

66th
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INNOVATION IN LIVESTOCK PRODUCTION: FROM IDEAS TO PRACTICE

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Implementing health monitoring activities in organic dairy farms


Julie Duval¹, Nathalie Bareille¹, Aurélien Madouasse¹ and Christine Fourichon¹

¹ LUNAM Université, Oniris, INRA, UMR1300 BioEpAR, CS 40706, F-44307 Nantes, France

julie.duval@oniris-nantes.fr



Context and stakes

- Important negative effect of production diseases on health and welfare of dairy cows (EFSA 2009)
-  Organic farming systems are not always a guarantee for higher level of animal health compared to conventional systems (Sundrum 2001)

Aim for animal health promotion through preventive measures

Organic principles and regulation

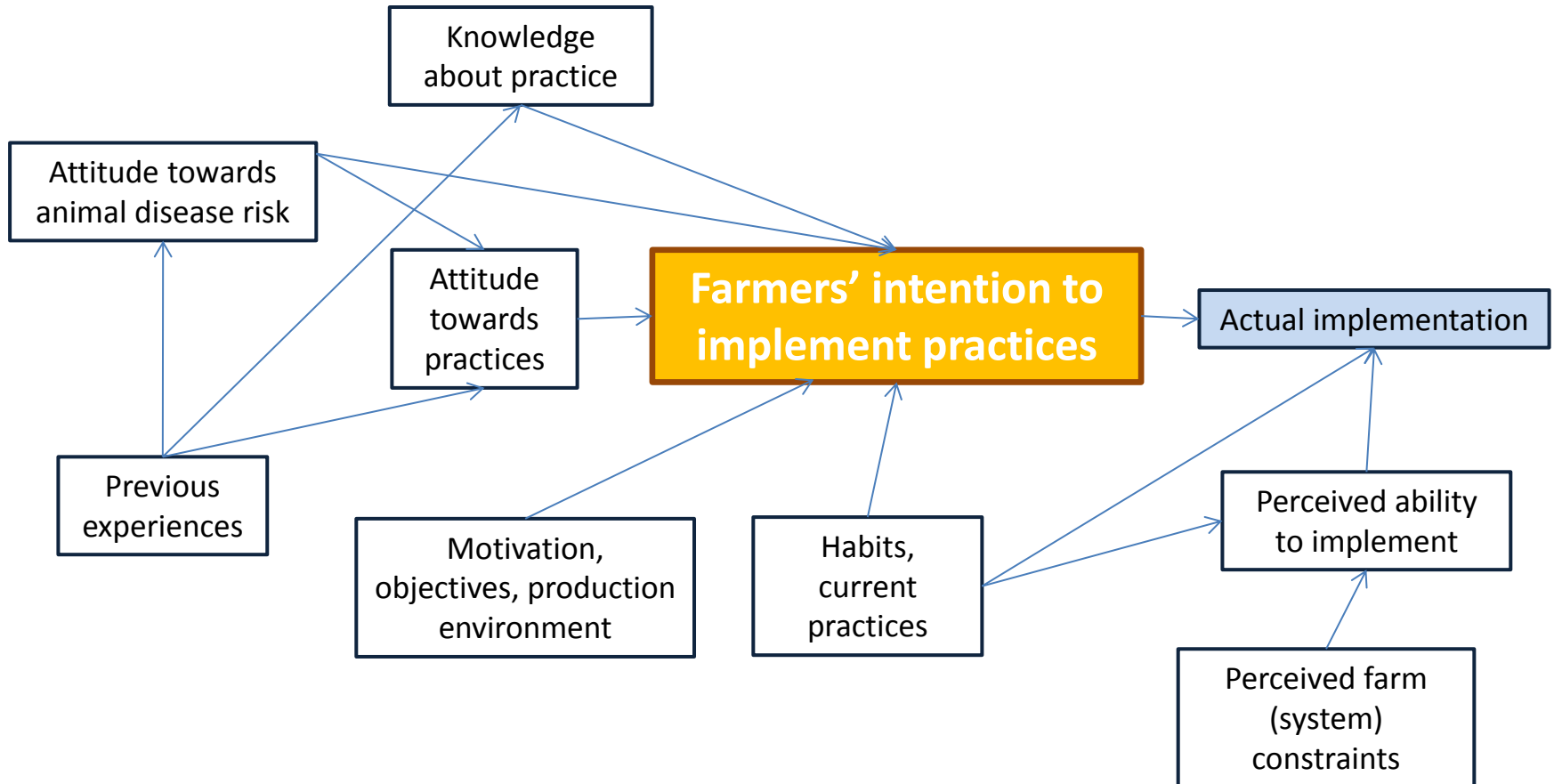
General context of reduced use of antibiotics

→ First step = monitoring of the animal health situation

Knowledge on animal health management  effective and consistently implemented management practices on each farm (Leblanc et al. 2006)

Introduction

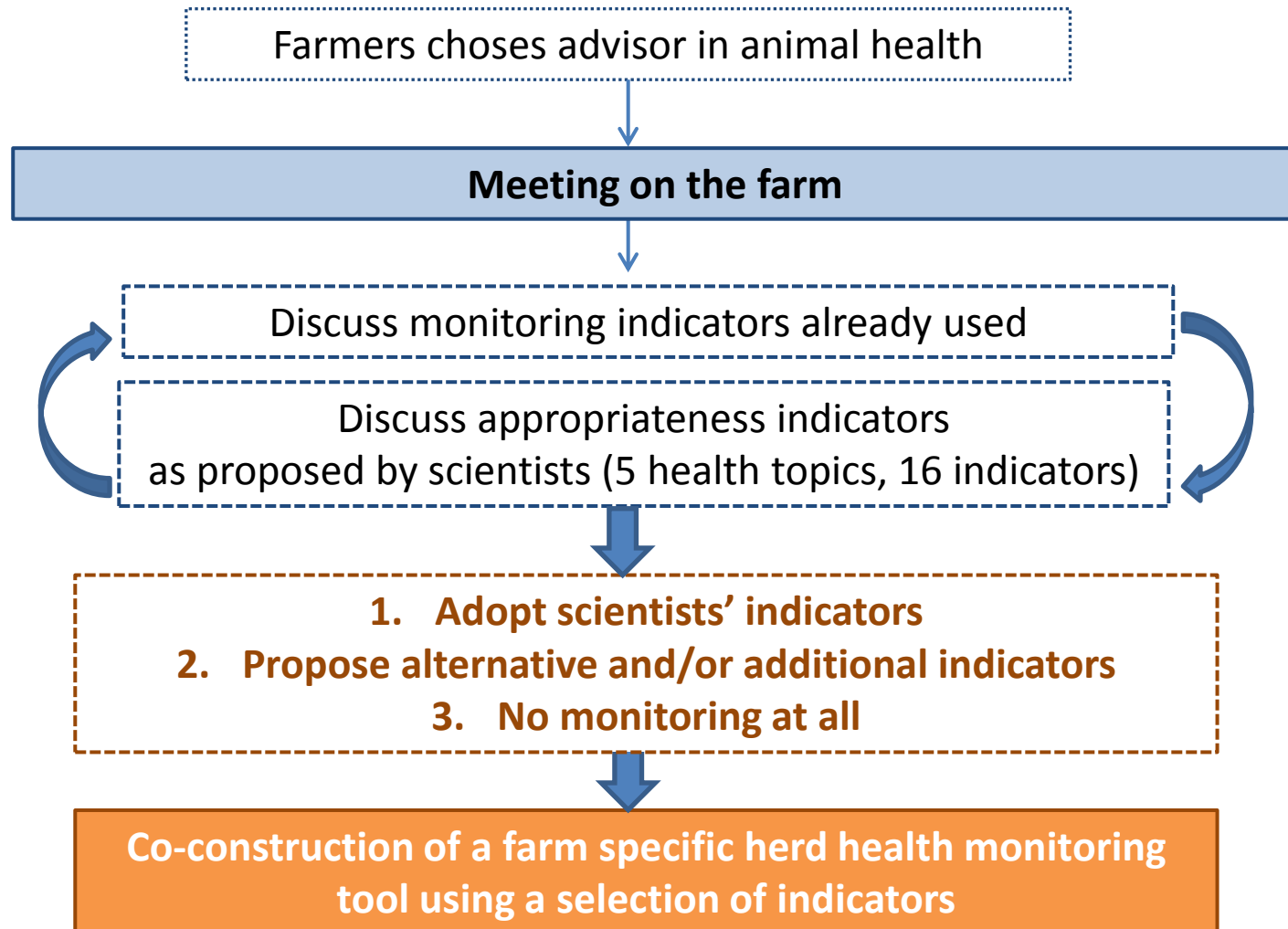
Factors influencing farmers' intention to implement animal health management practices



Adapted after Garforth 2011

- i. Assess the effect of a participatory approach in stimulating farmers' intention to implement a comprehensive herd health monitoring tool
- ii. Characterize the adaptations made
- iii. Explore farmers' reasoning to do so

Participatory approach- comprehensive monitoring tool

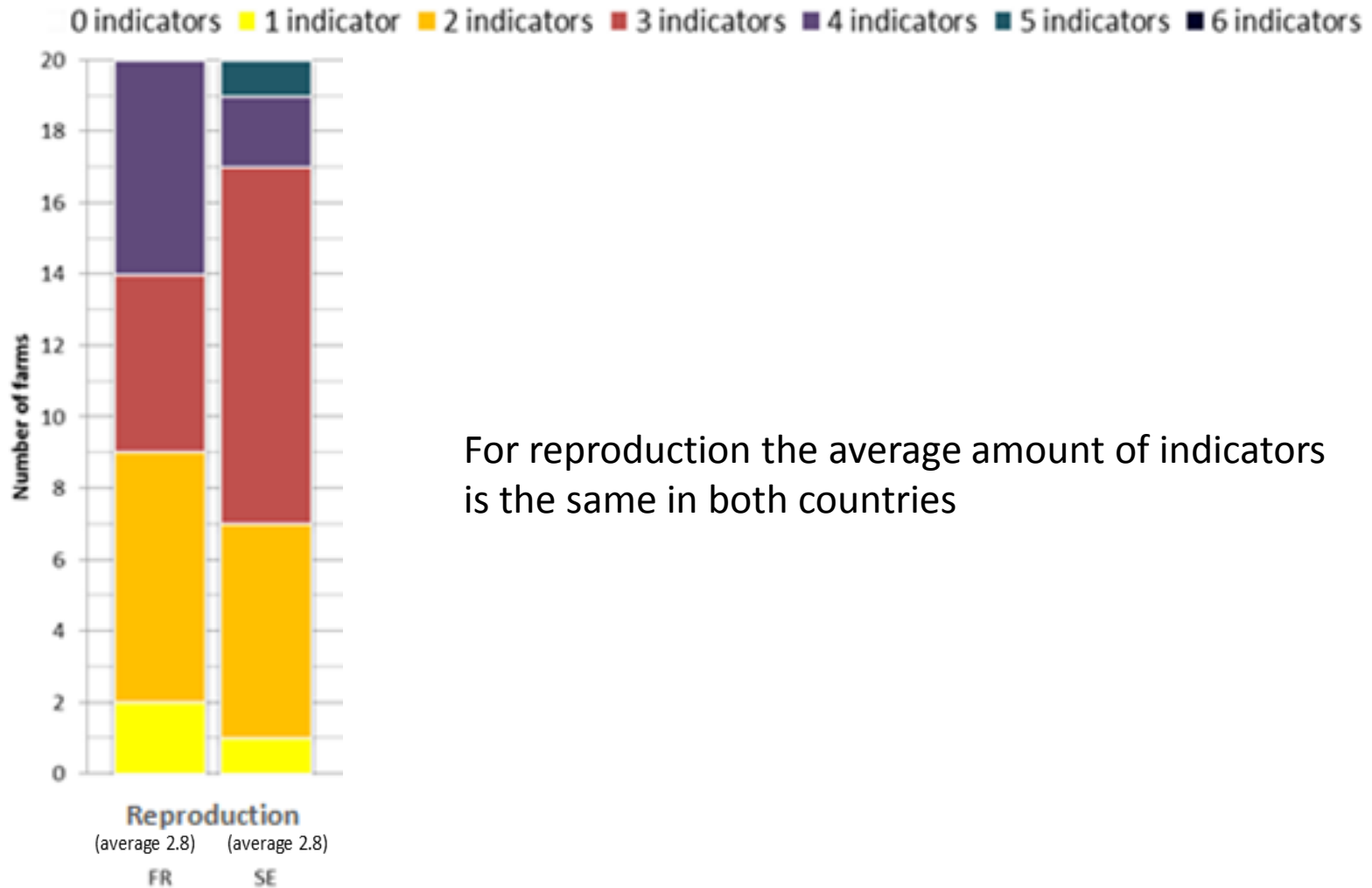


Participants: certified organic dairy farmers in 2 different contexts

Table 1: country contexts

	France (n=20)	Sweden (n=20)
Average number of lactating cows	54 (min 18; max 82)	86 (min 35; max 403)
Organic regulation	EU regulation	EU + national regulation: monitoring, min. level of animal welfare, role vet described
<i>Pre-existing herd health monitoring activities on the farm</i>		
	n=15, <u>no</u> monitoring at all	n=13, monitoring <u>all 5 health domains</u>

Description of co-constructed monitoring plans



For reproduction the average amount of indicators is the same in both countries

Figure 1: number of farms with a certain number of surveillance indicators chosen per health topic. FR= France, SE= Sweden.

Description of co-constructed monitoring plans

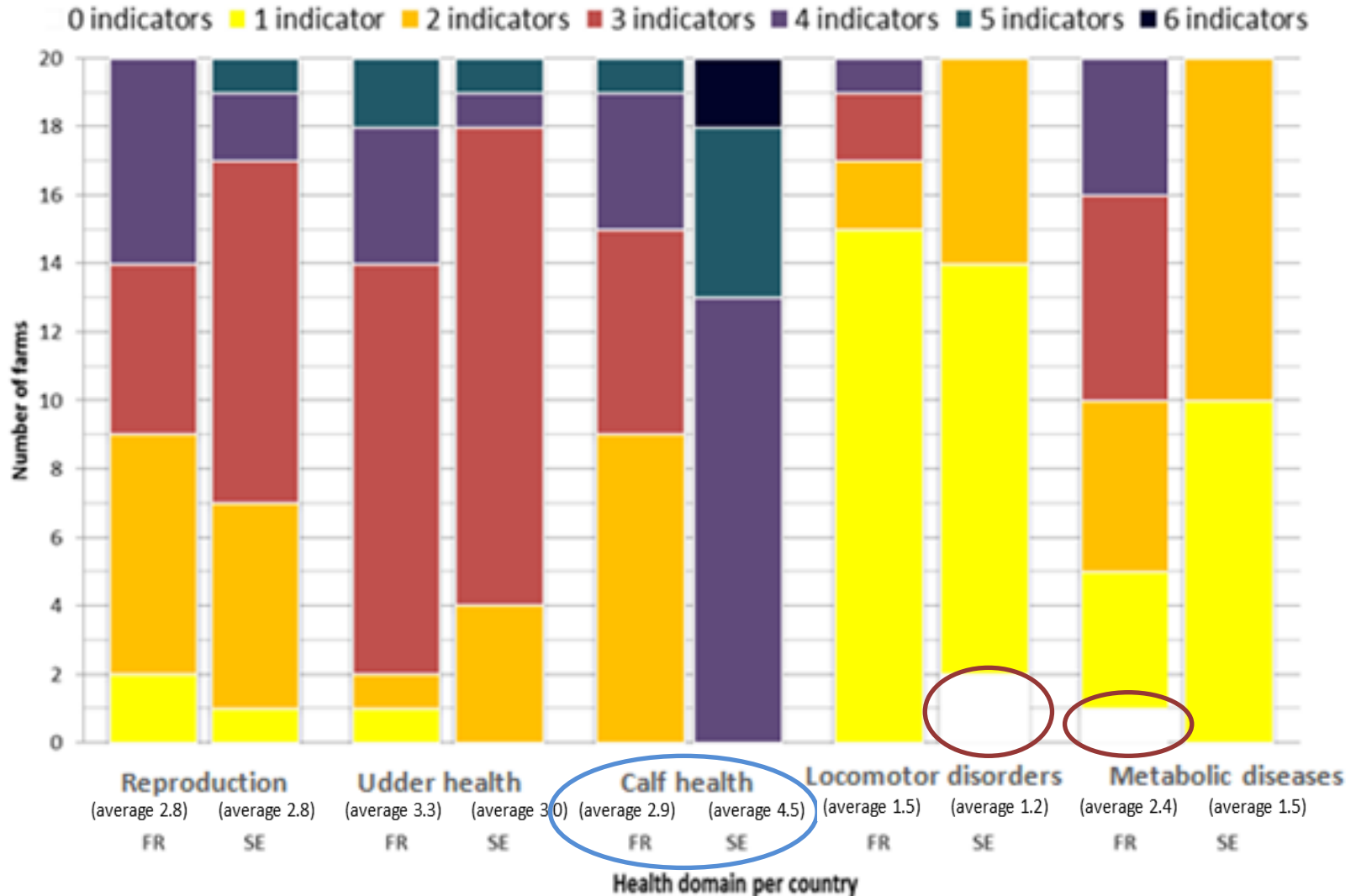


Figure 1: number of farms with a certain number of surveillance indicators chosen per health topic.
FR= France, SE= Sweden.

Description of co-constructed monitoring plans

- The combination of indicators adopted for herd health monitoring is **unique** to each farm
 - **Not one farmer** accepts the combination of indicators exactly as proposed by scientists
 - Indicators might serve different purposes to the two groups
- Need for adaptable tools, because it is impossible for scientists to design farm specific tools (Darré et al. 2004)
- Only for calf health the average number of indicators is higher in Sweden than in France
 - Effect of lack advisory services in this domain?

Method

- i. Comparison of the characteristics of alternative and additional indicators of farmers with indicators of scientists
 - *in what way are farmers' indicators different from those of scientists?*

- ii. Analysis of the discussions to gain a better understanding of farmers' reason to adapt the monitoring plan
 - *why did farmers propose different indicators?*

Results and discussion

- **Calf health:**
 - **Integration of farm specific knowledge of disease patterns**
 - Monitoring of a specific health problem,
 - Include a specific cause of disease,
 - Specific to a group of animals at risk,
 - And/or a specific period at risk
- **Reproduction performances:**
 - **Indicators to strategically manage reproduction performances**
 - Farmers' objectives,
 - Indicators to identify aberrant cases,
 - Earliness of indicators changed
 - Farm specific knowledge of disease patterns (mainly in additional indicators)

Results and discussion

Importance of a participatory approach in stimulating the discussion

- Understanding the decision making process behind changing indicators
 - Past experiences
 - Context of a farm system and objectives farmer

(Whay and Main 2010, Jost et al. 2007)

- Shared visions between farmer and advisor

(Derks et al. 2013, M Vaarst et al. 2006, M Vaarst et al. 2007)

- More shared visions between farmers and scientists



→ Transferability to other contexts of animal health planning activities?
(farming systems, animal production)

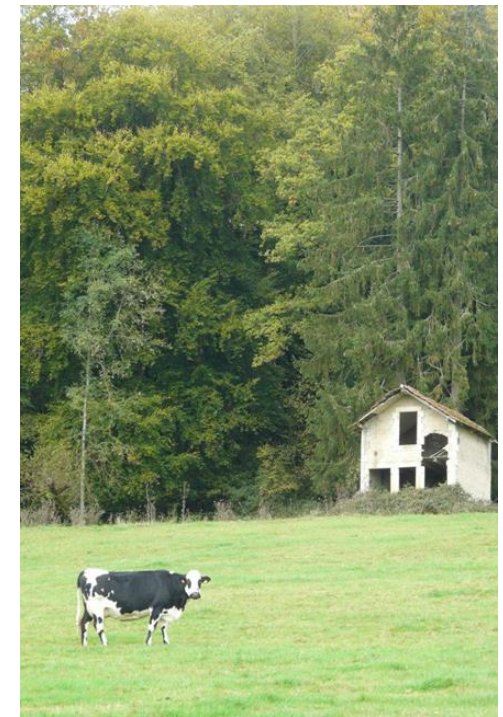
1. The participatory approach creates a favourable environment stimulating farmers' intention for comprehensive herd health monitoring
2. In the design of herd health management tools for farmers
 - Abandon 'one-size fits all'-tools
 - Farmers should participate in its design

Acknowledgements

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Mail corresponding author: julie.duval@oniris-nantes.fr

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