

Nov 9, 2020

Precision livestock farming. Overview of current situation.



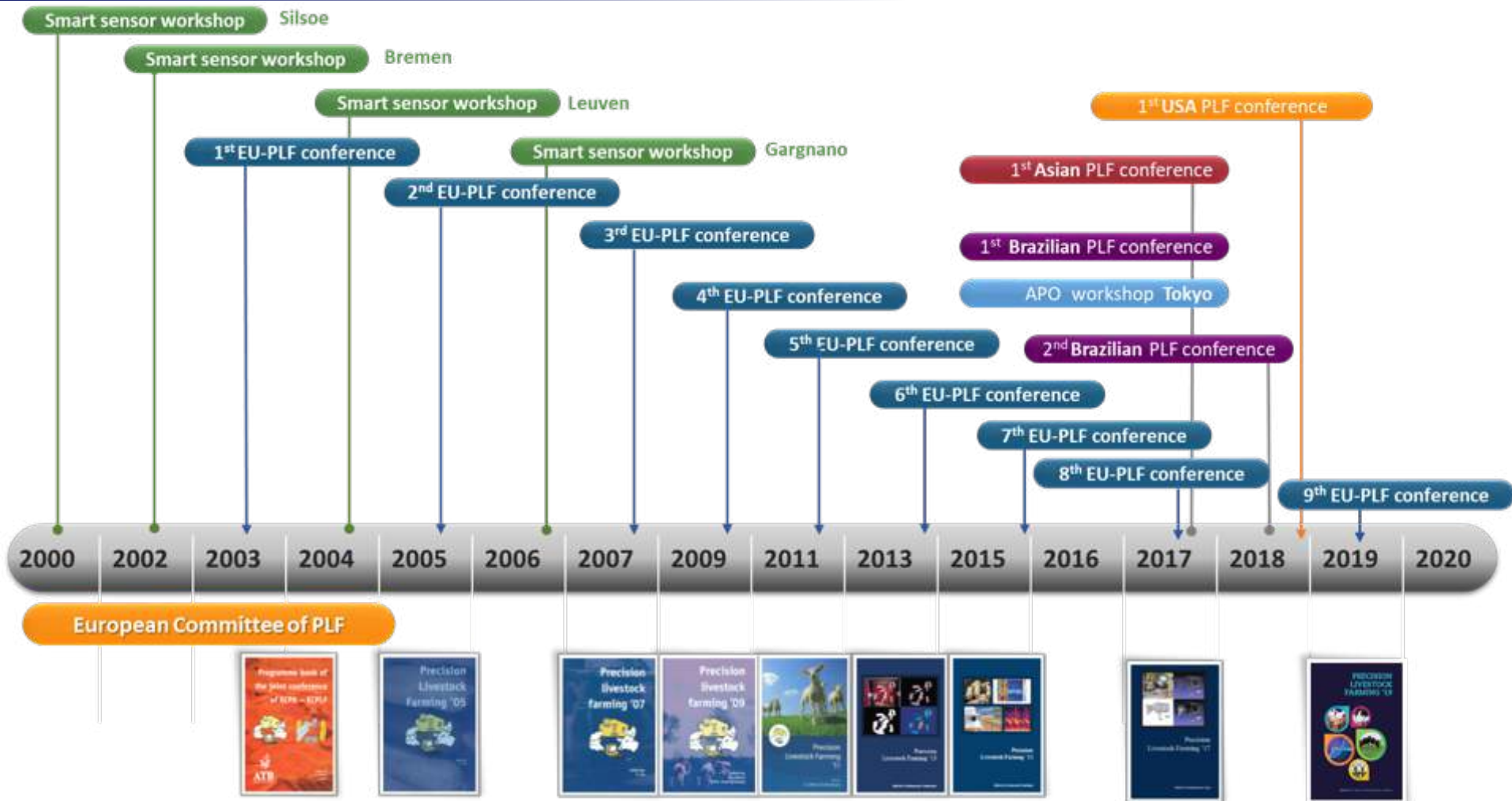
Heat stress and other common features of Precision Livestock Farming (PLF)

Discussion between Israeli and Italian
Experts

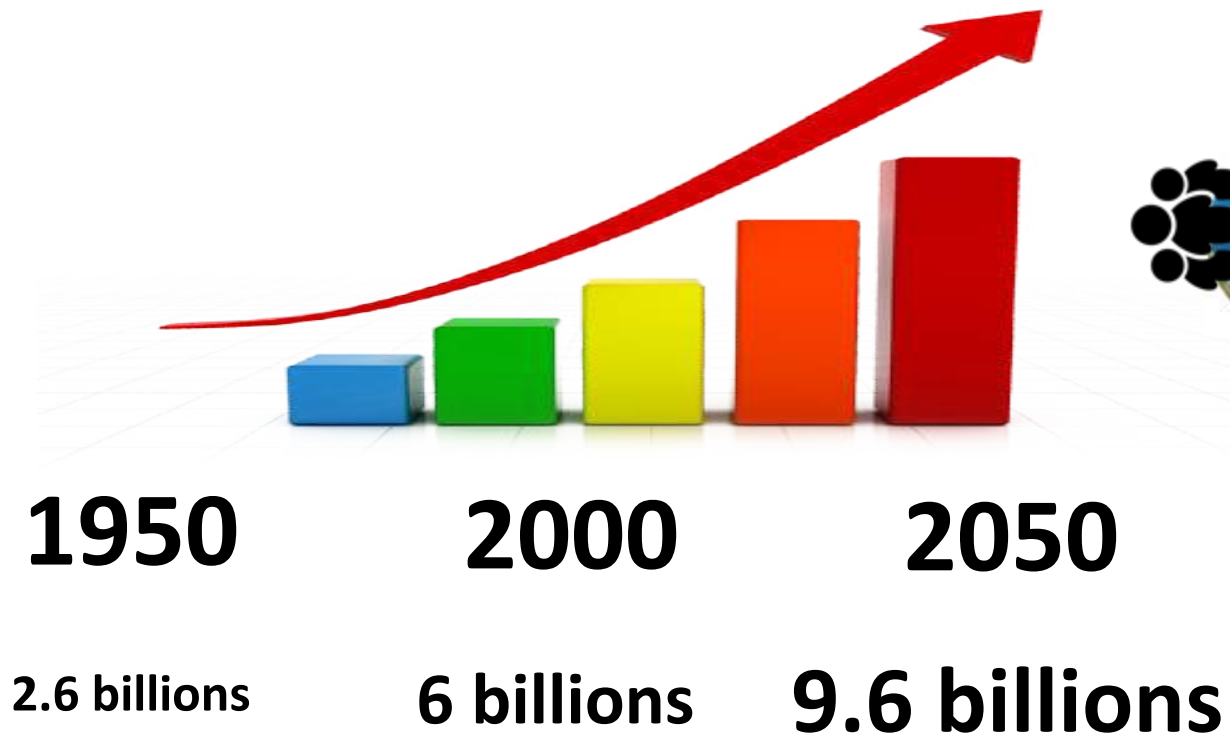
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Università degli Studi di Milano*

How recently PLF has born



World population trend



Precision Livestock Farming: why?

Livestock farming in the past ...



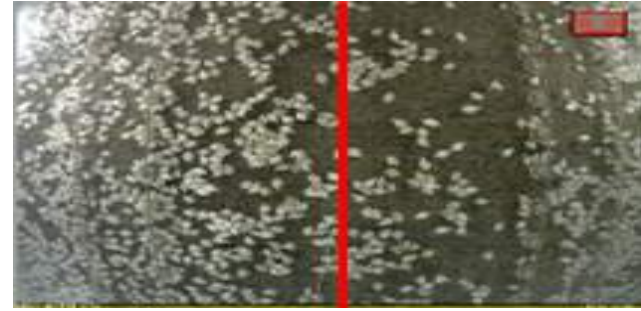
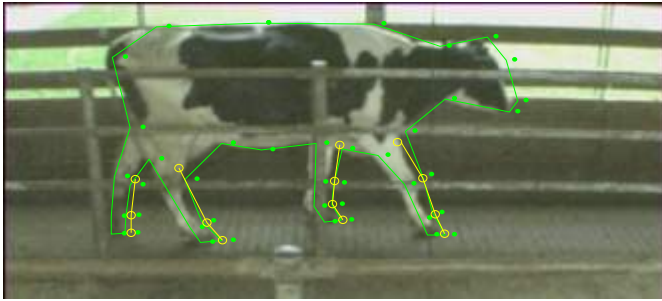
Farmer had the time to control his animals

Nowadays:



Need of new technologies to optimize and improve farming conditions,
both for farmers and animals

Precision Livestock Farming: what?



Management of livestock by **continuous automated real-time** monitoring of production/reproduction, health and welfare of livestock and environmental impact.



Basic principles of PLF:

Living organisms are...



Basic principles of PLF:

...Individually different!



Basic principles of PLF:

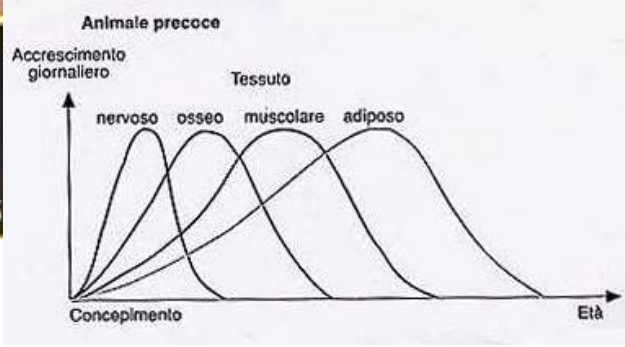
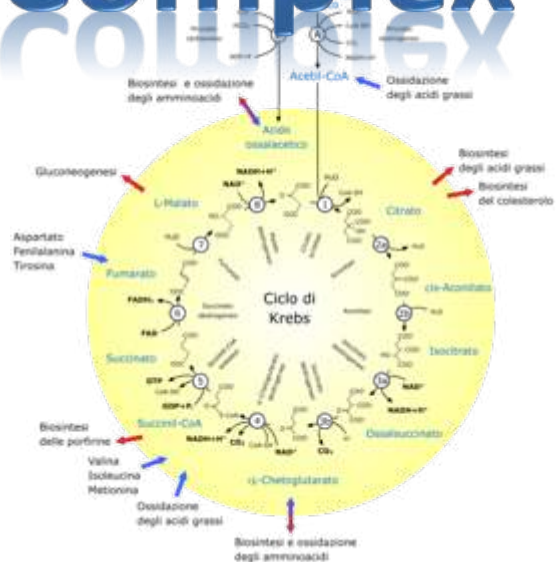
Living organisms are crucially important:

Individual

THEY ARE

Dynamic/Time-varying

Complex



Precision Livestock Farming: how?

Tools and sensors

Microphones



Videocameras

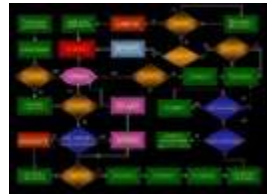
Accelerometers

Data loggers

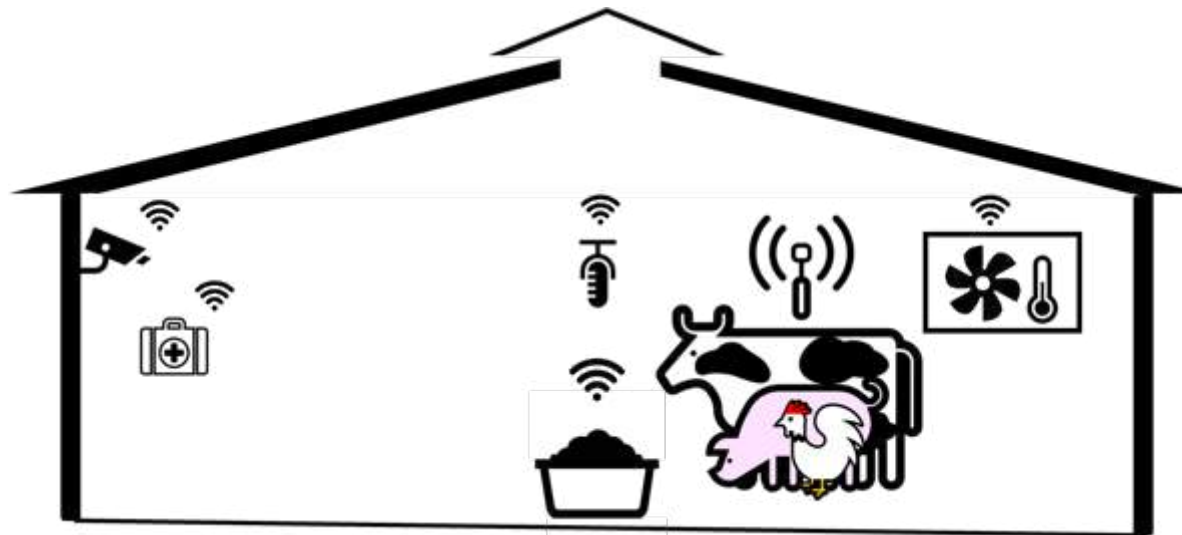
Pressure sensors

Thermocameras

Algorithms



How a barn looks like...



Advantages of PLF technology

Objective
measurements

Fully
automated

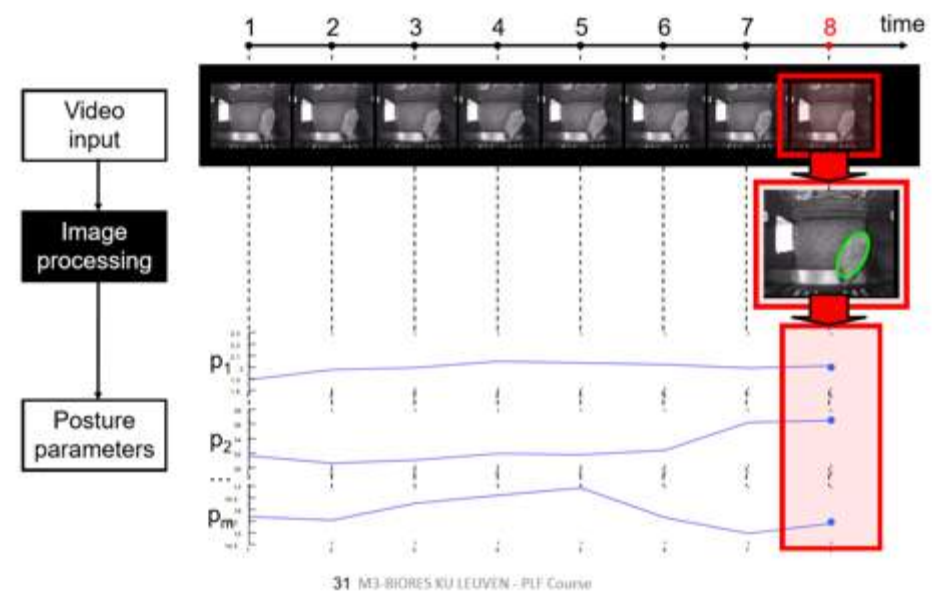
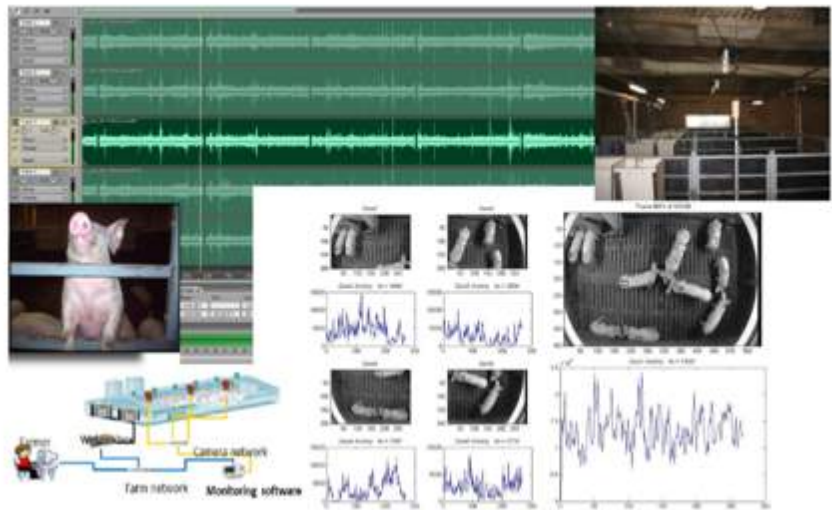
Continuous

Behavioral
responses of
animals

Less visits to
the animals

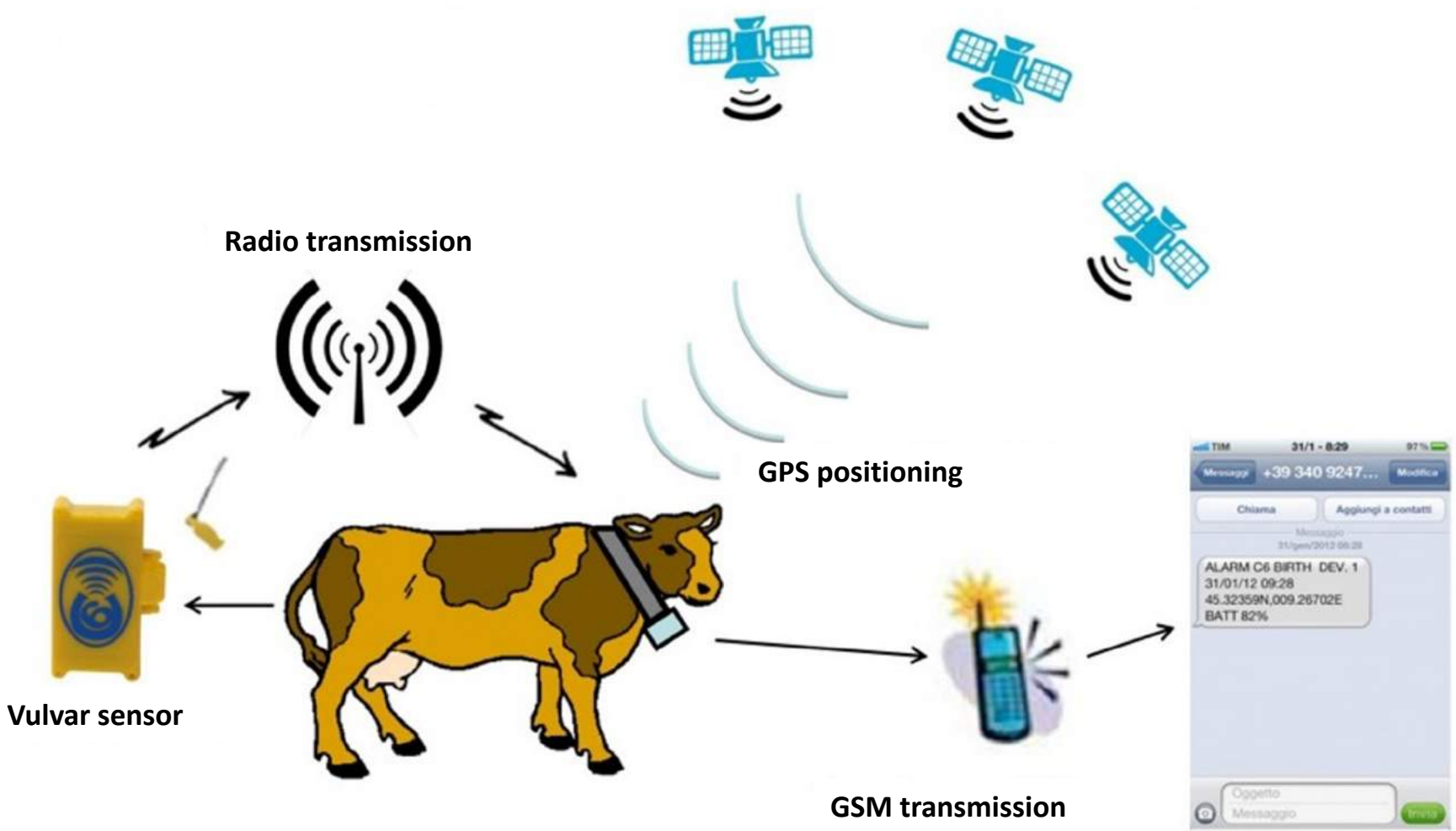
From labelling to on line monitoring

Videocameras

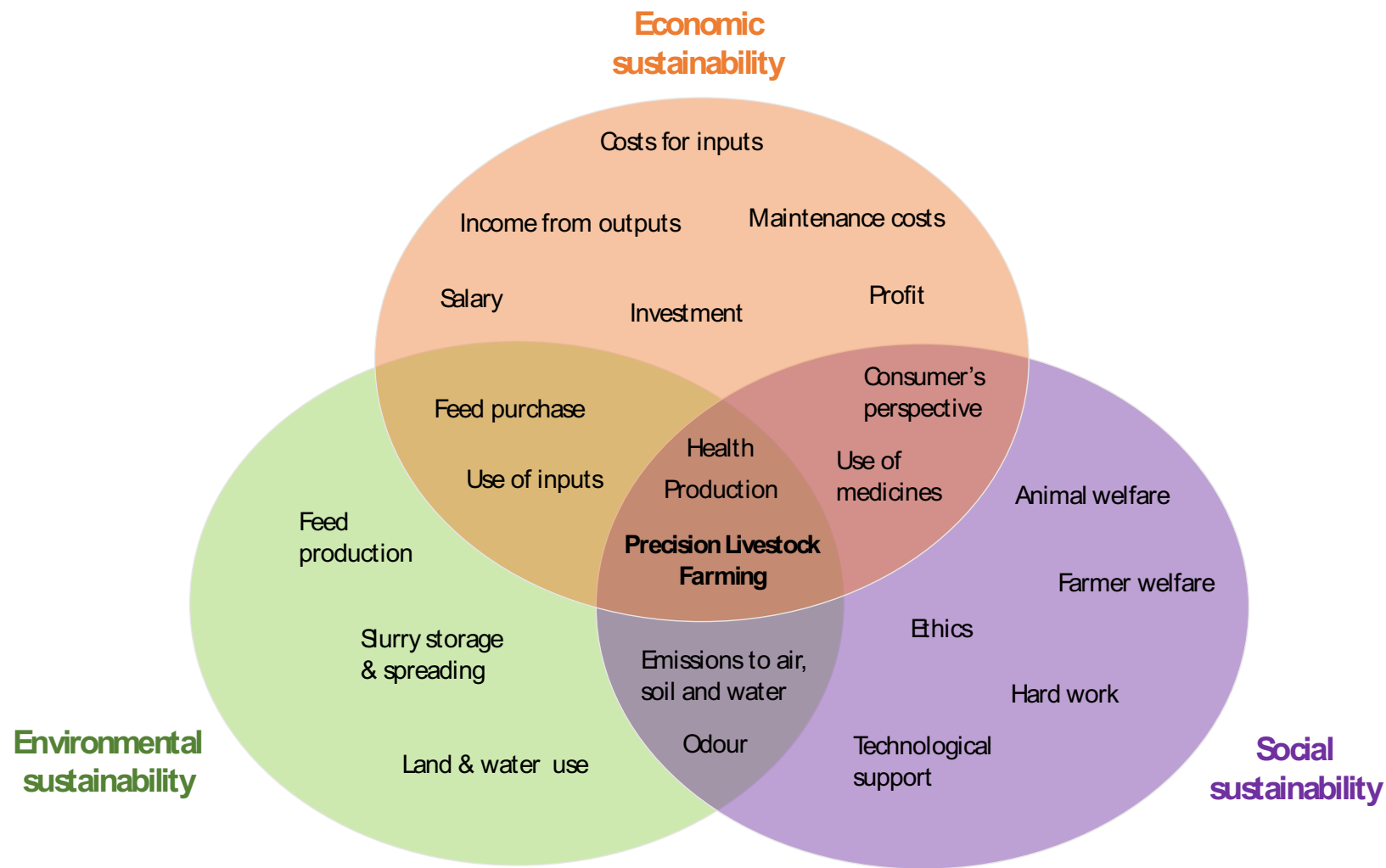


Images by: Daniel Berckmans, PLF Conference 2015

PLF for extensive farming



PLF for sustainability



What are the next steps to follow: FROM FARM TO FORK



make sure
Europeans get
affordable and
sustainable food



tackle climate
change



protect the
environment



preserve
biodiversity



increase
organic
farming

The action **“From farm to fork”** is focusing on food production by:

- assuring healthy, affordable and sustainable food to Europeans
- tackle climate change
- protect the environment
- preserve biodiversity, allow fair economic returns
- increase organic farming

Conclusions

- PLF Systems work in real farms, PLF technology **will go**
- PLF creates Big Data, they cannot all be stored
- Data are difficult to interpret, PLF = **Tool**
- Automated alarms need farmers' **actions** to create value!

Conclusions

- Farmers need information and training
- Business models must be tested in the market
- Important role for **farmers' organisations**
- Real **collaborations** between research disciplines are needed, + farmers and + industry!

European Association of Precision Livestock Farming

WWW.EA-PLF.EU

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European Conference on Precision Livestock Farming 2021

University of Veterinary Medicine, Vienna

Veterinärmedizinische Universität Wien

vetmeduni
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> European Conference on Precision Livestock Farming 2021

Information & Hotels

Fees

Abstract

Registration

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European Conference on Precision Livestock Farming 23rd-26th August 2021 Vienna, Austria



Thematic areas



- PLF as part of One Health initiative
- PLF as support tool in veterinary medicine
- Controlling environment in animal husbandry
- Performance and welfare monitoring
- PLF approaches to enable sustainable production
- PLF to support decision-making and solutions
- Precision technology in product development, optimization and testing
- Consumer perception of PLF
- Traceability of production
- Monitoring wildlife and companion animals
- Ethics in PLF

Provisional program

- Mon 23rd August: Workshops & Welcome Reception
- Tue 24th August: Scientific sessions
- Tue 24th August: Gala dinner
- Wed 25th August: Scientific sessions
- Thu 26th August: Technical tours

Contact

[Send Email to the Organizing Team](#)

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The next conference – Vienna August 2021



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Thank you

