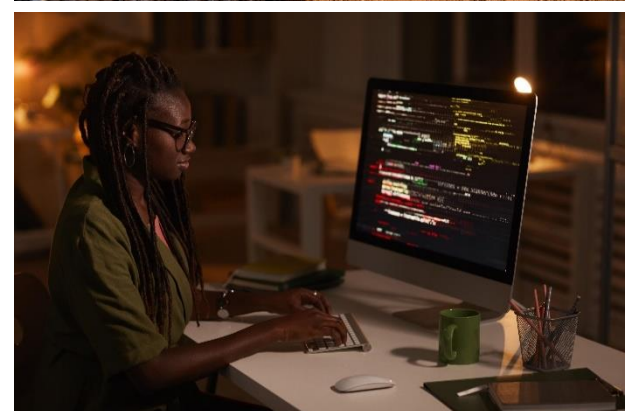
2.4 Green Transition

Calls	Year	Budget (MEUR)
14. Quantify impacts of the trade in raw and processed biomass on ecosystems, for offering new leverage points for biodiversity conservation, along supply chains, to reduce leakage effects	2021	10
15. Understanding the impacts of and the opportunities offered by digital transformation, new emerging technologies and social innovation with respect to biodiversity	2021	5
16. Support to processes triggered by IPBES and IPCC	2021	5
17. Network for nature: multi-stakeholder dialogue platform to promote nature-based solutions	2022	6
18. Assessing the nexus of extraction, production, consumption, trade and behaviour patterns and of climate change action on biodiversity in the context of transformative change	2022	12
19. Understanding the impacts of and the opportunities offered by digital transformation, new emerging technologies and social innovation on biodiversity	2021	5
20. Cooperation with the Convention on Biological Diversity	2022	5
21. What else is out there? Exploring the connection between biodiversity, ecosystems services, pandemics and epidemic risk	2021	12



3. Innovation & Technology

Calls	Year	Budget (MEUR)
1. Innowide Bridging Facility	2022	1.5
2. Building EU-Africa partnerships on sustainable raw materials value chains (CSA)	2021	8
3. Strengthen the bilateral cooperation on research infrastructures with Africa: improving the knowledge base on climate change in Africa	2021	1.5



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4. Capacities for science



Calls	Year	Budget (MEUR)
1. Global governance for a world in transition: Norms, institutions, actors	2022	9
2. Public policies and indicators for well-being and sustainable development	2022	9
3. Ensuring reliability and trust in quality of Research Ethics expertise in the context of new/emerging technologies	2021	4.5
4. Democratic politics in the EU's neighbourhood	2021	9.9
5. The challenges of research ethics and integrity in response to crisis: the coronavirus pandemic and beyond	2021	4.5
6. Decision-making processes of (aspiring) migrants	2022	9
7. Return and readmission of irregular migrants in the EU	2022	9
8. Gender and social, economic and cultural empowerment	2022	9
9. Improved impact forecasting and early warning systems supporting the rapid deployment of first responders in vulnerable areas	2022	10
10. Support for policy makers – Programme level collaboration between national R&I programmes	2021	10.5
11. Support for policy makers – Programme level collaboration between national R&I programmes	2022	7.5

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Examples of successful EU-AU R&I Partnerships I



Public Health

- The **European and Developing Countries Clinical Trials Partnership ([EDCTP](#))**, with joint investment of 1.4 BEUR and its efforts to gear research towards COVID-19 (e.g. clinical research networks). Currently approaching its third cycle of funding.



Green Transition

- R&I Partnership on **Food Nutrition Security and Sustainable Agriculture ([FNSSA](#))** channeled a joint investment of 381 MEUR on four priorities:
 - 1) Sustainable intensification;
 - 2) Agriculture and food systems for nutrition;
 - 3) Expansion and improvement of agricultural trade and markets;
 - 4) Cross-cutting topics.



Examples of successful EU-AU R&I Partnerships II



Green Transition

FNSSA examples



H2020
LEAP4FNSSA (CSA)
(11.2018 - 10.2022)



ERANET Co-Fund
LEAP-Agri
(12.2016 - 11.2021)

DG RTD H2020	VACDIVA	EWA-BELT	INSA	UPSCALE	InnovAfrica	
	AfriCultuReS	FF-IPM	DOWN2EARTH	EdiCitiNet	InnoFoodAfrica	
	Soils4Africa	NEXTFOOD	SustainSAHEL	MUSA	HealthyFoodAfrica	
	ASTRAL	AquaVitae	FOODLAND	TROPICSAFE		
	TWIGA	TRIATLAS	SustInAfrica	UNDERTREES		
DG INTPA DCI	CaSSECS	IRFFS	Biorisques	CLIMAT SMART	PESCAO	
	CSARIDE	INV-NIGER	EcoAfrica	Cocoa4Future	LIVE2AFRICA	
	DARE	FAIR Sahel	WACCI	FAREI DeSIRA	DeSIRA UOM	
	LIPS-Zim	ACCEPT	APSAN	Mangrove Guinea Bissau	TAERA	
	LIDISKI	ABEE	TROCAIRE	Agroforestry Rwanda		
ERA-Net Cofund	FOSC	SERVInnov	SmallFishFood	CLISMABAN	CASSANDRA	PASUSI
	NUTRIFOODS	UniCARSSA	Food4Cities	RAMSES II	WAGRINNOVA	
	MuVHA	VITAPALM	NOURICITY	AFRICA-MILK	ATMA4FS	
	LEARN	EatSANE	STEP-UP	Pest-free fruit	OPTIBOV	
	MUSBCEA	SESASA	SPEAR	AFRICA	Ento-Economy	



Examples of successful EU-AU R&I Partnerships III



Green Transition

CCSE examples



Long-Term Joint European Union - African Union Research and Innovation Partnership on Renewable Energy

- 83 partners, of which 39 from Africa, total budget 32.55 MEUR
- Topic 'Accelerating the green transition and energy access Partnership with Africa', part of the EU Green Deal call under H2020
 - Innovation Action, focus on demonstrating renewable energy solutions, the 5 selected projects currently in process of commencing operations
 - Total budget of 50,68 MEUR, leveraging significant finances of African participants, and public/private entities

Examples of successful EU/AU R&I partnerships IV



Strong Engagement

- 1000+ stakeholders from 50+ countries
- 44 core Tech hubs, 100 tech hubs in total
- 200+ Start-ups/Entrepreneurs engaged
- 60 TTOs

Strong Collaboration:

- Collaborations with AU, AFDB, DG CNECT, INTPA, NEAR, EIB, National Governments
- New official Innovation Working Group under the High-Level Policy Dialogue
- Thematic partners in our priority areas: Agriculture, CleanTech, MedTech, and Digital as a crosscutting theme

Visible impacts

- 30+ partnerships concluded
- First joint projects received external funding
- Successful thematic challenges on med-tech (Covid) and clean-tech organized.
- 200+ innovation stakeholders received training on access to funding, venture capital, H2020 funding, business model development, female entrepreneurship, corporate innovation etc.



From AEIP to ENRICH in Africa



EC Service facility AEIP

Duration: 09.2019 - 09.2021

Lead contractor: Technopolis Group (BE)

Partners: 5 Network partners, 30 Tech Hubs

Main pillars:

1. EU-Africa tech hub cooperation and joint activities
2. Tech transfer and commercialization
3. Capacity upgrading
4. Diplomacy and political engagement



EU H2020 ENRICH in Africa

Duration: 01.2021 - 12.2023

Coordinator: Steinbeis 2i (DE)

Partners: 12 project partners

Main pillars:

1. Set-up of a sustainable Centre and Network for EU-Africa tech hub cooperation
2. Support of tech transfer & commercialization
3. Capacity building and innovation service provision for tech hubs and innovators
4. Diplomacy and political engagement



European
Commission



Towards a joint EU-AU Innovation Agenda

- To enhance the impact of R&I on socio-economic development and job creation, a joint **EU-AU Innovation Agenda** was proposed during the first EU-AU R&I Ministerial meeting of July 2020.
- This will come **in addition to the 'Africa Initiative'**, with the aim to translate R&I efforts into positive impacts on the ground, to yield **sustainable growth and jobs**, and to develop a long-term and sustainable operational **EU-AU R&I cooperation model**.
- Comprehensive 'innovation agenda' including **3 main pillars**:
 - a) Coordination and communication, outreach and networking across the EU and AU
 - b) Capacity-building and business creation
 - c) Provision of incubation and acceleration services, including financial support



Next steps

- **Council Conclusions on Global Approach to R&I invite COM to prepare an EU/AU Innovation Agenda**
- **Included in final communication of EU/AU MFA Ministerial meeting of EU/AU of 25/26 October**
- **First draft Innovation Agenda under preparation, to be finalised by December 2021**
- **Stakeholder consultation in early 2022, EU/AU R&I SOM to conclude and endorse Innovation Agenda**
- **Presentation of Innovation Agenda at EU/AU Summit in February 2022**
- **Side event on EU/AU R&I cooperation under consideration during Summit, aiming to link young African and European innovators, tech hubs and incubators**



Thank you!

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<http://ec.europa.eu/horizon-europe>



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