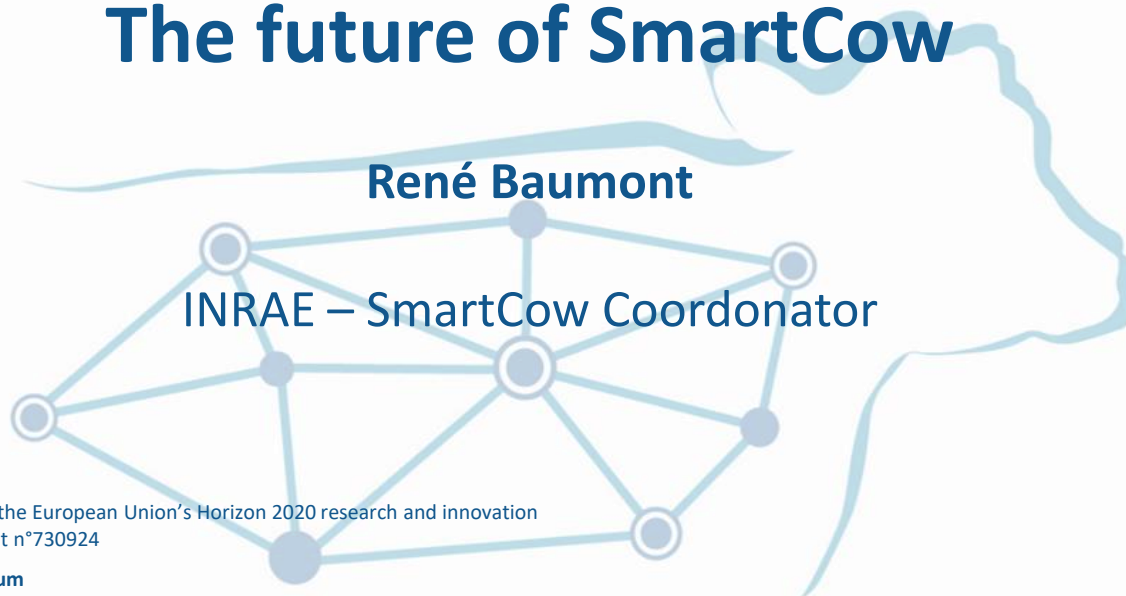


SmartCow

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

The future of SmartCow



This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Grant Agreement n°730924

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SmartCow was a first step...

- It has proven the interest and the possibility to:
 - Open the access of major European cattle research infrastructures to the academic and industrial scientific communities
 - Improve the quality and ethics of research by harmonizing and improving experimental methods and data sharing
 - Increase the capacity of study and phenotyping in cattle by improving and developing new tools based on biomarkers, proxies and data collected by behavioral sensors
- It has allowed the development of new collaborations and scientific advances on challenges related to efficiency, emissions as well as behavior and welfare in cattle



Cows are smart animals!



**Herbivores can do what no other animals can do
for the benefit of man and nature: eat grass!**

What's next :

Continue to integrate and develop the SmartCow community

- Strengthen ethics in animal experimentation
- Expand the phenotyping capabilities

“In the age of genomics, phenotype is king” (N. Gengler – EAAP2022)
- Investigate the role of animals in sustainable agri-food systems

Multidisciplinary services integrating animal sciences for agroecology transitions
- Develop links with other integrated RIs in animal science



?



SmartCow European Research Group

- A co-operation instrument to sustain networking and exchanges between partners from in-kind contributions
 - Sustain website and common tools
 - Update of mapping, data catalogue, common guidelines for measurement, ethical procedures, etc.
 - Maintain training and dissemination activities, dialogue within the scientific community and stakeholders etc.
 - Strengthen collaborations with partners within and outside Europe
 - Promote research priorities in national and European agendas and act as a platform for building up new proposals

**All SmartCow partners signed the ERG agreement,
it is officially launched today for 4 years at least!**



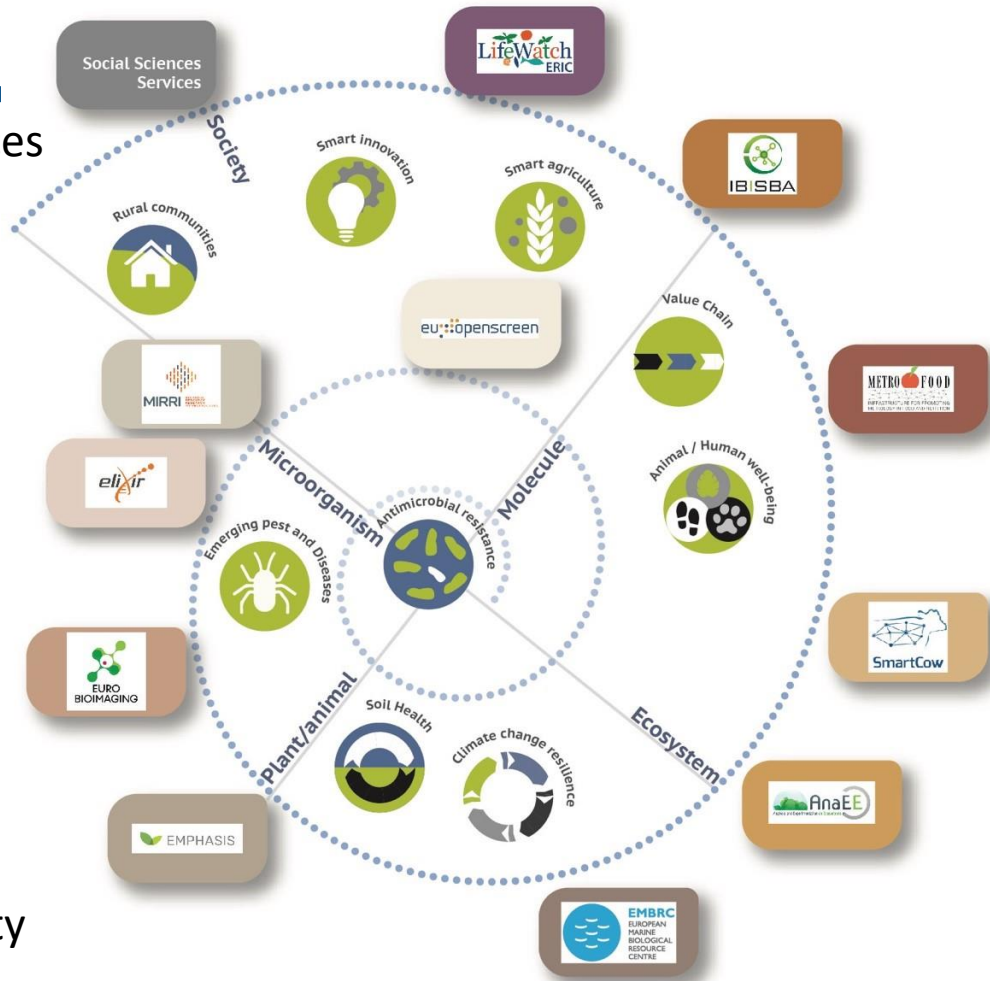
SmartCow in the AgroServ project

- AgroServ is selected for the Topic INFRA-2021-SERV-01-02 "RI services for a sustainable and resilient agriculture and agro-ecological transitions"
- The mission of AgroServ is to support research and innovation by providing customised and integrated RI services with the aim to
 - Advance knowledge on agronomic and husbandry practices, preserving biodiversity and reducing the impact of agriculture on climate
 - Support the development of new agroecological practices by fostering trans-disciplinary approaches and integrating the socio-economic dimension
- Led by AnaEE and CNRS
 - More than 70 partners from 12 recognized European Research Infrastructures
 - 15 M€ budget
 - Starts in September 2022 for 5 years



AgroServ

- A multi-scale approach to provide services on plant, soil, animals, ecosystems, agrifood...
- A multi-actor approach through involvement of living labs
- SmartCow service proposals (1.4 M€: INRAE, AU, SRUC, UREAD, Teagasc, IRTA, WU, WUR-DLO, FBN-Leibniz, CRA-W)
 - Phenotyping and evaluation of
 - Efficiency and emissions (GHG, N)
 - Health, resilience and welfare
 - Evaluation of agro-ecological (grass-based, agroforestry...) practices and systems
 - Access to cattle phenotyping data
- SmartCow will lead WP on Access Quality Management and Ethics



Other Prospects

- Contacts to participate to a proposal to HORIZON-INFRA-TECH call: R&D for the next generation of scientific instrumentation, tools and methods
 - Too early for 2022 – In construction for 2023 or 2024
- A reflexion toward entering the ESFRI Roadmap with an integrated RI in animal science
 - ESFRI Roadmap 2021 identified a gap regarding the focus on animals in agriculture and food sub-domain:
 - “Concerted effort to continue bringing together national facilities at the pan-European level in the field of animal genetic resources, phenotyping and breeding, animal health is needed to contribute to address the challenge to produce safe, healthy and sustainable food”
 - “Large farm animals, poultry and fish, often in relation to adaptation to climate change and higher feed efficiency”



Next opportunity to meet

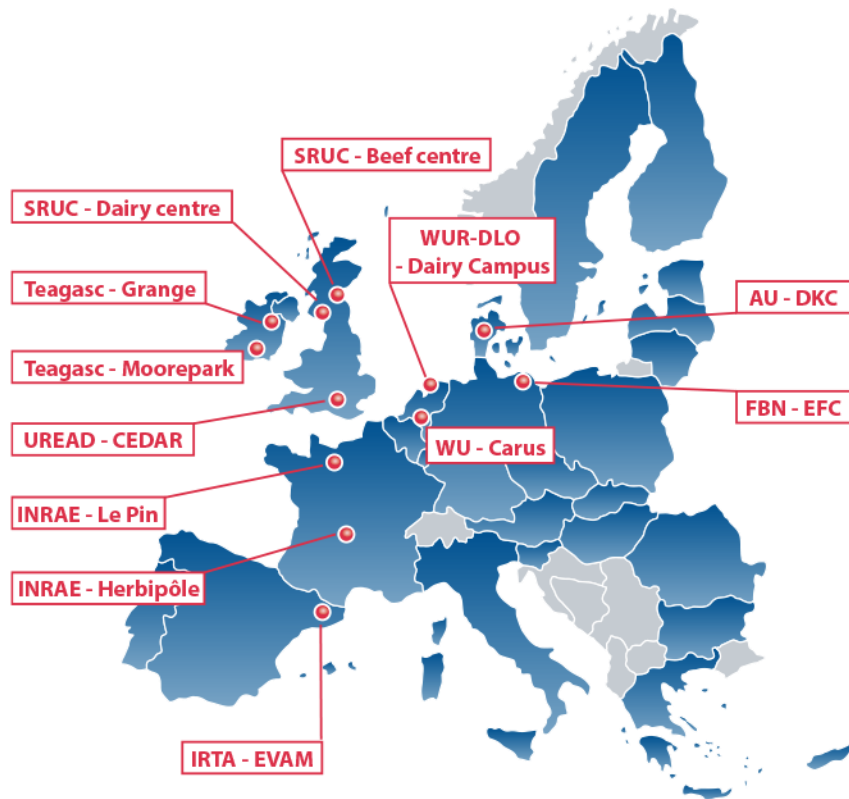


73rd EAAP conference in Porto – September 5-9, 2022

**SmartCow session: Methods and technologies for
research and smart nutrition management
in dairy and beef cattle**



Thank you for your attention



First-class Cattle Research Infrastructures (RIs) across Europe:

- 11 major RIs distributed in 7 EU countries
- 12 locations, which include 18 installations
- 2500 dairy and 1000 beef cows

- **Networking of RIs** to inventorize resources, harmonize procedures, and share data
- **Joint research activities** to improve experimental methods and phenotyping capability
- **Interaction with stakeholders** to stay in line with industry needs and improve dissemination

<http://www.smartcow.eu/stakeholders/>

TRAINING PROGRAM

For Scientists, Technicians, Stakeholders, PhD students

- Face-to-face training courses
- Free web-conferences
- One-day study tours in 4 different countries

<http://www.smartcow.eu/resources/training/>

TRANSNATIONAL ACCESS CALLS

Offers external users (academic and industry) free access to SmartCow RIs

- 30 projects during the 4 years of SmartCow
- Access to around 10,000 cow-weeks

<http://www.smartcow.eu/calls/>



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Closing

René Baumont

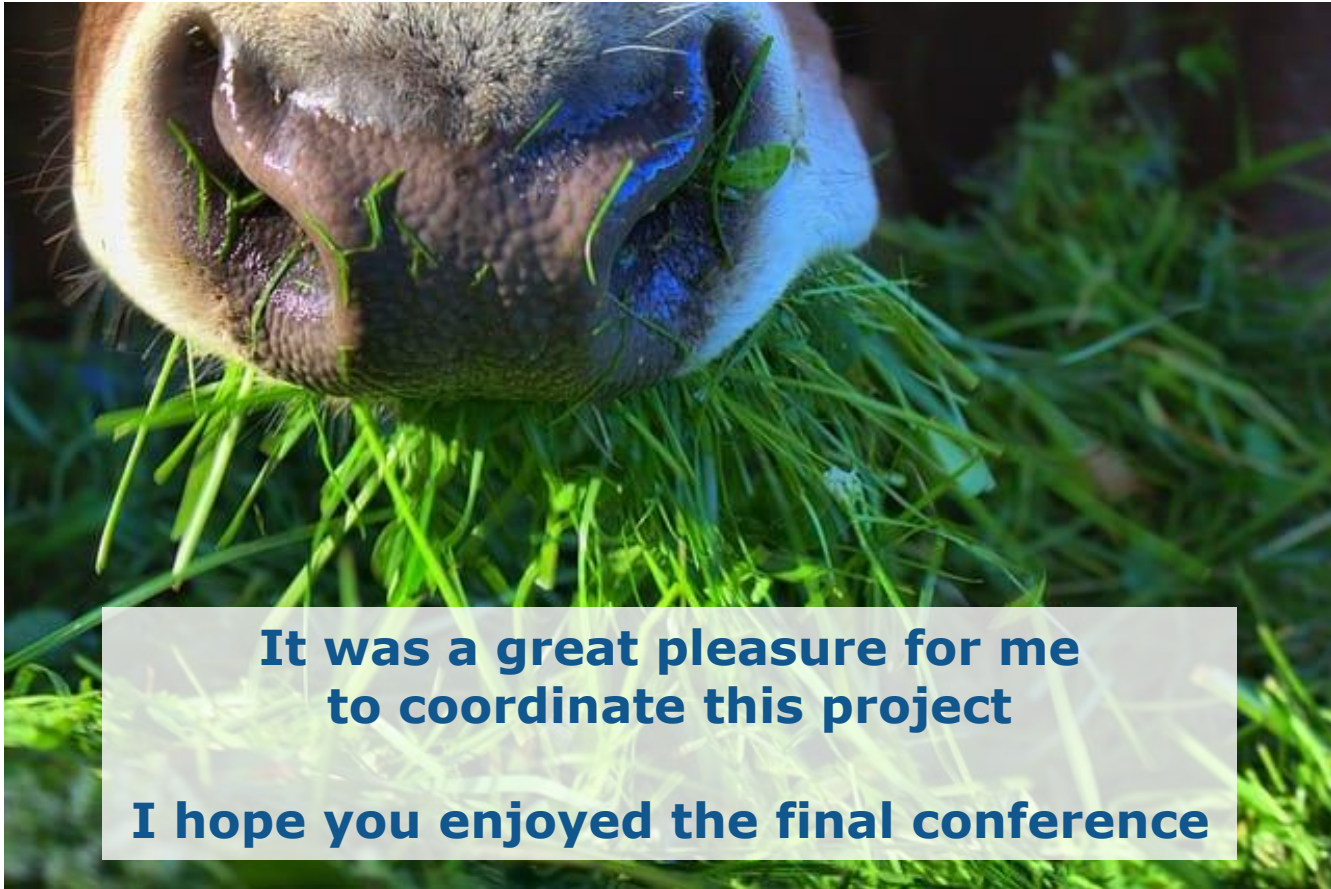
INRAE – SmartCow Coordonator

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SmartCow in H2020 is closed!



**It was a great pleasure for me
to coordinate this project**

I hope you enjoyed the final conference

Long live the SmartCow community!



**The current project is coming to an end,
but we have many exciting prospects
to continue our activities!**

Thank you!

**Thanks to Marlène, Riccardo, Bernard,
Vincent and Florence
for organizing the conference!**

Thanks to all the speakers!

Thank you to all conference participants!

**...and a big thank you to all project
participants, staff, students, postdocs...
for their involvement and excellent
contributions!!**

