Farmers' engagement in using PLF technology

Report of the EU-PLF farm visits - the farmers' perspective

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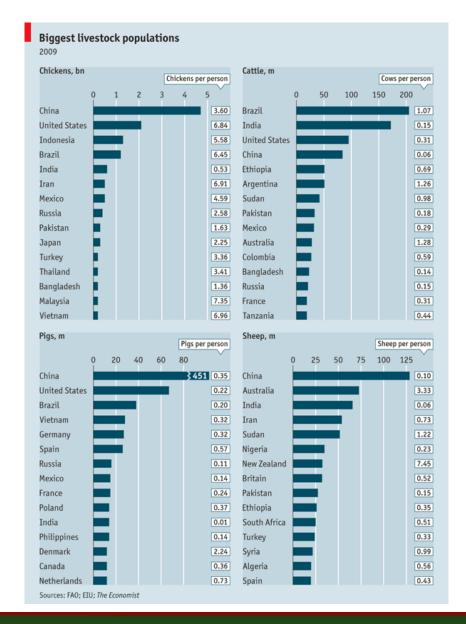
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World livestock population

(estimated)

Chicken 19 billion

Cattle 1.4 billion

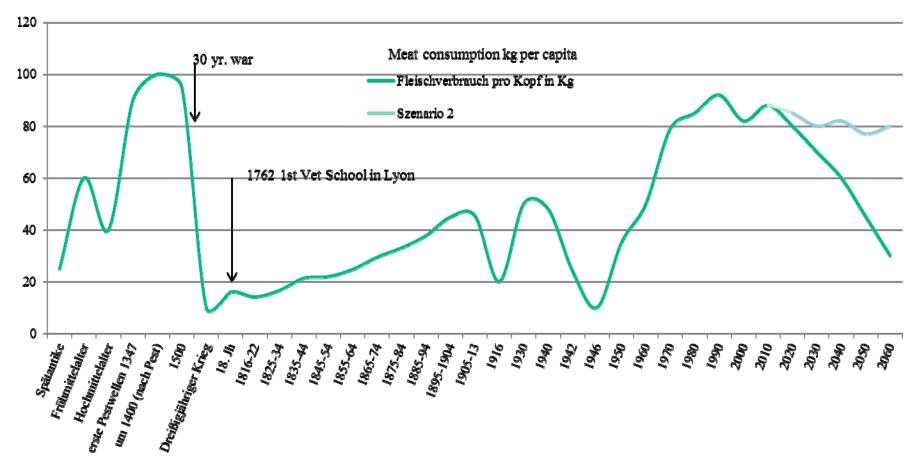
Sheep 1.0 billion

Pig 1.0 billion

The distribution varies extremely.

(The Economist online 27.07.2011, access. 10.04.2015)



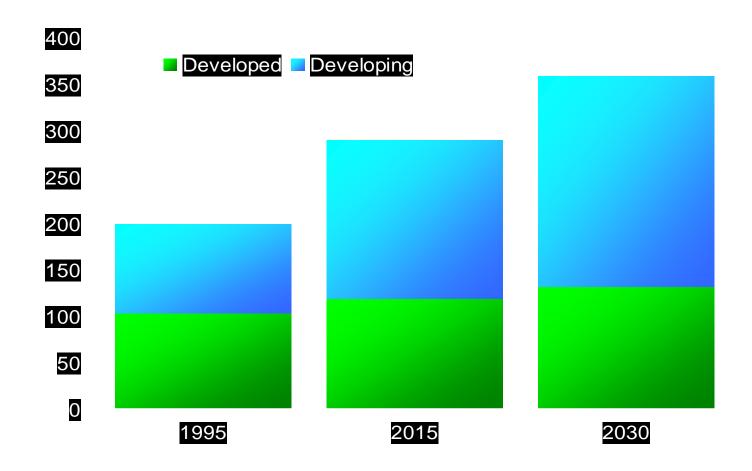


Development of meat consumption in kg per capita in Central Europe from Late Antiquity to today and beyond

(Hirschberger 2014)



Meat Consumption (mio t) worldwide 1995 – 2030 estimated in developed (green) and developing countries (blue) (from FAO, 2015)





Challenges of animal Production today

Animal Production today is driven by <u>Economic Pressures</u> and <u>Expectations</u> and <u>Demands</u> of the society (citizen) and the consumer:

- **1. Food Security.** (9.6 billion people in 2050. Food supply gap is closing. FAO, 2014) *Of increasing importance are the demands for:*
- 2. Food safety, quality and diversity (consumer).
- 3. Affordable food, low prices (consumer).
- 4. Protection of environment and residents (public).
- 5. Animal Health and Welfare (public, consumer acceptance).

ethical, social, sustainable

The voice of the farmer is not much heard in this debate.



Introduction to the interviews

21 farmers/managers in 10 EU member states were interviewed about PLF technology installed in their farms. The farmers were asked by personal free format interviews face to face on their farms. (WP4, Task 4.1).

Aim:

The interviews and farm visits should give some insight in the attitude and opinion of the farmers on PLF technologies, advantages and problems of PLF in practice and should be used to inform strategy development for market entry of PLF technology. In spite of the limited number of nine pig, five broiler and seven dairy farms the answers can be helpful to identify chances, gaps and deficiency.



COUNTRIES	No of VISITS	ANIMAL TYPE	PLF EQUIPMENT
The Netherlands	2 visits	2 piggery = 4	sound, eYeN
(NL)		1 broiler barn = 2	sound, eYeN
UK - N-Ireland	1 visit	1 piggery = 1	sound, eYeN
Hungary (Fadd)	2 visits	1 piggery = 2	Sound, eYeN,
			PLFagritec (NH3,
			dust, weight)
UK – England	2 visits	1 Broiler = 2	sound, eYeN, RVC
			dust, NH3
UK - England	2 visits	1 Broiler = 2	sound, eYeN (No
			access limited)
UK - England	1 visit	1 piggery = 1	sound, eYeN
FRANCE (Brest)	2 visits	1 piggery = 2	sound, eYeN
ITALY	2 visits	1 piggery = 2	sound, eYeN
		1 broiler = 2	sound, eYeN
			, -
SPAIN	2 visits	2 piggeries = 4	sound, eYeN,
		1 broiler = 2	PLFagritec, weight,
2,,			dust, NH3



COUNTRIES	No of VISITS	ANIMAL TYPE	PLF EQUIPMENT
The Netherlands (NL)	1 visit	2 dairy farms = 2	Cow view
Germany (D)	1 visit	3 dairy farms = 3	Cow view
Sweden (S)	1 visit	1 dairy farm = 1	Cow view
Denmark (DK)	1 visit	1 dairy farm = 1	Cow view

Examples of Questions

- 1: How familiar are you with the term PLF? (2014 and 2016)
- 2: Why did you decide for this technology?
- 3: What are the positives associated with this technology?
- 4: What are the negatives, risks and uncertainties associated with PLF technology?
- 5: Do you expect to have more time for social life?
- 6: What market conditions impact on your livestock production the most?
- 7: In your experience, where do you see most advantages for your animals using PLF?
- 8: What is stressing you most, time pressure or your financial situation?
- 9: How would you rank your farm production?
- 10: Is animal welfare relevant for you and why?
- 11: Can PLF technologies improve consumer acceptance/satisfaction of current livestock practices?
- 13: Can PLF replace the farmer in the barn?
- 14: How do you see the future of animal Production in Europe?
- 15: What do you would like to improve on your farm in the future?
- 16: Would you employ a paid service to run your PLF system?



- 1. Most important production factors are feed price (60-70%), energy, labor, environmental restrictions.
- 2. Decision for PLF because of novelty, offer and new opportunities.
- 3. However, farmers are cautious to buy PLF technology unless benefits are proven and convincing. In the project most farmers got instruments for free or little costs. Does the investment pays back? Not only price also maintenance is important.
- 4. Farmers are open for change but need objective help (training on site, qualified services!) to be able to run new systems.
- 5. In 2014 only a few farmers were familiar with the term PLF. In 2016 only one said he is not or only little familiar with PLF.
- 6. Those who had already positive experience with PLF technologies are more in favour of it than others.
- 7. All of the interviewed farmers saw PLF now as a promising Evolution. "Since I monitor I understand my animals much better".



- **8.** Negative associations with PLF were high prices, too complicated operation and slow maintenance service. Unsure about benefits.
- **9.** Nearly all farmers (except one) said that it is very important to see the animals directly and not only by video. They are concerned to pay not sufficient attention to the animals, loose contact. This applies more for pig and dairy cows than for poultry farmers.
- **10.** The attitude towards animal welfare was always positive. The farmers understand welfare and health as important factors of their production. These factors determine very much productivity and income. However, they made clear that welfare measures without regard of economy are unrealistic.
- 11. Farmers opinion on the future of animal farming in EU varied considerably. They all hope for better conditions but are afraid of welfare movements and environmental concerns in the society.

- 12 All farms called their financial situation "sound" or normal. Nearly all farms produced above their country average level. They are prepared to invest but many farmers are afraid that the market does not pay their investments back.
- **13.** A strong drawback and disappointment was that many farmers had no access to the data, "all is with the company". They did not see the results as their own figures. They must be able to interpret their data or use a qualified service.
- **14.** Most farmers want to understand and interpret their data. Decision is taken by the farmer not the computer.
- **15.** Several farmers strongly recommend Demonstration Farms! In such farms farmers and public can learn how PLF works. Training courses are required.

- **16.** Some PLF systems delivered unrealistic figures. Such instruments are not only useless they damage also the trust in PLF systems. It is important that the industry delivers fully functional and durable systems.
- 17. Farmers are afraid that the market does not pay their investment back.
- 18. Farmers want to get early warnings on their mobile phones plus computer.
- 19. Service system: Farmers were interested in the service system (basic, standard, plus) which was offered. However, basic is in most farms already. Standard is partly offered by consultants of feed companies. For the Standard and Plus offer they are prepared to pay up to about 10% of the profits (some broiler farms) for data processing service when it is really working.

Remark: We have to keep in mind that a selection of interested and advanced farmers was interviewed which may not be the "average farmer" in the respective country and the answers cannot be generalized based on this small number without care.

Recommendations

- 1. It must be better demonstrated that PLF benefits the animals, the farmer, the consumer, the environment and saves resources.
- 2. Demonstration farms can serve as "lighthouses" to promote PLF.
- 3. Reliability of instrumentation is crucial.
- 4. Training on site, farmer must be able to run and repair the systems in case of default and / or qualified services must be provided.
- 5. PLF is a support system for the farmer. He takes the decision.
- 6. Ownership of data. Farmers should own his data. That improves his identification with the technology and his data.
- 7. PLF is for most farmers the way to a new and animal friendly New Age in animal farming.

EU-PLF: Smart Farming for Europe

Main messages from farmers:

- 1. Talk to the farmers
- 2. Listen to the farmers
- 3. Support the farmers

Keep in mind:

"The truth is in the pitch"

This is not only true for football.

That is even more true for animal farming.

EU-PLF: Smart Farming for Europe

Acknowledgement

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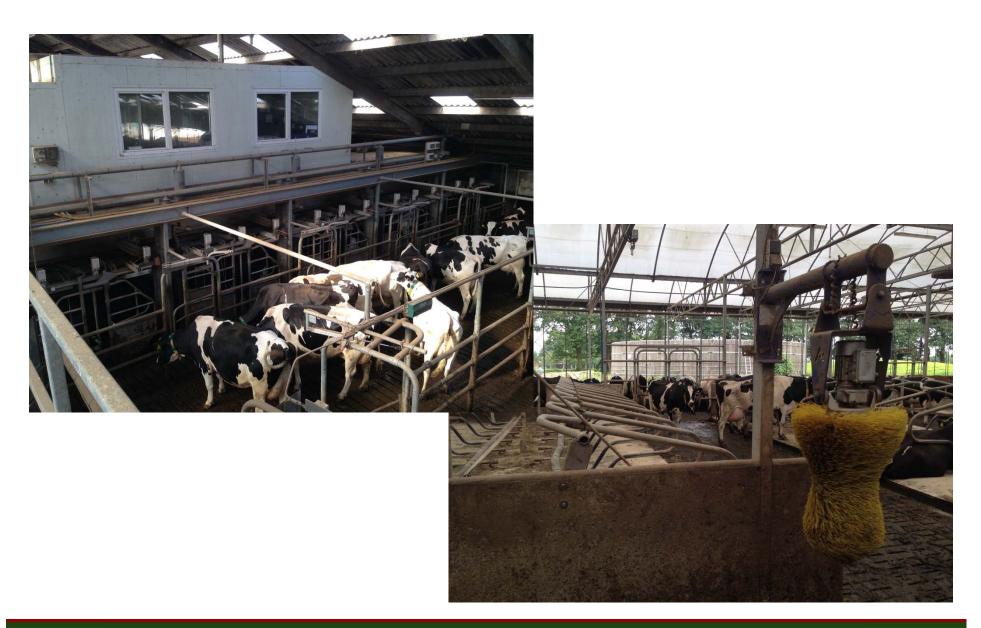




















Finally: PLF has a bright future:



Thank you for your attention

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