



# EU-PLF

Bright Farm by Precision Livestock Farming

[www.eu-plf.eu](http://www.eu-plf.eu)

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**"Digital solutions to meet future agriculture challenges"**

European Commission DG Agriculture and Rural development and DG Research and innovation



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Value creation through **Precision Livestock Farming**

# Overview

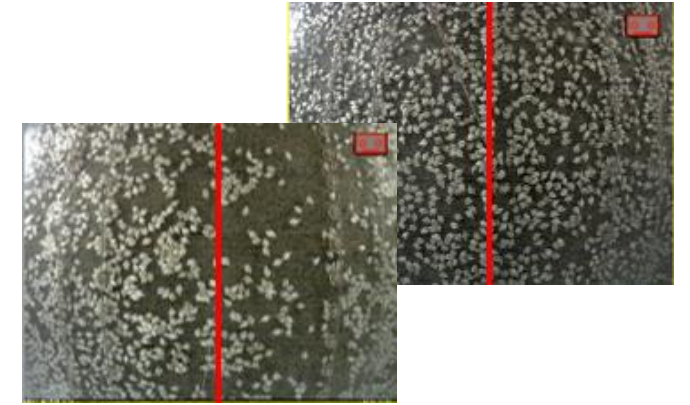
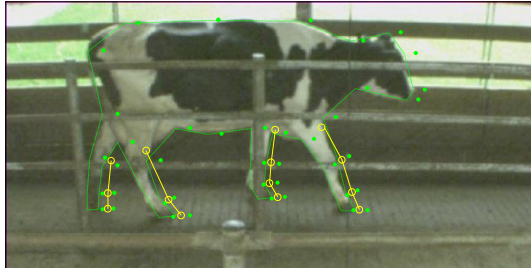
- The EU-PLF Project
- Project results
- Impact
- Lessons learnt
- Potential of technologies for animal health and welfare



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# What is Precision Livestock Farming (PLF) ?



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



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# The EU-PLF Project



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# Approach and objectives

- PLF installations on farms: 10 pig farms, 5 broiler farms, 5 cow farms
- Data collection and analyses
- Start 4 spin-off companies
- Determine added value of PLF technology through the value chain
- Generate a **practical blueprint**: A manual on how to implement PLF technology in a farm



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## 6 Universities

KU Leuven	Belgium
SLU	Sweden
University of Bristol	UK
Unimi	Italy
RVC	UK
WU	the Netherlands

## Consortium overview

## 6 SME's

SoundTalks	Belgium
PLF Agritech	UK
Xenon	Belgium
Abrox	Spain
Syntesa	Spain
M&M Corporation	Belgium

## 3 Research institutes

INRA	France
ARO	Israel
Teagasc	Ireland

## 3 Industrial partners

Fancom	the Netherlands
GEA FT	Germany
Nutrition Sciences	Belgium

20 Farmers

## 1 Dissemination partner

EAAP	Italy
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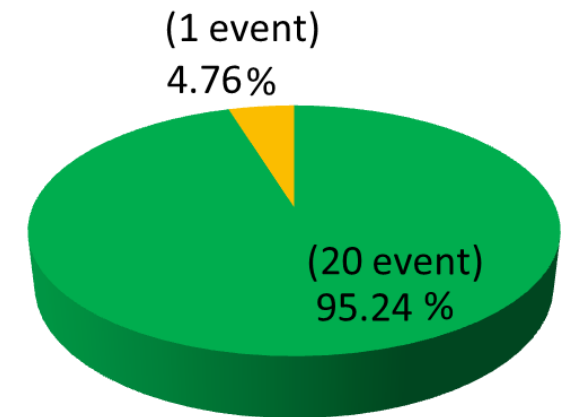
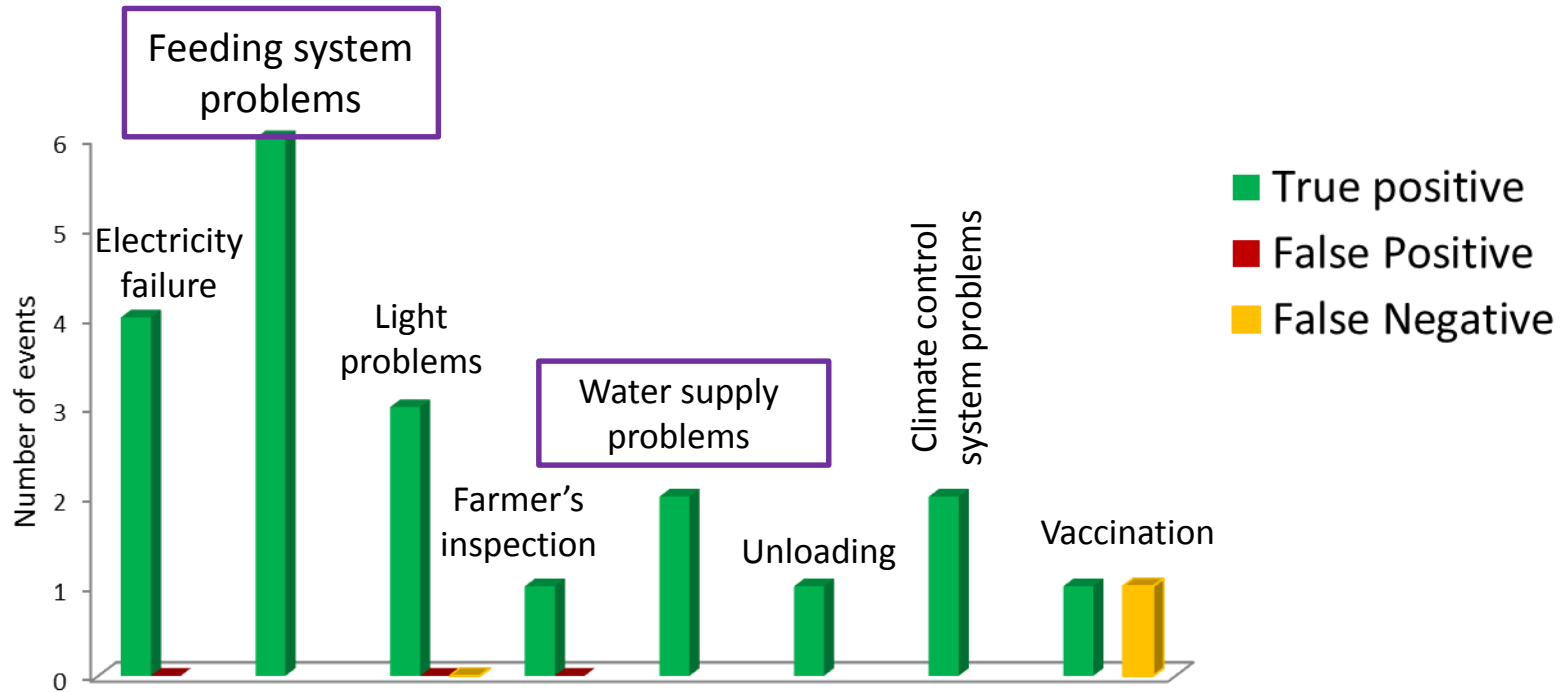
# Project results



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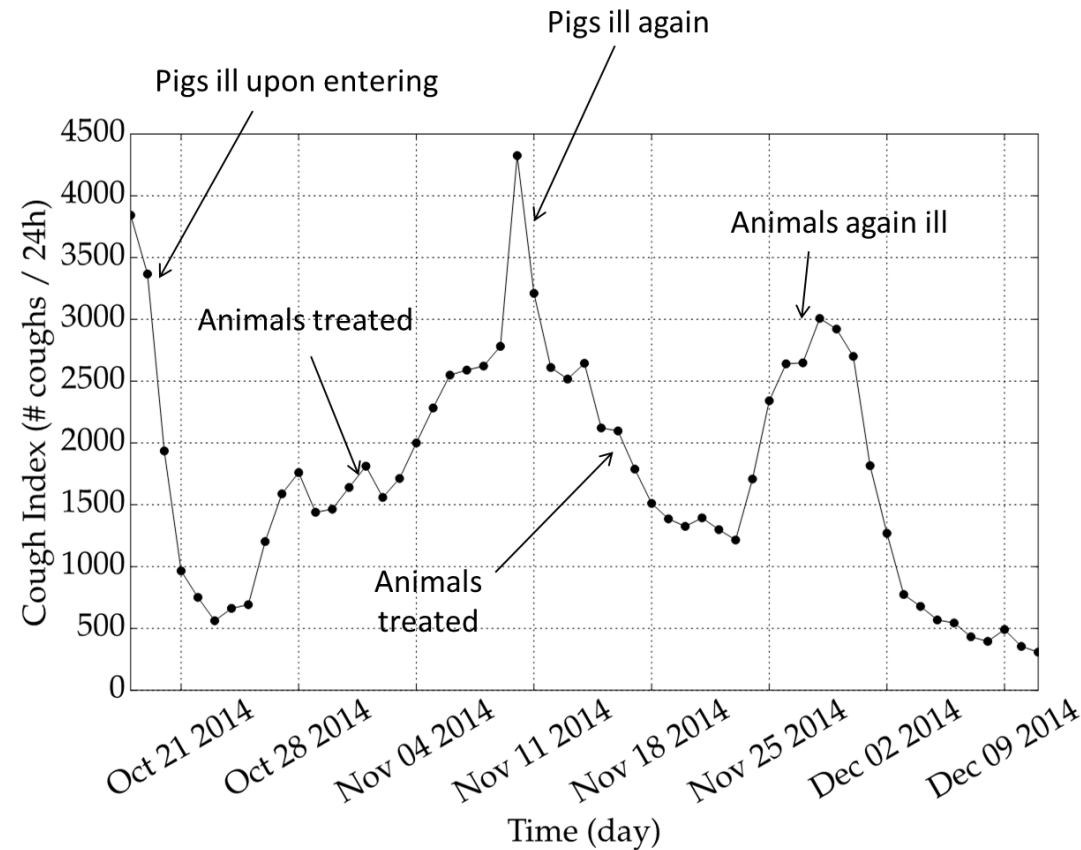
# Video-based monitoring of broiler behavior – Validation



**Conclusion:** Events in a broiler house could be detected using top-view image analysis with an accuracy of 95.24 %



# Infection Monitoring by On-line Pig Sound Analysis



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# Dissemination of results

- Website – [www.eu-plf.eu](http://www.eu-plf.eu)
- 4 newsletters
- Social media
- 44 invited keynotes
- e-course and EU-PLF blueprint: website
- 1 week PLF course in Zaragoza
- Documentaries on Euronews, Arte, ...
- 44 publications (23 of which were scientific)



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# Impact of project

- Testimonies of farmers
- Visibility of continuous automated PLF approach versus yearly visits
- Potential business models for this approach
- 4 successful start-ups
- Creation of blueprint = website

## Four spin-off companies

- Organised events in search for start-up teams
  - 22 teams were selected and coaching started



## Creation of the Blueprint

- Will have a common platform with the e-learning course
  - Blueprint: 30 minutes
  - e-learning course: 30 hours



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# Main success factors

- Best expertise in the EU brought together
- Interaction between Industry & Research
- Collaboration with European farmers
- 4 start-up companies created
- Good collaboration between part of the research partners
- Collaboration between some of the academia & research institutes, farmers, big companies, SME's, start-ups



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# Potential of technologies for animal health and welfare



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## In the future PLF can...

- Improve animal health and welfare with good economy and reduced environmental impact
- Increase transparency of animal production
- Demonstrate to consumers the real animal welfare in both “natural livestock farming” and “industrial livestock farming”
- Bring new business models to the livestock chain
- Turn sensor data into more relevant information for farmers



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**Thank you**  
**[www.eu-plf.eu](http://www.eu-plf.eu)**

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