

# SmartCow

An integrated infrastructure for increased research capability  
and innovation in the European cattle sector

## *Newsletter – Issue 1*



All images © INRA

## Summary

<i>SmartCow, a new European Infrastructure project for the Cattle Sector: .....</i>	<i>2</i>
<i>SmartCow Transnational Access: Calls for proposals launched .....</i>	<i>3</i>
<i>Feedback from the SmartCow kick-off meeting held in Clermont-Ferrand on February 19<sup>th</sup>-21<sup>st</sup> ..</i>	<i>4</i>
<i>The training and study tours catalogue is available!.....</i>	<i>5</i>
<i>A first meeting of the Stakeholder platform was held in Brussels on June 5<sup>th</sup> .....</i>	<i>6</i>
<i>International conferences in which SmartCow is involved .....</i>	<i>6</i>

### **SmartCow, a new European Infrastructure project for the Cattle Sector:**

SmartCow is an INFRAIA project; it started on the 1<sup>st</sup> February 2018 for a duration of 4 years. 14 organisations are included in the Consortium in which 9 are bringing infrastructures in the project and 5 are bringing other specific skills. The global map of Europe shows the distribution of the infrastructures in the project, that covers a large range of the diversity of the livestock area in Europe. The strategic aim of SmartCow is to integrate key European cattle research infrastructures, to promote their coordinated use and development and thereby help the European cattle sector face the challenge of sustainable production. These are needed to develop innovative and ethical solutions for efficient use of animal and feed resources that promote animal welfare and healthy livestock, as well as sustainable competitiveness.

The SmartCow consortium combines strong scientific and technical skills in animal nutrition (in vivo methods for nutrient utilisation and emissions measurements), genetics (genotyped animals, phenotyping capabilities), health and welfare (sensors and automatic recordings of physiological and behavioural traits) and ethics in animal experimentation.

SmartCow will bring three types of solutions: Networking Research Infrastructures to improve research practices; Improving quality and ethics through new research methods; Offering wider access to the most advanced research tools. Each type of solution corresponds to one type of activity in the project: Networking Activities, Joint Research Activities, and Transnational Access for which the first call for proposals is now launched (see below, next article). Networking activities will harmonise and standardise procedures especially in animal care and measurements, design of experiments, data recording and analysis thanks to a cloud-based data-platform specifically developed in the project. Joint research activities will produce refined methods and proxies to evaluate feed efficiency and emissions, develop new protocols to reduce the use of animals and produce new methods to exploit sensor data for cattle husbandry.





### **SmartCow Transnational Access: Calls for proposals launched**

**Free access to the leading cattle research facilities in France, Spain, Netherlands, United Kingdom, Germany, Ireland and Denmark**

We are pleased to announce the launch of the first call for proposals for Transnational Access (TNA) within the SmartCow project. The TNA call makes available cattle research facilities of SmartCow partners for research by academic or industry colleagues from other (mainly EU) countries. There are 11 major research infrastructures (18 installations) in 7 countries. The facilities cover a range of cattle types (dairy, beef), different breeds and genotypes and diverse husbandry and feeding systems (indoor and outdoor, grass or maize-based diets, use of by-products and alternative feeds). They include the most advanced animal science technologies applied to cattle in the fields of nutrition, physiology, ethology and animal husbandry. Successful bidders will receive funding to cover the operating costs of facilities, but not their own costs.

A special section of the SmartCow website (<http://www.smartcow.eu/calls/>) provides much more detail about the TNA call:

- Rules regarding the operation of the scheme and selection of projects
- Application forms (two stages: pre-proposal and full proposal)
- Consent form and Data Protection Notice for the processing of personal data
- Descriptions of facilities available for TNA projects
- Priority research areas

There will be three TNA calls for proposals – launching in July 2018, April 2019 and April 2020.

**The deadlines for the first TNA call are as follows:**

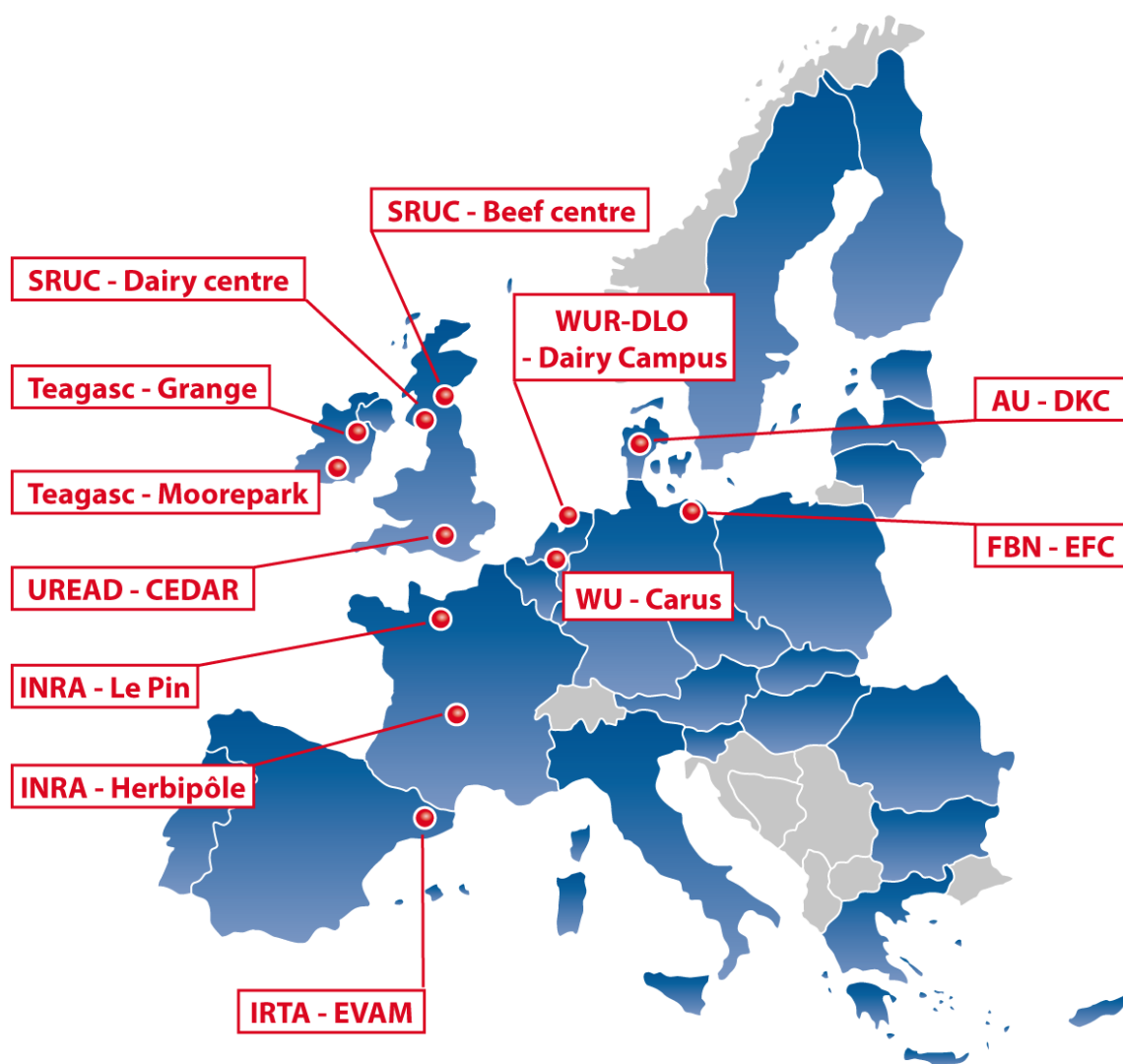
1<sup>st</sup> stage application (pre-proposal) deadline: **30<sup>th</sup> September 2018**

2<sup>nd</sup> stage application (full proposal) deadline: **30<sup>th</sup> November 2018**

Completed application forms, together with scanned and signed consent forms, must be submitted by email to: [smartcow-tna@inra.fr](mailto:smartcow-tna@inra.fr)

The SmartCow Access Management Team is available to provide advice on any aspect of the scheme; please contact them by email:

- Richard Dewhurst ([Richard.Dewhurst@sruc.ac.uk](mailto:Richard.Dewhurst@sruc.ac.uk)) – Transnational Access leader
- René Baumont ([rene.baumont@inra.fr](mailto:rene.baumont@inra.fr)) - SmartCow Coordinator
- Lene Munksgaard ([Lene.Munksgaard@anis.au.dk](mailto:Lene.Munksgaard@anis.au.dk))



**Feedback from the SmartCow kick-off meeting held in Clermont-Ferrand on February 19<sup>th</sup>-21<sup>st</sup>**

The SmartCow kick-off meeting brought together more than 60 persons. The 14 partner organisations were represented as well as 10 stakeholder organisations and 2 members from the Scientific Advisory Board attended the meeting. It was the opportunity to officially launch the project in the presence of representatives of the European Commission, of the French Ministry of Research and of the scientific direction of INRA.

The whole meeting was held in plenary session in order to give opportunity to everybody to have a global view of the project and to take note of all aspects of the project. Three main results were achieved at the end of kick-off meeting:

1. A concrete planning of the tasks to be conducted during the first year of the project and how to implement them;
2. A better identification of the interactions between tasks and WPs and how to implement them to foster synergies within the project;



3. First discussions with the stakeholders to make the project known and to integrate their needs; with members of the scientific advisory board to collect their advice on the project.

During the wrap-up session, the specific tasks to be achieved rapidly were summarized and the list of deliverables and milestones to be produced during the first year of the project was reminded.

The kick-off meeting was hosted by INRA research centre of Auvergne Rhône-Alpes. A presentation and a visit of the research infrastructure “Herbipôle” was organised to give the opportunity to the attendees to see the “real life” of a cattle research infrastructure belonging to the SmartCow consortium.



**The training and study tours catalogue is available!**

This catalogue presents the training courses and study tours that will be organized within the framework of the SmartCow project:

- Face-to-face courses, taking place in various European countries
- Web conference courses, accessible from your office, via a PC + Internet connection and a phone
- One-day study tours, taking place in 4 different countries

This training program target scientists, technicians, stakeholders, etc. It aims to share the results of the project: methods, techniques, use of tools... It includes lectures, exchanges with scientists, visit of RI facilities and farms...

Tuition fees are covered by the SmartCow project. Participants will have to organize and fund their own travel and accommodation expenses.



The catalogue can be downloaded from the [project Website](#).

If you are interested in participating in a training course or a study tour, or if you need any further information about this training program, please contact:

Philippe Dumonthier - [philippe.dumonthier@idele.fr](mailto:philippe.dumonthier@idele.fr)

### **A first meeting of the Stakeholder platform was held in Brussels on June 5<sup>th</sup>**

Promotion of transnational access and dissemination of SmartCow outcomes and innovations for maximum impact will be supported by a Stakeholder Platform at national and EU levels. The potential Stakeholders of SmartCow are key players and experts in the field of sustainable agriculture, animal nutrition, genetics, health and welfare, farming technologies, climate impacts; from industry, advisory bodies, farmers' organisations, NGOs, policy makers. The objectives of Stakeholders' commitment in SmartCow are to ensure i) that the results of the SmartCow project have maximum impact and that methodologies and tools are broadly disseminated and appropriated throughout the cattle production chain and ii) the relevance of activities for the pre- and post-farm gate industries, advisory bodies, farmers' organisations...

The first meeting of the stakeholder platform in Brussels was the opportunity to consult European stakeholders on the research priorities for the TNA calls, on the dissemination and the exploitation plan of the project, on the proposed catalogue of training and study tours. The contribution of stakeholders to the dissemination of SmartCow methods and results as well as their direct implications in TNA activities were also discussed. A wide list of research priorities was built that covers:

- Efficient use of feed resources
- Mitigation options to reduce GHG and other emissions
- Efficient and robust animals, adaptation to climate change
- Animal health and welfare
- Product quality
- Precision cattle farming
- Phenotyping and monitoring tools: biomarkers, sensors
- Comprehensive behavioural, digestive and metabolic physiological studies in cattle

### **International conferences in which SmartCow is involved**

The SmartCow project was presented in the EU AgriResearch conference hosted by the European Commission in Brussels on May 2<sup>nd</sup> to May 3<sup>rd</sup> (<http://ec.europa.eu/programmes/horizon2020/en/news/agriresearch-conference-innovating-future-farming-and-rural-communities>) that assembled over 500 people scientists, farmers, rural communities, industry, advisors, policy-makers, citizens and NGO representatives who wished to learn about EU agriculture and rural R&I activities and achievements and have their say on how to shape the future of agriculture R&I after 2020.

The SmartCow project will held a specific session at the next EAAP meeting (Dubrovnik, Croatia, 27<sup>th</sup> to 31<sup>st</sup> August 2018; <http://www.eaap2018.org/>) to present the activities of the project.

The SmartCow project will organize a meeting at the next International Symposium on the Nutrition of Herbivores (Clermont-Ferrand, France, 2<sup>nd</sup> to 6<sup>th</sup> September 2018; <https://symposium.inra.fr/isnh2018>). The meeting will assemble more than 450 scientists specialized in herbivore nutrition coming from all around the world.