

# WHERE WE CAME FROM AND WHERE WE ARE HEADING

**Milk recording and data value before and now**

Uffe Lauritsen  
RYK, Denmark

ICAR 2018  
Auckland, New Zealand

Technologies & Tools:  
Sensor Devices

# THIS PRESENTATION IS MEANT TO

- Highlight the nerve of our core service then and now
- Focus on the basic values
- Remind us that cows and producers are the center – not technology
- Identify some key issues related to need for standards

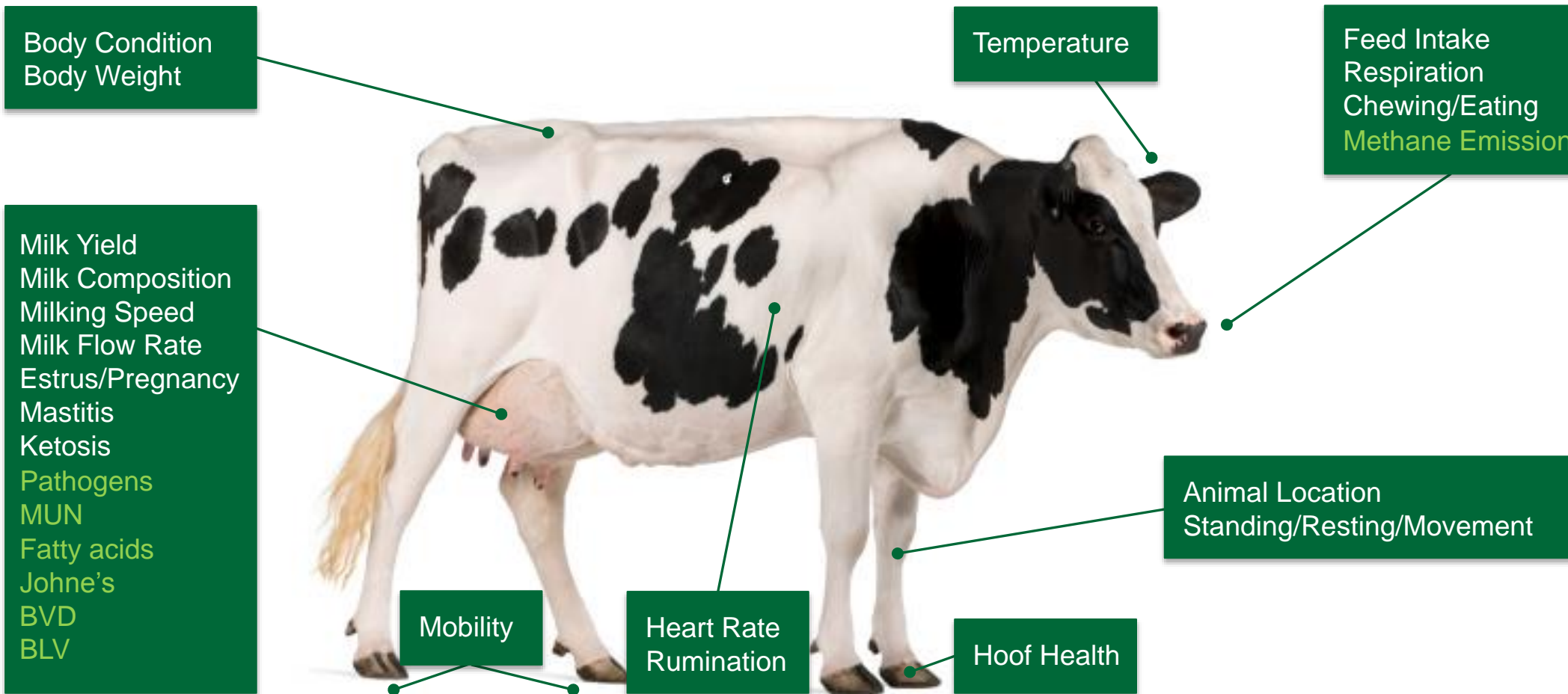




# THE FIRST COW SENSOR EVER



# FARMER OR TECHNOLOGY





## MOVING FORWARD

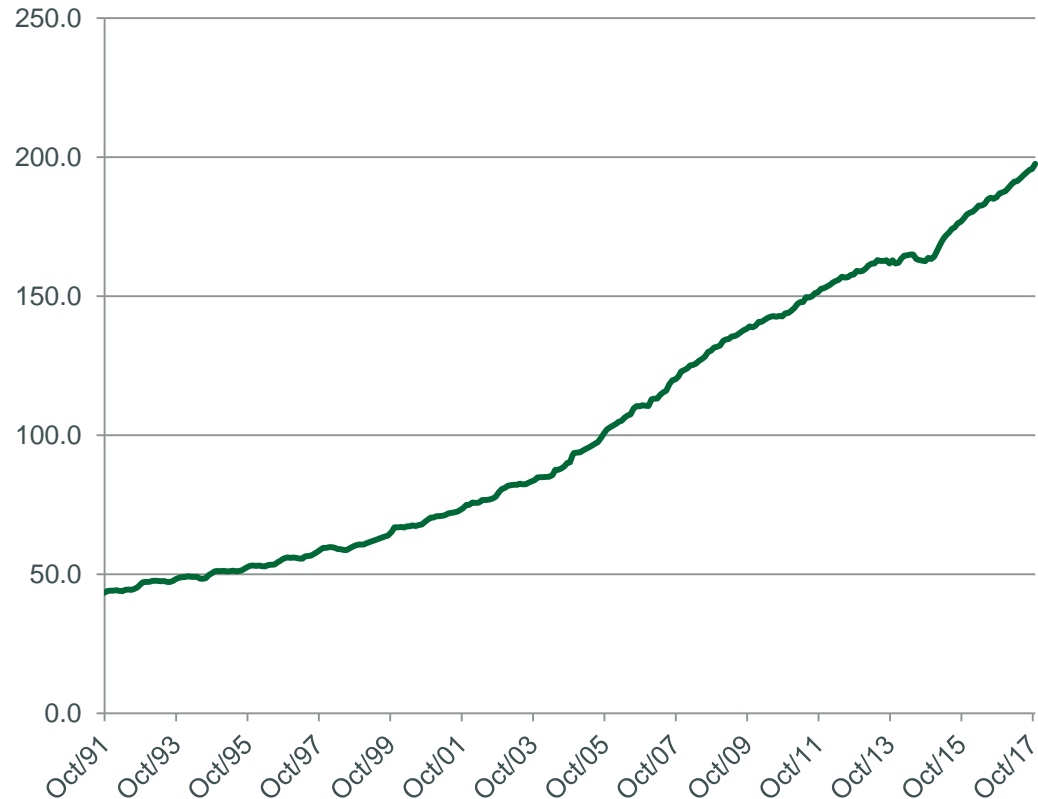
- From lifestyle to food production
- From raw milk to infant milk powder

- From recording to legislation
- From human skills to technical understanding



# THE HERDSMAN AND THE HERD

Herdsizes, DHI Denmark

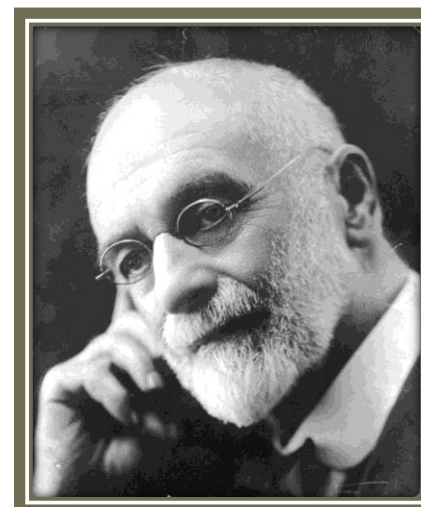
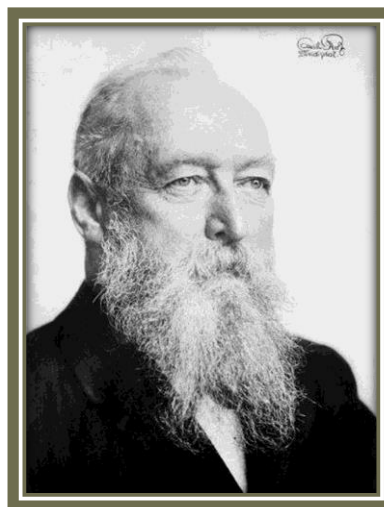


- Less time per cow
- Skills move from human to technology
- Errors will be systematic
- Focus moves to technology
- A good day is still when nothing goes wrong

# TECHNOLOGY WAS THE DRIVER

Late 1800 methods to find fat in milk

- Niklaus Gerber (1850-1914) and Stephen Babcock (1843-1931) developed methods to determine fat in milk
- N J Fjord (1825-1891) developed the cream separator



# 1890: FOCUS ON BUTTER VALUE PUSHED FARMERS

## CHALLENGE

Improve economy  
for farm families

Add butter value

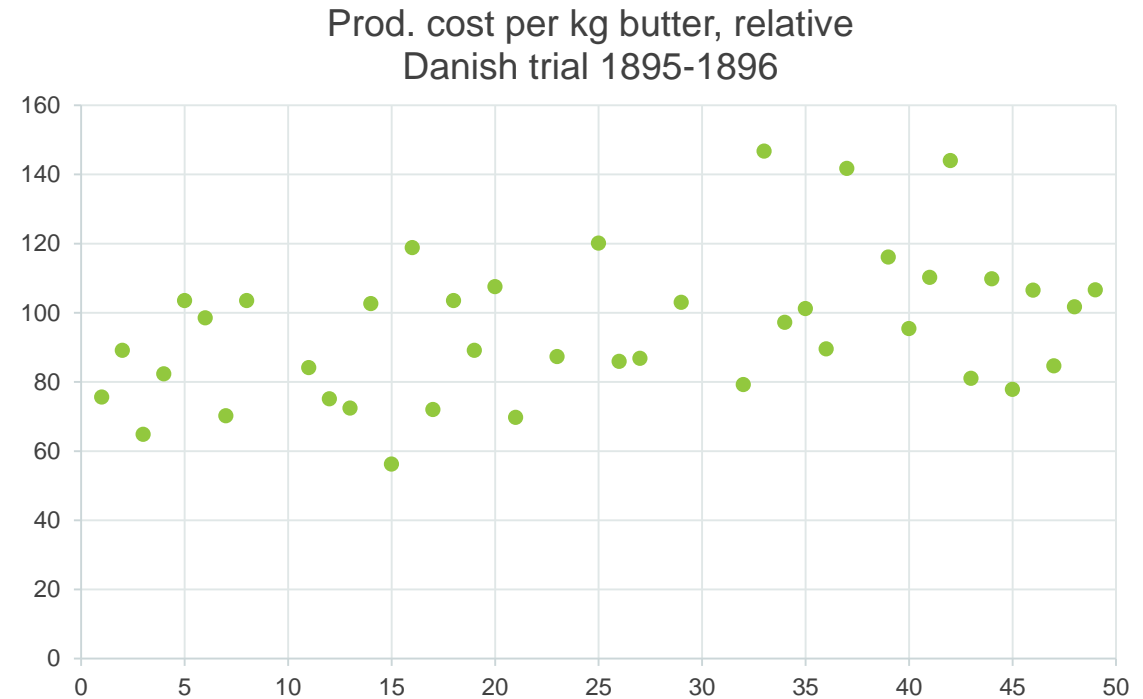
## TOOL

Measure and evaluate

Which cow adds most  
value to me?

## METHOD

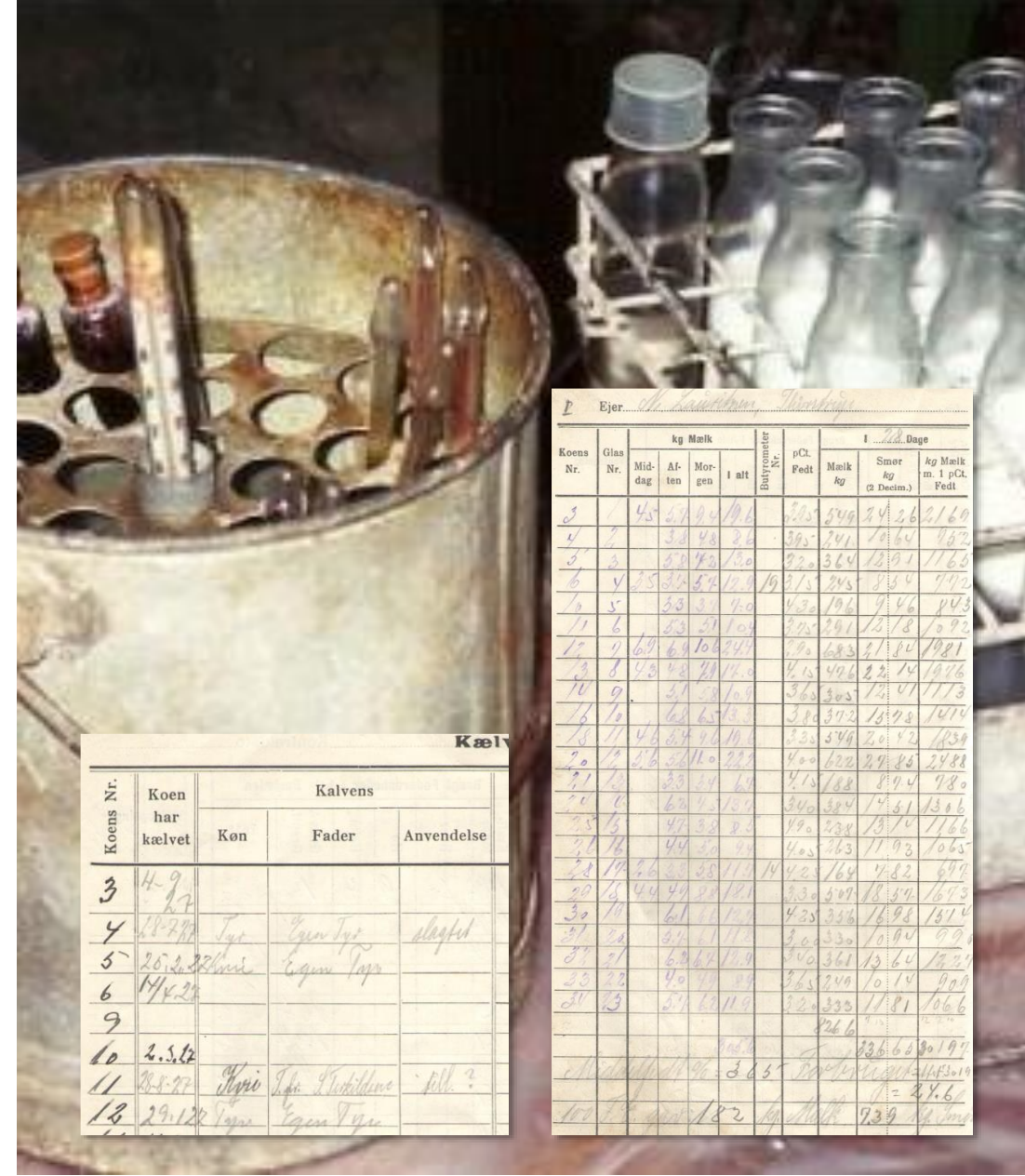
Compare between animals





# ON-FARM IS WHERE IT ALL STARTED

- Milk recording and milk analysis
  - The lab and staff travelling from farm to farm
- Notes and databases local
- Updated results available 2-3 hours after morning milking



Koens Nr.	Koen har kælvet	Køn	Fader	Anvendelse
3	H-9			
4	18.7.88	Tyge	Egen Tyge	slagt
5	26.11.88	Tyge	Egen Tyge	
6	17.4.21			
9				
10	4.5.82			
11	28.7.97	Tyge	Tyge Tyge	fill. ?
18	29.12.8	Tyge	Egen Tyge	

Koens Nr.	Glas Nr.	kg Mælk				Butyrometer Nr.	pCl Fedt	i 22 Dage		
		Mid-dag	Af-ten	Mor-gen	I alt			Mælk kg	Smør kg (2 Deelm.)	kg Mælk m. 1 pCl Fedt
3	45	6.7	9.0	10.6	26.3	24.9	24	26	21.60	
4	46	3.8	4.8	3.6	32.2	24.1	20	20	18.72	
5	3	6.8	9.2	13.0	32.0	36.4	10	31	11.68	
6	4	3.5	5.2	12.8	21.5	24.5	1	46	9.92	
10	5	5.3	3.1	4.0	12.4	19.6	1	46	10.92	
11	6	5.3	5.1	10.3	20.7	24.1	1	18	10.92	
12	7	6.0	6.9	10.0	22.9	29.0	1	80	19.84	
13	8	4.8	4.8	21.0	30.6	42.6	2	24	19.76	
14	9	3.1	3.1	0.8	7.0	30.8	1	21	11.73	
16	10	6.8	6.5	3.8	17.1	39.2	1	48	14.16	
18	11	4.8	3.7	10.8	19.3	34.9	2	42	18.39	
20	12	2.6	3.1	0.2	5.9	40.0	2	85	24.88	
21	13	3.3	3.4	6.8	13.5	18.8	1	95	9.80	
24	14	6.3	4.5	12.3	23.1	32.4	1	51	13.86	
25	15	4.7	3.8	3.3	11.8	33.8	1	13	11.66	
26	16	4.4	3.0	9.8	17.2	36.3	1	93	10.65	
28	17	3.6	3.3	11.3	18.2	42.2	1	82	19.78	
29	18	4.4	4.4	2.8	11.6	33.0	3	39	16.73	
30	19	6.1	6.1	2.1	14.3	33.6	1	98	18.14	
31	20	3.1	1.1	11.0	15.2	33.0	1	94	9.94	
32	21	6.3	6.7	12.9	25.9	36.1	1	60	18.31	
33	22	4.0	4.9	8.9	17.8	36.5	2	14	9.08	
34	23	5.7	6.1	11.9	23.7	33.3	1	81	10.66	
35	24					26.6				
		Middelfeld 4% = 3.65					32.6	66	19.19	
		= 3.4.6							14.30.19	
		= 3.4.6							14.30.19	

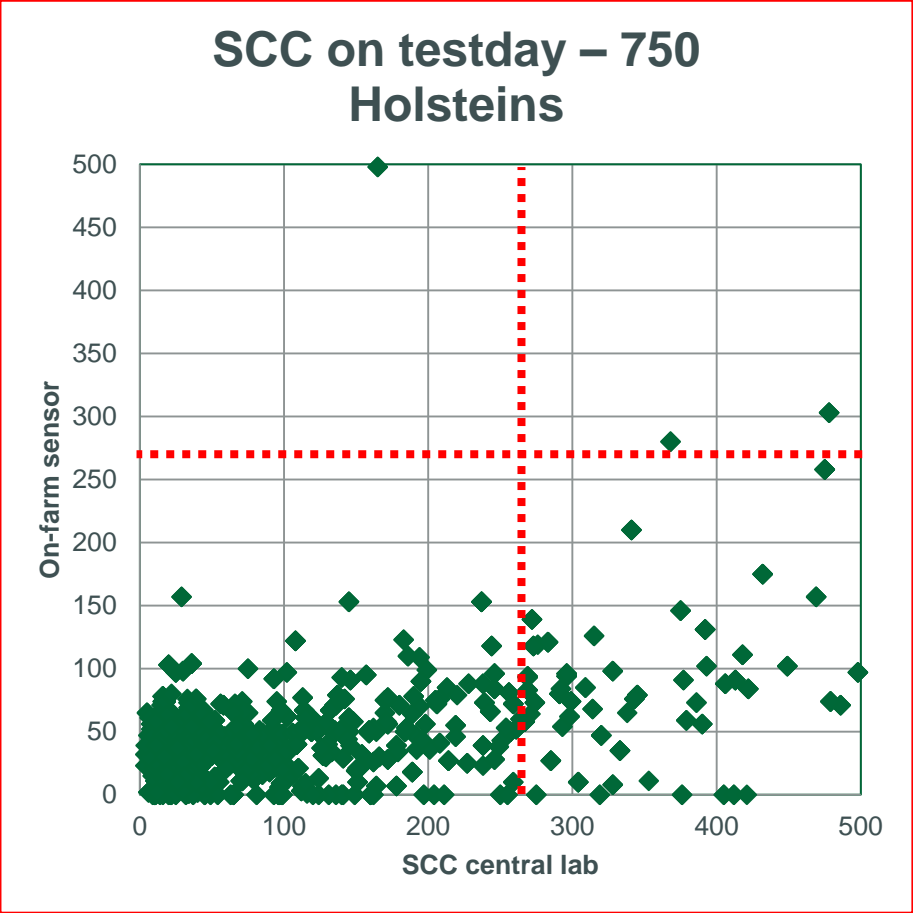


# LEGISLATION AND ANIMAL WELFARE

- Audits are moving close legislation
  - body condition, lameness, skin and hock lesions
  - clean and healthy cows
- When involving technology, standards will be required



# WHAT IS THE MESSAGE?



# THERE IS A NEED FOR STANDARDS

- Farmers should have confidence in selected products
- Different types of technologies increase risk of confusion
- Any product must support farm economy
  - SCC on farm match what is analyzed for payment
  - Fat and protein must be close to real value
- Legislation – welfare
  - Objective scores
  - ....

# HUMAN BARRIERS AND CHALLENGES

## Mental – seniors

- Know a lot about cows – most of us can milk a cow
- Know less about latest technology

## “Youngsters” – next generation

- Know less about cows  
– few know how to handle cluster and hoses
- Know a lot about latest technology

**We all need to listen carefully**

# THANKS FOR YOUR ATTENTION

## THANKS TO

Steven Sievert, NDHIA, US  
Finn Strudsholm, SEGES, DK  
Henrik Laessoe Martin, SEGES, DK  
Colleagues at RYK

## PICTURES

SAC, Denmark  
Uffe Lauritsen



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

