# Repositioning Animal Breeding in EU Research and Innovation

## A Policy Imperative for Sustainable Food Systems



## EXECUTIVE SUMMARY

Animal breeding is fundamental to European agri-food systems, contributing to food security, sustainability, rural development and resilience to climate change.

Modern animal breeding combines genetic improvement, phenomics, genomics and data-driven innovation to support healthier animals, improved resource efficiency and more sustainable livestock production.

Despite its strategic importance, animal breeding remains underrepresented in European research and innovation priorities.

### FUNDING IMBALANCE UNDER HORIZON EUROPE FRAMEWORKS

**€214M**
Plant breeding

**€55M**
Animal breeding

## POLICY CONTEXT

The recently adopted EU Livestock Strategy (7 July 2026) recognises the strategic role of livestock in Europe.

Innovation • Digitalization • Sustainability • Climate resilience • Knowledge-based livestock systems

## KEY CHALLENGES

### FUNDING IMBALANCE

Investment in animal breeding research remains disproportionately lower than in plant breeding.

### POLICY MISALIGNMENT

Animal breeding is not sufficiently integrated into broader EU sustainability, digitalization and One Health priorities.

### LOSS OF EXPERTISE

Limited long-term support may reduce specialized knowledge, research capacity and innovation potential.

### TECHNOLOGICAL GAP

Slower adoption of phenomics, AI and integrated data approaches may affect Europe's competitiveness.

This policy brief continues with policy recommendations on page 2.

# KEY INSIGHT

## GENOMICS + PHENOMICS + AI + PRECISION LIVSTOCK FARMING

**GENOMICS**
Understanding the blueprint

**PHENOMICS**
Measuring the expression

**AI**
Extracting insight from complex data

**PRECISION**
Livestock Farming
Applying knowledge in real time



- Better understanding of animal performance
- Improved breeding decisions
- Healthier and more resilient animals
- Reduced environmental impact
- More efficient and sustainable livestock systems

# POLICY RECOMMENDATIONS

## 01 FOR EU POLICYMAKERS

Reposition animal breeding as a strategic area within future European research and innovation agendas. Consider dedicated animal breeding calls within Horizon Europe and FP10.

Work toward more balanced distribution of funding between plant and animal sectors.

Connect animal breeding more explicitly with the EU Green Deal, Farm to Fork and One Health priorities.

Recognize its contribution to sustainable food systems, climate resilience and animal health.

## 02 FOR RESEARCH & INNOVATION ACTORS

**Accelerate the integration of advanced technologies into breeding programs and practical applications.**

**Strengthen livestock phenomics, genomics and artificial intelligence.**

**Promote interdisciplinary collaboration between researchers, farmers, industry, data scientists and policymakers.**

**Translate scientific advances into scalable solutions with real-world impact.**

## 03 FOR THE BROADER LIVESTOCK ECOSYSTEM

**Strengthen diversity, knowledge transfer and responsible use of animal genetic resources.**

**Support diverse European animal production systems.**

**Promote the sustainable development of emerging species.**

**Conserve and responsibly use animal genetic resources.**

**Improve knowledge transfer between research and practice so innovation reaches farmers.**



## Animal breeding is essential to the future of sustainable European agriculture.

Repositioning animal breeding within EU research and innovation agendas through stronger integration with sustainability, digitalization and One Health is critical for Europe's competitiveness, innovation capacity and food-system resilience.



## REFERENCES


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