



Impact and uptake

What RUMIGEN means for breeding organisations, farmers and policymakers.



For breeding organisations

- Heat-tolerance trait definitions
- Selection strategies using genomic and epigenomic information
- Tools to balance progress, diversity and resilience



For farmers & advisors

- Clearer evidence on heat stress, fertility and udder health
- Near-term priorities for breeding objectives
- Training and knowledge transfer materials



For policymakers

- Room of Acceptance method for responsible innovation
- Citizen engagement evidence from Europe
- Scenario tools for trade-off discussions



For researchers & service providers

- EpiChip and epigenomic models for future evaluations
- Methods for rare alleles and edited variants
- Dashboard and open materials for uptake
- Evidence from edited founder animals and evaluation methods

From research to usable outputs



Examples of project outputs



Heat tolerance traits

Indicators and models for performance under heat stress and performance decline.



EpiChip

First cattle-specific methylation array for large-scale epigenomic profiling.



Diversity toolbox

Methods combining pedigree and genomics to map inbreeding depression and genetic load.



Room of Acceptance

A reusable framework to assess when breeding innovation is seen as legitimate and responsible.



Gene-editing experiments

Case studies included prion-resistant goats and heat-stress-resistant sheep.



RUMIGEN helps connect science, breeding practice and policy for more resilient ruminant production under changing conditions.

