Transnational access to leading European cattle research facilities in the EU Project SmartCow

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What is Transnational access (TNA)?

- The Transnational Access Program offers external users of the academic and industry communities free access to the research infrastructures of SmartCow partners: a wide range of first-class cattle research facilities across Europe.
- TNA provides funding to run studies in these facilities.
- Transnational = in a different state (generally member/associated state of the EU)
- Access = Providing access to 11 leading cattle research facilities distributed in 7 EU countries (12 locations which include 18 installations)
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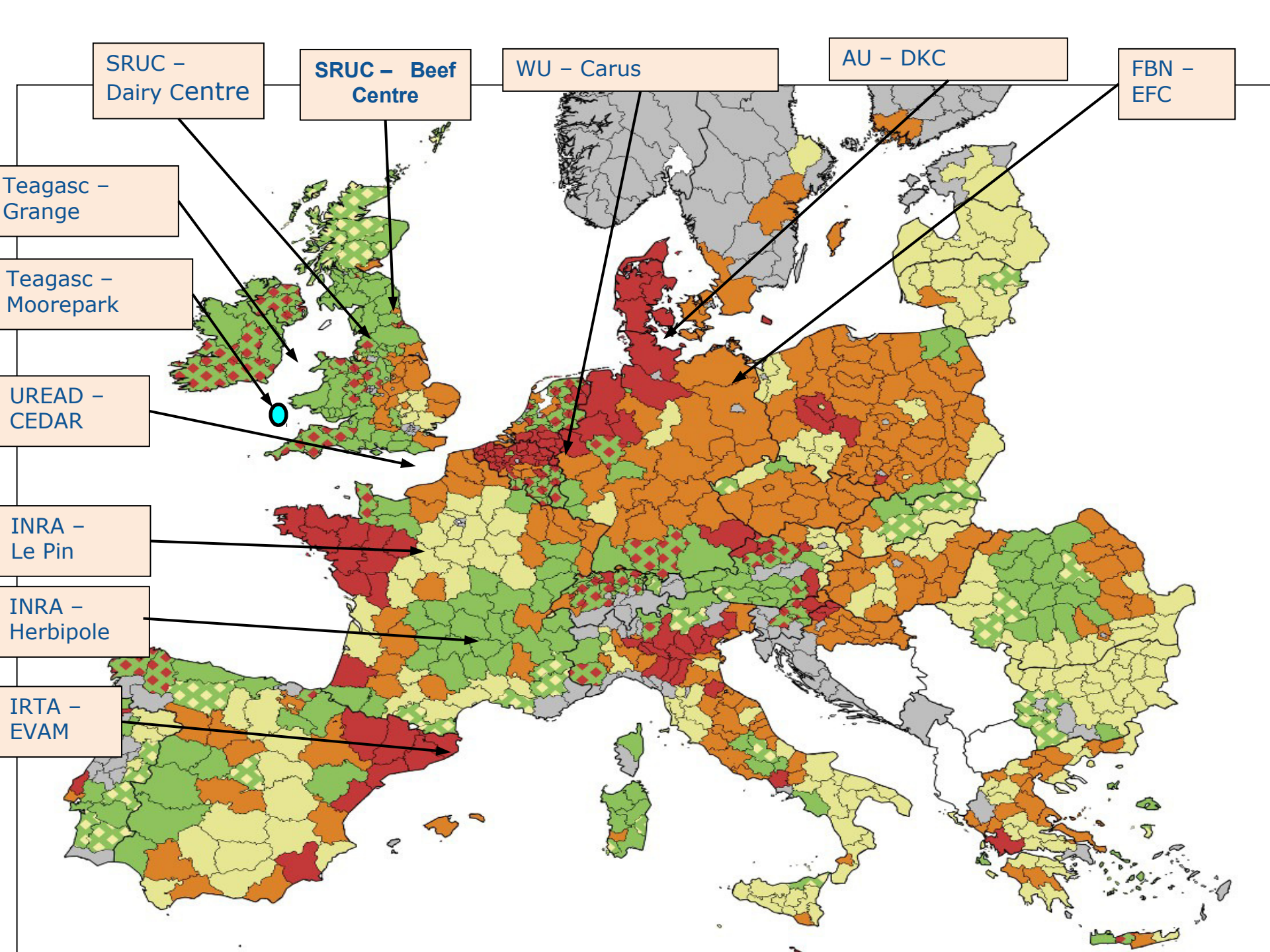
SRUC – Dairy Centre
SRUC – Beef Centre
WU – Carus
AU – DKC
FBN – EFC
Teagasc – Grange
Teagasc – Moorepark
UREAD – CEDAR
INRA – Le Pin
INRA – Herbipole
IRTA – EVAM

Facilities, and research possibilities

These first-class facilities cover:

- A range of cattle types, around 2,500 dairy and 1,000 beef cattle,
- Different breeds and genotypes,
- Diverse husbandry and feeding systems (indoor and outdoor, grass or maize-based diets, use of by-products and alternative feeds).
- Diverse environmental conditions
- High quality measurements (feed efficiency, emissions, digestion, metabolism,…..)
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Thus, the TNA calls allow EU academic and industry teams to get to the infrastructures most suitable to their needs, in terms of:

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- Breeds and genotypes
- Farming areas, production systems, diets
- Climatic and environmental conditions
- Expertise
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Range of expertise

In terms of expertise, the possibilities do cover:

- Genetics: genotyped animals, phenotyping
- Animal nutrition: in vivo methods for measuring nutrient use and emissions
- Physiology, pathology, ethology, health, welfare: sensors, physiological and behavioral traits recordings
- Cattle husbandry technology and engineering: rearing systems, grazing and forage technologies, precision livestock farming
- Research methodologies: surgery, experimental design, data processing, statistics
- Ethics in experimentation





Eligibility

- The TNA program is open to researchers working in EU Member States (MS) and Associated countries (AC). The criteria are:
- 1. The applicants must be employed by an organization established in an EU MS or AC (the country is considered, not the nationality of applicants).
- 2. The applicants should be established in a MS or AC different from that of the legal entity operating the infrastructure.
- Access from non-associated third countries is possible, but requires a strong justification: these countries may only have access for up to 20% of the total cow-months funded under the grant.
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Budget

- Roughly 1.5 M€ : supporting ~30 projects involving ~60 users (assuming a mean of two users per project) during the four years of SmartCow
- Access to around 10,000 cow.weeks (unit of access for the installations)
- Two types of comprehensive experiments:
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  (1) Experiments on animal production - focusing on animal performance and trade-offs between functions (production, reproduction, health, behavior…) with various types of animals and management practices. Measurements combine animal performance, intake, behavior and physiological parameters using sensors.

  (2)

  (3) Experiments investigating underlying digestive and metabolic processes on limited numbers of animals (respiration chambers, digestibility measurements, nutrient flow measurements…).

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- A typical “type 1” experiment uses 40 to 60 cows for 10 to 15 weeks. SmartCow will provide around 9500 cow.weeks for these experiments
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- A typical “type 2” experiment uses 4 to 6 cows for a similar duration, around 600 cow.weeks for these experiments.
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Examples of possible projects

- Characterizing the feeding value of by-product feedstuffs for beef cattle in terms of feed efficiency and product quality.
- Identifying the cattle genetic types which are most likely to valorize mountain pasture feeding.
- Studying the impact of different ration compositions on aspects of animal physiology or reproduction.
- Studying the effect of different feed supplements on cattle behavior
- Studying the effects of housing on animal welfare.
- Studying the effects of difference of diets on the rumen microbial community.

What the budget funds and does not fund

- Project funds host facility costs – such as animal care, monitoring, sampling and sample preparation
- Project does not cover additional data and lab analysis costs
- Project does not cover external users' own costs (other than a contribution to Travel & Subsistance costs for set-up meetings at the host facility)
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- → The project will not pay the users coming, will not pay the additional analysis or statistical analysis, it will pay the work done within the infrastructure (technicians operating in the infrastructure, animals of the facilities, consumables)

Calls and project evaluation

- Call for access and project selection process will be run within the SmartCow project
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- Two-stage application process:
- First call launches: June 2018
- Closes:
- 30th September for 1st stage application
- 30th November 2018 for 2nd stage
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- *The deadlines for the next calls are as follows:*
- *2nd call will be launched in April 2019*
- *3rd call in April 2020*
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First stage application

- Short pre-proposal form
- Check on eligibility and feasibility within available facilities (Smartcow's Executive Committee in consultation with facility managers)
- Decision within 3 weeks
- If they have not already done so, applicants will then be encouraged to discuss with relevant facility managers
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Second stage application

- Full application form
- Evaluation criteria:
  - Science quality, innovation, expected impact
  - Availability of facility
  - Expertise of the User Group
  - Networking and training benefits (later slide)
- Two independent referees (1 external)
- Comments on feasibility of the work from the relevant facility manager
- Executive Committee will make decisions within 8 weeks of submission
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Mandatory conditions

- Expectation to publish results as soon as practicable (pending IP protection) in open access publications. Details of the publication plans should be included in the Stage 2 (Full) application
- Funding source must be acknowledged
- Completion of follow-up questionnaire to help improve the process
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Priority users

- New users (expanding the user community)
- Early-career scientists
- Users who don’t have access to such facilities in their own country

Reminder

- First call launched in June 2018
- Deadline 1st step: 30th September
- Deadline 2nd step: 30th November 2018
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  - The first call is quite open and general

Last remarks

- For the applications there is no on line portal, applicants have to download on Smartcow's website the standard application forms, to fill and to send them by email. There are two forms:
  - Preliminary application form for Step 1
  - Full application form for step 2
  - Guidance on how to complete the forms is available at Guidance Notes brochure.
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- If Smartcow's selection panel sees that two projects are very close, it could propose to these projects to collaborate …

Access Management Team

- SmartCow created an Access Management Team, they are the main contact point and supporting body for potential TA users.
- It aims to provide advice on the most suitable RIs and services to potential users who ask for support about TA project building.

- Richard.dewhurst@sruc.ac.uk
- Rene.baumont@inra.fr
- Lene.munksgaard@anis.au.dk
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- Potential TA users have the possibility to contact this team via their email address or via the public website through the specific section presenting the SmartCow RIs and Calls.
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