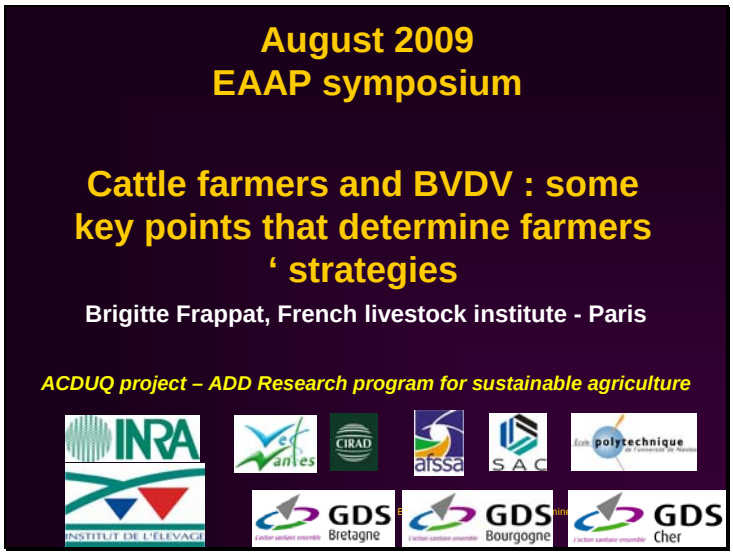
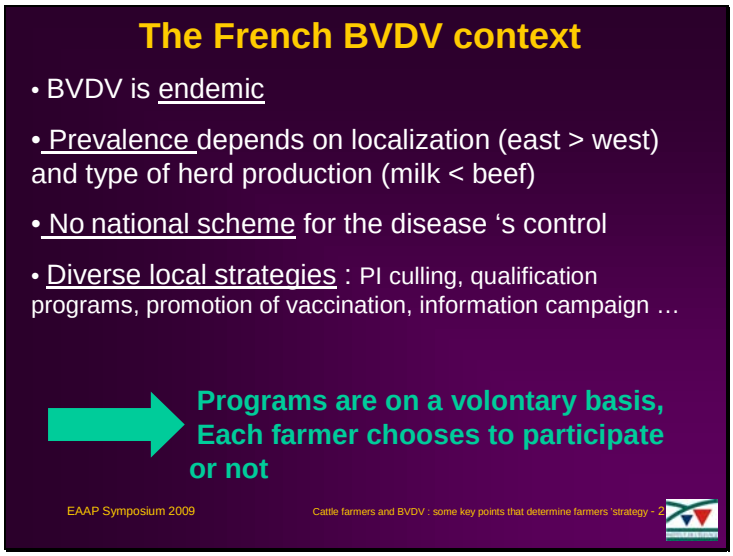
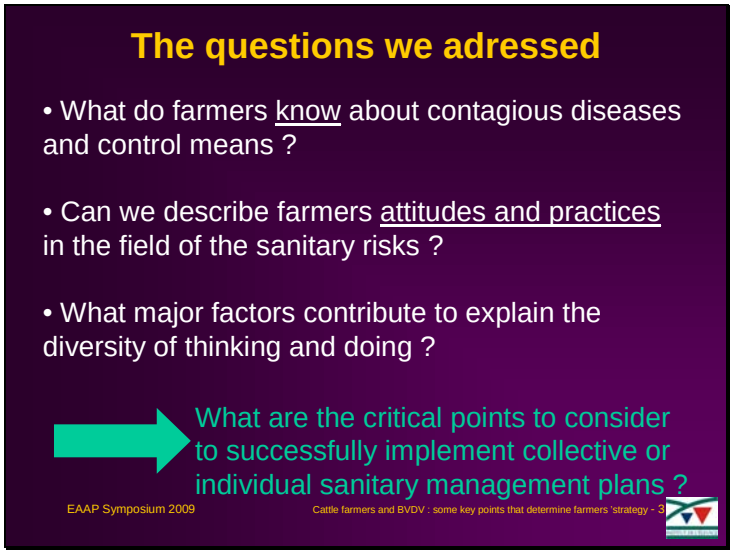


The team I belong to works on projects' management and qualitative surveys in different fields such as animal welfare, best practices, innovation, work and professional identity.
The topic of this presentation is BVDV farmers' strategy and to be more precise, the drivers that are involved in the process of decision making in this matter.
Firstly, I am going to give you short information about the French BVD context.
Secondly, I shall describe the surveys we carried out and our main findings results.
Many partners were involved in this work that took place in a multidisciplinary research project called ACDUQ.



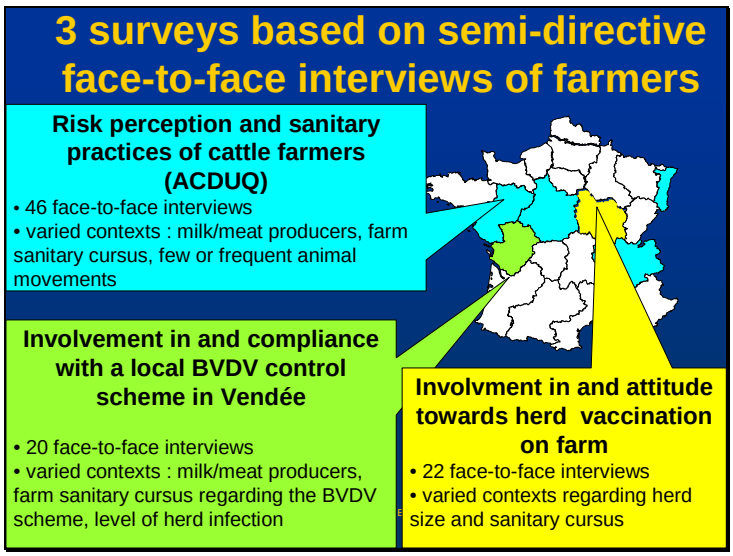
BVDV is an endemic disease in France. One can consider than 2 out of 3 farms have already been contaminated but only few farms had to face a major crisis (less than 5 percent).
Prevalence in France depends on localization. It is rather high in the east of France where beef production dominates with farms that have many contacts through their pastures. It can be very low and comparable fore example to Scandinavian countries in the west of France more specialised in dairy production.
At the moment, there is no national scheme for the disease 's control and so no national regulation.

Nevertheless, in some departments or regions, cattle farmers organisations have set up control scheme based on diverse classical measures such as PI detection and culling, herds qualification, vaccination, information campaign.
As these programs work on a voluntary basis, it is very important to understand how farmers make their decisions in the field of health management in order to better elaborate and promote sanitary programs.



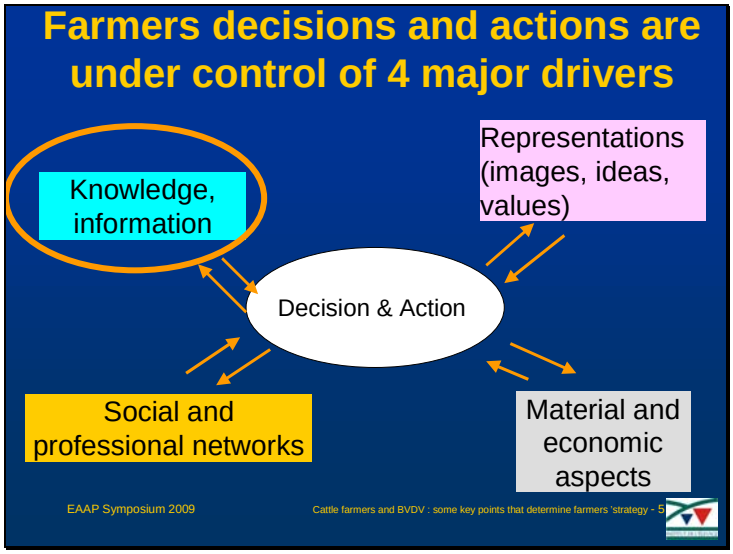
In the last 3 years, different surveys have been carried out in connection with the Acduq research program to better understand the way farmers deal with sanitary management. They more or less addressed the same questions that are:

- What do farmers know about contagious diseases and control means?
- Can we describe farmer's attitudes and practices in the field of sanitary risks?
- What major factors contribute to explain the observed diversity?



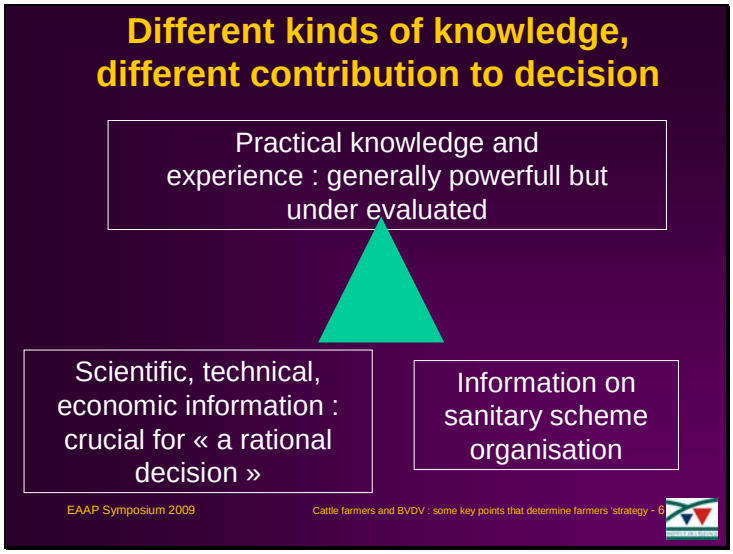
Our results come from 3 surveys. The first one is directly connected to Acduq program and aimed to describe farmers' perceptions about sanitary risk and their link to practices. It took place in 4 contrasted French regions.

The objectives of the second survey were to describe participation and compliance to a voluntary BVDV control scheme proposed in the department of Vendée (in green)
The third survey took place in Burgundy where a voluntary program of vaccination had been launched.
All are qualitative surveys, based on face-to-face semi-structured interviews of cattle farmers that have been chosen to explore the diversity. That means that we individually met more than eighty farmers, in a rather open way but with an interview guide.
Discussions were tape-recorded so that the answers and the precise wording could be analysed.



We assumed and confirmed that 4 major drivers influence farmer's decision-making and actions.
Those drivers are:

- information and knowledge,
- Representations
- social and professional networks
- material and economic aspects.

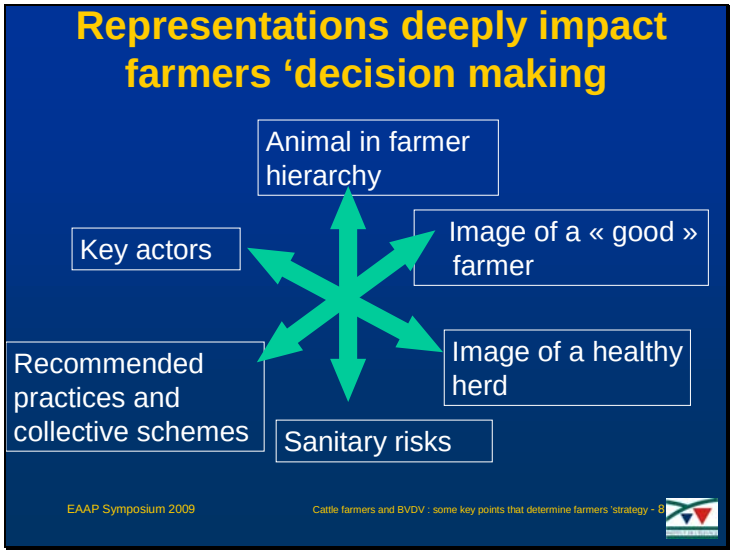


Farmers who have had a personal experience of contagious diseases in their herd are more likely to adopt practices that may prevent their farm from a new sanitary episode. Practical knowledge is a major key that should probably be better taken into account by all the people who advise farmers
But, this is not systematic (some farmers seem not to really learn from a bad experience) and this is not permanent as shown in Burgundy about vaccination plan.(people gradually forget or reconsider their experience and choice)

Scientific, Technical or economic information are necessary to built what we can call a good risk evaluation with a sounded benefit and cost approach. We actually observed that the rare farmers who adopted very safe practices where generally well informed. Many farmers still lack of basic information on biological mechanisms, sanitary or financial impacts of disease, testing process even though they participate in a control scheme. In the field of practices, we observed that the risks that are connected to animal movements or neighborhood often are under evaluated.

These results clearly show that we still have some gaps to address.
On the opposite, we also met some farmers who implemented good preventive practices despite their poor background about contagious diseases, just because they trusted the advice they had been given by their vet.

In addition, we must keep in mind that **the information given on the sanitary scheme** organisation (clearly said: who will do what and why) is also crucial to motivate farmers to get involved and to help them to implement all the required measures in an effective way. That was clearly shown through the work conducted in Vendée.



The representations are a sociological concept. It refers to the way we think, the images that contribute to build our opinion or feelings. We all behave under the influence of our representations, in a process, which often operates in an unconscious way. That 's why semi directive interviews, with spontaneous expression are one of the best ways to identify representations.
Representations operate as either incentive or limitative factors.

In our work, we found that representations had a major influence on the way farmers consider and implement health management.
6 principal themes have been explored:

- the 1rs one is the place that occupies the herd in farmer ‘s today or tomorrow life in terms of interest, financial aspects or transmissible patrimony. Farmers who don’t really care are more likely to have risky practices

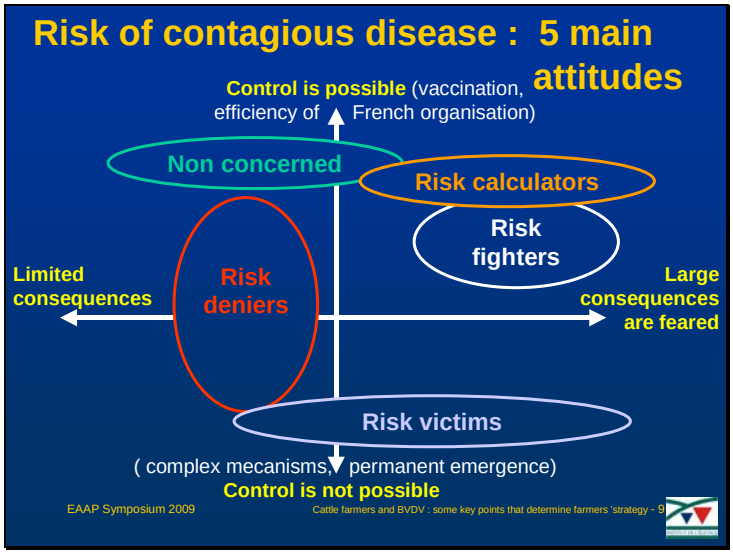
- the 2nd theme is the image of a good farmer which leads to several questions : how does the farmer define it, does it refers to individual or collective responsibility ? Is it crucial to comply with from the farmer’s point of view ? We found a large diversity of definitions and attitudes and noticed that farmers in charge of professional organisations had rather good management and put forward collective responsibility…

- the third theme is based on the way the farmer describes a healthy herd. In this field, we found that visual aspects such as bright coat, or calm behavior dominate; that good practices in the matter of feeding, observation, housing were often considered as major guarantees of animal health, as well as few vet interventions or a high level of yield. In such a context, diseases with discrete symptoms (like BVD or Q fever) seem often to be ignored by the farmers.

- the fourth point is a major one and concerns sanitary risks. It will be described in next slide

- the fifth theme deals with the practices farmers should implement to comply with the plan they are involved in or for good health management. We observed that the more simple, useful and cost-effective the measures seem to the farmer, the more acceptable they were. One can consider that this result is not completely revolutionary but we should really think about this when designing documents for farmers.

- And last but not least, the opinion that farmers have on key actors (extension services or vet) appears to have a direct link with the level of farmer’s involvement. This was very clear in Burgundy.



Farmers’ attitudes towards sanitary risk play a major role in the determination of farmers’ involvement in diseases control schemes.
It can be organised on the basis of 2 axes.
The horizontal axis corresponds to the perceived impacts of a sanitary crisis in the herd.
The vertical axis refers to the capacity of control of contagious crisis from a farmer point of view.

- **Non-concerned farmers** don't feel very anxious about risk because they trust sanitary actors and schemes. Their practices are rather safe despite variable knowledge level. They have rather small herds with few animal movements.

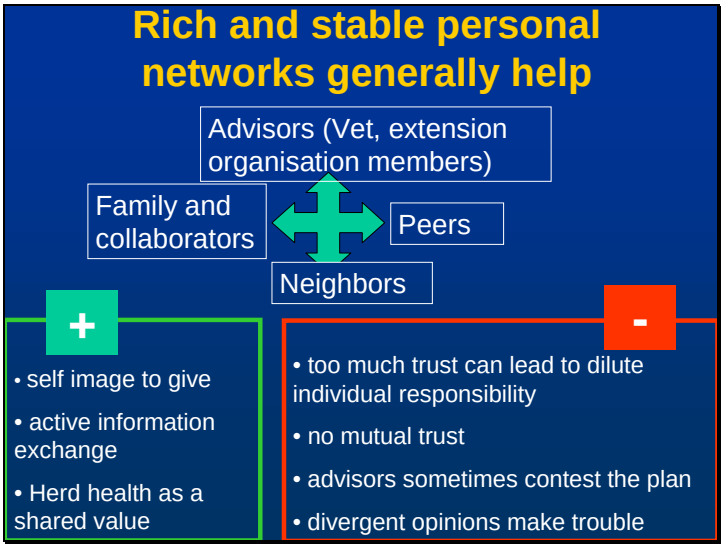
Risk deniers consider that the level of risk is not that high (they declare that BVDV is very common, that a non regulated disease can't be very serious, or that their practices are safe enough to protect them even though it is not always the case…). They also put forward that collective schemes are not good enough and are reluctant to enroll. Their sanitary knowledge is rather poor. Their practices may be risky from a health point of view and their herds often have sanitary problems connected to contagious diseases –BVD or paratuberculose)

Risk calculators know that they sometimes take risks. Some of them consider that they can't do differently because of their constraints (that can be real) and some others consider that the efficiency of the French organisation will provide them a good protection. Their practices are not especially safe. They have good knowledge and trust sanitary actors and schemes.

Risk fighters adopt specific practices or equipments to avoid sanitary problems (vaccination, double barrier, pediluve, no animal purchase). They have practical and technical knowledge in sanitary management (they often experienced sanitary problems in their farm). They trust key actors of health management and have a good relationship with their vet. They often have rather big herds and other animal productions are more frequent in this group. Farmers in charge of professional responsibility often belonged to this group.

Risk victims put forward that there is nothing to be done (in their situation or in general) to control contagious diseases. They feel rather anxious at sanitary risk but don't feel motivated to implement preventive practices because they doubt that it will really protect their herd. They have rather poor knowledge on health management.

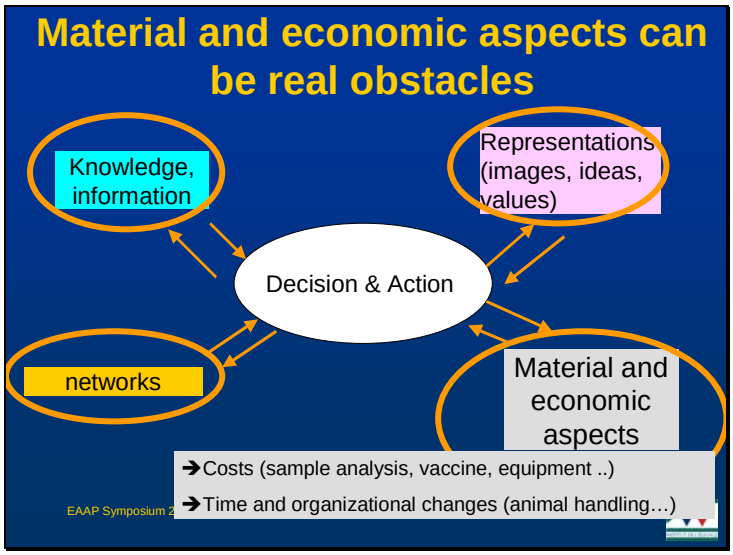
Social and professional networks also impact farmer's decision process.



We distinguish four types of actors: advisors, peers, neighbors, and members of the farm.

Our work clearly shows that vets and peers have a major influence on information exchange and motivation to implement good practices. They can be obstacles as well as incentives.

Good relationship between neighbors sometimes contributes to adapt health strategy on farm but we mostly observed that there is no mutual information on sanitary aspects and not always expectation for that. Transparency will probably be a major obstacle to farmers 'enrolment in a qualification scheme.



Of course, practical and economic aspects have to be taken into account because they sometimes constitute real obstacles for some farmers.
But, time and cost can also be false reasons, which are based on farmers' lack of knowledge, misunderstandings or personal representations.
We really need to take that into account by the mean of long term and global reflexion on farm when promoting sanitary schemes.

As a conclusion, a lot of work is still to be done to help farmers to better control diseases.
We probably should focus on 3 priorities.
We need to improve farmers' knowledge on disease and health management but we must keep in mind that technical background is only one part of the problem
We must better take into account farmers but also advisors 'representations in order to have some chance to convince. Knowing the way they think, we have to use various arguments and communication means to get them really involved.
We should help the emergence of farmers 'networks because « information seems more true when it comes from another farmer! » and collective schemes need shared values that can be built in such groups.

Thank you for listening !

With the collaboration of
- Christine Fourichon (Veterinary school of Nantes &INRA)
- Dominique Pecaud (Polytectnic University of Nantes)
- Etienne Petit (Sanitary organisation for cattle health of Burgondy)

More information ? brigitte.frappat@inst-elevage.asso.fr