

EU-PLF e-course: A free on-line e-course to understand concepts of Precision Livestock farming

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Smart Farming for Europe

Value creation through **Precision Livestock Farming**

Main objectives

- To get different categories of people to extend their knowledge on Precision Livestock Farming
 - Students in Animal Science to learn more on available PLF technologies and how they can benefit the actors of the production chains,
 - Professionals in Animal Production, to know more on what PLF can bring for them and their animals
 - Suppliers of PLF technologies to increase their awareness on the possibilities and limits of the use of PLF technologies in animal production



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The e-course was developed

- Within the EU project EU-PLF
- By teachers at Agrocampus Ovest
- With input and assistance from EU-PLF partners



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Content of the course derived from

- The advanced course provided by CIHEAM in April 2015



- The expertise and knowledge from Agrocampus-Ouest teachers and EU-PLF partners



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The e-course

- Totally free
- Will soon (September 2016) be accessible from the EU-PLF website www.eu-plf.eu



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Complete version

You are a **student in animal science:**



we offer you a course to **understand the concepts and application** of Precision Livestock Farming and the value added by those technologies!

You are a **supplier** in Precision Livestock Farming technologies:



we offer you a **customised quick course** with practical analysis which will help you to better understand the expectations and demands of your customers!

Short version

You are **professional in animal production:**



we offer you a **practical guide** to implement Precision Livestock Farming technologies in the farm.

Not presented here



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PRECISION LIVESTOCK FARMING : STUDENT E-COURSE



> 1- An introduction to PLF

> 2- Basics on animal science and livestock farming systems



> 3- Principles and examples of PLF and data analysis

> 4- Added value from PLF

> 5- Implementation of PLF in commercial products and services

> 6- Study case

> Conclusion : present and future trends of operational PLF

1- An introduction to PLF



Objectives and overview



What's PLF?



Why PLF?



What is PLF for?



Keep in mind



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▼ 1- An introduction to PLF

➤ Objectives and overview

➤ What's PLF?

▼ Why PLF?



PLF is a tool to answer the challenges of livestock production



PLF represents benefits

PLF represents benefits

Different benefits for **different groups** along the production chain



1- An introduction to PLF

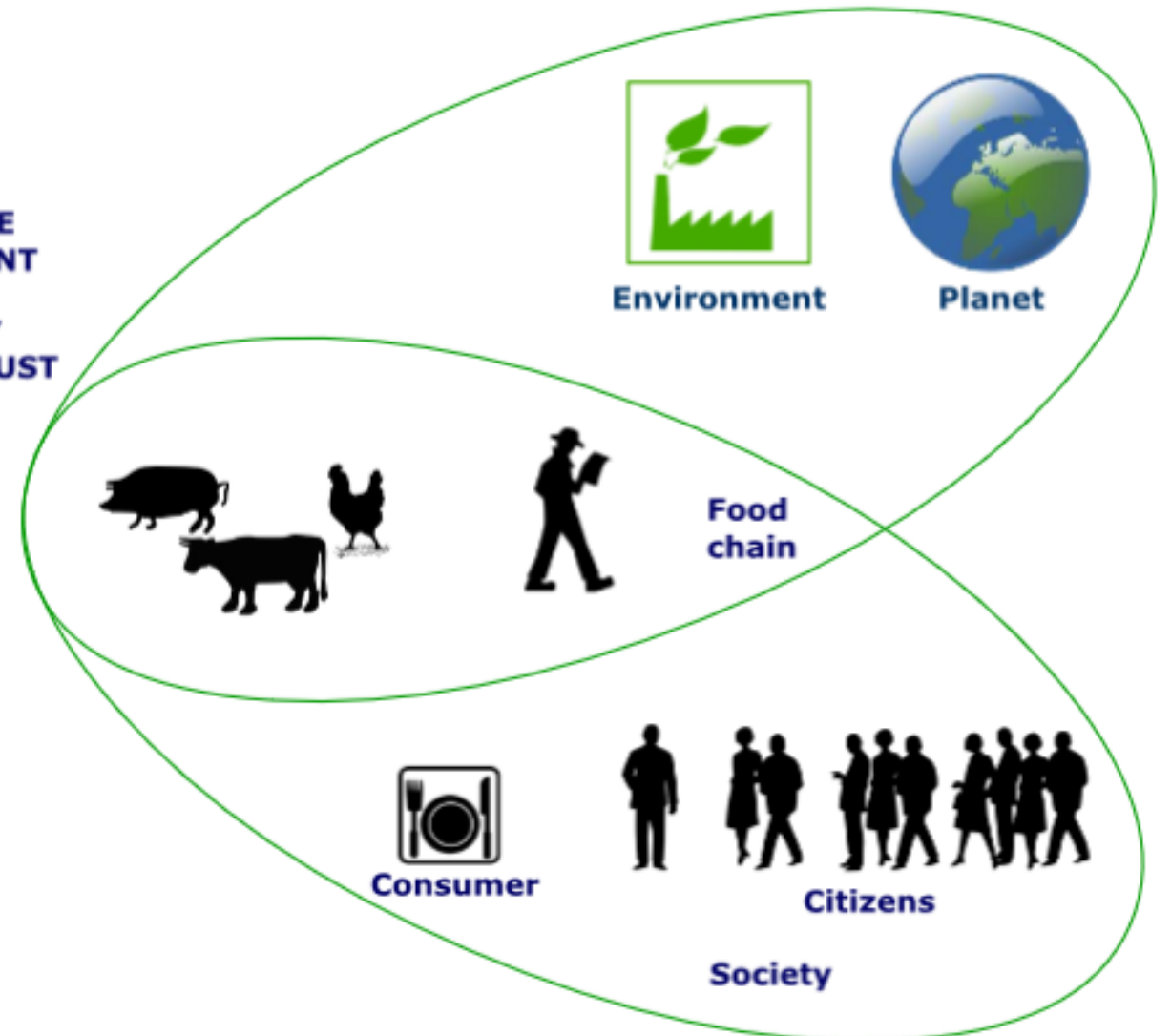
- Objectives and overview
- What's PLF?
- Why PLF?

PLF is a tool to answer the challenges of livestock production

PLF represents benefits

- What is PLF for?
- Keep in mind


**KNOWLEDGE
MANAGEMENT
WELFARE
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MUTUAL TRUST**



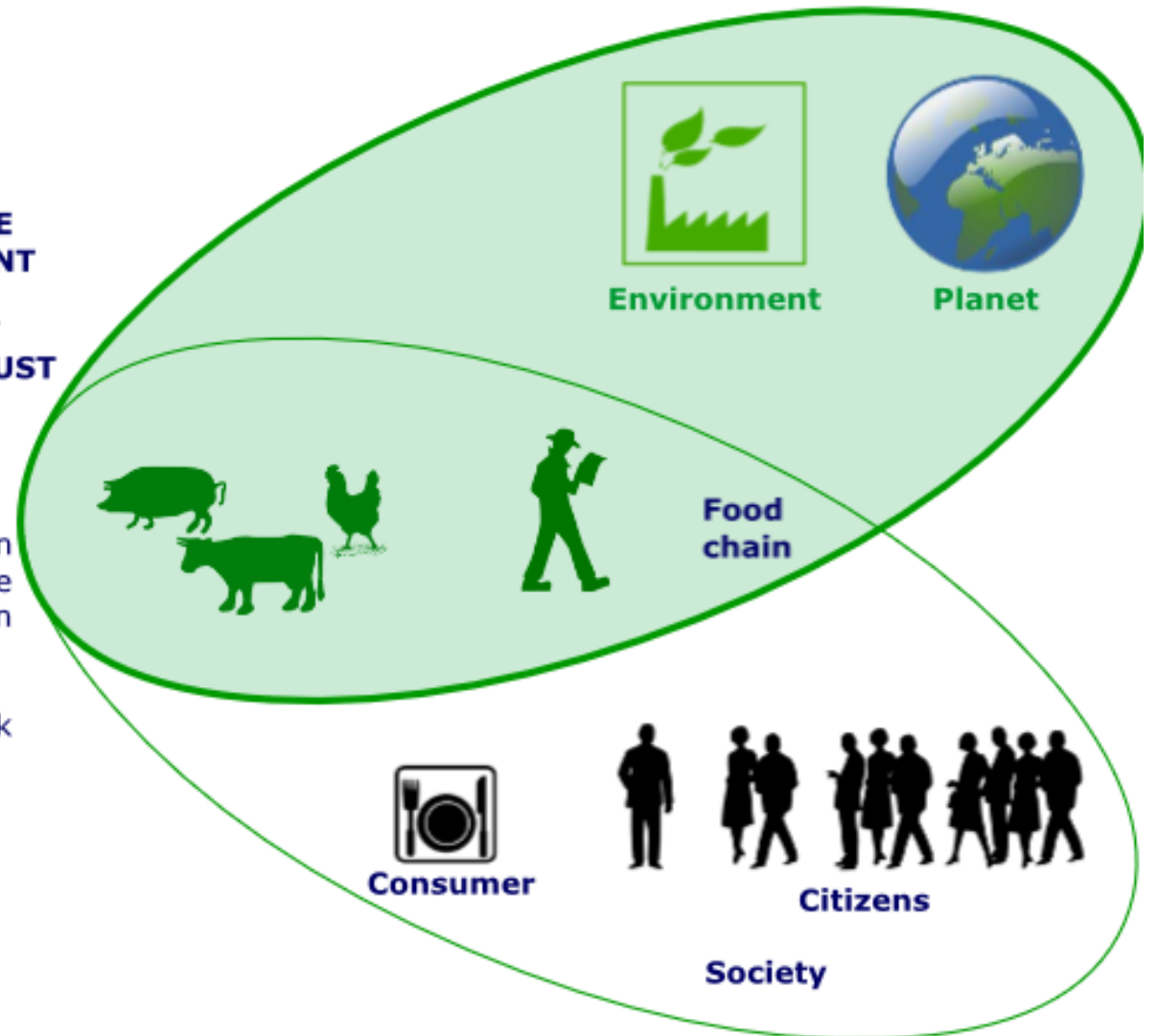


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Benefits for the planet

For the Planet, PLF technology is one piece in the puzzle of sustainability. It allows to be more efficient in production by optimization the outputs coming from inputs:

- less waste, less losses in feed conversion
- less manure and emission from livestock houses



Society



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Benefits for the animal

In PLF view, animal represents the central sensor of the whole process. PLF technology offers to obtain continuous information on animal which allows a better understanding of animal conditions, needs and behavior at each moment and each physiological stage.

PLF tools participate to

- Improve animal welfare
- Better observe animal health
- Quicklier detect animal diseases



Environment



Planet



**Food
chain**



Consumer



Citizens

Society



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Benefits for the farmer:

PLF technology influence farmers' work as well as their relationships with their animals and with their relations. With PLF, farmers feel they are able:

- To better manage processes on farm
- To earlier detect diseases
- Therefore, farmers have the possibility to obtain direct economical benefits of PLF use

Furthermore, farmers wish to show what they are doing in a farm. PLF tools allowed to:-To be proud of their profession-To have more job satisfaction-To be more attractive for younger people



Environment



Planet



**Food
chain**



Consumer



Citizens

Society

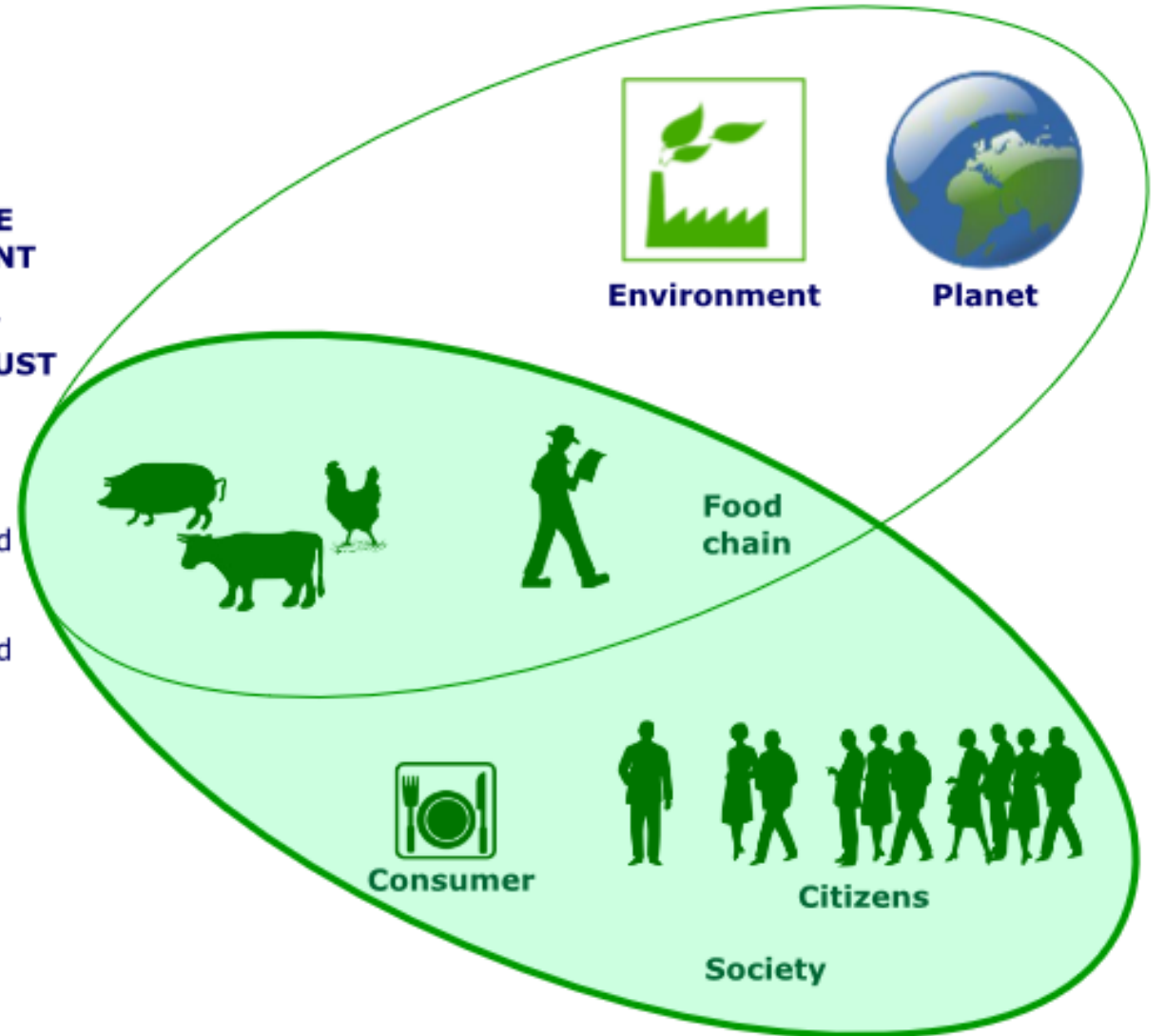


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Benefits for the society

For the society, PLF technology could stand for:

- Transparency
- More ethical way of taking care of the food production
- More guarantee



2- Basics on animal science and livestock farming systems



Objectives and self-assessment



Introduction



What is a livestock farming system ?



Basics principles of the physiology, health and behaviour of farm animals



Farmer's objectives and jobs



Animal production chains and their concerns



Keep in mind

For suppliers of PLF technologies who need to know more on animal production

3- Principles and examples of PLF and data analysis



Objectives and overview



From the signal to the decision making tool



How to transform the signal into valuable information?



How to do in practice?



Conclusions: Where we are with technology



Keep in mind...

4- Added value from PLF



Objectives and overview



Which added value and benefits from PLF?



How to calculate the benefits at farm level?



How to assess the value creation along the food chain?



Keep in mind ...

5-Implementation of PLF in commercial products and services



Objectives and overview



Steps in the development of a PLF product



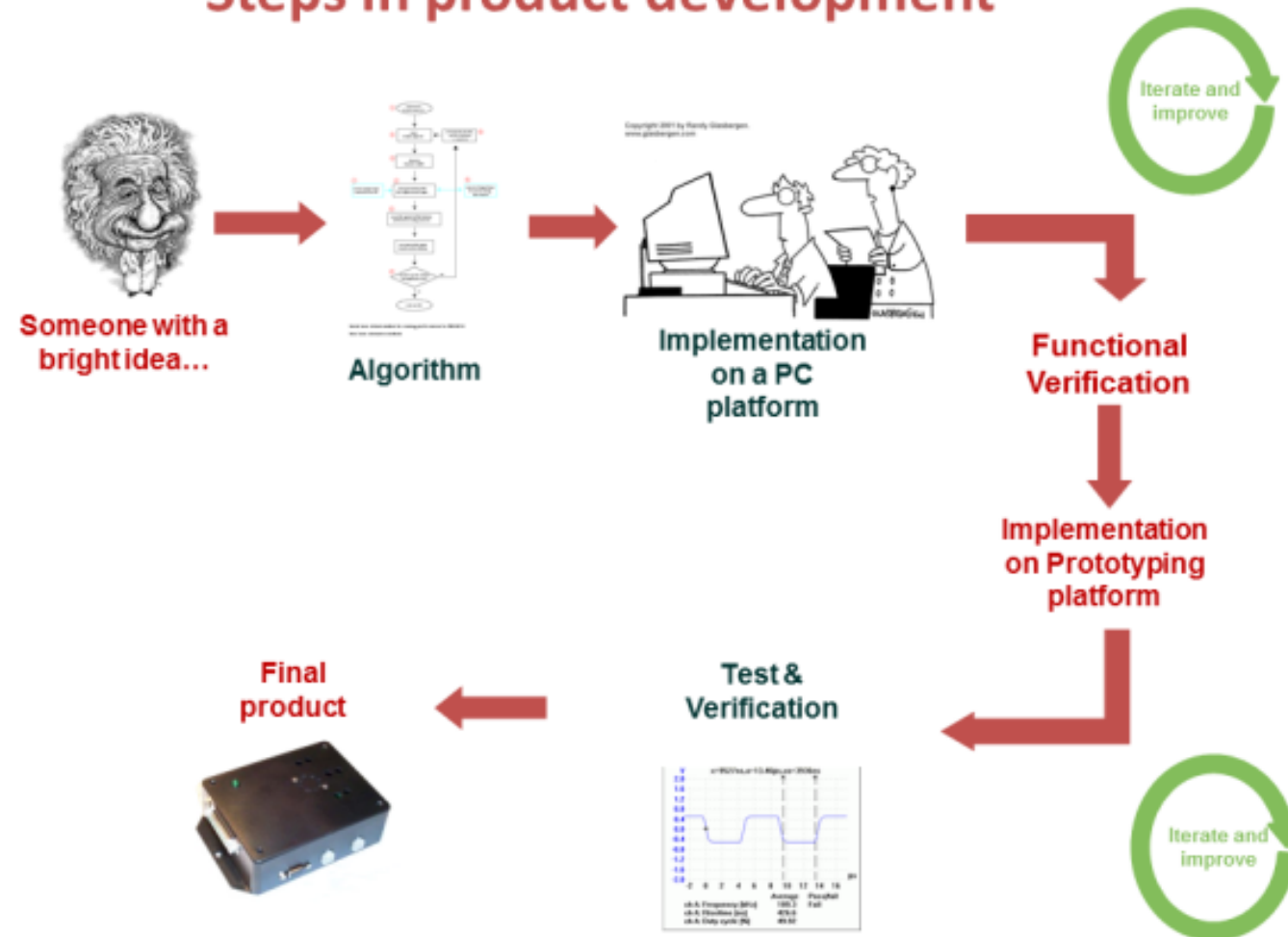
Implementation of PLF tools in the farm



A possible business model for PLF

How to translate the idea into a commercial product ?

Steps in product development



5-Implementation of PLF in commercial products and services

Objectives and overview

Steps in the development of a PLF product

How to translate the idea into a commercial product ?

One example

Implementation of PLF tools in the farm

A possible business model for PLF





To understand all the detailed steps, click here :

Detailed steps of product development (2)

- **Development of product**

- Innovation plan
 - Engineering / technology description
 - Development
 - Manuals
 - Table test / prototype
 - Field test



- **Marketing**

- Product introduction presentation (PIP)
- Fact sheet



6- Study case



Objectives and overview



From need in a farm to the PLF tool: which steps can be followed?



Practical exercise on a lamb farm



To conclude



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The course will continue after the end of the EU-PLF project (October 2016)

- Will be updated yearly
- Will be posted on a long life website
- **To know more on the e-course and the practical guide**
 - Visit our web site www.eu-plf.eu/
- **To have hand on experience on the e-course and the practical guide**
 - Attend the EU-PLF final conference (Brussels 29th Sept.)



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