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Newsletter BioBusiness

WHEN BIOLOGY MEETS TECHNOLOGY

<http://www.bio-business.eu/>

BioBusiness is a Marie Curie Training Program based upon the collaboration of animal scientists, veterinarians and engineers to create technological solutions through applied research and innovation for the livestock industry.

ROLE OF EACH FELLOW IN THE PRODUCT GROUPS

Automatic Lameness Detection in Dairy Cows

Tom Van Hertem

Modelling animal behaviour for lameness detection and experimentation



Daniel Rozen

Project management & product development



Andrés Schlageter Tello

Selection of golden standard, scoring and labelling

Automatic Monitoring of Pig Aggression

Gunel Ismayilova

Labelling



Lilia Sonoda

Field experiments & on-farm observations



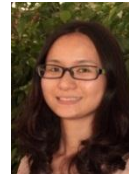
Maciej Oczak

Product development

Improving Conditions for Incubating Eggs

Qin Tong

Improvement of incubation conditions & monitoring embryonic development



Hakim Bergoug

Assessing whether incubation profiles have lasting effect during rearing



Nancy Roulston

Chick welfare, project management & product development

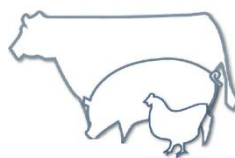


Anna Johansson

Determination of welfare indicators at early post-hatch (Collaboration with SLU)

Model and control development

Stefano Viazzi






Carlos Eduardo Bites Romanini



CONSORTIUM



SCIENTIFIC ARTICLES WRITTEN BY THE BIOBUSINESS FELLOWS

	Fellow 1 st Author	Title	Journal
	Qin Tong	Embryonic development and the physiological factors that coordinate hatching in domestic chickens.	Poultry Science
	Hakim Bergoug	Effect of incubation conditions and post hatch handling on chick quality and performances at placement.	World's Poultry Science Journal
	Carlos Eduardo Bites Romanini	Monitoring the hatch time of individual chicken embryos.	Poultry Science
	Tom Van Hertem	Comparison of segmentation algorithms for cow contour extraction from natural barn background in side view images.	Computer and Electronics in Agriculture
	Andrés Schlageter Tello	Comparison between direct and video observation for locomotion assessment in dairy cow.	Animal Welfare
	Stefano Viazzi	Analysis of individual classification of lameness using automatic back posture measurement in dairy cattle.	Journal of Dairy Science
	Lilia Thays Sonoda	Tail Biting in pigs – Causes and management intervention strategies to reduce the behavioural disorder. A review.	Berliner und Münchener Tierärztl. Wochenschrift
	Gunel Ismayilova	How do pigs behave before starting an aggressive interaction? Identification of typical body positions in the early stage of aggression using video labelling techniques.	Berliner und Münchener Tierärztl. Wochenschrift
	Maciej Oczak	Analysis of aggressive sequences in relation to the development of an automatic monitoring system of pig aggression.	Computer and Electronics in Agriculture



EC-PLF 2013

Joint European Conference
Leuven, Belgium, September 10-12, 2013

This year the BioBusiness Consortium is organizing the European Conference on Precision Livestock Farming 2013 (EC-PLF 2013) in Leuven from September 10-12, 2013. This conference will be a joint conference combining:

- The 6th European Conference on Precision Livestock Farming (EC-PLF)
- EU BioBusiness Project – Final conference
- EU-PLF Project – First workshop
- All-Smart-Pigs Project - First workshop

For more information, please visit www.ecplf2013.eu

The focus of the conference will be how to use advanced technology for automated monitoring of livestock to improve health, welfare, performance and environmental impact of the animals and reduce emissions. You can find an overview of the topics on: <http://www.ecplf2013.eu/ecplf-themes.asp>

Important dates:

Deadline for submission of abstracts: **January 31, 2013** - <http://www.ecplf2013.eu/ecplf-submitanabstract.asp>

Notification of acceptance: **February 28, 2013**

Deadline for submission of papers: **May 17, 2013**

Conference: **September 10-12, 2013**

TWO NEW EUROPEAN PROJECTS IN PRECISION LIVESTOCK FARMING

“THE EU – PLF PROJECT” AND “ALL SMART PIGS”

On December 12th and 13th, 2012, project partners from research institutions, academia, nonprofit organizations, SME's and industry sat together in Sitges, Barcelona to kick off the new project “Animal and farm-centric approach to precision livestock farming in Europe” (EU-PLF).

The objective of the EU-PLF project is to deliver a blueprint for an animal and farm-centric approach to innovative livestock farming in Europe validated by extensive field studies. The blueprint is a manual for farmers and associated surrounding industry including high tech SME's. It is a reference tool offering pragmatic guidance on how Precision Livestock Farming (PLF) systems can be applied at the farm level and create added value for the farmer and other stakeholders. EU-PLF is based on the PLF concept where continuously automated measurements are taken directly from the animal or its environment. Beyond the use of PLF data (e.g. body movements or sounds) for monitoring and management, the data can be translated into key indicators on animal welfare, animal health, productivity and environmental impact.



Daniel Berckmans lecture during the kick-off meeting in Sitges.



Olavur Gregerson coordinator of All Smart Pigs project

To ensure that the blueprint assists the European livestock industry beyond the duration of the project, a competition will be held for emerging high-tech livestock businesses in Europe. A total of 50 SMEs or start-up companies will be funded to design a PLF-prototype and in collaboration with a leading industrial PLF-partner, use the blueprint to bring their prototype to the farm level. Linking high tech SMEs to European industry players will generate new PLF-products ready for the global market.

The EU-PLF project began officially in October of 2012 and it is expected to run for 48 months with an expected cost of 6,590,350 Euros.

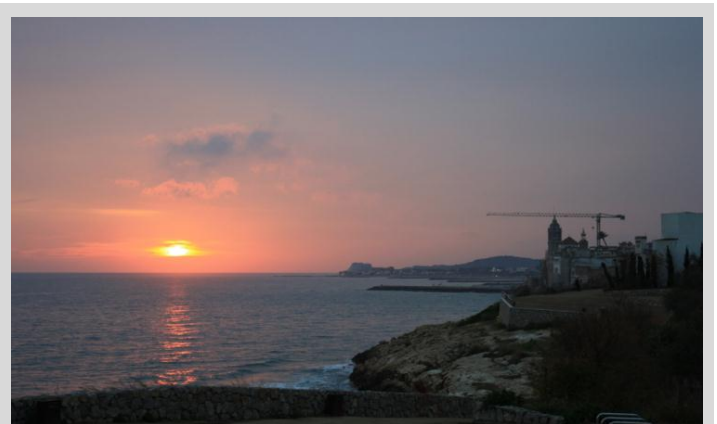
The EU-PLF project will also run with a parallel project called “All Smart Pigs”. The objective of this project is to demonstrate the technical and economic viability of PLF in European pig farms. The project will use a process of open innovation through a Living-Lab to co-create smart farming applications ready for commercialisation on European pig farms.

These applications will be provided by innovative SMEs which will test and validate in “All Smart Pigs” their technological prototypes and services in real life conditions together with pig farmers and other stakeholders

During the kick-off meeting, the participants discussed the overall objectives, work packages and milestones of the two projects. Running these two projects in parallel enables a living lab infrastructure helpful for bringing PLF technologies to European livestock farmers.



Port Sitges



Sunset near Sitges