

CDG ANIMAL PRODUCTION
Focus on Sheep and Goat

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Overview of R&I activities in fiber animal production



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EU strategies & targets

- Green Deal / Farm to Fork Strategy / Biodiversity Strategy / Methane Strategy / Circular Economy Action Plan
- Zero Pollution Action Plan
- EU Climate Law
- Nitrate Directive
- Organic Action Plan
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AIR QUALITY

GHG BALANCE

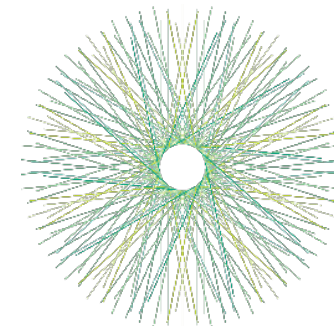
R&I as key enablers



SOIL QUALITY

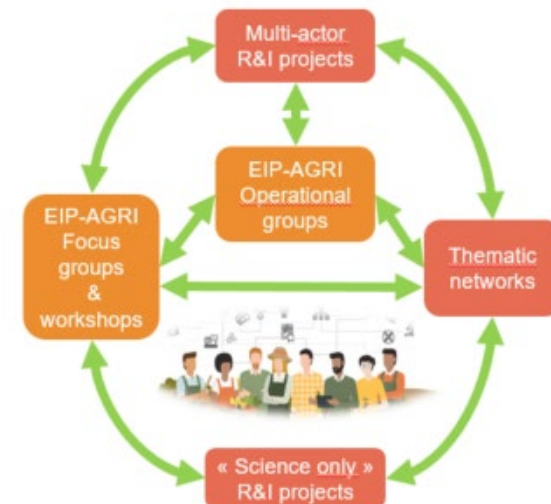
WATER QUALITY

CAP Network

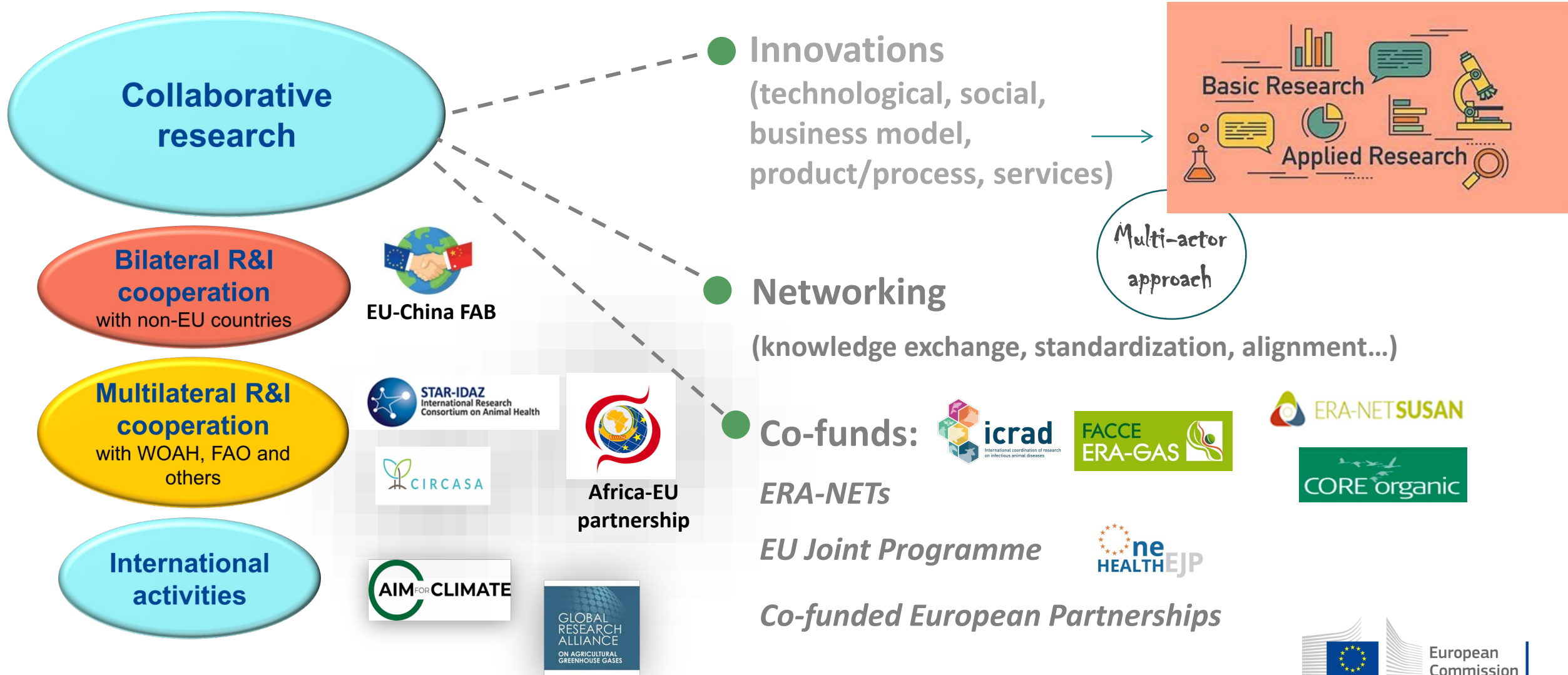


eip-agri
AGRICULTURE & INNOVATION

Horizon 2020
Horizon Europe



Type of actions to boost healthy and sustainable livestock systems



Co-funds

H2020 projects on small ruminants : animal production (1/2)



Sustainable Animal Production
(Mar. 2016–Feb. 2022; €5M EU)

37 partners from 23 countries

SRIA and project results on websites

<https://era-susan.eu/> - <https://cordis.europa.eu/project/id/696231>

Calls 2018 and 2021 with other ERA-NETs

Call 2016

- **SusSheep:** Sustainable **sheep** production
- **SusTradeOff:** Understanding trade-offs between health and efficiency to improve competitiveness and sustainability of animal production by breeding and management (€ 835k) – **sheep** and poultry
- **Ecolamb:** Holistic production to reduce the ecological footprint of meat (€1M)
- **AnimalFuture:** Steering Animal Production Systems towards Sustainable Future (€1.25M) - multispecies

Call 2018
GHG

- **SEASOLUTIONS:** Seaweeds and seaweed-ingredients to reduce enteric methane emissions from pasture-based **sheep**, cattle and dairy cows
Findings: Characterization of 74 native and harvestable seaweeds and generation of 27 seaweed ingredient extracts; Selected seaweed / extracts assessed for their ability to reduce CH₄ emissions in in-vitro models; Extruded pellets containing active seaweed extracts made and characterized for bioactives; Seaweed and extracts reduced emission by 12-14%...
- **GrassToGas:** Strategies to mitigate GHG emissions from pasture-based **sheep** systems
Findings: Rumen volumes larger in more feed-efficient individuals (in selected male sheep); Ruminal microbiota alone does not help in predicting classes of feed intake or residual feed intake; Body size (weight) is the largest predictor of feed intake; Data on benchmark CH₄ emissions from different gas-measuring platforms suggest there are significant differences between platforms....

Call 2021
Circularity,
Mixed systems

Multi species projects (none specifically on small ruminants)

- **CircAgric-GHG; ConnectFarms; MI BICYCLE; PROENV; ReLive; SENSE; Solution4Farming**

H2020 projects on small ruminants : animal production (2/2)

Collaborative projects

Sustainability



- **Pathways** (Sep2021-Aug2026; €9M) Pathways for transitions to sustainability in livestock husbandry and food systems; multispecies (includes **small ruminant**), <https://cordis.europa.eu/project/id/101000395>



- **Code Re-farm** (May 2021-Oct 2024; €5.8M) Consumer-driven demands to reframe farming systems <https://cordis.europa.eu/project/id/101000216> - **goats** and poultry



- **Sm@rt** (Jan2021-Sep2024; €2M) Small Ruminant Technology - Precision Livestock Farming and Digital Technology for **Small Ruminants** <https://cordis.europa.eu/project/id/101000471>



- **Smarter** (Nov2019-June2023; €7M) **SMALL RuminanTs** breeding for Efficiency and Resilience <https://cordis.europa.eu/project/id/772787>



- **Mix-Enable** (2018-2021) Strategies for sustainable and robust organic mixed livestock farming.



- **iSAGE** (Mar2016-Feb2020; €7M) Innovation for sustainable **sheep and goat** production in Europe <https://cordis.europa.eu/project/id/679302>

Genetic resources



- **Image** (2016-2020; €7M) Innovative Management of Genetic Resources <https://cordis.europa.eu/project/id/677353>



- **GenRes Bridge** (2019-2021; €3M) Joining forces for genetic resources and biodiversity management <https://cordis.europa.eu/project/id/817580>

Collaborative projects

H2020 projects on small ruminants

Collaborative projects

Circularity



- **RESYNTEX** (June2015-May2019; €8.8M) A new circular economy concept: from textile waste towards chemical and textile industries feedstock <https://cordis.europa.eu/project/id/641942>

Marie Curie

Marie Skłodowska Curie

Humanities / History

- **WOOL** (Jan2022-Dec2024; €230k) Wool Worked Worlds - Studying industrial landscapes through collaborative filmmaking <https://cordis.europa.eu/project/id/101027138>
- **AncestralWeave** (Dec2020-Nov2025; €2.5M) 1,000 ancient genomes: gene-economy innovation in cattle, sheep and goat <https://cordis.europa.eu/project/id/885729>
- **MARKS-MEDICI** (Jan2019-Dec2021; €183k) Marks and the Medici: Branding and Trademarks in Renaissance Global Business <https://cordis.europa.eu/project/id/793583>
- **OVineE** (May2017-Apr2019; €183k) Ovine origins and diversity in north-eastern Europe <https://cordis.europa.eu/project/id/749226>
- **FIBRANET** (Oct2017-Sep2019; €212k) Fibres in Ancient European Textiles <https://cordis.europa.eu/project/id/745865>

H2020 projects on small ruminants



European Network for interactive and innovative knowledge exchange on **animal health and nutrition** between the sheep industry actors and stakeholders



Sharing Expertise and Experience towards **sheep productivity** through Networking

- Produce a **reservoir** of scientific, technical and practical information
- Foster cross-fertilization through **Multi-actor Approach** at national and international level
- Develop easily **understandable support package** of communication and learning materials, web-based tools, interactive platform, designed to help **scientists, farmers** and **advisory services**

Examples of best practices: <https://eurosheep.network/>

Scientific / practical information

Key solution with specific recommendations

Communicating and training materials

Scientific / practical pool of experts

Pool of innovative farms

Future research/network agenda

Collaborative projects

H2020-Horizon Europe projects on small ruminants: animal health (1/2) *Collaborative projects*

Epidemiology



- **SPARC** (*HE* Feb 2024-Jan2027; €2.5M) Sustainable **Parasite** Control in Grazing Ruminants <https://cordis.europa.eu/project/id/101134842>

PALE-Blu (June2017-Nov2021; €6M) Understanding pathogen, livestock, environment interactions involving **bluetongue** virus <https://cordis.europa.eu/project/id/727393>

Vaccinology



- **REPRODIVAC** (*HE*; Sep2022-Aug2027; €3.1M) Next-generation vaccines and diagnostics to prevent livestock reproductive diseases of worldwide impact. - To better control 4 priority abortifacient diseases (including **ovine enzootic abortion** and **Q fever**) <https://cordis.europa.eu/project/id/101060813>



SPIDVAC (*HE*; Jul2022-Dec2025; €5M) Improved control of priority animal diseases: Novel vaccines and companion diagnostic tests for African horse sickness, **peste des petits ruminants** and **foot-and-mouth disease** <https://cordis.europa.eu/project/id/101059924> ; <https://spidvac.fli.de>

- **BGV1** (Mar2020-Feb2023; €1.4M) New vaccine for a paradigm shift in **Brucellosis**, one of the world's most widespread zoonotic diseases affecting humans <https://cordis.europa.eu/project/id/946275>
- **PARAGONE** (Apr2015-Mar2019 €9M) Vaccines for animal parasites (ruminant **helminths** and **ectoparasitic mites** – *Psoroptes ovis*) <https://cordis.europa.eu/project/id/635408>

Antimicrobial Resistance



DISARM Thematic Network (2019-2022; €2M) Disseminating Innovative Solutions for Antibiotic Resistance Management. Best practice guides, multi-actor farm, health plans (multispecies, incl. **small ruminants**) <https://cordis.europa.eu/project/id/817591>

H2020-Horizon Europe projects on small ruminants: animal health (2/2)

Infrastructures



VETBIONET (2017-2023; €10M) *Veterinary Biocontained facility Network for excellence in animal infectious disease research and experimentation* Transnational Access to infrastructures, Joint Research Activities <https://cordis.europa.eu/project/id/731014>; www.vetbionet.eu

Co-Fund actions



- **One Health European Joint Programme co-fund** (2018-2023; budget €90M incl. €45M from EU) *Promoting One Health in Europe through joint actions on foodborne zoonoses, antimicrobial resistance and emerging microbiological hazards* <https://cordis.europa.eu/project/id/773830>; <https://onehealthjep.eu/about/> Main focus on tools, systems, data for surveillance, diagnostics, risk assessment. 30 JRP and JIP



- **ICRAD ERA-NET** (2019-2024; budget €24M incl €8M from EU) *International coordination of research on infectious animal diseases* <https://cordis.europa.eu/project/id/862605>; <https://www.icrad.eu/>
1st call: €19.7M, 19 projects incl. on **small ruminants** health: Bruce-GenoProt on **Brucellosis**; Plants4Nemavax on nematodes; CAE-RAPID on caprine arthritis-encephalitis; BM-FARM on AMR
2nd call: 10 projects incl. on **small ruminants** health: imdiTBap and AdapTB on tuberculosis; Q-Net-Assess on Q fever; ScResGoats and ScIce on scrapie;

International cooperation



- **SIRCAH** (2016-2022; €3M) *Secretariat for the International Research Consortium on Animal Health*. Organisational, communication and technical support to the STAR-IDAZ International Research Consortium (IRC) on Animal Health. Vaccines, diagnostics, therapeutic, procedures and key scientific information/tools to support risk analysis and disease control <https://www.star-idaz.net/>

H2020-Horizon Europe projects on small ruminants: animal health & welfare

Other than SC2/CI 6 (examples)

COST Actions



- **ENOVAT** (2019-2023) *European Network for Optimization of Veterinary Antimicrobial Treatment* Development of antimicrobial treatment guidelines and refinement of microbiological diagnostic procedures www.enovat.eu
- **BETTER** (2021-2025) *Biosecurity Enhanced Through Training Evaluation and Raising Awareness* <https://better-biosecurity.eu/>
- **HARMONY** (2019-2023) *Novel tools for test evaluation and disease prevalence estimation* <https://harmony-net.eu/>

Animal welfare (SC2 & others)



- **TechCare** (Sep2020-Aug2025; €5.7M) *Integrating innovative Technologies along the value Chain to improve small ruminant welfare management* <https://cordis.europa.eu/project/id/862050>

COST actions:

- **LIFT** (COST action; Nov2022-Nov2026) *Lifting farm animal lives – laying the foundations for positive animal welfare (incl **small ruminants**)* <https://www.cost.eu/actions/CA21124/>

Co-funds

Animal Health and Welfare Co-funded Partnership

What: generate innovative methodologies and products to support preparedness, prevention and response against animal infectious diseases, promote and strengthen animal welfare, support evidenced based policy making

Who: Co-funded by EU, with Member States and Associated Countries, involving funding organizations, research organisations and key stakeholders (farmers, veterinary sector, policy makers, agencies & reference bodies, industry, etc.)

How: internal research activities, external calls for projects, integrative activities, etc.

Where: Europe-wide

When: 1Q 2024; 7-10 years duration



Animal Health and Welfare



Agroecology

Topics relevant to livestock in CL6 WP 2024: examples



Destination 2 Sustainable food systems from farm to fork

HORIZON-CL6-2024-FARM2FORK-01-1: **Agro-pastoral/outdoor livestock** systems and **wildlife** management (€5M)

HORIZON-CL6-2024-FARM2FORK-01-10: **EU-African** Union cooperation on **agroforestry** management for climate change adaptation and mitigation (3x€6M)



HORIZON-CL6-2024-FARM2FORK-02-1-two-stage: Increasing the availability and use of non-contentious inputs in **organic farming** (2x€6M)

HORIZON-CL6-2024-FARM2FORK-02-5-two-stage: **Animal nutritional** requirements and nutritional value of feed under different production management conditions (€7M)

Destination 3 Circular and bioeconomy



HORIZON-CL6-2024-CIRCBIO-02-1-TWO-STAGE: Circular solutions for **textile value chains** through innovative sorting, recycling and design for recycling (3x € 5M)

Destination 7 Governance, environmental observations and digital solutions in support of the Green Deal



HORIZON-CL6-2024-GOVERNANCE-01-13: Developing EU **advisory networks** on **sustainable livestock systems** (€4M)

Open calls of potential interest

HORIZON-CL6-2024-FARM2FORK-01-1

Agro-pastoral/outdoor livestock systems
and wildlife management

Research and Innovation Action

*Indicative budget: 5 M€ in total
(5 M€ per project)*



HORIZON-CL6-2024-CIRCBIO-02-1-TWO-STAGE

Circular solutions for textile value chains
through innovative sorting, recycling
and design for recycling

Research and Innovation Action

*Indicative budget: EUR 15M
(EUR 5M per project)*





Thank you

So much more than food...