

Genetic Diversity and EU Green Deal: Expectations from Farm Animal Breeders – GenResBridge Project

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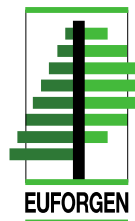
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ERFP

European Regional Focal Point
for Animal Genetic Resources



WAGENINGEN
UNIVERSITY & RESEARCH

Genetic resources are key component in transition towards sustainable and resilient agriculture and food systems



European food must remain safe, nutritious and of high quality.



Food and Agriculture
Organization of the
United Nations

COMMISSION ON
GENETIC RESOURCES
FOR FOOD AND
AGRICULTURE





European Genetic Resources Strategy

**INTEGRATED STRATEGY + DOMAIN SPECIFIC PLANT, ANIMAL
AND FOREST GENETIC RESOURCES STRATEGIES**

OUTCOME OF PROCEEDINGS

From:	General Secretariat of the Council
On:	19 October 2020
To:	Delegations
No. prev. doc.:	11822/20
Subject:	Council Conclusions on the Farm to Fork Strategy - <i>Council Conclusions</i> (19 October 2020)

(23) **CALLS ON** the Commission to take concrete actions for ensuring the protection, restoration and sustainable use of plant and animal genetic resources. **INVITES** the Commission to present a EU strategy for genetic resources for aquaculture, forests and agriculture that is based on the work of the Commission on Genetic Resources for Food and Agriculture of the FAO. As a result, primary producers should benefit from easier market access to cultural, climate and locally adapted varieties and breeds. **WELCOMES**, in this context, the Commission's objective of facilitating the registration of seed varieties, including varieties used for organic farming.

WHY A EUROPEAN GENETIC RESOURCES STRATEGY (1) ?

- **Demonstrating the importance** of Genetic resources for food, agriculture and forestry, in the context of major European and global challenges, in particular the EU Green Deal
- Provide a **policy framework** for more effective securing of genetic resources for agriculture and forestry
- **Better coordination** of GR related policy development and implementation, and networking, at EU and pan-European level
- **Strengthen the synergies** between plant, animal and forest genetic resources domains and policies

WHY A EUROPEAN GENETIC RESOURCES STRATEGY (2) ?

Implementation of a European (integrated) Genetic Resources Strategy (EGRS) will:

- Minimize the loss of genetic resources
- Support diversification and innovation
- Build resilience in agriculture and forestry
- Enable adaptation to changes in climate, production systems and consumer preferences.

OUTLINE - EUROPEAN GENETIC RESOURCES STRATEGY

1 – Need for urgent action

2 – Strengthening and widening actions for conservation and sustainable use

- 2.1 – Sustaining and expanding genetic resources conservation
- 2.2 – Increasing and diversifying genetic resources utilization
- 2.3 – Intensifying genetic resources characterization
- 2.4 – Improving genetic resources monitoring
- 2.5 – Advancing and coordinating information management

3 – Enabling transformative change

- 3.1 – Establishing an appropriate policy and legal framework
- 3.2 – Increasing institutional and human capacities
- 3.3 – Enhancing awareness of the roles and values of GR
- 3.4 – Mobilizing funds for GR conservation and sustainable use
- 3.5 – Joining forces between actors and domains

STATE OF DEVELOPMENT OF THE EUROPEAN GENETIC RESOURCES STRATEGY (EGRS)

- EGRS will be finalized in September 2021
- Stakeholder consultations
 - External Advisory Board, including EFFAB and FAO
- November 2021 – Dissemination event in Brussels
- In parallel – **Domain specific strategies** under development

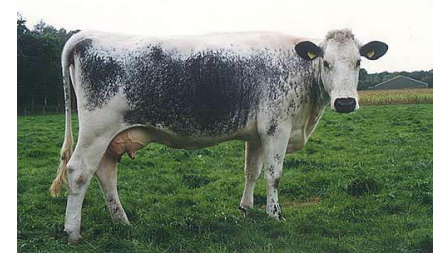
European Animal Genetic Resources Strategy

- Domain-specific policies and strategy needed
- Developed by ERFP network
- Participation and support of diversity of actors
- In line with the integrated EGRS Strategy for plant, animal and forest genetic resources

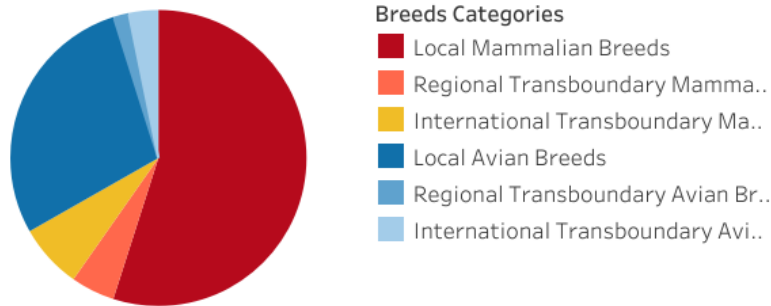


Animal genetic resources

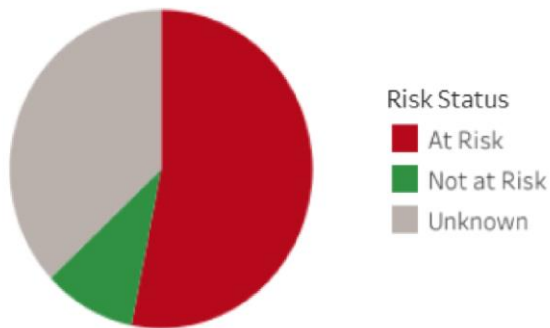
- **Genetic base** to be able to adapt to changes in production systems, climate, disease threat or consumer demands
- **Between and within breed genetic diversity**
- In the form of live **breeding populations**, **reproductive material** or **DNA**



Animal Genetic Resources – the facts



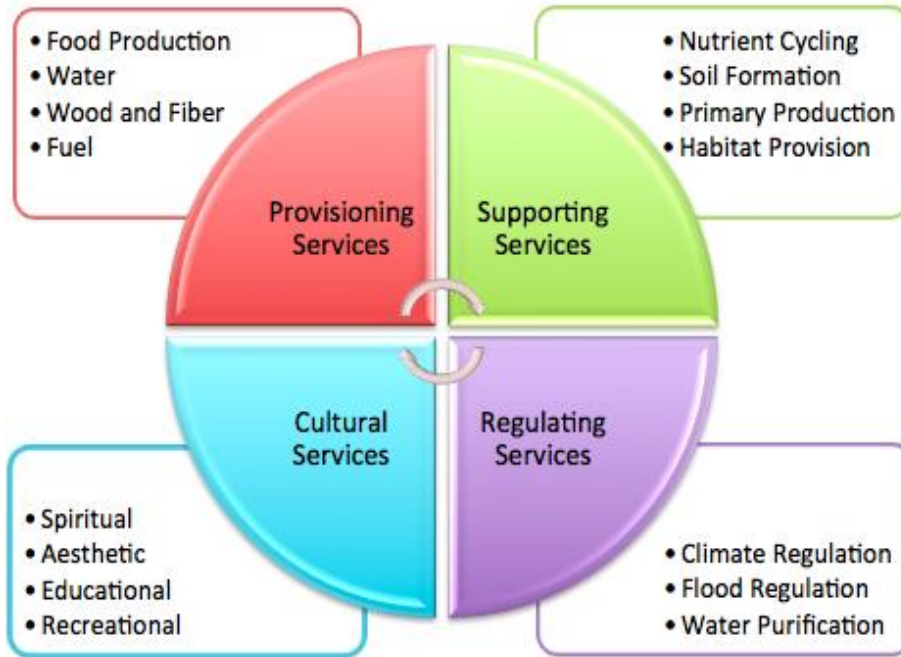
SDG 2.5.2 Percentage of local breeds at risk of extinction out of which of known status



Majority of local breeds is “at risk” based on population size

Effective population (N_e) is often low

AnGR/Livestock systems -Ecosystem services



Source: Millenium Ecosystem Assessment, 2005.



Global, European and national policies and complementary strategies, to be further developed, for the conservation and sustainable use of AnGR

FAO Global Plan of Action for Animal Genetic Resources

- ✓ Strategic Priority Area 1: Characterization, Inventory and Monitoring of Trends and Associated Risks
- ✓ Strategic Priority Area 2: Sustainable Use and Development
- ✓ Strategic Priority Area 3: Conservation
- ✓ Strategic Priority Area 4: Policies, Institutions and Capacity-building

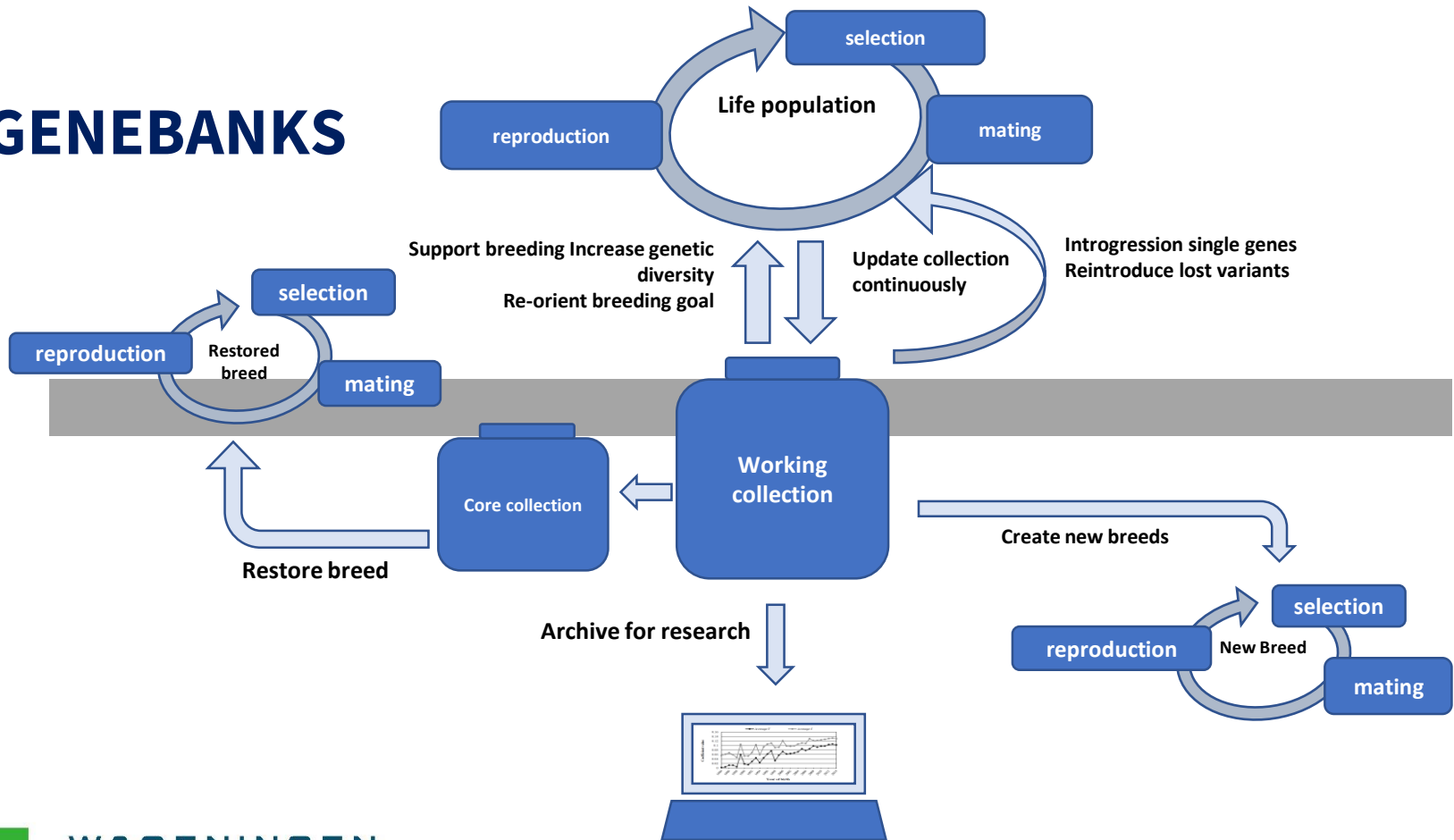


Key elements of the European AnGR Strategy

- **Conservation by utilization** is the main strategy
- Focus on **effective and sustainable breeding programs**, managed by breed societies and breeding industry
- **Diversification** in production systems: tailored breeding strategies
- Balance genetic improvement & **maintenance of genetic diversity**
- **Complementary ex situ (gene bank) strategy** recommended
- **Enhance our knowledge** about breed characteristics and performance and values in a **range of production systems**
- **Shared responsibilities** between all actors & society/consumers
- **Better coordination** of relevant policies and **integration** of conservation and sustainable use of AnGR in existing policies and support measures
- **Public – private partnerships** to be further developed

Long term conservation - Public-Private Partnership

GENEBANKS



WELCOME

on the Web portal of EUGENA,
the European Genebank Network for Animal
Genetic Resources

EUGENA brings together gene banks under the umbrella of the European Regional Focal Point for Animal Genetic Resources with the objective to support the ex situ conservation and sustainable use of the livestock in Europe

[Read more about EUGENA](#)[Read more about EUGENA Portal](#)**EUGENA****ERFP**

11 Countries

9 Gene Banks

959362 Samples



Key elements of the European AnGR Strategy

- **Conservation** is the main strategy
- Focus on **effective breeding programs**, managed by breed societies and breeders
- Balance **genetic diversity**
- **Diversification** of breeding strategies
- **Complete** the AnGR Strategy
- **Enhance our values** in a range of areas
- **Shared responsibilities** between public and private
- **Public – private partnerships** to be further developed
- **Better coordination** of relevant policies and **integration** of AnGR in existing policies and sustainable use of AnGR in existing policies

BREEDERS AND FARMERS ARE THE MAIN ACTORS FOR (IMPLEMENTING THE) ANGR STRATEGY

PRIVATE-PUBLIC PARTNERSHIPS TO BE FURTHER DEVELOPED TO REACH THE GOALS

Acknowledgements

- ERFP Task Force – development of AnGR Strategy
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Thank you for your attention

