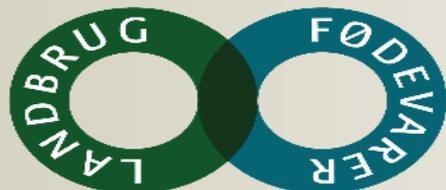




CHALLENGES OF GETTING COW ID

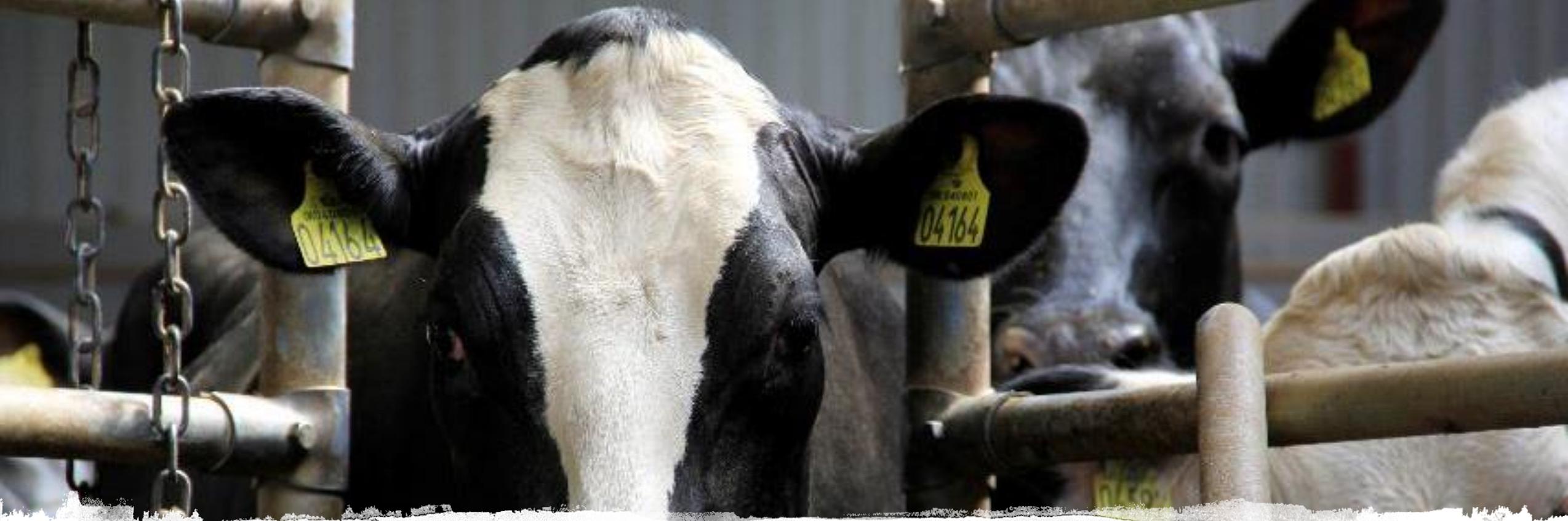
Jonas Person, Kees de Koning and Uffe Lauritsen

June 2019, Prague



RYK provides milk recording for dairy cows. RYK are collecting annually about 5.5 million milk samples, serves 2,600 dairy farmers, and have a turnover of 15 million euro. We have 65 employees, and offices in Aarhus, Sorø, Holstebro, and Vojens.





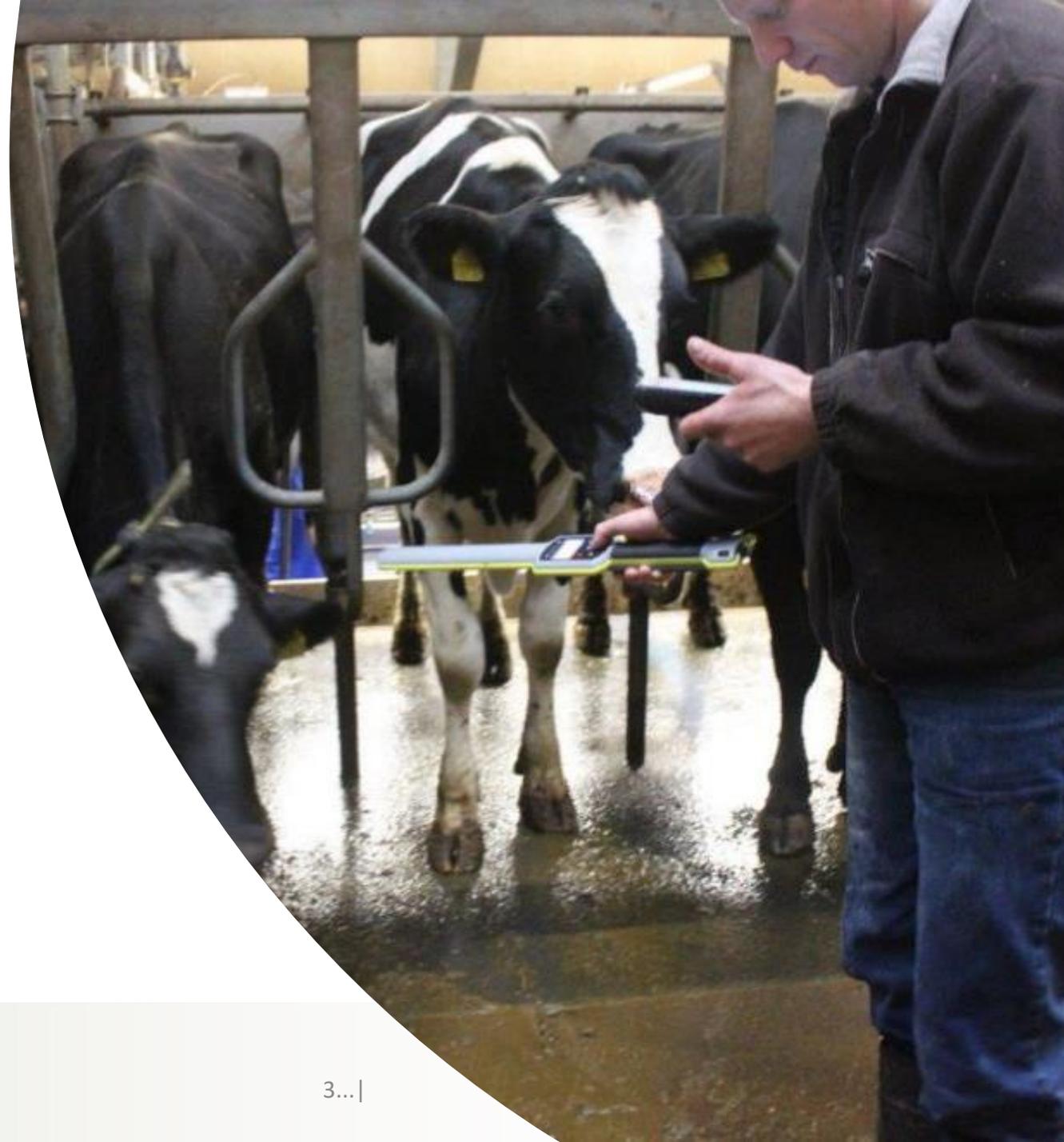
OUR DAILY BUSINESS EXPERIENCE

In our daily business in Holland and Denmark we now and then see challenges with getting Cow ID

This presentation is based on information's and views from sporadic observations reported by our field- and validation staff.

COW ID-TOPICS RELATED TO MILKING AND MILK RECORDING

- Animal ID is the first critical challenges when collect data from sensor's in a milking system.
- Sensor data is only valid and relevant when linked to an valid ID
- To ensure correct and true data, it is essential to have firm routines and technology to catch Cow ID

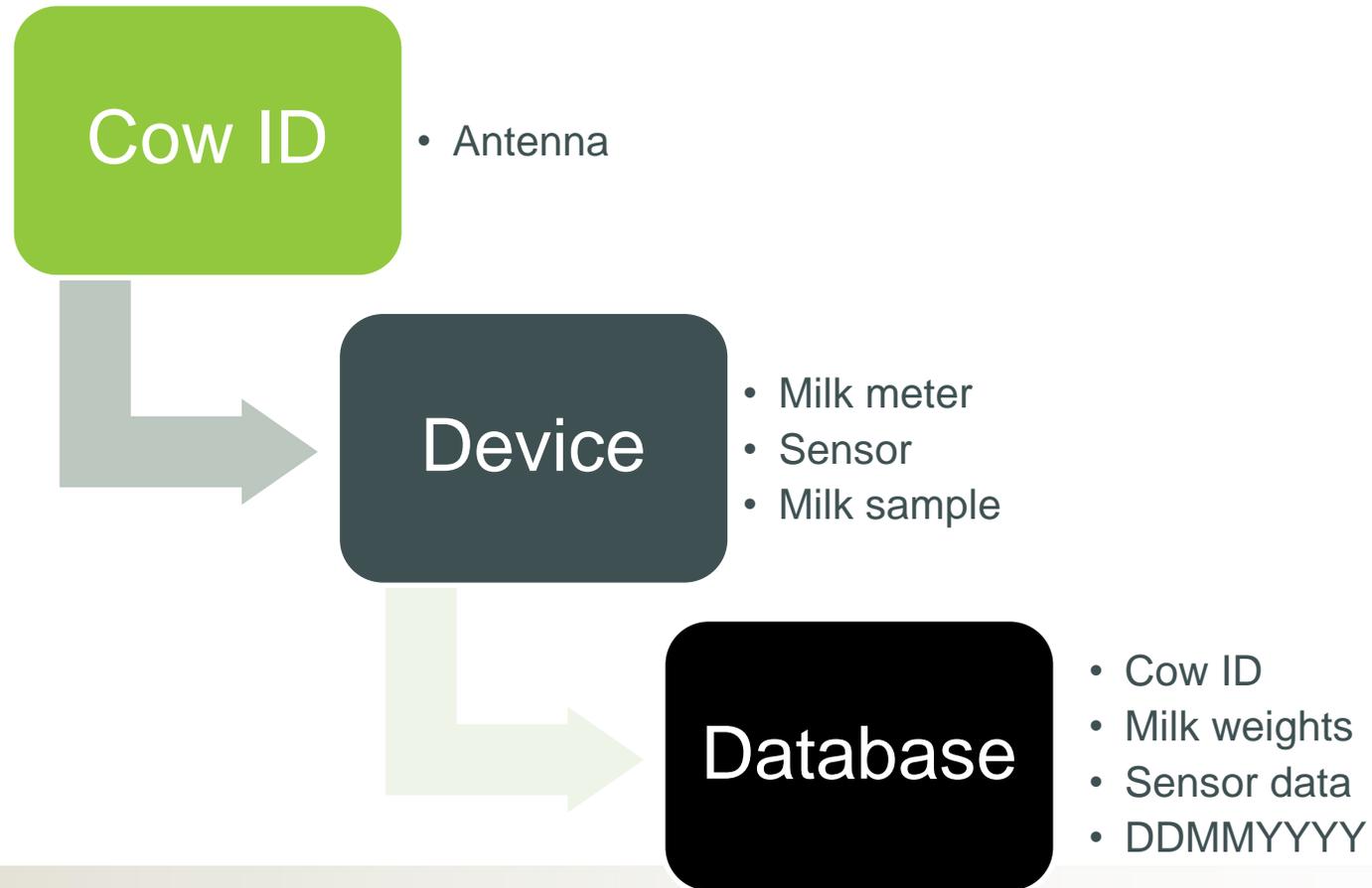




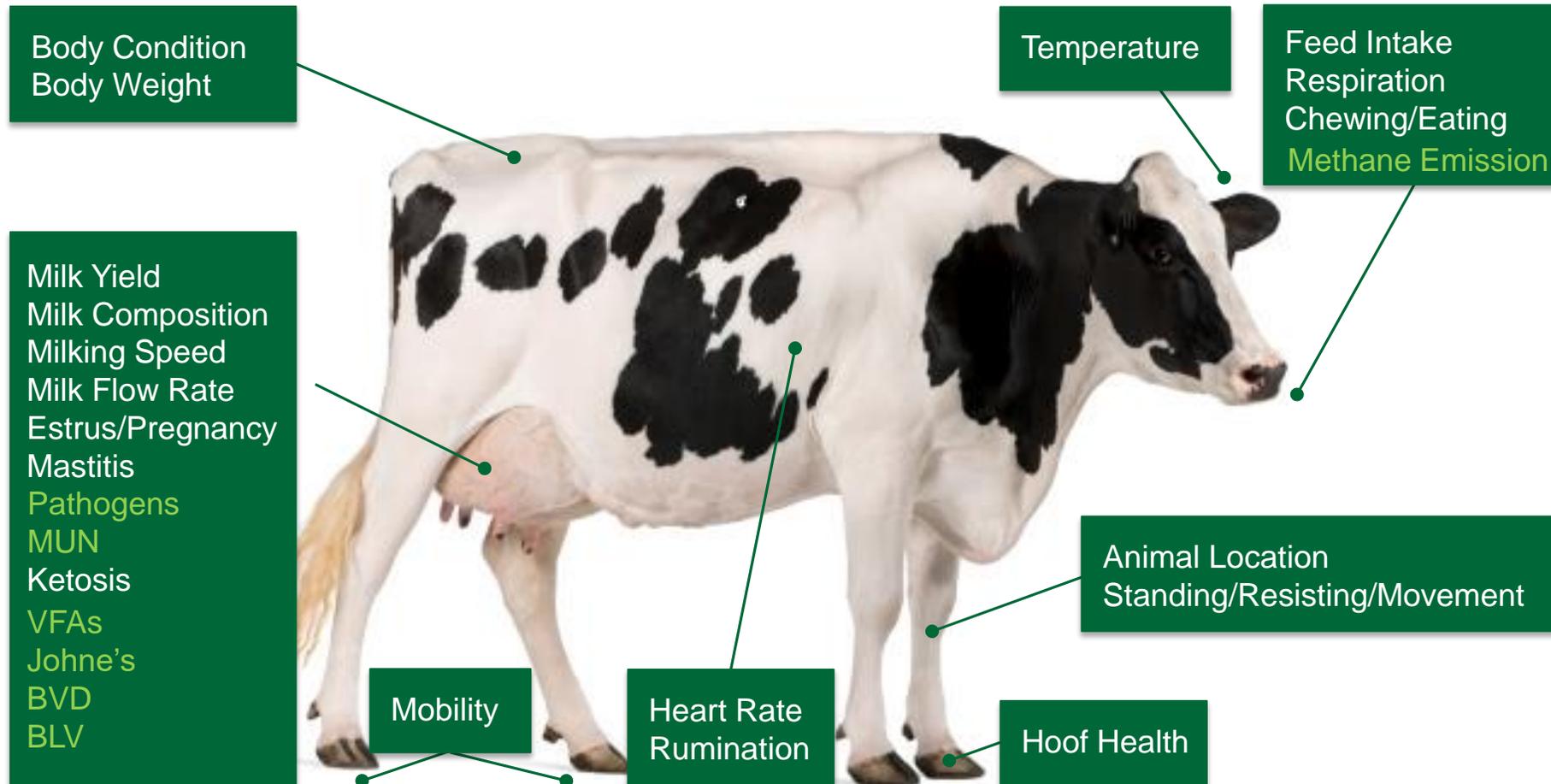
COW ID AND DATA IS AN ISSUE OF GREAT CONCERN

- Milking parlours with increasing throughput gets more and more automation.
- Milking system gets more and more sensors for constant measurement on a series of parameters.
- Therefore it gets more and more important to highlight the Cow ID topics

COW ID AND DATA IS AN ISSUE OF GREAT CONCERN



DATA COLLECTION FROM SENSOR DEVICES NEED ACCURATE COW ID





DO WE....

- Milk cows and collect sensor data?

OR

- Milk "transponders" and collect sensor data?

COW ID WITH RFID OR TRANSPONDER

- Both types have the same issue with accurate Cow ID
- The herd management system on the farm need to be set up with **Cow no.** and **Transponder no.** and **Official animal number.**
- **Transponder** at neck/leg band normal is put on heifers just before or just after calving
- **RFID ear tags** are normal put at new born calf just after birth

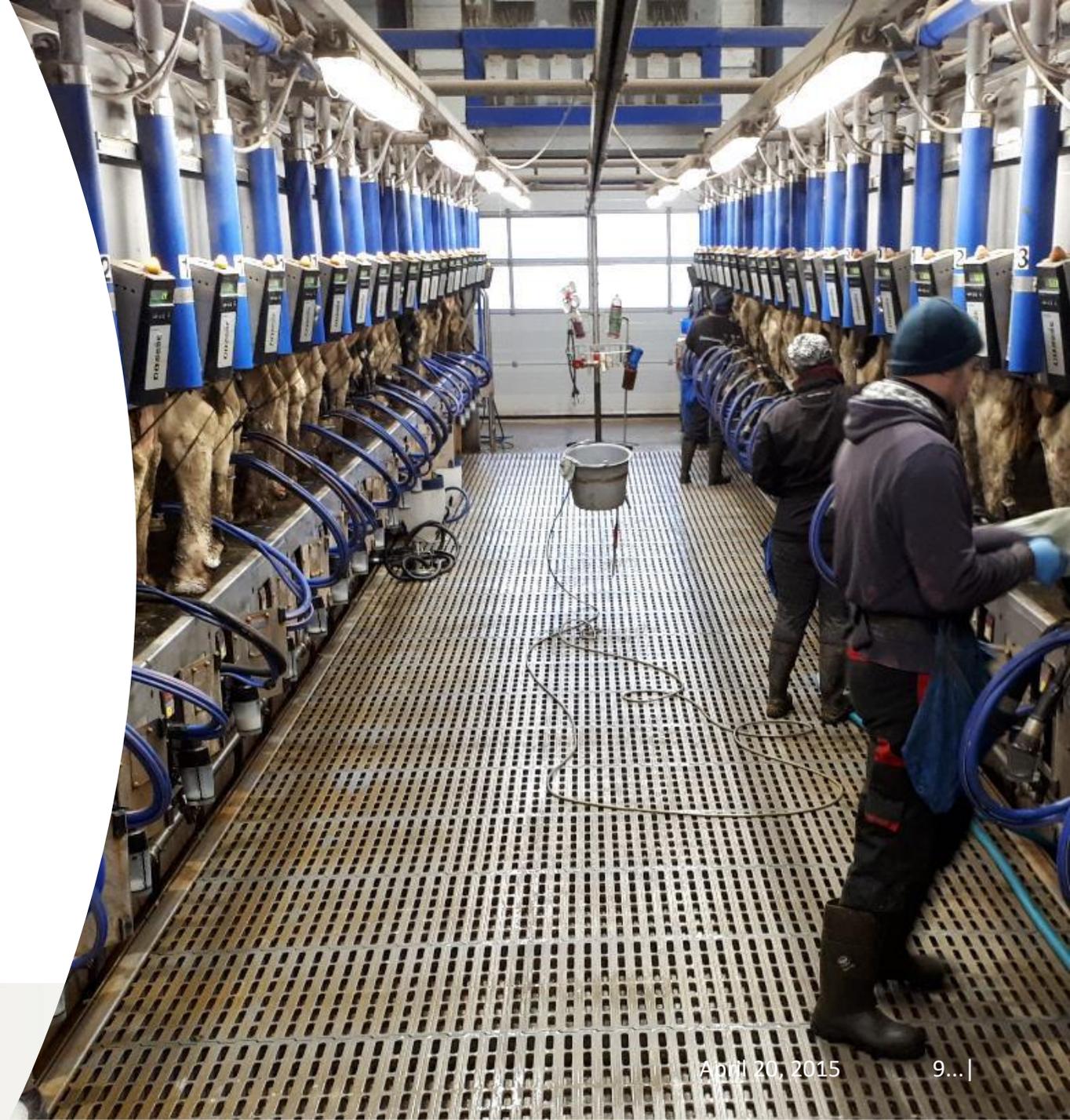


WHAT IS ACCURATE COW IDENTIFICATION?

- Reading all cow with a transponder passing the antenna at the entrance of the milking parlour!

OR

- Cow number on the milking point display is the same cow physically standing at that milking point!





CHALLENGES ON DATA COLLECTION

- Large variety in distribution of milking technology
- Portable meters are aging – some really old
- Sampling process not satisfactory
- Too much manual work
- Too many possible sources of errors

MAIN REASONS BEHIND ERRORS

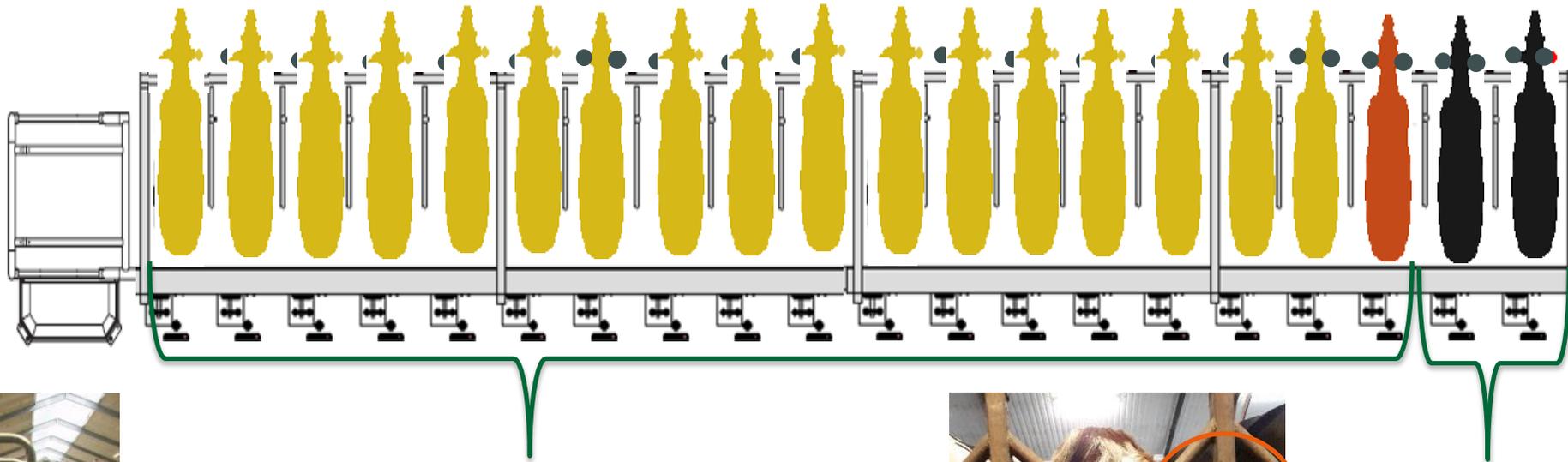
- Cows without electronic ID
- User/Milker not familiar with the system
- Milker do not follow SOP for the system
- Cows pushed into the parlour
- Cows passing each other after identification
- Malfunction of installation
- Lack of maintenance of the electronic installation
- Electronic noise from other source
- Poor installation of electronics and wires



BIG PARLOURS – HIGH THROUGHPUT

- Validation of ID at bail and row is critical
- One missing cow ID is not only a problem for the individual cow.
- All bails after that cow might have wrong Cow ID

2X20 SIDE-BY-SIDE - BAIL #3 - COW NOT IDENTIFIED



**18 bails with
wrong CowID**

**Missing RFID ear tag
Cow in bail #3**



**First 2 bails with
correct CowID**



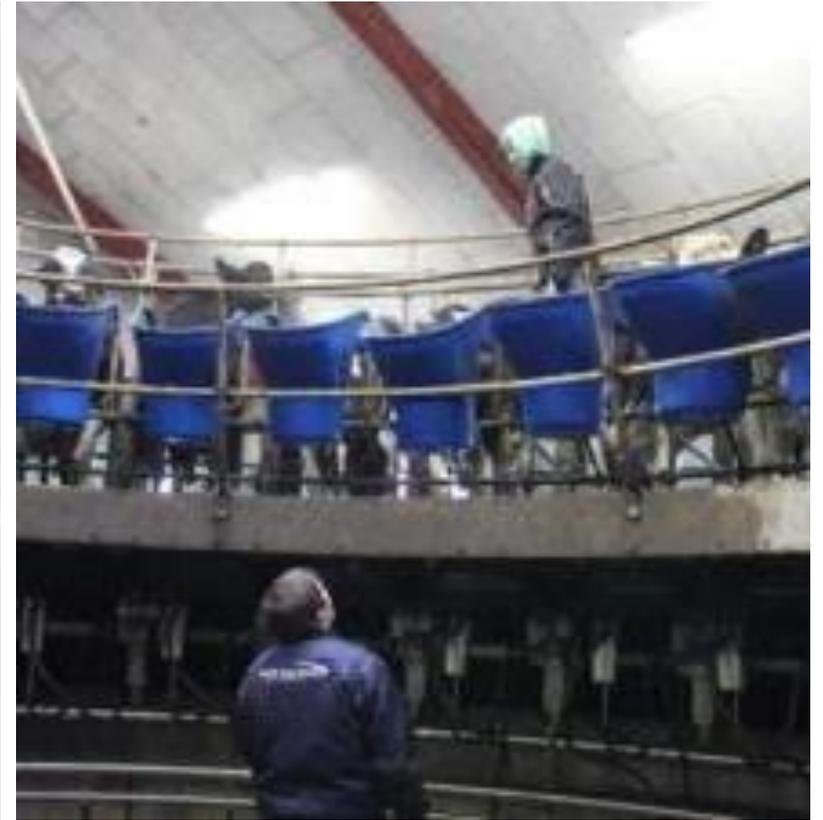
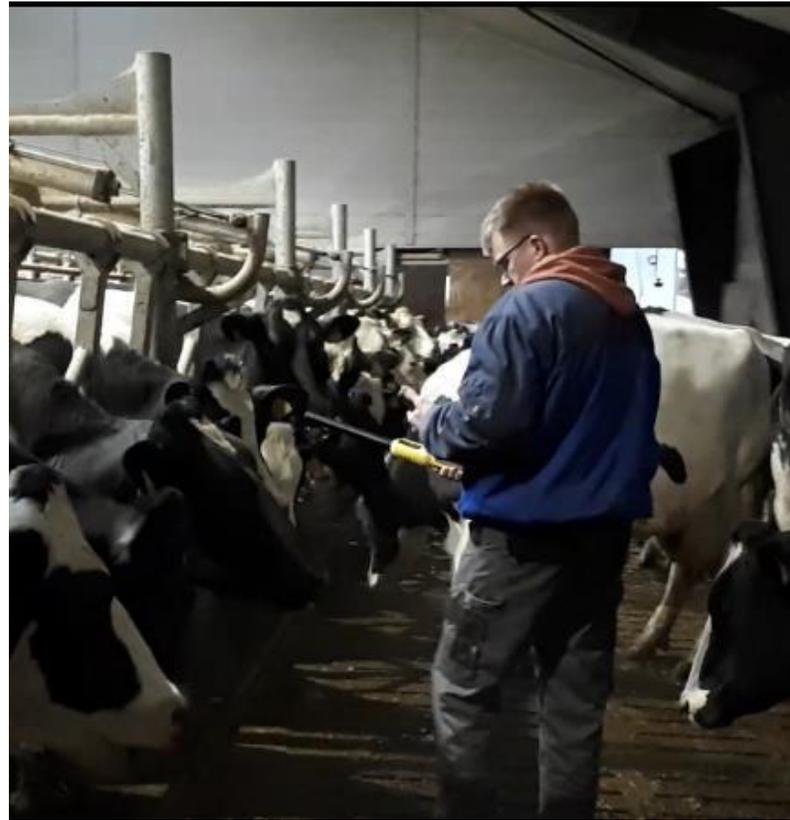
**ROTARY
WITH
EMPTY
BAILS**





**THE MILKERS PLAYS AN IMPORTANT ROLE IN
ADJUSTING THE COW ID TO THE RIGHT NUMBER**





COW ID ON RECORDING DAY



**COW + SAMPLE LINK
ON RECORDING DAY**







WRONG ID – RUBBISH DATA

TAKING HOME MESSAGE

Core value of any registration, whether manual or automatic, is to monitor, control and validate

Cow ID



THANKS FOR YOUR ATTENTION

THANKS TO

Steven Sievert, NDHIA, US
Kees de Koning, WUR, NL
Uffe Lauritsen, RYK, DEN
Colleagues at RYK

PICTURES

Uffe Lauritsen
Jonas Persson

