



Fitter Livestock Farms

Genomic data and analytical tools for breeding strategies

Innovation in food security and sustainable agriculture

With the global population expected to grow to 10 billion by 2050 there is more and more pressure on non-renewable or scarce resources, and a real need to increase food production whilst minimising the impact on the environment.

Food security and sustainable agriculture are therefore major concern of scientific and commercial communities world-wide. To do this we need to harness a wide range of new techniques that farmers can use to improve outputs such as using their 'best' animals for breeding.

New results and services for Europe and beyond

This unique cluster of 6 livestock projects will deliver innovative results to help farmers in Europe and internationally improve their businesses.



Software

Combining proxies for farm management
Livestock species and categories management
Refined methods and proxies to evaluate feed efficiency



Tools

Dairy and Beef female ranking tool prototype
Methods and proxies to evaluate animal health and welfare, feed efficiency and emissions
Tools for individual management of dairy cows



Protocols

New treatment processes for soybean and rapeseed
New methods to exploit sensor data for cattle husbandry
Improved procedures to evaluate cow health and welfare from measurements in milk



Devices & Systems

Combining proxies for farm management
Livestock species and categories management
Refined methods and proxies to evaluate feed efficiency



Reports

Combining proxies for farm management
Livestock species and categories management
Refined methods and proxies to evaluate feed efficiency



Common Dissemination Booster

These projects have received support from the European Commission's Common Dissemination Booster



Who benefits?

- Livestock producers
- Livestock breeders
- Farmers and farm manager associations
- Industry and technology providers
- Research & Academia
- Policy makers
- Consumers

The impact on the future of food security and sustainable agriculture

- Improved efficiency and economic, environmental and social sustainability of European live-stock production systems.
- Alternative feeds, feeding strategies and new quality assessment methods for feeds, animals and animal breeding values.
- Improved and Optimized livestock production through new animal vaccines.
- Sustainable dairy production through the use of milk-based biomarkers.
- Free access to innovate gene banking business models to work on reproductive potential and to reintroduce diversity in existing farming systems facing the new environmental constraints and market needs.

This cluster of research projects collaborate to tackle the challenges facing livestock farmers



Developing genome-enabled selection and management tools to enable farmers to optimize cattle resilience and efficiency in a range of different and changing environments



Adapting feed, animal and feeding techniques to improve the efficiency and sustainability of monogastric livestock production systems.



Strengthening Animal Production and Health through vaccine strategies against endemic pathogens responsible for high economic losses in livestock.



Providing sustainable solutions to improve dairy cow selection and management through genomic selection and novel management protocols based on the development and exploitation of genomic data



Enhancing the use of genetic collections to upgrade animal gene bank management, gathering, storing and documenting genetic collections for research and breeding.



Increasing R&I in the European cattle sector through an integrated infrastructure that combines strong scientific and technical skills in animal nutrition, genetics, health and welfare.

