



EUGENA

THE REPORT OF ACTIVITIES 2024-2025

EUGENA and ex situ WG ERFP

Ewa Sosin

Chair of the ERFP Ex Situ WG

11 th September 2025

Olsztyn- Popielno, Poland

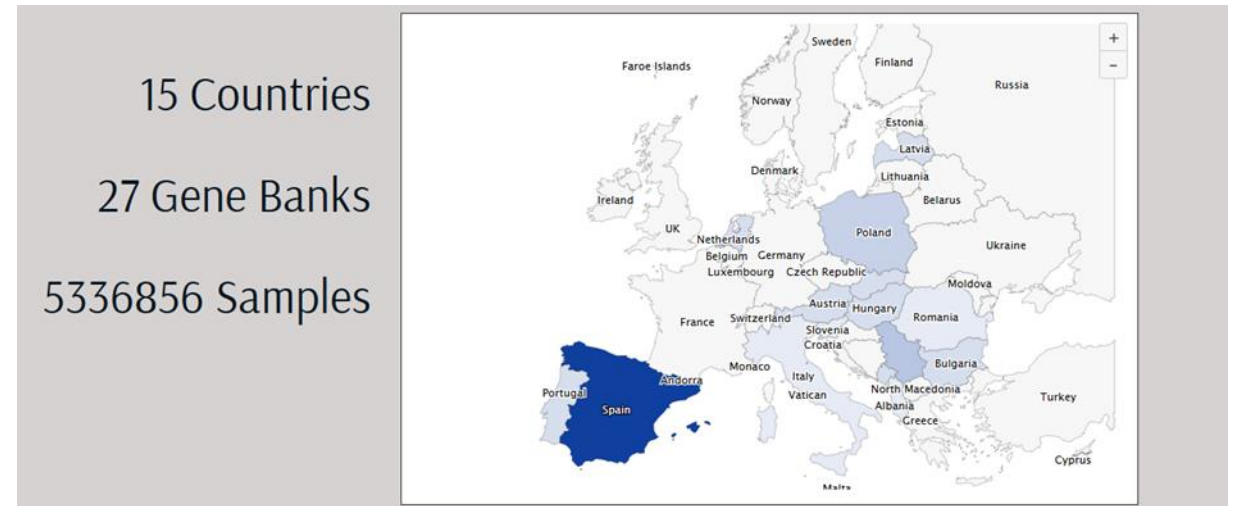


- a) EUGENA development
- b) ERFP Ex-situ WG AHA's, plans and priorities for 2025/2026
- c) Ex situ WG meeting 2025 – Athens, Greece – collaboration with other WG's
- d) EUGENA's collaboration with the ERFP Secretariat and S.C.
- e) Objectives of the EUGENA SB meeting 2025

a) Development of EUGENA

- Italy, Romania, Montenegro, Slovenia, Albania, Spain, Poland, Portugal, The Netherlands, Austria, Serbia, Latvia, Slovakia, Hungary, **Bulgaria**

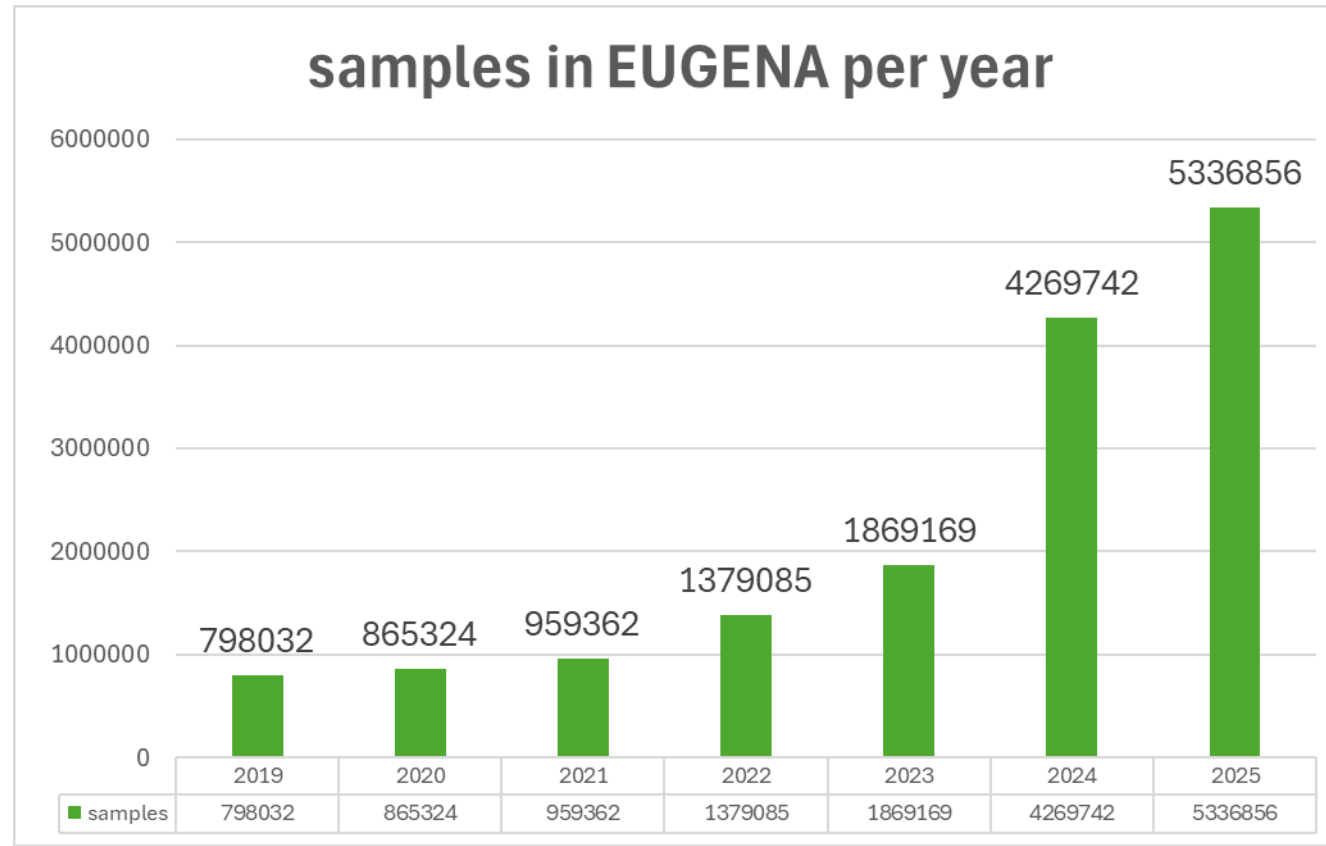
3 new genebanks



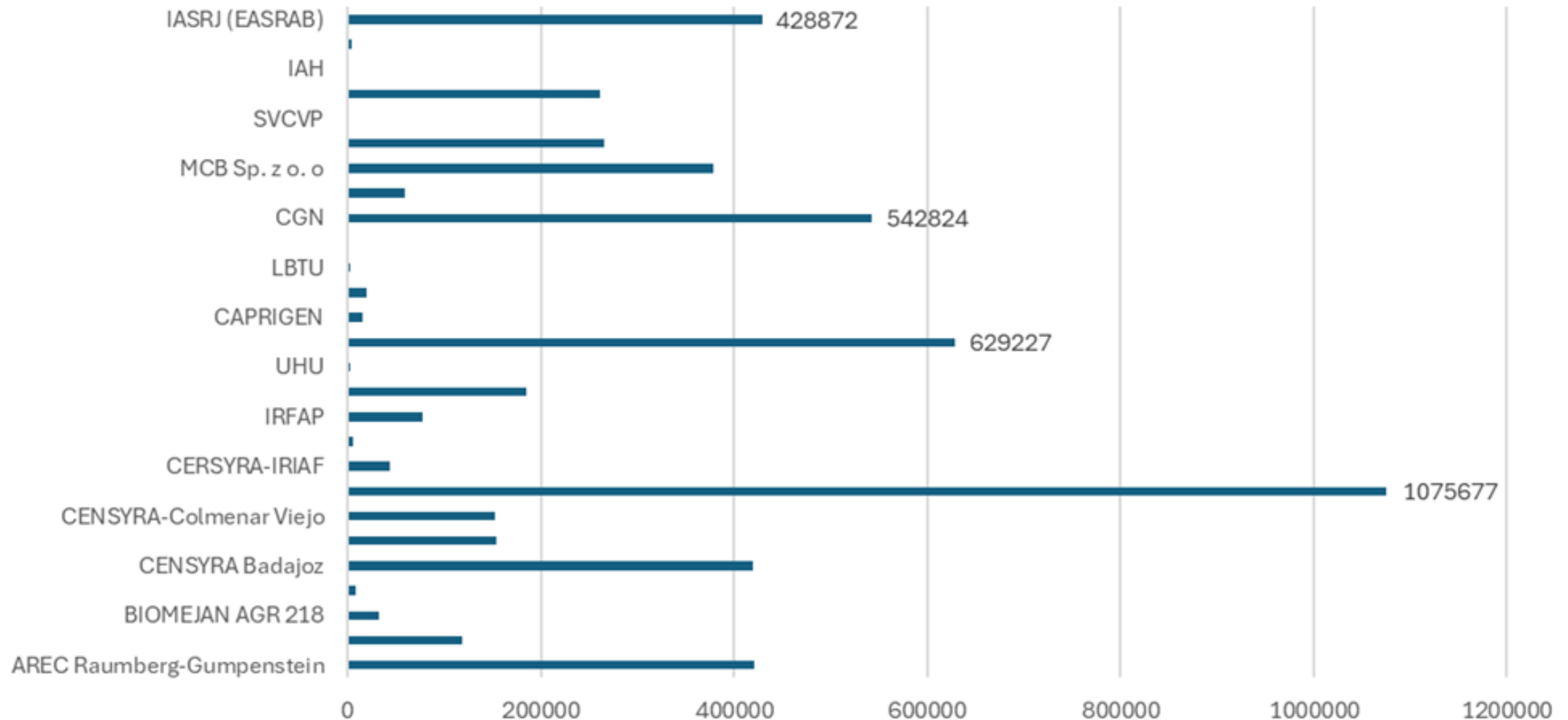
- 1 from Bulgaria - Executive Agency for Selection and Reproduction in Animal Breeding,
- 2 from Spain - CENTRO DE TRANSFERENCIA AGROALIMENTARIA, Centro de Selección y Mejora del Caprino Andaluz

Country	Number of Gene Banks	Species	Breeds	Samples	Germplasm material types
 Albania	0	0	0	0	0
 Austria	1	4	45	414595	1
 Bulgaria	1	2	32	428872	1
 Hungary	1	10	33	19413	5
 Italy	0	0	0	0	0
 Latvia	1	5	12	5693	3
 Montenegro	1	3	8	568	2
 Netherlands	1	11	159	547591	5
 Poland	2	3	15	438120	2
 Portugal	1	7	44	299960	3
 Romania	0	0	0	0	0
 Serbia	3	4	18	263827	3
 Slovakia	1	6	16	4369	3
 Slovenia	0	0	0	0	0
 Spain	14	8	125	2913848	3

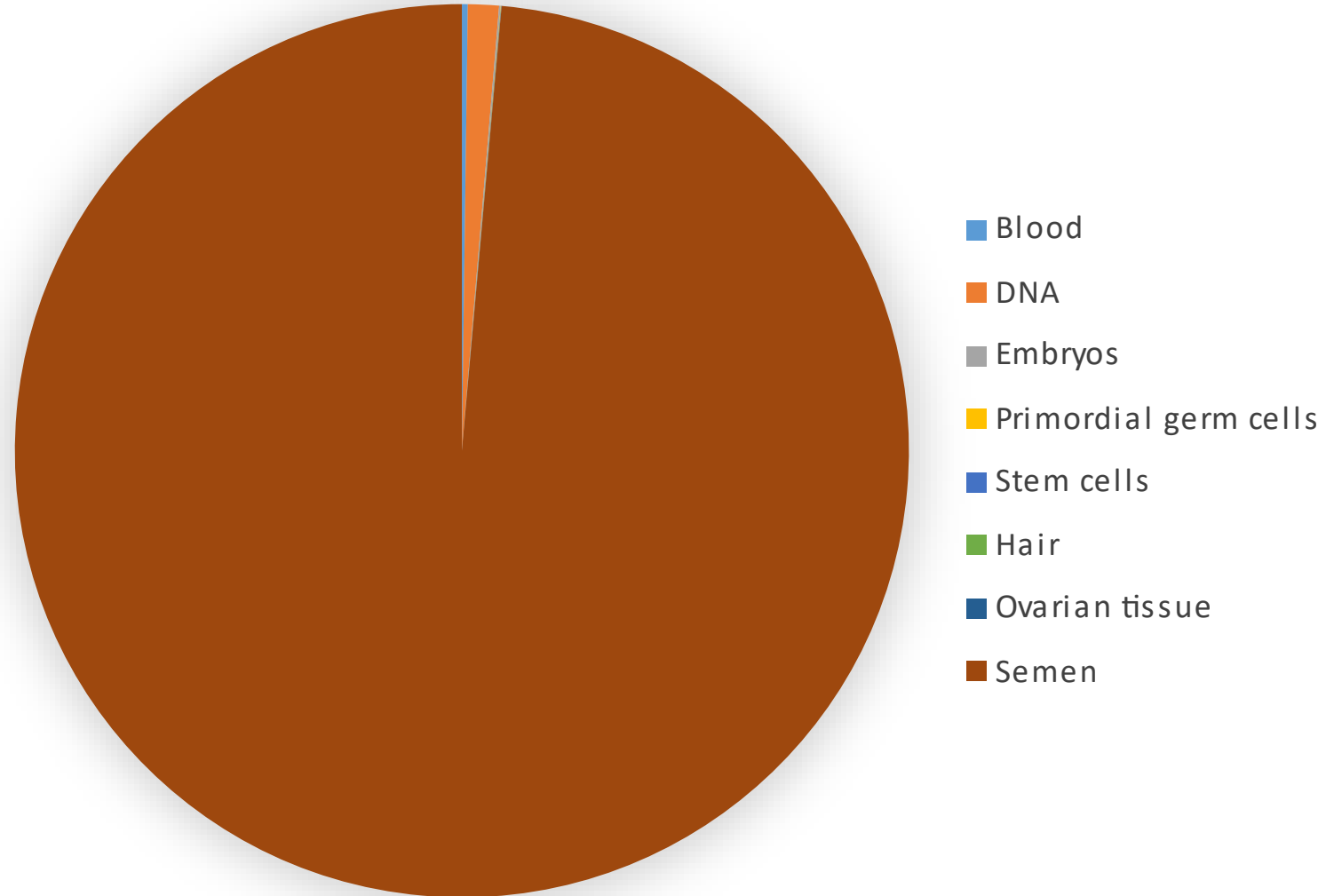
Over 5 mln of samples



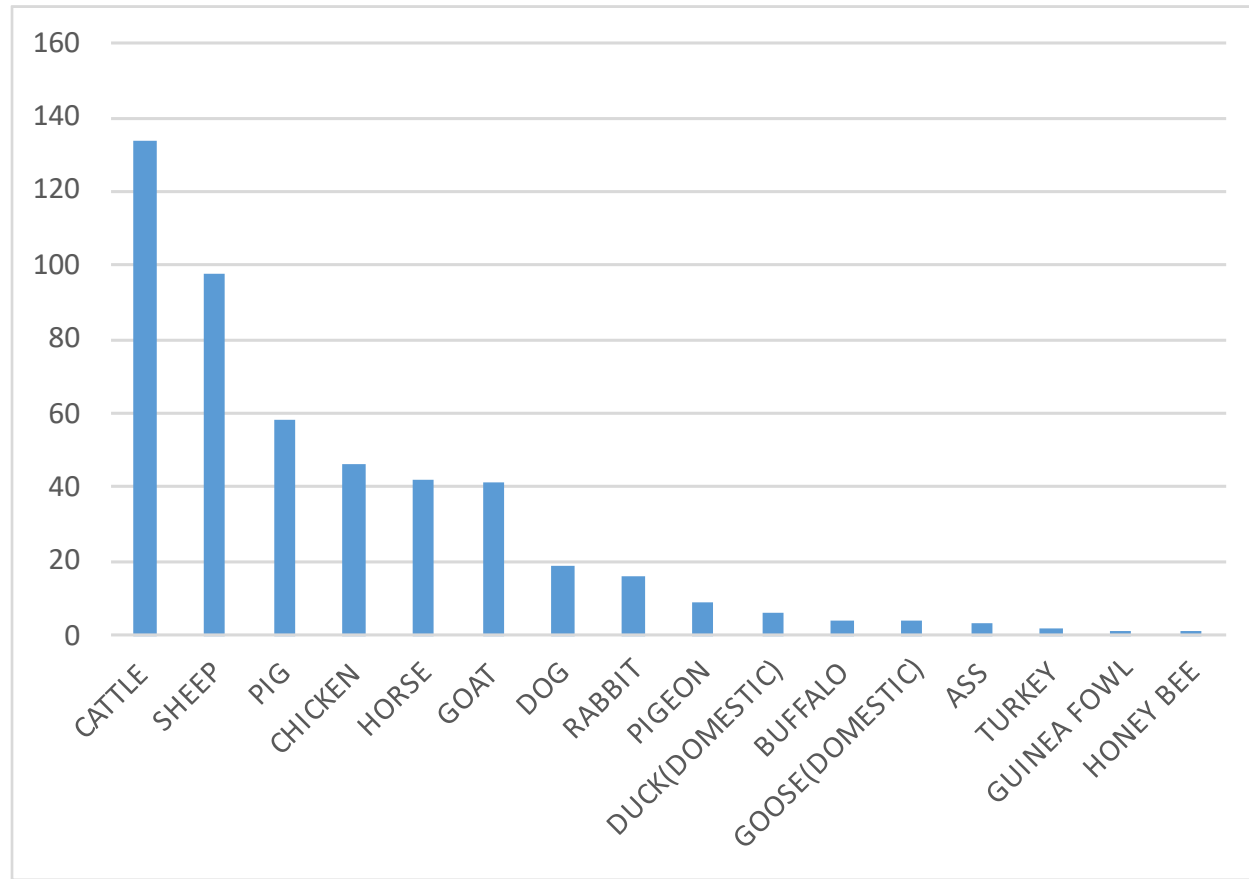
samples in EUGENA gene banks - 19.08.2025



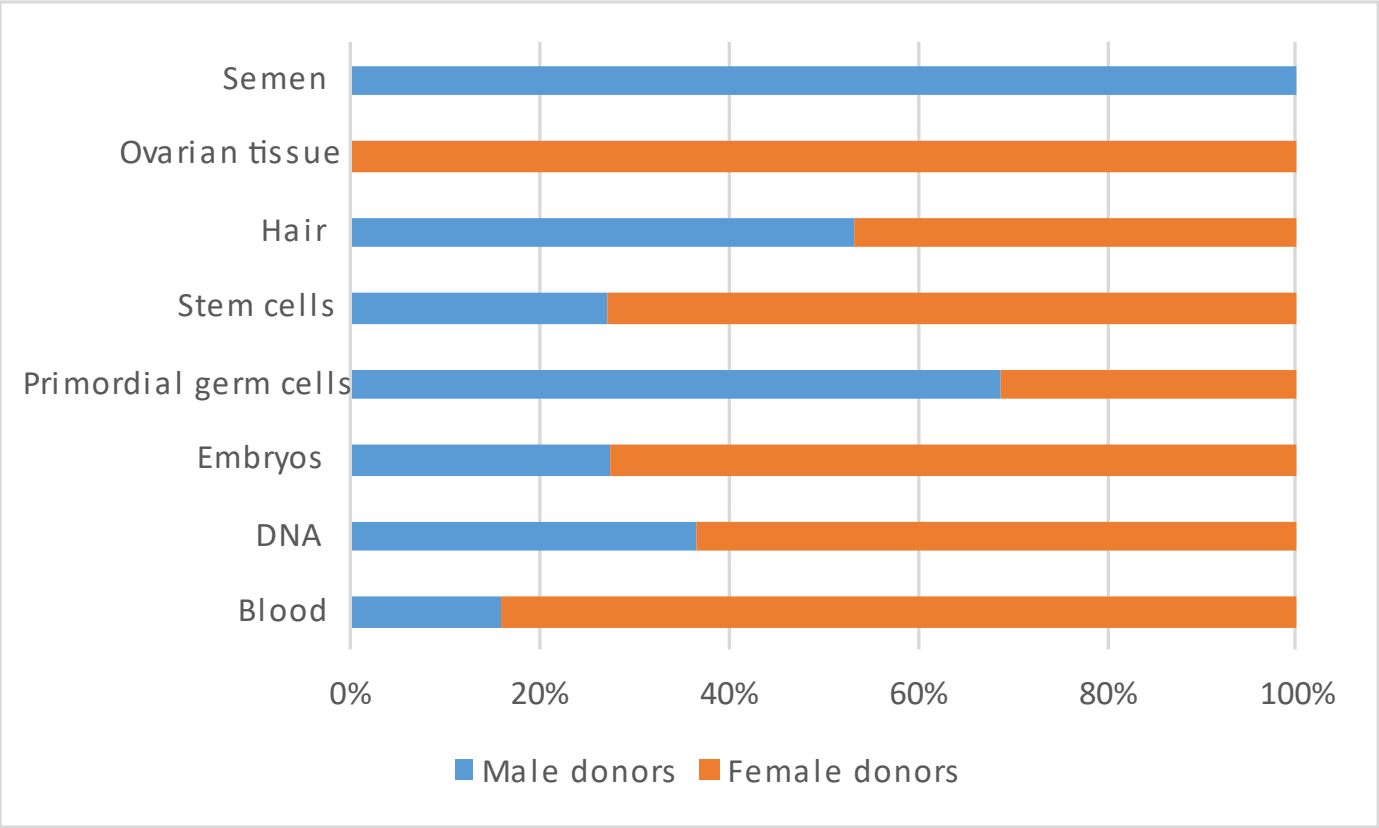
Material type



Number of breeds per species in EUGENA



Types of Biological Material Donated by Male and Female Donors



Collaboration

- EuroFAANG (<https://eurofaang.eu/>) is a collaborative initiative that brings together several Horizon 2020 projects: GEroNIMO, AQUA-FAANG, BovReg, GENE-SWitCH, Rumigen, and HoloRuminant.
- These projects have established a closer relationship to coordinate their objectives within Europe.
- Michele Tixier-Boichard, from INRAE, partner of EuroFAANG, presented the initiative in the WG meeting and invite EUGENA and EUGENA members to collaborate in it.
- The EUGENA Steering Board members, discussed and approved the participation in the project and the ERFP Steering Committee authorised the collaboration of EUGENA with EuroFAANG.

Two forms of collaborations were proposed:

- Collaboration through the exchange of the information collected in the network and mutually supporting the development of both initiatives.
- Collaboration by integrating individual gene bank of the EUGENA network into the EuroFAANG biobank network based on activities of mutual interest.

GenoPhenix - a European research infrastructure to deliver consolidated services for research on genome and phenome interactions for terrestrial and aquatic farming systems

five aims:

- To sustainably produce and manage healthier farmed animals, with the highest welfare standards;
- To more accurately exploit animal variability through enhanced phenotyping and genotyping capacity;
- To contribute to the 3Rs (reduction, refinement, replacement) in animal research by providing suitable models for deep phenotyping in vitro as well as in vivo;
- To advance the analysis of genome function, combined with the collection of deep phenotypes and multiomics information at cell, tissue, animal and on-farm/population level resolution;
- To provide tools and knowledge from the above four aims for optimal and more precise breeding and animal health considering sustainable management practices, and conservation of genetic diversity.

EUGENA ↔ GenoPhenix

March, 2025 – Letter of support to GenoPhenix which now includes the whole EuroFAANG consortium and its objectives.

- Biobanking services: EUGENA gene banks could act as mirror sites for EuroFAANG biobanks
- Sharing protocols, particularly to improve cell viability of cryoconserved germplasm or in relation with the legal status of the material in the collections
- Training activities for data and metadata standards
- Phenotyping local breeds
- Communicating on each other: one improves the notoriety of the other
- Joining different users' communities across a large number of countries
- Sharing expertise in the development and operation of databases for genebanks.

Ex situ WG Annual meeting – Athens -6-7th May 2025

The issues of the **ex situ WG meeting agenda** were:

1. Inform on activities of the WG in the last year.
2. Updates on the status and recent activities of EUGENA
3. Report the AHA's
4. Discuss the regulations
5. Share information on Institutional mechanisms: acquiring material from rare breed bulls for the Polish NBBM, and integration of in situ and ex situ conservation approaches
6. Discuss the Country approaches to ex situ in vivo and in situ conservation, and discussion on incorporating ex situ in vivo facilities into EUGENA



Collaboration with other WG's

Joint session of all three WGs

The discussion emphasized the global and regional context of AnGR conservation, with a focus on transboundary breeds, the Global Plan of Action, and the Third Report on the State of the World's AnGR. The key outcome was the recognition of the need for stronger coordination and shared responsibility across countries to safeguard genetic diversity

Ex situ + doc info WG

The joint work underlined the critical role of improving data quality and transparency, particularly in DAD-IS reporting. **Participants stressed that better documentation and common standards for ex situ management**, especially for transboundary breeds, are essential for building trust and comparability across gene banks.

Ex situ + in situ WG

The session highlighted the strategic need to integrate ex situ and in situ approaches into a complementary system. By aligning institutional mechanisms, scientific tools, and awareness-raising activities, participants agreed that a coherent European framework is needed to reinforce the effectiveness and visibility of conservation efforts

d) Collaboration with ERFP Secretary and SC

- the dissemination of information and knowledge (about ex situ conservation activities) in the ERFP Webpage and social media.
- maybe EUGENA could add something more?

ERFP Animal genetic resources in Eur... 40 min ·

[How can a single action reinforce decades of conservation work?]

The IASRJ (EASRAB), the newest member of **#EUGENA**, has just uploaded:

- ✓ 428,872 semen samples
- ✓ covering 32 cattle and buffalo breeds

This update places the Bulgarian **#gene** bank among the top five in Europe in terms of collection size.

Having large, well-documented collections in gene banks provides essential ex situ protection. They preserve rare and local breeds for future breeding, research and adaptation to challenges such as climate change and emerging diseases.

Explore the EUGENA database: <https://www.eugena-erfp.net/en/genebank>

#ERFP #AnimalGeneticResources #ConservationGenetics #GeneBank



Last GA, workplan of Ex situ WG for 2024/2025

Development of the new tools for EUGENA – Zhivco Duchevev – finished – see the specific report



EUGENA

Workplan of Ex situ WG Activities for 2024/2025 – ranking	
Disseminate and promote the guidelines with recommendations to implement derogations for the collection, processing, storage and use of germinal products intended to be kept in genebanks. (AHA Animal Health Regulation and Genebanks)	1
Promote the incorporation of the <u>ex situ conservation activities in the breeding programs</u> of breeders societies together with in situ conservation activities	2
Development of EUGENA	2
Sharing knowledge and expertise in relation with ex situ conservation	4
Support the implementation of a modern genebank documentation software (Task Force on documentation software for genebanks)	5
Support the utilization of Quality Management Systems in Genebanks	6
Analyse the incorporation of ex situ – in vivo facilities to EUGENA, in collaboration with the in situ Conservation WG	7
Spread information about ex situ conservation and EUGENA in collaboration with the Communication Strategy of the ERFP	8

Ad hoc action on specific measures for AnGR ex situ conservation in the framework of the animal health legislation. (AHA Animal Health Regulation Genebanks) - Fernando Tejerina – finished – see the specific report



Quality Management Systems for genebanks - Delphine Duclos - finished – see the specific report



EUGENA

Advances in semen cryopreservation in small ruminants – Jane Morrell – will be continued? – see the specific report

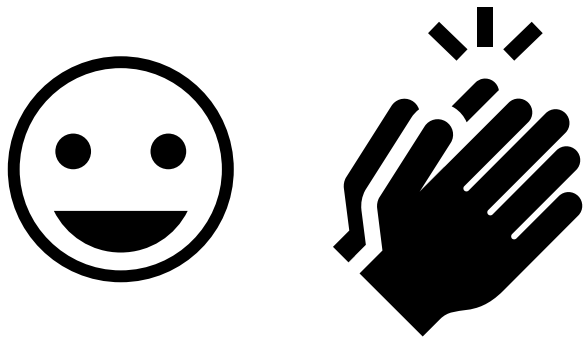


Integration of in situ and ex situ conservation approaches – Fernando & Holger & Ewa – in progress – see the specific report



4. Plans and priorities for the next year (to be formally approved by Assembly)

- Sixteen countries (Germany, France, Lithuania, Poland, Serbia, Slovenia, Spain, The Netherlands, Norway, Latvia, Croatia, Hungary, Ukraine, Switzerland, Italy, Portugal) sent their ranking for the tasks, and the final result is the next



Workplan of Ex situ WG Activities for 2025/2026 – ranking	
Promote the incorporation of the ex situ conservation activities in the breeding programs of breeders societies together with in situ conservation activities (AHA in situ/ex situ integration)	1
Disseminate and promote the guidelines with recommendations to implement derogations for the collection, processing, storage and use of germinal products intended to be kept in genebanks. (AHA Animal Health Regulation and Genebanks)	2
Sharing knowledge and expertise in relation with ex situ conservation.	3
Development of EUGENA.	4
Spread information about ex situ conservation and EUGENA in collaboration with the Communication Strategy of the ERFP.	5
Analyse the incorporation of ex situ – in vivo facilities to EUGENA, in collaboration with the in situ Conservation WG.	6
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New AHA's

No	working title	leader	countries interested
1	ex situ in vivo	Zhivko and ?	UK, PL, CRO,FI
2	cryotechnics - poultry (roosters)	Jaana?	FI, PL, DE, HU, NL, FR
3	cryotechnics- small ruminants - II	Jane ?	SE, DE, CRO, FR,FI, PL
4	AHA for genomic data	AnneMieke	NL, PL; DE,FI

Next SB EUGENA meeting...

- May-June 2026 – Nitra, Slovakia – to confirm 😊
- 2027 or 2028 - Gödollo, Hungary – to confirm 😊

Thank you for your attention!