Feed-a-Gene

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

The challenges

Animal production is constantly facing new challenges. In addition to productivity and efficiency, animal health and welfare, product quality and security, environmental impact, consumer and citizen expectations as well as competition between food, feed, and fuel have now become increasingly important. New solutions are thus required to increase the efficiency and sustainability of livestock production systems.

Alternative feed sources and feed technologies

The EU can rely on locally produced resources by unlocking the potential of existing feeds and identifying new and alternative feed sources. Because of the diversity in feed sources and technologies, an approach where different actors combine their skills and expertise is essential.

Adapting animals and feeding techniques

Efficiency in livestock production systems can be improved by better adapting the nutrient supply to animal requirements and by a better selection of animals adapted to feed sources that are available now and in the future. Monitoring devices allow precision livestock production, including precision feeding. Genetic diversity can be used to breed more efficient and robust animals. High-throughput molecular technologies make it possible to pinpoint variability in traits from metabolites to gene sequence. Breeding schemes can be revisited to enhance selection efficiency. These technologies are essential tools to breed animals able to use feed resources that are not or less in competition with other uses.

The Feed-a-Gene project

Feed-a-Gene aims to better adapt different components of monogastric livestock production systems (pigs, poultry and rabbits) to improve the overall efficiency of these systems, to reduce their environmental impact, and to enhance food security whilst maintaining food quality. Expected results include:

- Alternative feeds and feed technologies to make better use of local resources, green biomass and food and biofuel by-products.
- Methods for real-time characterization of the nutritional value of feeds.
- New traits of feed efficiency and robustness to select more adapted animals.
- Models of livestock functioning to better predict nutrient and energy utilization.
- New management systems for precision feeding and precision farming.
- Evaluation of the sustainability of those systems.

Those technologies will be demonstrated and disseminated in collaboration with industrial partners and farmers' organisations.

Feed-a-Gene at a glance

9.9 M€
EC contribution
9.0 M€

5 years
March 2015
February 2020

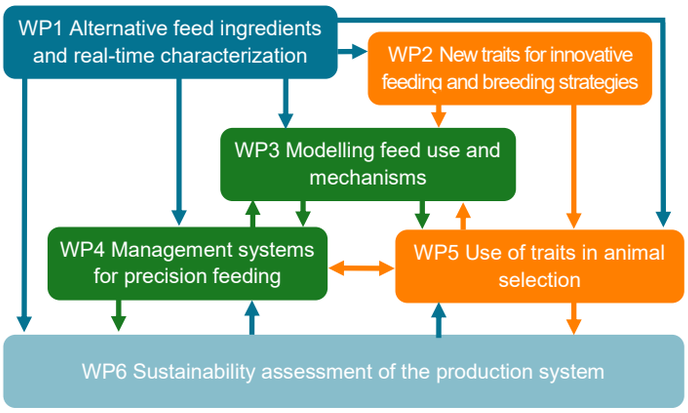
23 partners
from 9 countries

The Feed-a-Gene Project has received funding from the European Union's H2020 Programme under grant agreement no 633531

Brochure developed by AFZ for Feed-a-Gene – April 2017 v1.3

Work plan

Feed-a-Gene is composed of 6 Research and Innovation work packages (WP), 1 Dissemination WP and 1 Management WP.



Feed-a-Gene partners

Feed-a-Gene gathers 23 partners from 8 European countries and China: 8 research institutes and higher education organisations, 9 industry partners (2 involved in livestock production, 2 in innovative technologies for animal breeding, 3 in feed production and transformation, and 2 in equipment for precision feeding), 6 in extension and management.

1. INRA
2. Wageningen UR
3. Newcastle University
4. Universitat de Lleida
5. IRTA
6. Kaposvár University
7. Aarhus University
8. China Agricultural University
9. Topigs Norsvin
10. Cobb
11. Hamlet Protein
12. Bühler
13. DuPont
14. Exafan
15. Claitec
16. INCO
17. Gran Suino italiano
18. ACTA
19. IFIP
20. ITAVI
21. Terres Inovia
22. AFZ
23. INRA Transfert

Feed-a-Gene stakeholders

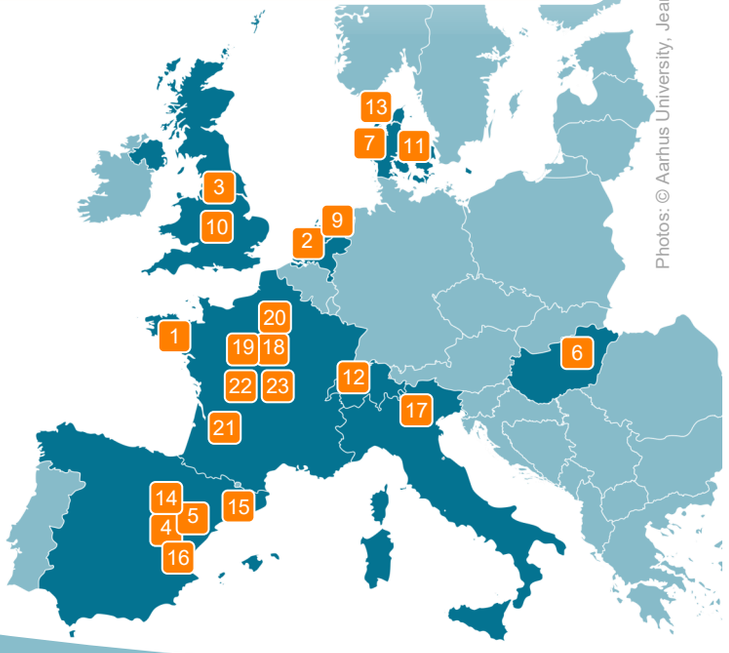
Feed-a-Gene would like to involve all stakeholders of the animal production sector to take into account their needs and expectations:

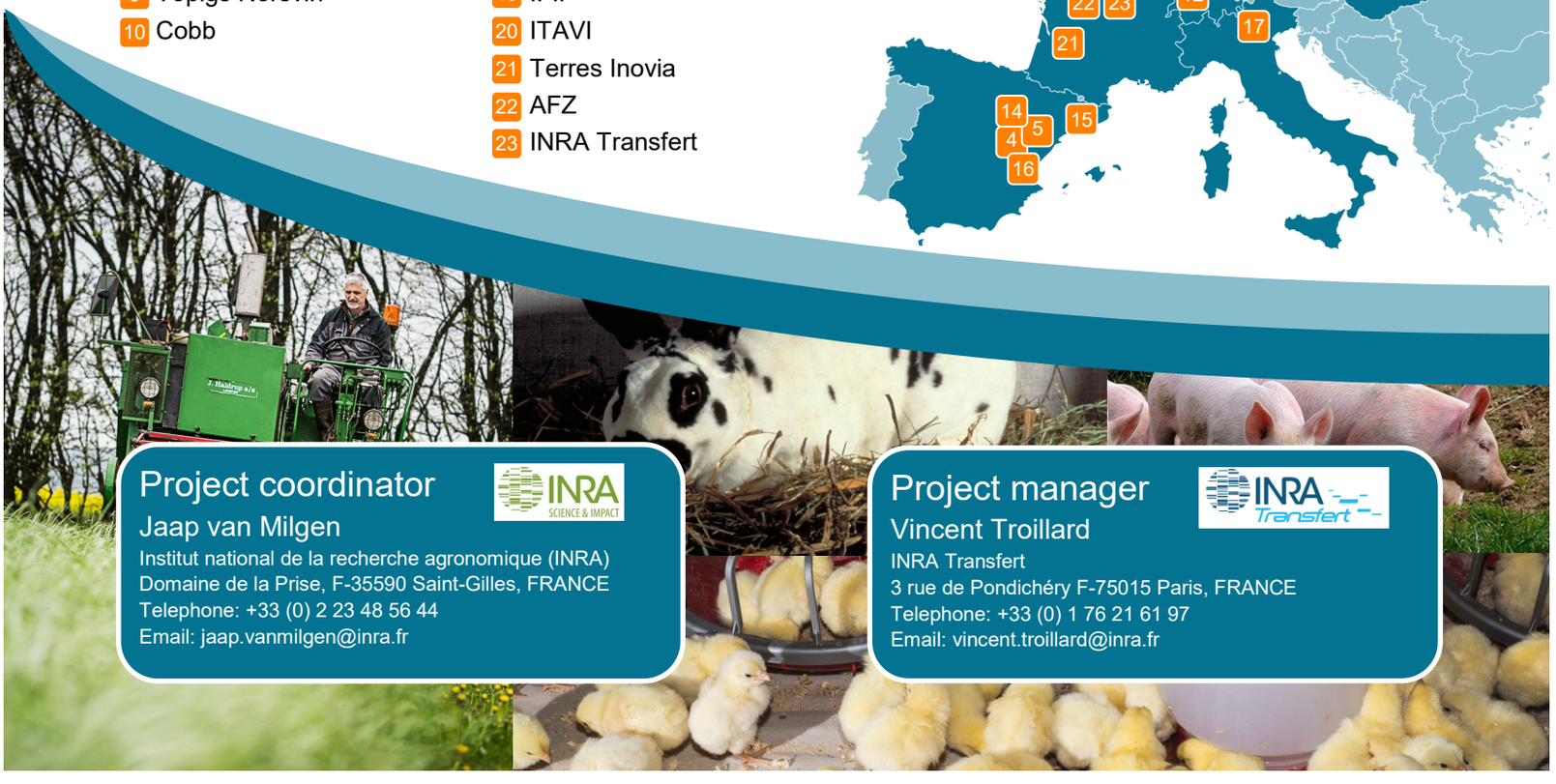
- Farmers and cooperatives
- Genetics and breeding companies
- Producers of compound feeds, ingredients and additives
- Equipment manufacturers and IT solutions providers
- Food industry and retailers
- Extension services, technical advisors, consultants
- R&D organisations, academic institutions
- Networks and associations
- Consumer organisations
- Policy makers

All persons interested in the project results are invited to register on the website to subscribe to the newsletter. This will allow you to:

- be informed of the latest results, workshops and activities of the project as soon as they become available
- be invited to consultation events on specific issues for which the input from stakeholders is needed.

Subscribe to the newsletter on www.feed-a-gene.eu





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