



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA



Practical example of 3 interfaces  
with independent process  
computers and 3 national  
interfaces on farm.

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# Agenda

- 1 Intro
- 2 Examples of farms with 3 links
- 3 How about Data Entry?
- 4 Advantages of the multiple interfaces
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A group of black and white dairy cows are standing in a lush green field. The cows are of various breeds, including Friesians and Jersey crosses. They are looking in different directions, some towards the camera. The background shows a clear blue sky with scattered white clouds. The foreground is filled with tall green grass.

# UNIFORM-Agri

## Software for dairy farmers

## Linking on farm automation

Sensors, milking robots, parlors, scales, sorting gates & concentrate stations



**afimilk®**  
Vital know-how in every drop

**PANAZOO®**

**Fullwood**

**SCR**

**GEA**

System  
**Happel®**

**GALLAGHER**

**TRU-TEST**

**ENG Systems**  
Innovative Dairy Solutions

**EDS**  
EUROPE DAIRY SYSTEMS

**saber™**

**INSENTEC**

**BouMatic®**

**iconix**

**AIC**  
**WAIKATO**

**LELY**  
— innovators in agriculture —

**SAC**

**nedap**  
technology that matters

**DeLaval**

**CowManager®**

**SMARTBOW®**

**smaxtec**  
INSIDE MONITORING

**Afimilk**  
Silent Herdsman

... and others

## National interfaces

More than 100 different interfaces in over 25 countries



- Australia
- Austria
- Belgium
- Canada
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Hungary
- Italy

- Luxembourg
- Portugal
- Russia
- Spain
- Sweden
- Switzerland
- Netherlands
- Northern Ireland
- Norway
- Ukraine
- United Kingdom
- United States

*...and new links  
are being  
developed as we  
speak..*

**Herdbook**

**Milkrecording**

**National  
database**

**Quality  
control**

**Dairy  
factories**

# Examples of triple interfaces.

- Dutch example. [National Interfaces: Milk recording, DIY-AI, I&R](#)
  - Milk meters By Boumatic (GM3000) > 10 years old.
  - Heat detection by Nedap's Velos
  - Spider from Hanskamp for individual feeding.
- UK example. [Milk Recording with CIS & BCMS for Cattle movement](#)
  - Milk meters by GEA Rotary
  - Milk meters by Lely Robot
  - CowAlert Heat detection by Ice Robotics
- French example. [Milk recording by EDEL and VSE for Cattle mov.](#)
  - Milk meters from BouMatic (SmartDairy)
  - Individual feeding by BouMatic (SmartDairy)
  - Heat Detection moving between systems: SmartBow & Nedap.

# What is the practical situation on farm 1 (Netherlands)

*Milk recording*

*DIY-Inseminations*

*Cattle movement I&R*

*Fertility Consultancy*



# What is the practical situation on farm 2 UK

*Milk recording by CIS*

*Cattle movement by BCMS*

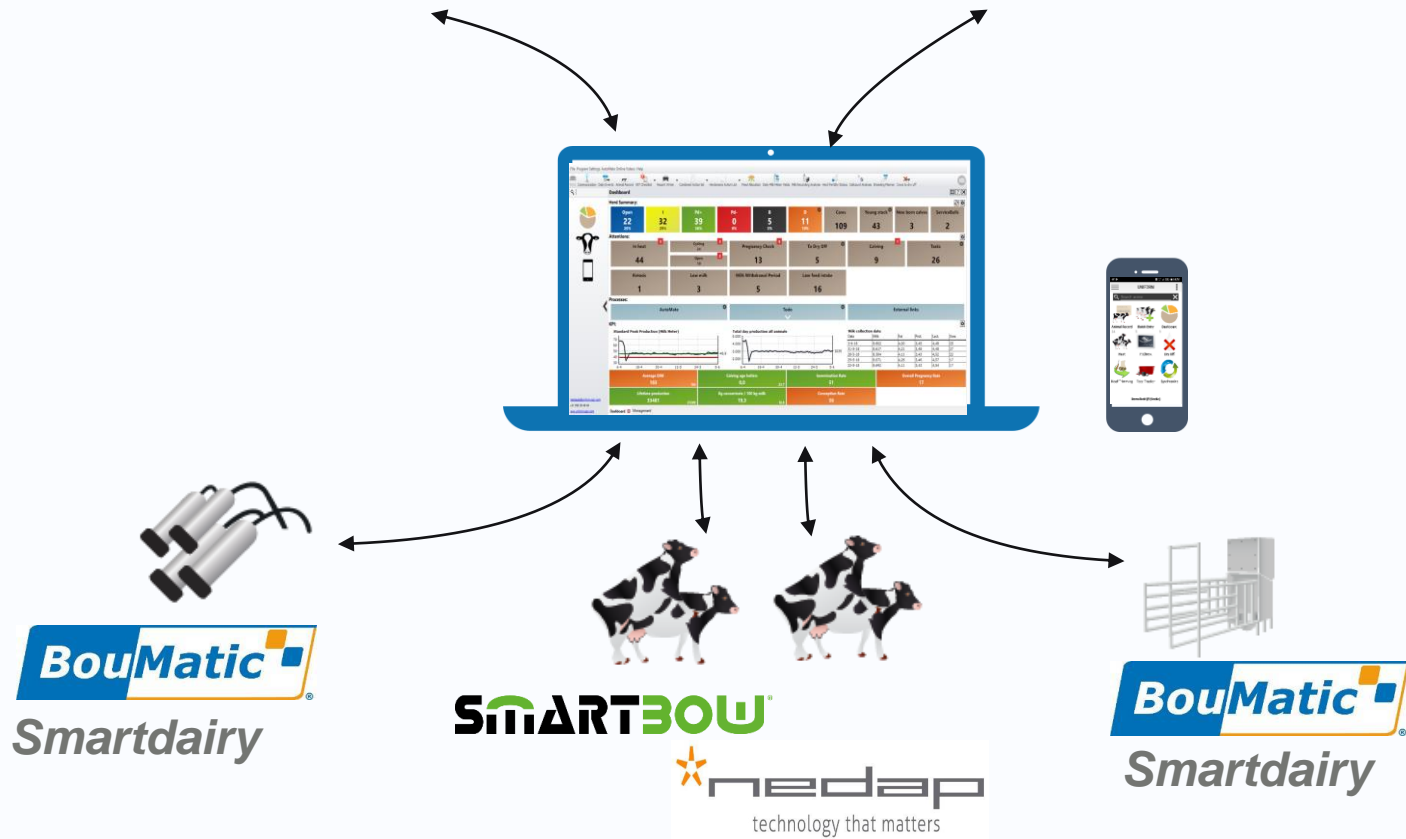
*Vet for Consultancy*



# What is the practical situation on farm 3 France

*Milk recording by EDEL*

*Animal movement VSE*



# Data Entry with multiple interface

Entering a calving, what is happening?

- **First: data validation! Correct and complete!!**
  - Complete: Country specific validation
  - Correct; Validate in relation to all other data.
  - All kind of follow-up actions + protocols (Cow & Calf)
- **Sending the calving data to each processor (bi-directional link)**
  - Check by comparing and adjust and send.
  - Each process computer can have its own Cow ID, or jointly.
- **Sending data to central system; DHIA & Government, Herdbook**
  - The new calving date needs to be sent up to several systems.
  - The new born calf needs to be registered with specific data.
  - Farm needs to get message back if data is accepted and correct.



# Advantages of Multiple interfaces

- **Better Quality of Data.**

- Data is more complete
- Data is more accurate and up-to-date
- Data in systems are all in sync.

- **Reduction of Admin work on farm**

- One time data entry instead of 5 to 7 times.
- Validation immediately at entry prevents correcting afterwards.

- **Up-take of innovation with sensors and flexibility for farms.**

- Farms can buy new sensors and combine with existing systems.
- Farms can go for the specialized products from different brands.
- Farms can combine data from different systems in one database.



# Challenges of multiple interfaces

## ■ Support for the farmers.

- Who can give support for the full system?
- Who gets the blame, when something is wrong? (liability)
- Does the farmer know who to call in what situation?

## ■ Competition

- Sensor suppliers like this and don't like this.
- Good analytics can give sensitive conclusions.

## ■ Up-dates and data protection.

- Up-dates never come at the same moment.
- Some systems are never up-dated (need old Windows versions)
- Who owns the Data?

# How to handle multiple transponders

## 1.2 Management / Daily Tasks / Animal Record

Actual General Feed Feed Intake Report Calendar Lactations Milk Recordings Reproduction Health / Treatments Condition Movements Pedigree

5622 NL 530056223 NERA 214 1

Breed Holstein Friesian

Herdbookno.

Comment

MHG

Date of birth

3-4-2010

Age

9.03

Animal Type

Dairy Cows

Sex

Female

Hair colour

Black

Herdbook

Yes

Group

1

Transpondernumber 1

530056223

Transpondernumber 2

984000002284342

Transpondernumber 3

Activity Transponder

Extra identification

# Milkings from parlour and Robot in one system

ActualGeneralFeedFeed Intake ReportCalendarLactationsMilk RecordingsReproductionHealth / TreatmentsConditionMovementsPedigree

217103094UK581497103094Ford Pearl11 - PARLOUR

Calving Date23-10-2018Milk Meter

24hMilkingsConductivity

Time	Kg Milk	Milkspeed (Kg/Min)	Milk duration	SCC	No. Milkstand
Date : 14-6-2019					
16:38:00	10,6	2,1	05:02		2
06:10:00	13,5	1,99	06:46		5
Date : 13-6-2019					
16:28:00	10,2	1,91	05:19		1
05:22:00	13,2	1,99	06:37		16

ActualGeneralFeedFeed Intake ReportCalendarLactationsMilk RecordingsReproductionHealth / TreatmentsConditionMovementsPedigree

221202409UK581497202409INGLES ELFREDA1 - ROBOT

Calving Date22-5-2019Milk Meter

24hMilkingsConductivity

Time	Kg Milk	Milkspeed (Kg/Min)	Milk duration	SCC
Date : 9-6-2019				
07:22:20		9,9		
01:51:24		10,8		
Date : 8-6-2019				
19:36:30		8,4		
14:32:39		9,4		
09:02:17		8,3		
04:37:04		11,1		
Date : 7-6-2019				
22:35:33		7,8		
17:40:05		8,5		
12:30:50		7,5		
08:08:29		8,5		
03:37:58		10,6		

# Milk deviation list from both milking systems

## 2.6 Management / Milk management / Milk Meter Yield Alert



No.	Group no	Lact.no	DIM	Status	MilkYield				DayProd				SPP (t) ▾	*
					Prev.	Last rec.	Exp.	% Dev.	7 day	Actual	Prev.			
67	11	1	24	● F 24	17,3	15,1	14,5	4,0	33,2	31,9	32,7	45,9		
727	1	7	138	● Pd+ 83	21,0	16,8	25,3	-34,0	57,1	37,8	37,8	45,4		
<u>211</u>	11	2	49	● F 49	18,7	13,4	17,0	-21,0	38,6	32,3	27,3	42,3		
170	11	1	56	● I 9	16,1	13,6	15,4	-12,0	33,3	29,8	32,4	41,7		
22	11	1	29	● F 29	17,1	10,5	11,9	-12,0	29,6	26,8	27,1	39,4		
237	11	3	22	● F 22	22,8	15,8	19,0	-17,0	41,8	35,9	36,9	37,3		
425	11	1	35	● B 35	8,7	7,0	8,5	-18,0	17,6	14,8	14,8	20,9		
309	11	3	144	● B 143	17,2	2,2	11,0	-80,0	27,3	15,1	26,3	19,5		
19	11	3	10	● F 10	0,0	0,0	9,0	-100,0	20,4	0,0	20,5			
127	1	3	344	● Pd+ 19	10,3	7,9	13,2	-40,0	30,3	18,2	18,2			
176	11	1	349	● B 349	9,4	3,0	8,6	-65,0	18,0	9,7	16,9			

# Summary

- Multiple interfaces on farms is growing.
- Data quality increases in multi interface situations.
- Without multiple interfaces it is hard to use.
- Multiple interfaces of different brands support innovation and usage of new sensors.

