



# Possibilities to get more registrations on Danish, Finnish and Swedish databases.

Long term options

# What kind of measures do we want in the future?

## Measures that (if possible):

- Generates standardized and objective measures across individuals
- Generates large amounts of repeated records per animal, which are crucial for more accurate genetic analysis

## And also:

- Measurements that does not interfere with the farm routine activities and that requires no additional labor

**This is some of the advantages of assessing temperament based on AMS information and eventually, other automatic recording systems**

# AMS measurements - status today

- **Use of NCDX data**

- Now - only Lely users
- DeLaval on their way

- **No. of NCDX users in the Nordic countries**

- Finland: 316 Lely farms
- Iceland: 1 Lely farm
- Norway: 744 Lely farms and DeLaval have 2 pilot farms
- Sweden: Approx. 150 Lely farms
- Denmark: Approx. 200 Lely farms (have another solution but with similar information as in NCDX)

# What parameters do we have today?

## Milking robots

- Teat cup failure/attachment failure
  - Attachment failure – more nervous cows?
- Unsuccessful milkings
  - Kick-offs during milking
  - In NCDX successive milking is registered as yes/no
- Box time/handling time in the AMS
  - A longer box time - problems with kick-offs during milking?
  - A longer handling time (which is the time in the AMS when the cow is not milking) - problems to attach teat cup due to nervous cows?
- Could these be combined?

# Future parameters?

- Cameras
  - Cameras in the waiting area before milking? Around the feeding stations
  - Cameras in the barn observing aggressive behaviour, dominance etc.
- GPS
  - Movements and activity measurements
- Activity measurements during milking
  - Registrations of kicking and movements in the parlour