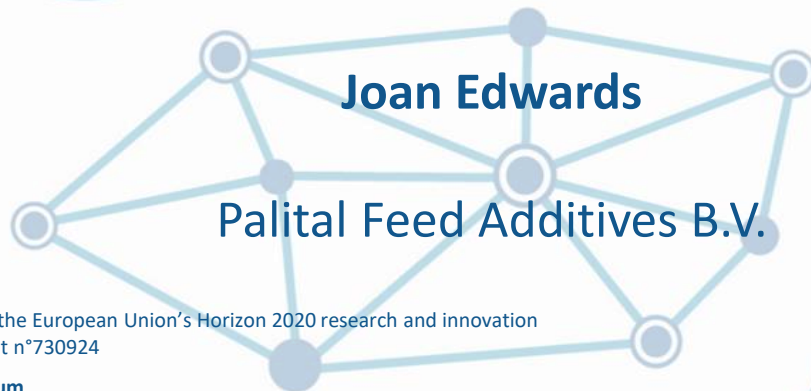


# SmartCow

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

## Effects of Rumen-Ready<sup>®</sup> on transition dairy cows



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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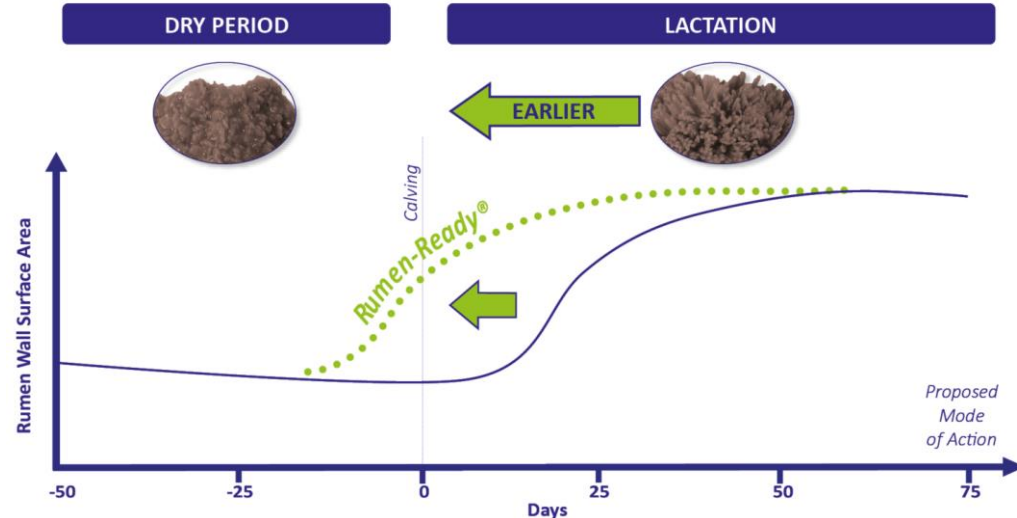


# How did I hear about the TNA program?



## Roselinde Goselink

- Wageningen Livestock Research (WLR), Netherlands
- Scientifically underpin a new product concept
- Magnesium butyrate for transition cows (Rumen-Ready®)



# How was project preparation & realization?

## Preparation

- **Location:** Aarhus University (AU) - transition cow expertise
- **Proposal:** Last call. No cow-weeks left at AU. Gamble on TNA reallocation.
- **Team:** Joan Edwards (Palital), Mogens Larsen (AU), Lorenzo Hernández Castellano (AU > ULPGC), Jan Dijkstra (WUR), Roselinde Goselink (WLR)
- **Evaluation:** Good project but insufficient funds (Feb 2021), then funding supplement so AU trial possible (June 2021)
- **Trial design:** Original plan had to change due to limited SmartCow funds. Complete trial within 6 months!

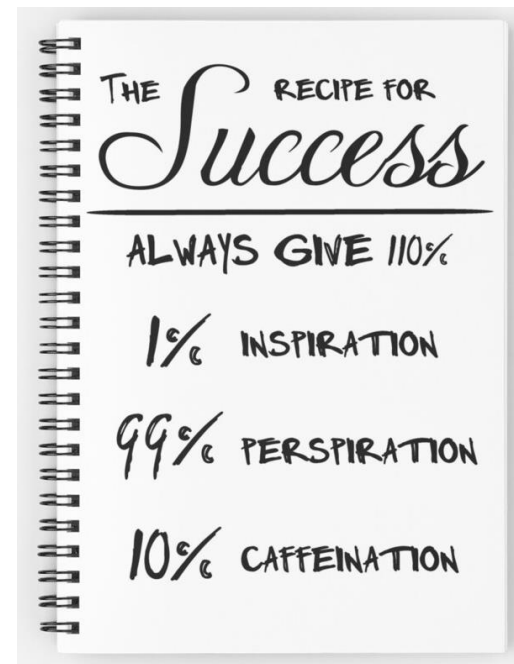
## Realization

- **AU was excellent** with accommodating revised trial design & within time scale 😊
- **Trial** execution and communication was superb (11/10!)
- **Current status:** sample & data analysis in progress.....



# Insights

- What are the conditions for the TNA project to run smoothly?
  - Appropriate animal resources/expertise available
  - Excellent communication
  - Flexibility (time & resources)
- Are there any points to improve in the future in the process?
  - Hard to further improve on 11/10
  - Perhaps some more emphasis on:
    - Timeline of subsequent sample analysis
    - Statistical analysis of results

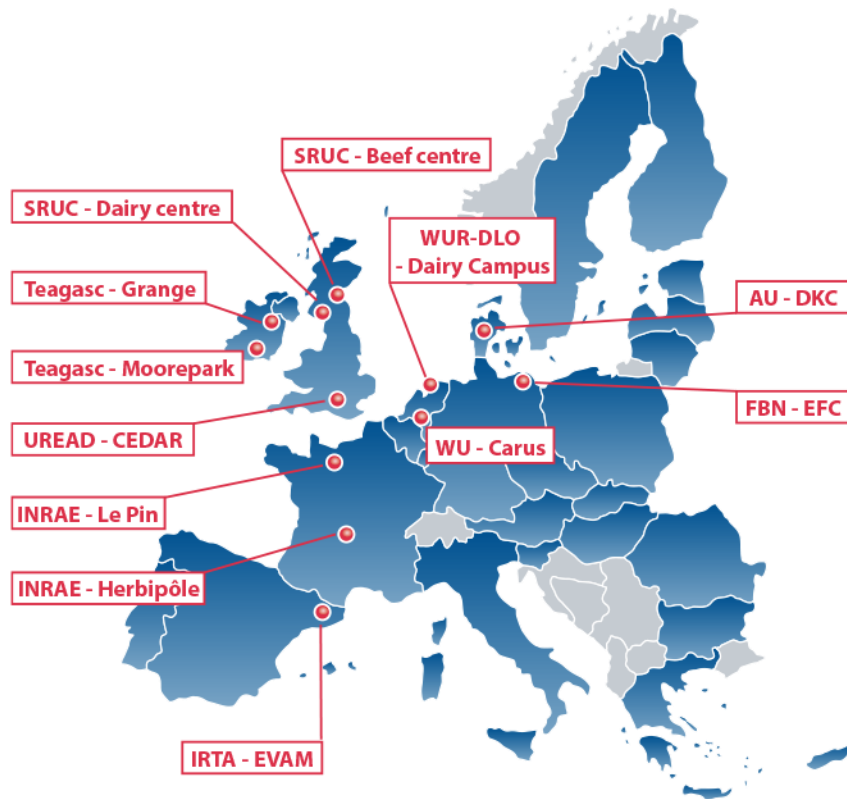


# Scientific breakthroughs?

- Facilitated new collaborative opportunity with leading experts/facilities
- Project outcomes in progress but will confirm Rumen-Ready® effects on:
  - Feed intake (dry period & lactation)
  - Blood metabolism
  - Rumen fermentation & microbiota
  - Inflammation biomarker
- Insights will further scientifically underpin proven beneficial impact of Rumen-Ready® for transition cows:
  - **INCREASE:** Colostrum (patent), calving ease, calf vitality, milk yield, fertility, BCS
  - **DECREASE:** Disease such as SARA, ketosis, retained placenta etc
- Important as literature re: butyrate for mature ruminants is very limited and is not based on rumen redevelopment concept!



# 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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