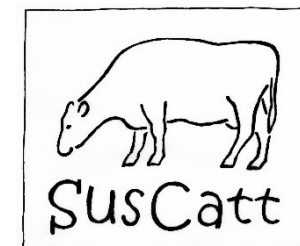




ERA-NET **SUSAN**



# SusCatt

Increasing productivity, resource efficiency  
and product quality to increase the  
economic competitiveness of forage and  
grazing based cattle production systems

Håvard Steinshamn

1<sup>ST</sup> SusAn COFUNDED Projects Seminar  
23-24 November 2017, Bilboa (BC, ES)

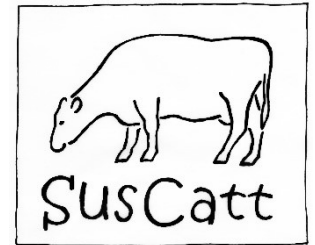


**EUROPEAN RESEARCH AREA ON SUSTAINABLE ANIMAL PRODUCTION**



The ERA-net Cofund SusAn is funded by European Union's Horizon 2020 Research and Innovation programme under grant agreement n° 696231

# Index

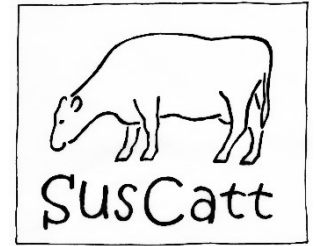


- Challenge
- Objective and Hypothesis
- Consortium
- Research approach and activities
- Potential impact
- Stakeholders



ERA-NET **SUSAN**

# Challenge



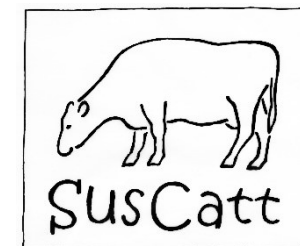
The sustainability of the increased productivity of milk and meat from cattle is questioned

- Environmental trade-offs
- Animal welfare trade-offs
- Growing reliance on edible food as feed
- Growing reliance on imported soy as feed



ERA-NET **SUSAN**

# Goal/Objective



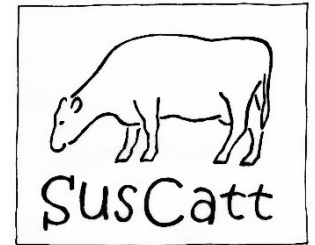
**SusCatt** aims to evaluate a transition to high forage and pasture diets for European cattle on:

- Productivity, product quality, animal health and welfare, and economic performance
- Resource use efficiency and environmental impacts, both assessed experimentally, by modelling and life cycle analysis
- Consumers' appreciation



ERA-NET **SUSAN**

# Hypothesis



The main hypotheses are that transition to high forage and non-food diets will enhance:

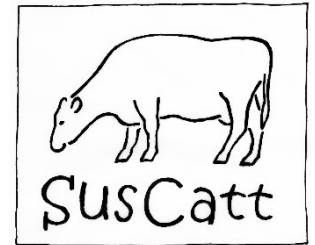
- product quality
- animal health and welfare
- resource-use efficiency
- consumer acceptability



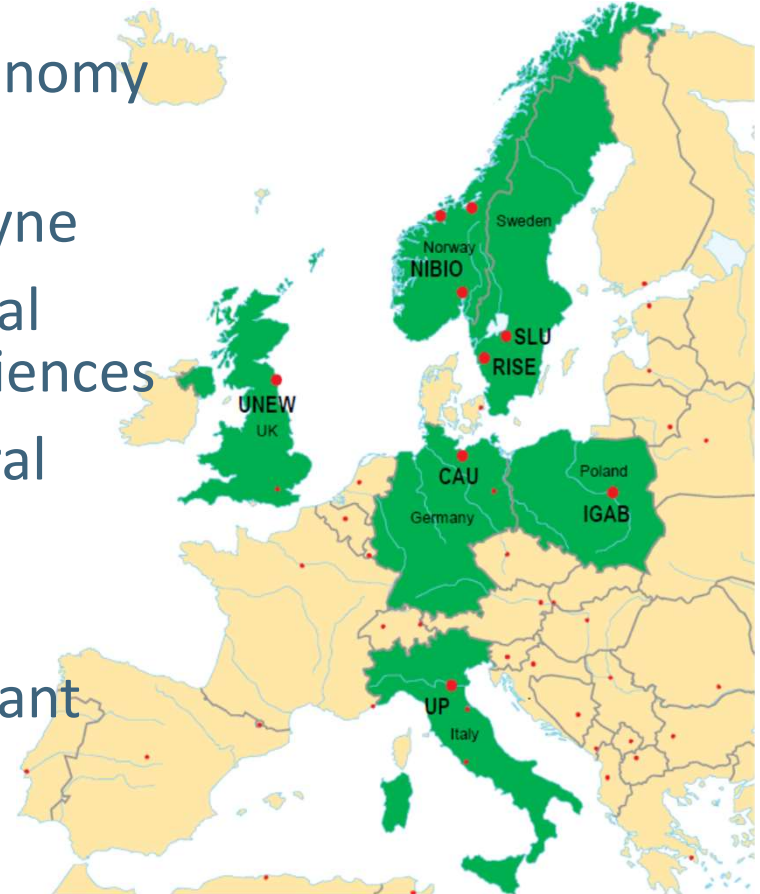
ERA-NET **SUSAN**



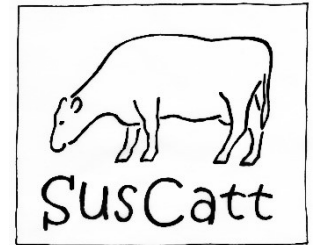
# Consortium



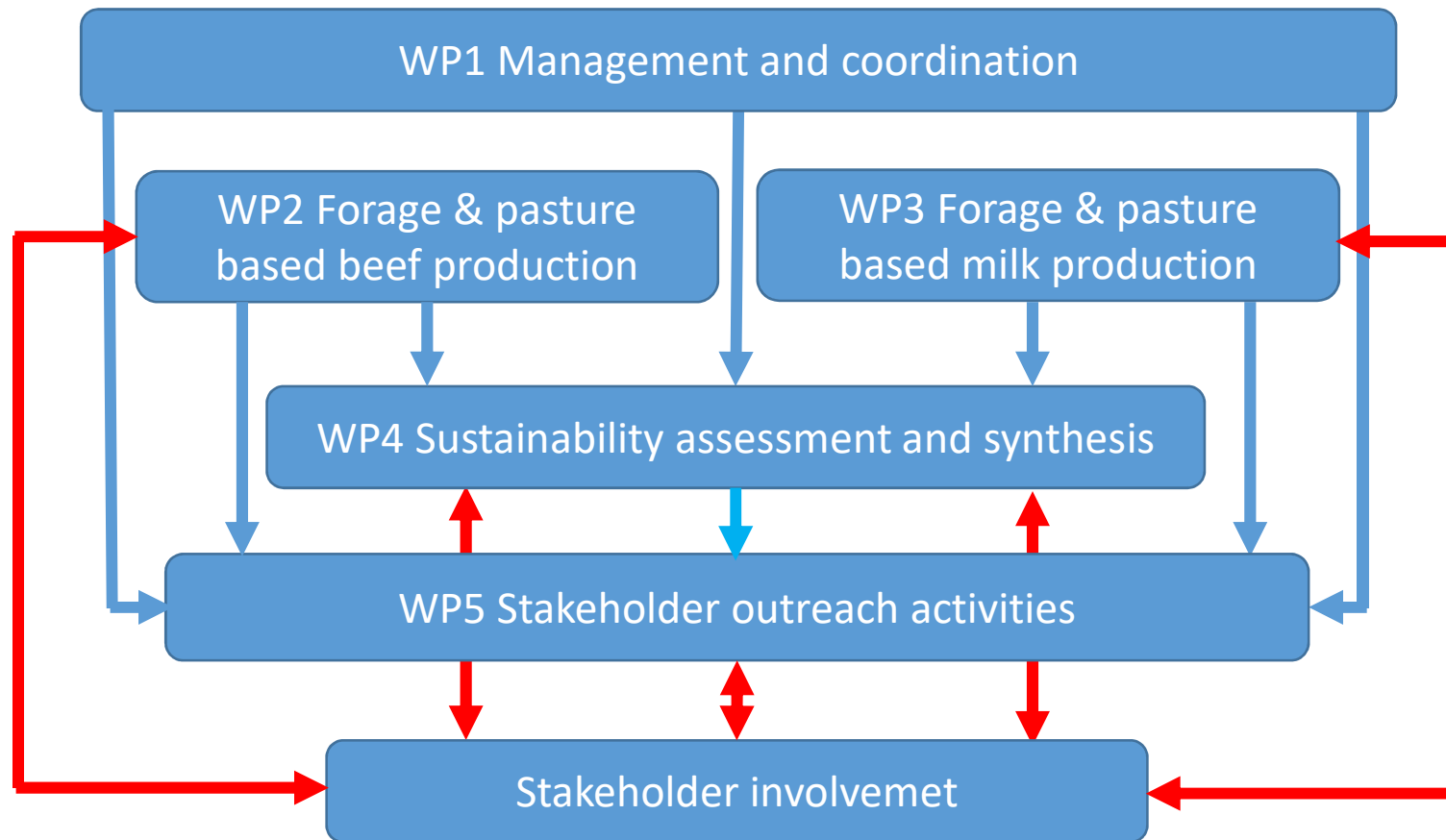
- NIBIO - Norwegian Institute of Bioeconomy Research
- UNEW - Newcastle University upon Tyne
- IGAB - Institute of Genetics and Animal Breeding of the Polish Academy of Sciences
- SLU - Swedish University of Agricultural sciences
- RISE - Research Institutes of Sweden
- CAU - Institute of Crop Science and Plant Breeding, Kiel University
- UP - University of Padova



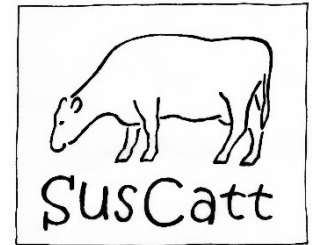
ERA-NET **SUSAN**



# Project Structure



ERA-NET **SUSAN**



# Research approaches

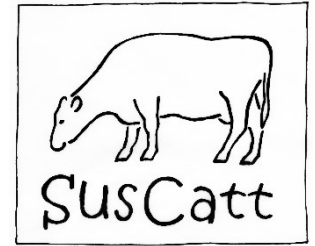
- Experimental R&D
- Participatory R&D monitoring performance on commercial farms
- Modelling



ERA-NET **SUSAN**



# WP 2 Forage and pasture based beef production (SLU)

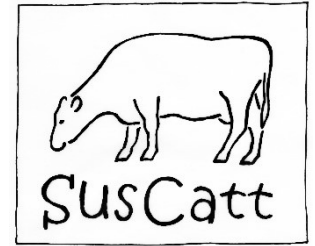


- Task 2.1 Cross- and purebred steers on pasture (SLU)
  - ✓ dairy x beef vs. pure-bred dairy steers on pasture and forage
- Task 2.2 Intensively fed cross- and purebred bulls (SLU)
  - ✓ dairy x beef vs. pure-bred dairy bulls on grass silage and food by-products
- Task 2.3 Forage and by-products fattening cattle (UP)
  - ✓ Maize silage and soya vs. high quality forage and food by-products
- Task 2.4 Pasture based beef production (UNEW)
  - ✓ Beef solely from pasture, effect of breed and pasture system



ERA-NET **SUSAN**

# WP3 Forage and pasture based milk production (UP)

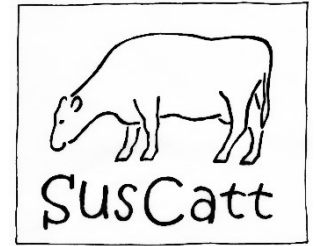


- Task 3.1 Genotypes for low-input dairying (UNEW)
  - ✓ Explore variation in ability in converting forage into milk
- Task 3.2 Breed, forage quality and cows' yield (IGAB)
  - ✓ Permanent vs improved grassland and two dairy breeds
- Task 3.3 Forage based dairying in Northern Europe (NIBIO)
  - ✓ Model study of farm data, testing the effect of changing the diet
- Task 3.4 Forage based Mediterranean dairying (UP)
  - ✓ Maize silage and soya vs. high quality forage and food by-products
- Task 3.5 Grazing clover-grass for low-input dairy (CAU)
  - ✓ Pasture botanical composition and concentrate level



ERA-NET **SUSAN**

# WP4 Sustainability assessment and synthesis (RISE)

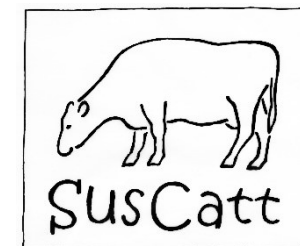


- Task 4.1 Model farms & data management
- Task 4.2 Economic evaluation
- Task 4.3 Environmental evaluation
- Task 4.4 Consumers' attitude to grass fed cattle
- Task 4.5 Synthesis of results



ERA-NET **SUSAN**

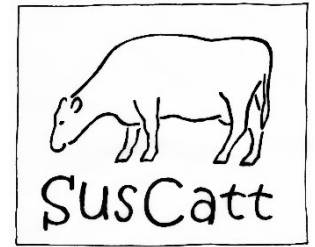
# WP5 Stakeholder focused outreach activities (UNEW)



- Task 5.1 [Project website](#)
  - ✓ Facebook and YouTube
- Task 5.2 Technical notes and information sheets
- Task 5.3 **SusCatt** stakeholder workshops
- Task 5.4 Handbook: improving sustainability in cattle production



ERA-NET **SUSAN**



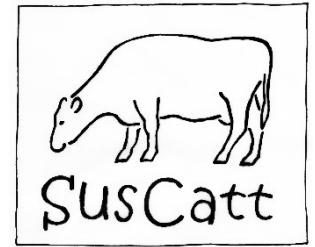
# Potential impact

- Assessing the potential of pasture, other forages and by-products as alternatives to intensive feeding
- Assessing the importance of genetics and breeding – appropriate animal for the *systems*
- Increasing knowledge on how European animal production can improve:
  - profitability
  - societal acceptance
  - environmental credibility



ERA-NET **SUSAN**





# Potential impact

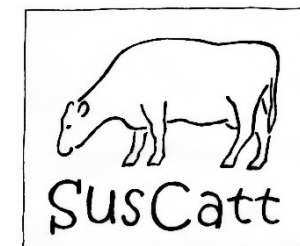
Greater reliance on grazing and conserved forages, enhanced exploitation of legumes and by-product feeds is expected to:

- reduce feed inputs and enhance nutritional quality of meat and dairy products
- improve profitability (less external inputs)
- enhance social benefits (nutritional quality, animal welfare)
- give environmental benefits



ERA-NET **SUSAN**

# Stakeholders



## Norway

- Farmers' group: Farmer Unions, TINE dairy advisory service
- Processing Industry: TINE dairy cooperative

## Germany:

- Farmers' group: German Agricultural Society (DLG)
- Processing Industry: Gläserne Molkerei

## Poland

- Processing Industry: EKO\_ŁUKTA dairy plant

## Sweden

- Farmers' group: Agroväst
- Processing Industry: Swedish Meat Enterprises

## UK

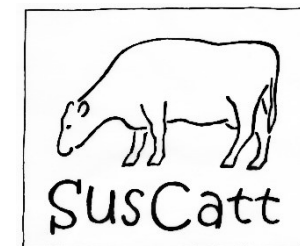
- Farmers : Pasture for Life Association

## Italy

- Farmers' group: AIA
- Processing Industry: Latterie di Soligio, Latterie Vicentine, UNICARVE and Azove



ERA-NET **SUSAN**



Thank you for your attention

## The SusCatt management group



Håvard  
Steinshamn



Elisabet  
Nadeau



Flaviana  
Gottardo



Ulf  
Sonesson



Gillian  
Butler



Carsten  
Malisch



Tomasz  
Sakowski



ERA-NET **SUSAN**