



EFFAB
European Forum of Farm Animal Breeders

Genome Editing in Farm Animal Breeding: the perspective of the sector

16 October 2019 - OPEN ROUND TABLE ON GENE EDITING – The European Group on Ethics in Science and New Technologies

██████████ – European Forum of Farm Animal Breeders (EFFAB) and Farm animal breeding and reproduction technological platform (FABRE TP)

Farm animal breeders are at the forefront of the food supply chain in livestock systems; indoor, outdoor and organic. The production of animal products involves a number of global sustainability challenges including animal health and welfare, greenhouse gas emissions, use of natural resources, integrity of the animal, food safety and public health, and production efficiency. By including these traits in their breeding goals, breeders have the potential to positively address these challenges.

EFFAB members develop their activities within the framework of [code EFABAR](#) ; a code for good practices in animal breeding, including many ethical and welfare aspects. This code sets standards of the use of breeding and reproduction technologies in a responsible way, not only to be competitive in the market, but also to meet societal challenges. EFFAB members, signing up to this code, also take into account food safety and public health, animal health and welfare, the environment and biodiversity when considering the use of advanced biotechnologies. Aligned with this, breeders must also consider the influence of these technologies for the parent breeding stock as well as for subsequent generations. Code EFABAR encourages transparency regarding all animal breeding technologies used within the company.

Genome editing (GE) is a very promising tool for breeders. It has the potential to be part of the solution to address both new and existing challenges for sustainable livestock production, including societal concerns as a result of its renowned precision for making precise changes in the genome. EFFAB members have been working for decades to provide robust and healthy animals to farmers; genome editing could help them to achieve some of these aims faster and more efficiently, sparing years of classical breeding and selection, while preserving a larger genetic diversity.

At the same time, it is acknowledged that this technology ***should only be applied with the greatest care and after a significant period of testing.*** EFFAB members are fully signed up to ***the need to investigate and test this technology in order to fully understand any possible risks to the animal, consumer or society.***

Improved animal health and welfare are the main focus of EFFAB members. Animal health challenges are closely related to human health and the concept of One Health, as improving animal health will reduce the use of veterinary medicines, including critical antibiotics for humans, and decrease the risk and prevalence of zoonosis. Animal welfare could also be improved with the use of Genome Editing.

Even if these challenges could be met through classical breeding, **the possibility to use GE should be opened and evaluated by the mean of a transparent, smart, safe and clear legal framework, specifically addressing this technology** ; in the European level, but keeping in mind that it's also a global issue.