

European Commission

Introduction

Various components of the European Union's (EU) policy agenda have relevance for the European agrifood research and innovation (R&I) support to low- and middle-income countries (LMICs). This support is channelled through various funding programs and mechanisms managed by different European Commission (EC) Directorates General (DG). [DG Research and Innovation \(DG-RTD\)](#) is responsible for the development and implementation of EU science, technology and innovation (STI) policies and the coordination of European R&I activities involving Member States. DG-RTD manages the EU framework programmes for R&I such as Horizon 2020 (2014-2020) and Horizon Europe (2021-2027), which focus on Europe but include an international cooperation dimension. In the area of agrifood R&I, DG-RTD is supported by [DG Agriculture and Rural Development \(DG-AGRI\)](#), which is responsible for all the aspects of the EU common agricultural policy. [DG International Partnerships \(DG-INTPA\)](#) is involved in the international dimension of EU policies and is responsible for the implementation and monitoring of the EU fund for development, [Neighbourhood, Development and International Cooperation Instrument \(NDICI\)](#) including R&I dimensions.

Central to the [European Green Deal](#) – a package of interventions and policies that aims for the EU to become climate neutral by 2050 – are the Farm to Fork, Biodiversity, Food, Soil, and Forest Strategies. Key to achieving the objectives of the European Green Deal and the Strategies is the [Common Agricultural Policy \(CAP\) 2023-27](#), which is the result of a reform process and presents a more sustainable, fair, and results-oriented policy than previous CAP versions.

The [Farm to Fork Strategy](#) focuses on enabling sustainable farming, fisheries, and aquaculture and transforming food systems to be more healthy, environmentally friendly and inclusive. The Strategy not only focuses on the EU but also supports more policy coherence in the global transformation to sustainable agrifood systems through international cooperation. Interventions related to agrifood R&I are central in the Strategy, particularly in the following areas: (i) climate change adaptation and mitigation; (ii) agroecology; (iii) sustainable landscape management and land governance; (iv) conservation and sustainable use of biodiversity; (v) inclusive and fair value chains; (vi) nutrition and healthy diets; (vii) prevention of and response to food crises, particularly in fragile contexts; (viii) resilience and risk preparedness; (ix) integrated pest management; (x) plant and animal health and welfare, and (xi) food safety standards.

The [EU Biodiversity Strategy for 2030](#) is a comprehensive plan that addresses the ongoing biodiversity crisis and sets ambitious targets for the conservation and restoration of nature by the year 2030. It builds upon the previous biodiversity strategy, which covered the period up to 2020. Key features of the strategy include launching an EU nature restoration plan and the introduction of measures to enable necessary transformative change and address the global diversity challenge.

The EU [Food 2030 Policy Framework](#) aims to guide future R&I policies to support transition towards sustainable, resilient, healthy and inclusive food systems. It comprises four thematic

priorities: i) nutrition for sustainable and healthy diets; ii) food systems supporting a healthy planet; iii) circularity and resource efficiency; and iv) innovation and empowering communities. One of Food 2030's 11 pathways for action is [Food Systems in Africa](#), which focuses on the implementation of the EU-AU partnership priority on food and nutrition security and sustainable agriculture.

The [EU Soil Strategy 2030](#) provides a framework and measurements to ensure the protection, restoration and sustainable use of EU soils. It sets a vision and ambitious targets to achieve healthy soils by 2050, with concrete actions by 2030. The Strategy is firmly embedded within the EU Farm to Fork and Biodiversity Strategies. It has a connection with the Global Soil Partnership and will support initiatives addressing R&I issues around African soils and desertification.

The [EU Forest Strategy 2030](#) builds on the EU Biodiversity Strategy and aims to improve the quantity and quality of EU forests and strengthen their protection, restoration and resilience. Its actions include the development of a robust R&I agenda. The Strategy, as well as the [EU regulation on Deforestation-free Products](#) on the trade of commodities and products associated with deforestation and forest degradation, will have impacts on forest management outside EU, including planted forests.

The EC has various ongoing regional R&I dialogues in Africa, Asia, and Latin America. The Commission has also formalized [bilateral science and technology \(S&T\) agreements](#) to foster R&I cooperation with 11 middle-income countries (as well as six high-income countries).¹

The [African Union \(AU\) – EU High Level Policy Dialogue \(HLPD\)](#) on Science, Technology, and Innovation aims to strengthen African-European cooperation in R&I. The [Partnership on Food and Nutrition Security and Sustainable Agriculture \(FNSSA\)](#) is part of the HLPD and was approved at the AU-EU summit in 2014. Its 10-year roadmap (2016-2026) was endorsed at the AU-EU summit in 2017. With a joint investment of €381 million, the Partnership aims to boost the impact of joint EU-AU R&I activities focusing on four priority areas: (i) sustainable intensification of agriculture; (ii) agriculture and food systems for nutrition; (iii) expansion and improvement of agriculture trade and markets; and (iv) cross-cutting topics. The FNSSA Partnership is one of the green alliances that have been set up around the EU's Green Deal and Farm to Fork Strategy.

The [AU-EU Innovation Agenda](#), which was published in July 2023, focuses on specific objectives and set of actions for all four priority areas that came out of the first R&I Ministerial Meeting in 2020: (i) public health, (ii) green transition, (iii) innovation and technology, and (iv) capacities for science and higher education. The Agenda is accompanied by a [roadmap](#) outlining the governance and coordination of the Agenda. The Innovation Agenda is built on the mutual understanding that R&I is central in responding to the shared challenges. By integrating R&I into agrifood systems and fostering collaboration between the AU and EU, the Innovation Agenda can contribute to food and nutrition security and sustainable agriculture.

¹ These 11 countries are Algeria, Argentina, Brazil, China, Egypt, India, Jordan, Mexico, Morocco, South Africa, Tunisia.

Horizon 2020

The EU research and funding programme, [Horizon 2020](#) ran from 2014-2020 with a budget of about €80 billion. Most of this funding was based on competitive calls for proposals. Specific calls were dedicated to partner countries in Africa, Asia, and Latin America. Various programmes and projects that were implemented as part of the Africa-EU cooperation were funded under Horizon 2020. This was based on the implementation of the FNSSA Partnership of which various projects were in support of agrifood R&I,² including:

- The multi-donor funded [Long term Europe-Africa Partnerships on Agriculture, Food and Nutrition Security and Sustainable Agriculture \(LEAP-Agri\) platform](#) is an Europe-Africa R&I initiative ([ERA-Net](#)) of 30 partners – including ministries and donor organizations – from 18 European and African countries that was led by the French National Research Agency (ANR) (€9,2m EU funding of a total budget of €28,0m). During its implementation (2017-2022), the programme supported 27 R&I projects, which were executed by EU-African project teams and covered a wide range of topics related agriculture and food. The programme also implemented other activities including the introduction of innovative tools for alignment and collaboration in R&I, capacity strengthening, dissemination of LEAP-Agri outputs, and liaisons with relevant stakeholder groups.
- Funding to [LEAP4FNSSA](#) for the building of a long-term platform of relevant European and African partners (€5,1m/2019-2022). The programme's main objectives were: (i) increased synergies and coherence between R&I actors and activities through the development of institutional alliances and clusters of projects; (ii) enhanced learning environment, large knowledge base, established communication and links to improve European-African cooperation in R&I; and (iii) the establishment of the International Research Consortium (IRC) – a long term sustainable partnership and co-funding mechanism.
- [Innovations in Technology, Institutional and Extension Approaches towards Sustainable Agriculture and Enhanced Food and Nutritional Security in Africa \(InnovAfrica\)](#) – led by the Norwegian institute of Bioeconomy Research – aimed to integrate sustainable agricultural intensification systems, innovative institutional approaches, and extension and advisory services and also improve the adaptive capacity of African smallholder farmers (€4,8m/2017-2021).
- [Updating Soil Information for Africa: Supporting Agriculture and Promoting Synergies \(Soils4Africa\)](#) – led by International Soil Reference and Information Centre –is developing an open-access soil information system comprising key indicators and data that will allow for recurring soil monitoring to positively support innovations in the African agricultural sector (€6,7m/2020-2024).

² The online [FNSSA project database](#) comprises projects in the area of FNSSA that have been funded by the EC framework programmes such as Horizon 2020, Horizon Europe, the African Union Research Grants as well as a number of relevant projects from EC DGs and national EU funders.

- [Locally-driven Co-development of Plant-based Value Chains towards More Sustainable African Food System with Healthier Diets and Export Potential \(InnoFoodAfrica\)](#) – led by Natural Resources Institute Finland – is developing and testing solutions for cultivation practices, processes, and production of climate-smart African crops – cereals, pulses, root crops, and fruit – in Ethiopia, Kenya, South Africa, and Uganda (€6,5m/2020-2024).
- [Towards a long-term Africa-EU partnership to raise sustainable food and nutrition security in Africa \(PROIntensAfrica\)](#) – led by Wageningen University and Research – aimed to enhance the food and nutrition security and the livelihoods of African farmers by exploring and exploiting the diversity of pathways to sustainable intensification of African agricultural and food systems (€1,8m/2015-2017).

Horizon Europe

The Horizon Europe programme for 2021-2027, with a total budget of €95,5 billion, is the successor of Horizon 2020 and comprises four funding phases: 2021-2022, 2023-2024, 2025, 2026-2027. Its [Strategic Plan](#) was adopted in 2021 and outlines the EU's R&I priorities for 2021-2024. Pillar II of the Plan supports strengthening collaboration through multilateral initiatives in order to address global challenges and European industrial competitiveness. Under this pillar, [Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment](#) (€9 billion) funding is made available for R&I projects focusing on the development of knowledge and innovations. The cluster's activities contribute to the EU Green Deal, the Farm to Fork and Biodiversity Strategies, various other strategies related to climate, forestry, soils, rural areas as well as the sustainable development goals (SDGs). Cluster 6 focuses on seven intervention areas: i) environmental observation; ii) biodiversity and natural resources; iii) agriculture, forestry and rural areas; iv) seas, oceans and inland waters; v) food systems; vi) bio-based innovation systems in the EU's bioeconomy; and vii) circular systems.

Various Horizon Europe mechanisms provide space for non-European partners to participate under the condition that they receive co-funding from their national financing agency. Participants from many LMICs are automatically eligible for funding.³ In addition, certain non-EU countries or regions are also targeted for specific calls within Horizon Europe. For instance, the programme aims to enhance R&I collaborations between EU and Africa through the [Africa Initiative](#) and the more recent [Mediterranean Initiative](#). Horizon Europe and these two Initiatives follow the guidelines of the 2021 released [Strategy for International Cooperation](#) that promotes a more leading role of the EU in supporting multilateral R&I partnerships. Horizon Europe also seeks to improve synergies with bilateral and multilateral R&I programmes targeting Africa.

³ This is the case for calls that are fully funded by the EU. For co-funded partnerships – funded by Member States or associated countries with an EU top-up – funding of LMIC organisations that do not have a national funding agency in the partnership relies on the willingness of the partnership members to dedicate a specific budget for their organisations. Since not all countries can use national funds to support organisations in other countries, this in practice reduces the possibility of international cooperation.

The first two calls under Horizon Europe (2021-2022) earmarked €350 million for topics of Africa interest and the promotion of participation of African entities. It comprised 36 topics under four target priority areas that were announced as part of the Africa Initiative. Two of these priority areas were related to agrifood R&I: One Health approach for food nutrition security and sustainable agriculture and agroecological approaches in African agriculture systems. The Horizon Work Programme 2023-2024 comprises a second phase of this Initiative with an earmarked funding of €300 million. The [Africa Initiative II](#) covers close to 30 topics including a number that are relevant agrifood R&I such as food and nutrition security, sustainable agriculture, agroforestry, agroecology, food safety, and support to food markets and trade. The 2023 call, for example, included a specific call on accelerating farming systems transitions focusing on agroecology living labs and research infrastructure.

Various projects funded under these calls fell under FNSSA Partnership, including:

- [Consortium Europe-Africa for Research and Innovation on Food Systems Transformation \(CEA-FIRST\)](#) aims to operationalise IRC, which was initiated under LEAP4FNSSA and funded under Horizon 2020 (see page 3), as a fully functional body (€3,3m/2023-2027). The programme comprises 21 African and European partners and is led by the Forum for Agricultural Research in Africa (FARA). IRC will be a member-based and multi-actor long-term platform in line with the FNSSA Roadmap of the HLPD on Science, Technology, and Innovation. CEA-FIRST's main objectives are: i) provision of public access to a large knowledge platform; ii) offering a sound method for analysis of R&I activities; iii) support for the updating of the FNSSA Roadmap; iv) establishment of operational working groups and thematic research calls.
- [Strengthening Evidence-Based Policy Practice for Sustainable Food Systems under the EU-AU Partnership \(StRPPFos\)](#) aims to contribute to the FNSSA 10-year roadmap and the global transition towards sustainable food systems through the implementation of activities that link the Pan-African Network for Economic Analysis of Policies (PANAP), established in 2019, to the FNSSA partnership (€3,0m/2024-2027). The programme's main objectives are (i) improved capacities of stakeholders (ii) enhanced science-policy interface (iii) improved strategies that promote scientific support within policy development (iv) expanded and strengthened PANAP Network.
- Various projects led by EU organisations and comprising EU and African partners focus on One Health or agroecological food production in Africa. These include:
 - [One Health Approaches to Support Agroecological Transformation of Peri-urban Farming](#) (€5,0m/2022-2026);
 - [One Health Sustainability Partnership between EU-AFRICA for Food Security](#) (€4,4m/2022-2025);
 - [Food Systems Transformation in Southern Africa for One Health](#) (€4,1m/2022-2026); and
 - [Eco-innovative Technologies for Improved Nutrition, Sustainable Production and Marketing of Agroecological Food Products in Africa](#) (€7,0m/2024-2026).
- A number of projects address [food systems transitions in Africa](#), including improved rural urban linkages, food city policies, healthy nutrition, food safety and fair trade.

Additional Horizon Europe mechanisms include Missions and Partnerships:

- The [EU Mission: A Soil Deal for Europe](#) is related to the agricultural sector. Its main goals are to i) establish 100 living labs and lighthouses to co-create knowledge, test solutions; and ii) demonstrate their value in real-life conditions and lead the transition towards healthy soils by 2030. The mission will fund a R&I programme with a strong social science component and develop a harmonised framework for soil monitoring in Europe. Part of the mission is the launch of a specific call for Africa in 2024 on assessing and addressing soil health. This initiative will be implemented jointly with the Bill & Melinda Gates Foundation (BMGF), which is currently also investing in soil health in Africa. Such initiative for Africa will be important to support the Soil Initiative for Africa (SIA) developed by AU and FARA.
- Three Partnerships are related to food systems: The [European Partnership on Agroecology \(EUP AE\)](#), the [European Partnership on Animal Health and Welfare \(EUP AH&W\)](#) and the [Partnership for Sustainable Food Systems \(SFS\) for people, planet and climate](#) (start in June 2024). These R&I partnerships were initiated by research centres, Member States' funding agencies and authorities, and associated countries, with the support of the EC through Horizon Europe. They will bring knowledge and innovation to help reach the objectives of CAP 2023-2027 and several targets in the Farm to Fork and the Biodiversity Strategies. Both Partnerships will cooperate and maximise synergies with other initiatives, including the EU Mission: A Soil Deal for Europe. In addition to the funded activities, the Partnerships plan to engage with international communities and partner countries to foster exchanges and build synergies. Synergies between living labs supported by EUP AE and the living labs on agroecology supported by INTPA through the Development Smart Innovation through Research in Agriculture (DeSIRA) programme will be important.

R&I on food systems at DG-INTPA

DG INTPA is responsible for a large portion of EC's support to agrifood R&I, which is mainly managed by the unit F3 "Sustainable Agri-Food Systems & Fisheries". The DG has a number of other units dedicated to R&I, including a unit dedicated to STI related to various sectors (F5, STI and digitalisation) and which manage some projects related to agrifood systems. The unit F2 "Environment and Sustainable Resources" also supports some research projects on biodiversity comprising links with agrifood systems.

The Directorate is currently supporting a number of large programmes and initiatives of which the main ones are listed below.

1. Funding support to the CGIAR

The EC has been an important contributor to the CGIAR since its inception and serves as a member on the System Council, one of the system's governance bodies. In past decades, most of the financial support from the EC has been provided in the form of bilateral funding to projects and programmes to specific CGIAR centres. In September 2021, the President of the EC announced a pledge of €140 million to fund the CGIAR system directly through its Trust Fund. During the current business cycle of

the CGIAR's research portfolio (2022-2024), the EC contributed a total of €50 million. These contributions have been designated to support a number of research initiatives and impact platforms such as Agroecology (€13,5m), NEXUS Gains (€10,5m), and Livestock and Climate (€10,3m). The EC, through its various DGs and EU delegations, is also expected to continue additional contributions in the form bilateral project funding.

2. Development Smart Innovation through Research in Agriculture (DeSIRA)

The [DeSIRA programme](#) aims to strengthen the transition of agrifood systems in Africa, Asia, and Latin America from a climate-change oriented and sustainable perspective. DeSIRA comprises three pillars: The first two focus on institutional capacity strengthening of research infrastructure and governance conducive to innovation; the third on knowledge and evidence to feed development policies. During the current first phase of the program – with €345 million EU funding and €60 million from Member States for the period 2019 to 2025 – close to 80 projects have been funded.

- *Pillar I. Innovation in agricultural and food systems.* Pillar I projects have a diverse focus related to crop, livestock, and agroforestry production or on specific related services such as innovation support and advisory services. They target social and environmental challenges in the context of climate change, ensuring agroecological intensification and natural resources management by promoting innovation processes via multi-stakeholder approaches. A number of projects are embedded in or have synergies with large country-level development programmes.
- *Pillar II. Institutional capacity strengthening of research infrastructure conducive to innovation.* Pillar II projects provide R&I governance support to various international and regional organizations/initiatives with the aim to enhance their capacities to manage climate relevant innovation systems. These include African networks responsible for the coordination of agricultural research and extension – African Forum for Agricultural Advisory Services (AFAAS), Association for the Strengthening of Agricultural Research in East and Central Africa (ASARECA), Centre for Coordination of Agricultural Research and Development for Southern Africa (CCARDESA), West and Central African Council for Agricultural Research and Development (CORAF/WE CARD), and FARA – as well as those focusing on strengthening innovation systems – Tropical Agriculture Platform (TAP) and Global Forum on Agricultural Research and Innovation (GFAR). Also funded under this pillar is the [One Planet Fellowships Programme](#) which aims to build and develop scientific research, leadership, networking and mentoring skills of young promising researchers that work on African agriculture and climate change adaptation and mitigation.
- *Pillar III. Knowledge and evidence to feed development policies.* Funding under this pillar supports the European R&I expertise to actively engage in strategic thinking and actions related to agrifood R&I and to develop better practices for R&I policies. Central to this pillar is the [Leveraging the DeSIRA Initiative for agri-food systems transformation \(DeSIRA-LIFT\)](#), a service facility that supports all activities of the DeSIRA programme (€6,5m/2021-2025) and implemented by a consortium of the Association of European Universities and Research

centres (Agrinatura) and members of the European Forum on Agricultural Research for Development (EFARD).

3. African Research Initiative for Scientific Excellence - Pilot Programme (ARISE-PP)

[ARISE-PP](#) is led by the African Academy of Sciences in partnership with the EU and AU. The programme provides scholarships to African researchers – particularly those in the early stages of their career – in order to build agricultural research capacity in Africa. The programme also aims to enhance institutional research management and support systems. The pilot phase was launched in December 2020 with €25,5 million of funding from the EU and Carnegie Corporation New York and provides scholarships to close to 600 early-to mid-career African researchers.

4. Organisation of African, Caribbean and Pacific States (OACPS) R&I Fund

The aim of the [Innovation Fund](#) is to strengthen R&I capacities in African, Caribbean, and Pacific (ACP) countries to improve their innovation performance and transition into knowledge-based economies supporting sustainable development and reduce poverty. The programme has three components: (i) Innovation Fund to foster a favourable R&I environment; (ii) Policy Support Facility to improve the quality and efficiency of national R&I systems; and (iii) a web portal to enable the sharing of knowledge and experiences among key stakeholders. The fund is implemented by the Organisation of African, Caribbean and Pacific States (OACPS).

The Innovation Fund, which runs from 2021-2025 with a total budget of €60 million, has funded 12 projects led by national or regional research agencies and universities. Projects are related to agriculture, one health, digital solutions, waste management, natural resource, and innovation ecosystems. Key projects funded include:

- [Capacitating One Health in Eastern and Southern Africa \(COHESA\)](#) is led by ILRI and focuses on the development of inclusive R&I ecosystems facilitating rapid uptake, adaptation, and adoption of solutions to One Health issues, with the One Health approach concept embedded across the societies (€7,9m EU funding of a total budget of €9,3m/4 yrs).
- [Strengthening Agricultural Knowledge & Innovation Ecosystem for Inclusive Rural Transformation & Livelihoods in Eastern Africa \(AIRTEA\)](#), which is led by FARA and aims to contribute to achieving sustainable farming livelihoods and rural transformation by promoting an inclusive innovation environment, including capacity strengthening of youth and women, in Kenya, Uganda and Rwanda (€4,8m/4 yrs).
- [Accelerating Inclusive Green Growth through Agri-based Digital Innovation in West Africa \(AGriDI\)](#) – led by the International Centre for Insect Physiology and Ecology (*icipe*) and aims to enhance inclusive green growth through agri-based digital innovations, especially for women and youth farmers, in Western Africa (€4,9m/4 yrs).

5. DeSIRA+

The new DeSIRA phase is DeSIRA+ comprising DeSIRA+ R&I and regional multi-actor research networks (RMRN) on agroecology.

- DeSIRA+ R&I (€100m EU funding and additional Member State contributions) is implemented with a first phase in 2024. DeSIRA+ puts more emphasis on innovation at scale and enabling

policies for innovations. Multistakeholder approaches will still be in the forefront of the interventions with non-research actors leading the dynamics. Agroecology is a more prominent orientation for DeSIRA+ as it paves the way for more productive and more resilient farming systems and value chains. A specific focus will be on bio-inputs including off farm organic and bio-fertilisers, seed systems of forgotten foods, smallholder mechanisation, and digitalisation for agroecology. DeSIRA+ is built with EU-Member States in a Team Europe approach and with the International Fund for Agricultural Development (IFAD) to create synergies and mobilise additional resources for innovations based on agroecological principles.

- The regional multi-actor research networks (RMRNs) will be launched in 2024 (€16m). Their objective is to contribute to a sustainable agri-food system transition based on agroecological principles in Africa. RMRNs will be led by African research organisations and universities. They include concrete partnerships with (i) international organisations and/or European research organisations/universities; and (ii) non-research organisations such as NGOs, private sector entities, farmer organisations, and public entities.

6. Supported networks

The Commission, through DG-INTPA, supports the coordination of policies and programmes on ARD among seven European Member States – plus Norway, Switzerland, and the United Kingdom – through the [European Initiative of Agricultural Research for Development \(EIARD\)](#), an informal European donor coordination platform. EIARD aims to foster exchanges to promote and implement coherent European policies and investments at international, regional and sub-regional levels in order to increase the impact of agrifood R&I systems. It also supports EFARD, a broader stakeholder group. DG-INTPA also supported the establishment of [PANAP](#) in 2019, which currently is also supported through Horizon Europe (see page 5).

DG-INTPA also participates in the EU [Standing Committee on Agricultural Research \(SCAR\)](#) which provides advice to the EC, EU Member States, and associated countries on R&I priorities in agriculture and the wider bioeconomy and plays an important role in the coordination of national research programmes. Its strategic working group (SWG) [European Agricultural Research towards Greater Impact on Global Challenges \(ARCH\)](#) aims to improve linkages between European and international agricultural research by expanding the scope of European research to the global level in areas where global interdependences such as food systems, climate change and diseases are imminent. It also aims to increase research impacts on meeting the SDGs and to improve the efficient use of research funding. For its 2023-2024 mandate, ARCH is working with the SWG Foods Systems and SWG Bioeconomy for the internationalization of the Horizon Europe partnership on the transformation of food systems (2024-2034).

This profile has been prepared by EIARD with contributions from staff of DG-INTPA, complemented by information received from other EC-DGs and from online websites. The findings, interpretations and conclusions expressed in this profile do not necessarily reflect the views of the European Committee.