COST
EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY

SOUND control
COST Action CA17110

A data-collection matrix to capture heterogeneity in cattle industry & disease control measures between countries

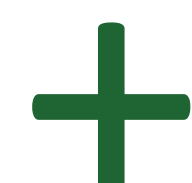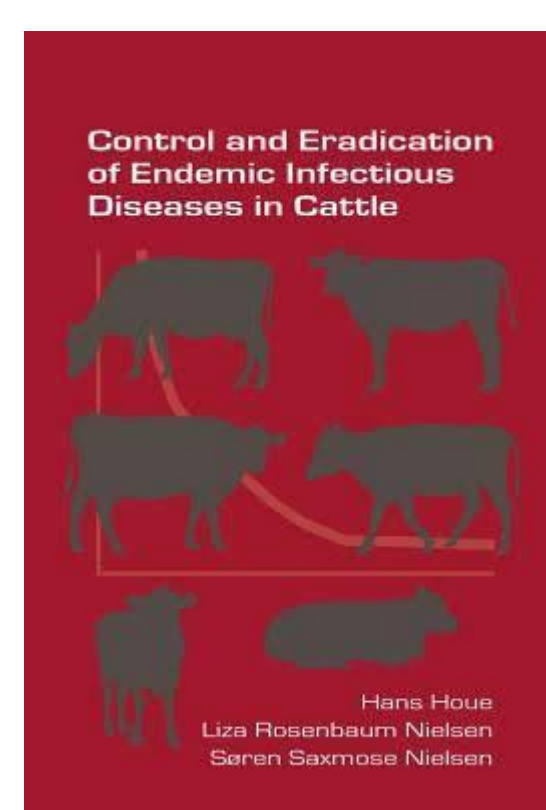A. van Roon[1], C. Faverjon[2,3], Xh. Koleci[4], I. Santman-Berends[1,5] V. Muñoz-Gómes[6], H. Houe[7], E. Rapaliutė[8], T. Knific[9], SOUND control consortium, G. van Schaik[1,5]

COST Action SOUND control
31 participating countries
More than 100 experts
5 working groups (WG)
Duration: 2018–2022

WG2

AIM
The development of a data-collection matrix to capture quantitative data and its characteristics (i.e. availability, quality) that is required as input for an output-based framework to assess freedom of infection of non-EU regulated diseases.

Step1: Evaluation of needs & data collection tools developed in other projects

What was done before?

STOC free

surveets

Control and Eradication of Endemic Infectious Diseases in Cattle

Hans Houe
Liza Rosenbaum Nielsen
Søren Saxmose Nielsen

RISKSUR

The SIGMA alternative   efsa

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Discussion on needs and associated challenges

Data Needs

CP* enrollment
Level (animal/herd/country)
Risk factors introduction
Incidence
Pathogen characteristics
Risk factors persistence
Monitoring CP*
Vaccination
CP* design
Demographic information
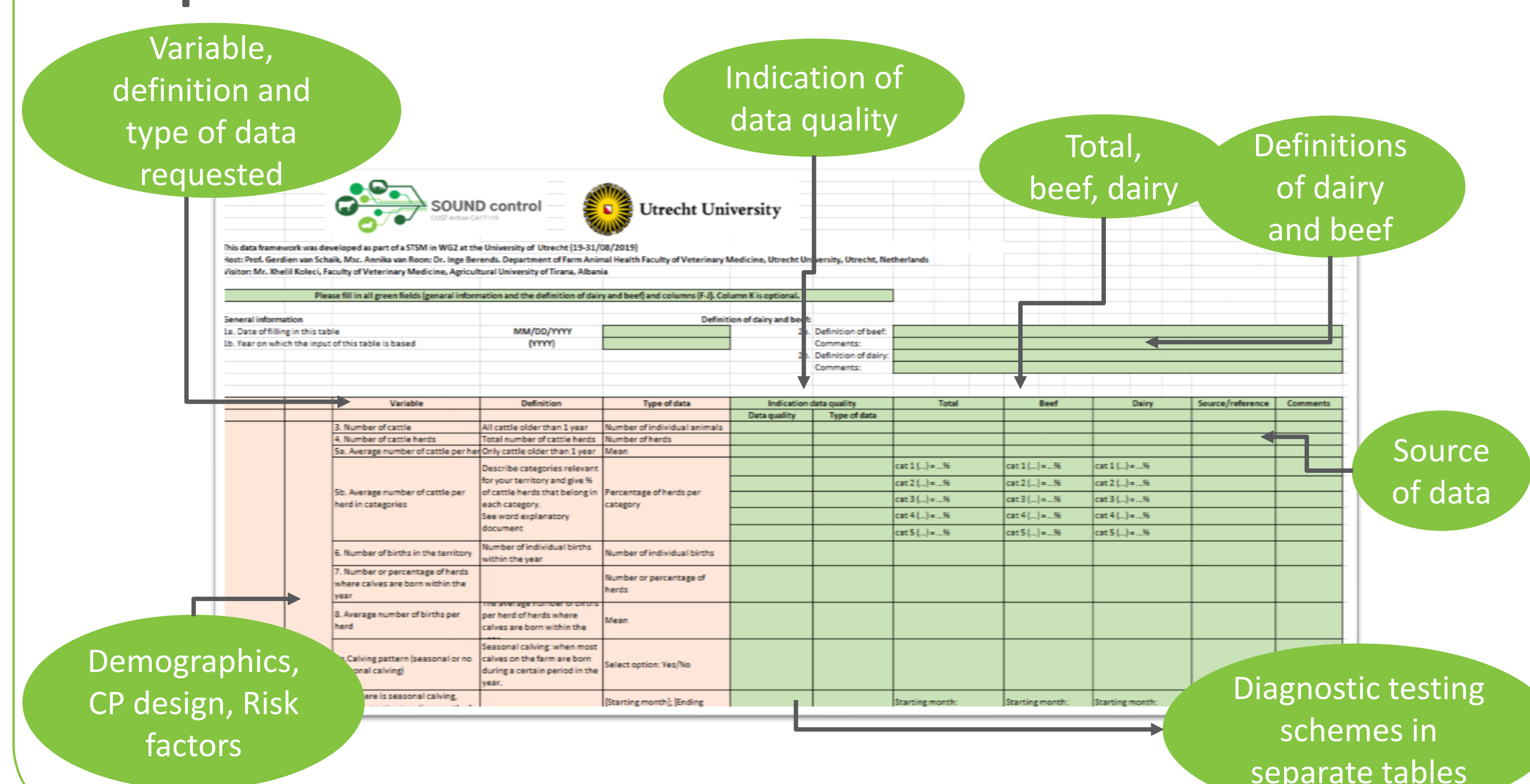Time since freedom

*CP=Disease Control Programmes

Challenges

- Identification of key parameters
- Different types of data to be considered such as quantitative vs. qualitative
- High heterogeneity in terms of data availability, quality, and CP design
- Objective quality assessment

Step 2: First draft of the data collection matrix

- Variable, definition and type of data requested
- Indication of data quality
- Total, beef, dairy
- Definitions of dairy and beef
- Demographics, CP design, Risk factors
- Source of data
- Diagnostic testing schemes in separate tables

Step 3: Step 3: Adapt and test matrix for different European countries and CPs to enlarge usability

Summary		
Parameter	**Netherlands**	**Albania**
Density	High	Low
Herd size	Medium to large: average 130 cows >1 year	Small: 73% <5 animals, average 2
Available data	Many data routinely collected; official databases	Only little data available
Disease introduction risk	Many contacts between herds, movement control incorporated in CPs, many imports, high density	Many contacts between herds, no movement restrictions
Disease control programmes (CPs)	Many CPs (12); sometimes compulsory (initiated by sector), some voluntary	No compulsory CP, 3 voluntary CPs
Surveillance activities	Many active surveillance activities, N=national cattle health monitoring programme	No active surveillance
Risk factors	Important risk factors controlled within CP	Many uncontrolled risk factors
Biosecurity level	No randomly collected data available for quantification of biosecurity level, qualitative guestimate possible	No randomly collected data available for quantification of biosecurity level

Step 4: Workshop with all participants

- Feedback to further improve the matrix
- Identification of **gaps**
  - How to include biosecurity, economic and sociological considerations
  - How to define good/poor data quality
  - Motivators to participate in disease control

Next steps:
- Overview of available data in all COST countries
- All COST countries fill the tool with their own data for selected cattle diseases
- Recommendations for an output-based framework based on available data

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