

## **Report of the meeting with the French stakeholders for the Sustainable Farm Animal Breeding and Reproduction Technology Platform**

Report by Andrea Rosati, European Association for Animal Production, and Anne-Marie Neeteson, European Forum of Farm Animal Breeders

The meeting with the French stakeholders of the Sustainable Farm Animal Breeding and Reproduction Technology Platform was held in Paris during the Salon National de l'Agriculture on 9 March 2007. The meeting was hosted by the Union Nationale des Coopératives d'Élevage et d'Insémination Animale ([www.unceia.fr](http://www.unceia.fr)).

Alain Malafosse of UNCEIA acted as the local organizer of the meeting. Representatives of the major French animal breeding and production organizations, the Ministries of Agriculture, and of Science, and from the Universities and Institut National de la Recherche Agronomique ([www.inra.fr](http://www.inra.fr)) were invited to attend the meeting. A total of 35 people participated in the meeting.

Alain Malafosse opened the meeting and welcomed the participants, and the FABRE TP representants Andrea Rosati and Anne-Marie Neeteson. They introduced FABRE TP. This outlined what Technology Platforms are, and why they are important. The presentation (French version available from the web site) was then used to describe why and how FABRE TP has been established and its activities so far. The participation of French specialists in all phases of the Following this, the Strategic Research Agenda and the point of view of the 13 expert groups was outlined. Didier Boichard of INRA presented the joint themes of the various species groups in Agenae.

A discussion took place on a range of subjects concerning research, farm animal breeding, and technology transfer.

- 1) France has a rich culture of animal breeding and reproduction, with both high level research and animal breeding practices, and a wide range of species and breeds
- 2) Students are being educated at various levels, from professional to university, at various schools and universities in France. Furthermore, there is high level agricultural education (including breeding) at the Institut National Agronomique Paris-Grignon and the three other Ecoles Nationales Supérieures Agronomiques de Montpellier, Rennes and Nancy, and, for veterinarians, at the Ecole Nationale Vétérinaire d'Alfort and the three other Ecoles Nationales Vétérinaires de Lyon, Nantes et Toulouse.

- 3) Animal breeding and reproduction research is being undertaken at various universities, INRA, CIRAD, and Ifremer (fish).

The funding of research in France is an activity in which also the government takes its responsibility. This results in good research also for the smaller scale species (e.g. sheep, goat and horse), and continuous exploratory and basic research. The research provision in France is under continuous threat, however.

- 4) In cattle, sheep and goat animal breeding and reproduction is mainly organized via UNCEIA, an umbrella organization servicing French breeding and A.I. organizations. In pig breeding, various cooperative and private organizations are active, e.g. IFIP,

France Hybrides. In poultry a range of large and small breeding organizations is active, the largest being Grimaud (including Hubbard) with ducks and broilers. The Label chicken is furthermore a high quality product, serving a high level market. Next to the chicken various other Label types have been developed and are under development, e.g. turkey, trout. Various fish breeding organizations are active, e.g. in turbot (high level markets), sea bream, sea bass. SYSAAF is servicing the French fish and poultry breeding organizations with applied research and development. France has also an active horse breeding sector which is in the hand of professional organizations for breeding (studbooks) and for utilization (races and sports organizations: France Galop for flat races, Société du cheval français for trot races, FIVAL for sport, leisure and draft) strongly supported by the French National Stud, a state institution, and is active in the breeding of rabbit.

5) Agenae ([www.inra.fr/agenae](http://www.inra.fr/agenae)) is a French programme in which research and industry, supported by additional government funding; analyze the animal genome for breeding. Cattle, pigs, poultry, horse and trout participate in the programme.

6) The Agenae ruminant priorities expressed by the industry for 2007 are:

- a) High level genotyping,
- b) Epigenetics,
- c) Udder health, reproduction and embryonic development, meat quality, milk quality
- d) A project will be launched of high level phenotyping of milk composites.

7) The Agenae sheep and goat priorities expressed by the industry for 2007 are:

- a) Genetic components of traits in sheep and goats related to sustainable conditions, harsh environments and marginal areas, e.g. maternal behavior and reproduction, environmental impact, human health impact
- b) Data collection tools and information systems, e.g. database development including performance recording, molecular information, animal disease; and: new tools for trait measurements, animal identification and parentage assignment

8) The Agenae poultry priorities expressed by the industry are:

- a) animal disease resistance and treatment
- b) behavior
- c) reproduction: fertility and embryonic mortality
- d) product quality (meat and egg quality aspects)

9) The fish industry expressed the following priorities:

- a) vegetal alimentation
- b) alternative sanitary methods
- c) sex determination and sterilization: technical and ethical aspects

10) Pig breeding industry priorities are:

- a) disease resistance
- b) meat quality, including meat processing
- c) how to use the large amount of information

11) Horse breeding industry have identified the following priorities:

- a) gene mapping almost ready
- b) gene expression related to disease
- c) traits: performance, temperament and behavior
- d) more precise phenotyping

e) physiology of reproduction including male fertility, fecundation mechanisms and embryotechnologies

f) heritability of fertility traits

g) interactions genotype and environment( nutrition – husbandry and health systems)

h) biodiversity and preservation of small population

12) There is already an informal French breeding platform active: the animal breeders, research and government have close links, regular contacts, and continuously develop future plans and projects.