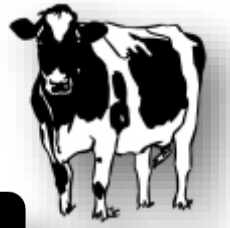
Are we sure whose milk is in the vial?

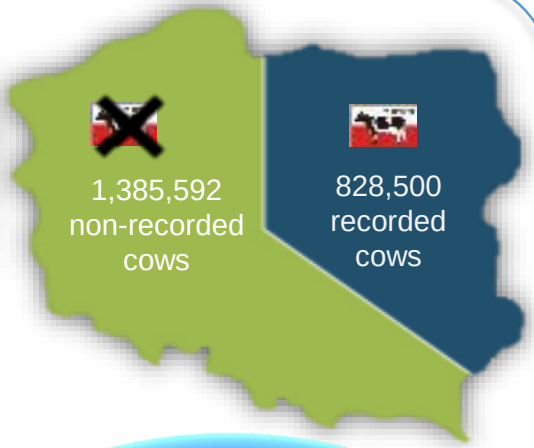
The dairy sector in Poland – FIGURES IN TOTAL

243,559 farms

2,214,092 dairy cows



9.1 cows / farm



1-9 cows/herd
71% farms
17% cows

10-49 cows/herd
27% farms
61% cows

+ 50 cows/herd
2% farms
22% cows

Polish Federation of Cattle Breeders and Dairy Farmers:

Created in 1995 by breeders for breeders

11,000 active members

1,100 employees

- 660 field technicians = A method

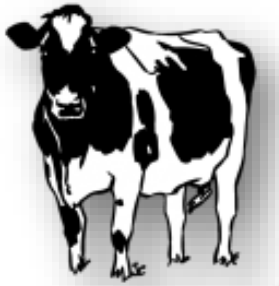
21

18 regional associations + 3 breed associoations

The milk recording – FIGURES IN AVERAGE

20,000 farms

828,500 recorded cows
(mostly HO+RW = 89%)



37% MR cows produce 57% of milk

Performance

8,298 kg of milk

334 kg of fat

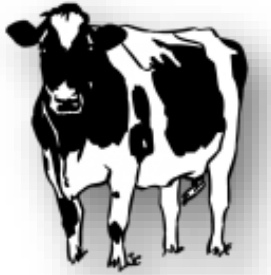
281 kg of protein

4.03 %

3.39 %

Herd size in recorded population

828,500 recorded cows



20,000 farms

40 cows/farm

1-9 cows/herd

4 % herds
0,7 % cows

10-49 cows/herd

76 % herds
50 % cows

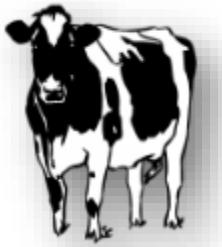
+ 50 cows/herd

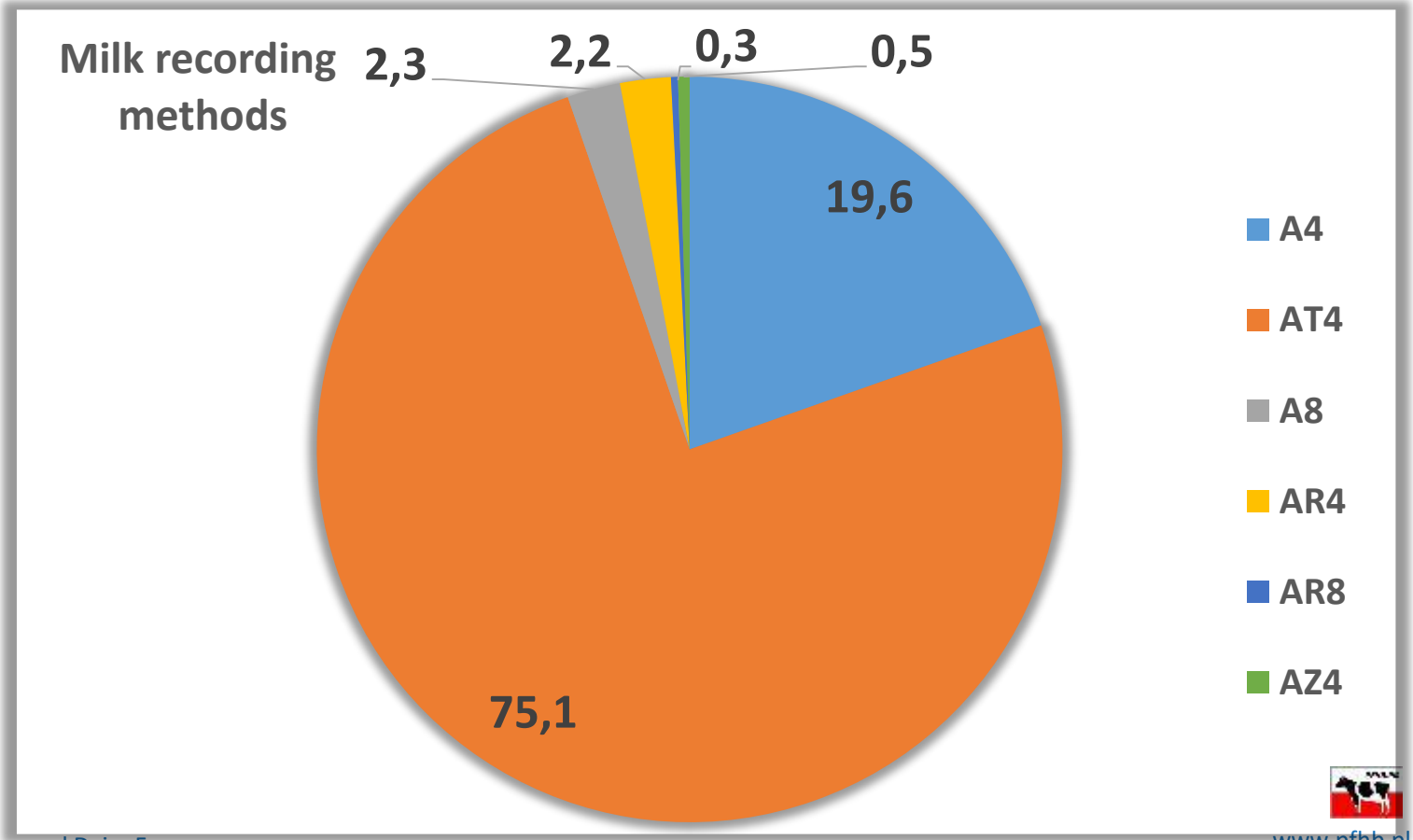
20% herds
49 % cows

Milk recording methods distribution (cows)

20,000 farms

828,500 recorded cows





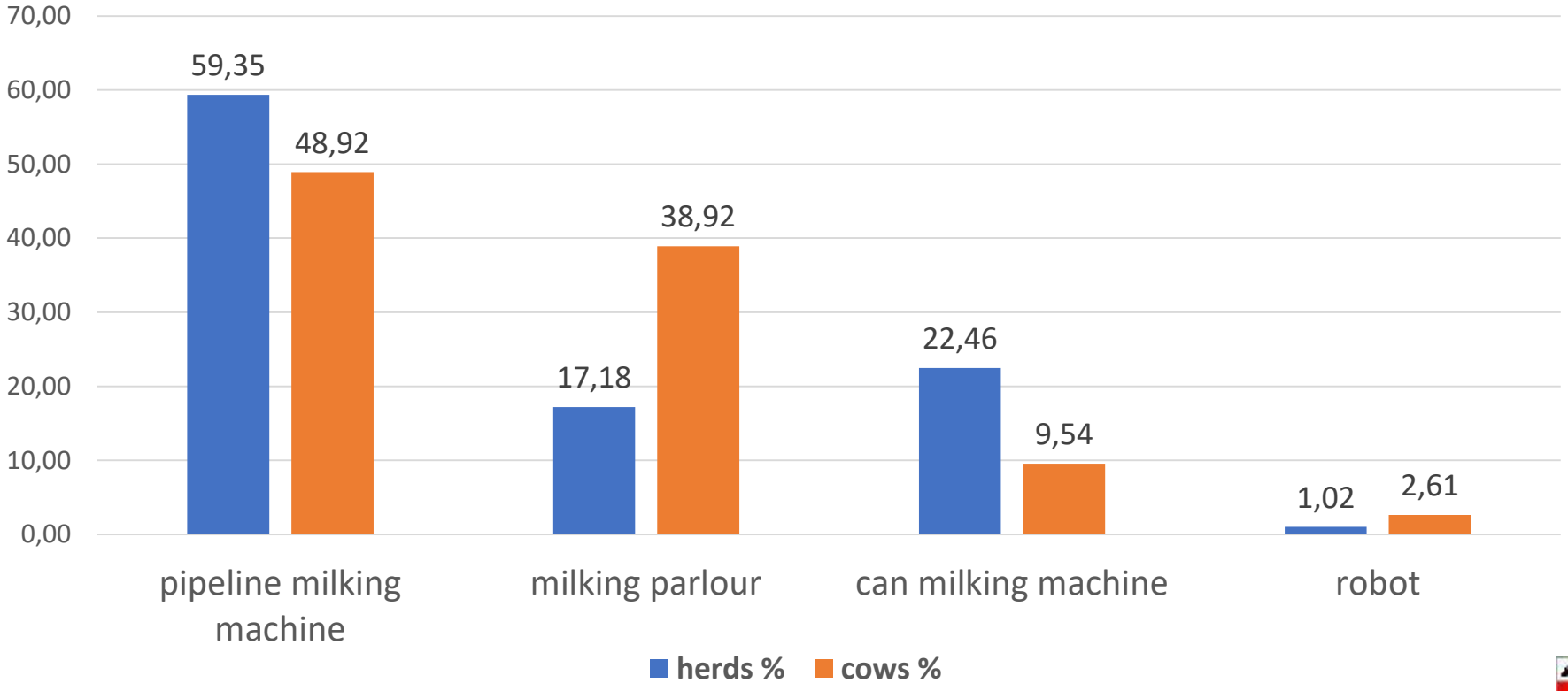
MR method/ milking system	herds	herds %	cows	cows %
AT4	**17 077**	**85,44**	**626 719**	**75,55**
pipeline milking machine	10 535	61,69	354 135	56,51
milking parlour	2 609	15,28	202 769	32,35
can milking machine	3 933	23,03	69 815	11,14
A4	**2 117**	**10,59**	**160 708**	**19,37**
milking parlour	777	36,70	112 225	69,83
pipeline milking machine	1 067	50,40	43 036	26,78
can milking machine	273	12,90	5 447	3,39
A8	**583**	**2,92**	**16 331**	**1,97**
pipeline milking machine	259	44,43	8 656	53,00
can milking machine	283	48,54	3 914	45,22
milking parlour	41	7,03	3 761	96,09
AR4/AR8	**203**	**1,02**	**21 685**	**2,61**
robot	203	1,02	21 685	2,61
AZ4	**6**	**0,03**	**4 146**	**0,50**
milking parlour	6	0,03	4 146	0,50
TOTAL	**19 986**	**100,00**	**829 589**	**100,00**

One sample AM/PM

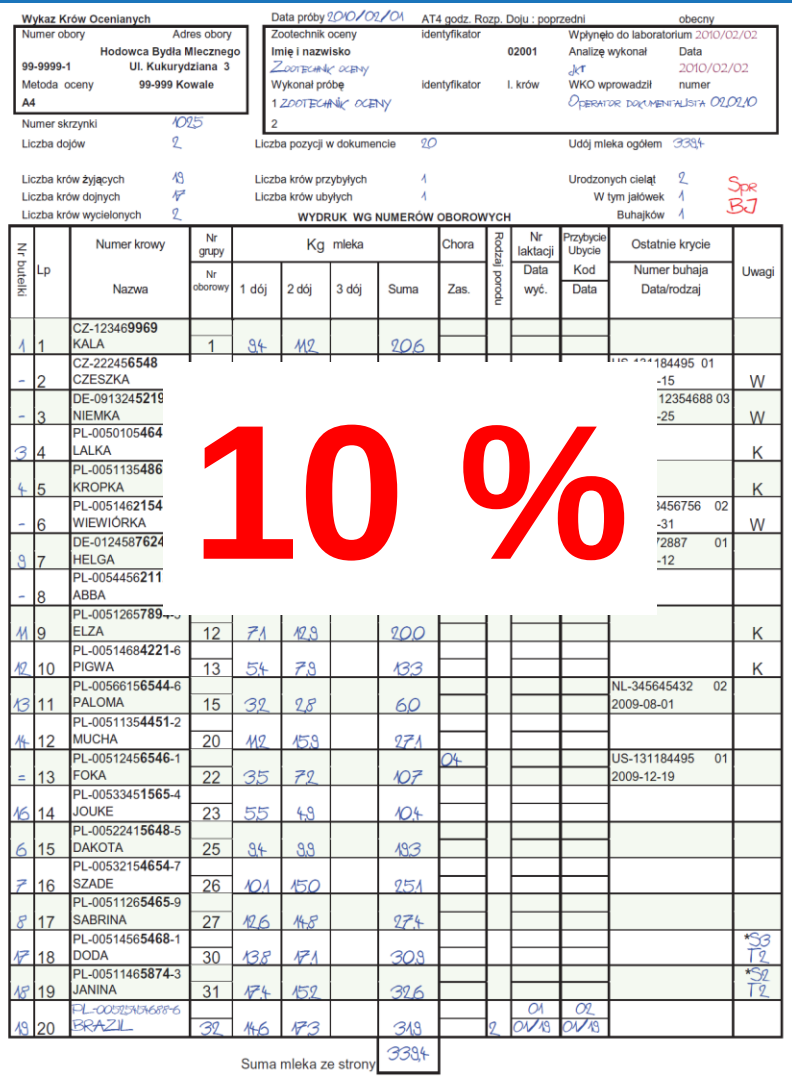
equal sample from each milking into one bottle

AR one sample within the test day
in AZ one sample AM/PM

Milk recorded herds and cows / milking system



vs. elec



Wykaz Krów Ocenianych

Data próby 2010/02/01 AT4 godz. Rozp. Doju : poprzedni obecny

Numer obory	Adres obory	Zootechnik oceny	identyfikator
Hodowca Bydła Mlecznego		Imię i nazwisko	02001
99-9999-1	Ul. Kukurydziana 3	Zootechnik oceny	
Metoda oceny	99-999 Kowale	Wykonał próbę	identyfikator I. krów
A4		1 Zootechnik oceny	
		2	

Wpłynęło do laboratorium 2010/02/02
Analizę wykonał JKT Data 2010/02/02
WKO wprowadził numer Operator dokumentalista 02.02.10

Numer skrzynki 1025
Liczba dojów 2
Liczba pozycji w dokumencie 20
Udój mleka ogółem 339,4

Liczba krów żyjących 19
Liczba krów dojnych 17
Liczba krów wycielonych 2
Liczba krów przybyłych 1
Liczba krów ubyłych 1
Urodzonych cieląt 2
W tym jałówek 1
Buhajków 1

Spr BJ

WYDRUK WG NUMERÓW OBOROWYCH

Nr buteli	Lp	Numer krowy / Nazwa	Nr grupy / Nr oborowy	Kg mleka 1 dój	2 dój	3 dój	Suma	Chora / Zas.	Rodzaj porodu	Nr laktacji / Data wyć.	Przybycie Ubycie / Kod / Data	Ostatnie krycie / Numer buhaja / Data/rodzaj	Uwagi
1	1	CZ-123469969 KALA	1	9,4	11,2		20,6						
-	2	CZ-222456548 CZESZKA										US-131184495 01 -15	W
-	3	DE-0913245219 NIEMKA										12354688 03 -25	W
3	4	PL-0050105464 LALKA											K
4	5	PL-0051135486 KROPKA											K
-	6	PL-0051462154 WIEWIÓRKA										3456756 02 -31	W
9	7	DE-0124587624 HELGA										72887 01 -12	
-	8	PL-0054456211 ABBA											
11	9	PL-0051265789-3 ELZA	12	7,1	12,9		20,0						K
12	10	PL-00514684221-6 PIGWA	13	5,4	7,9		13,3						K
13	11	PL-00566156544-6 PALOMA	15	3,2	2,8		6,0					NL-345645432 02 2009-08-01	
14	12	PL-00511354451-2 MUCHA	20	11,2	15,9		27,1						
=	13	PL-00512456546-1 FOKA	22	3,5	7,2		10,7	04				US-131184495 01 2009-12-19	
16	14	PL-00533451565-4 JOUKE	23	5,5	4,9		10,4						
6	15	PL-00522415648-5 DAKOTA	25	9,4	9,9		19,3						
7	16	PL-00532154654-7 SZADE	26	10,1	15,0		25,1						
8	17	PL-00511265465-9 SABRINA	27	12,6	14,8		27,4						
17	18	PL-00514565468-1 DODA	30	13,8	17,1		30,9						*S3 T2
18	19	PL-00511465874-3 JANINA	31	17,4	15,2		32,6						*S2 T2
19	20	PL-0052545468-6 BRAZIL	32	14,6	17,3		31,9		2	01 01/19	02 01/19		

Suma mleka ze strony 339,4

10 %

90 %

Cow - vial link
- Vial number

There are 2 general rules:

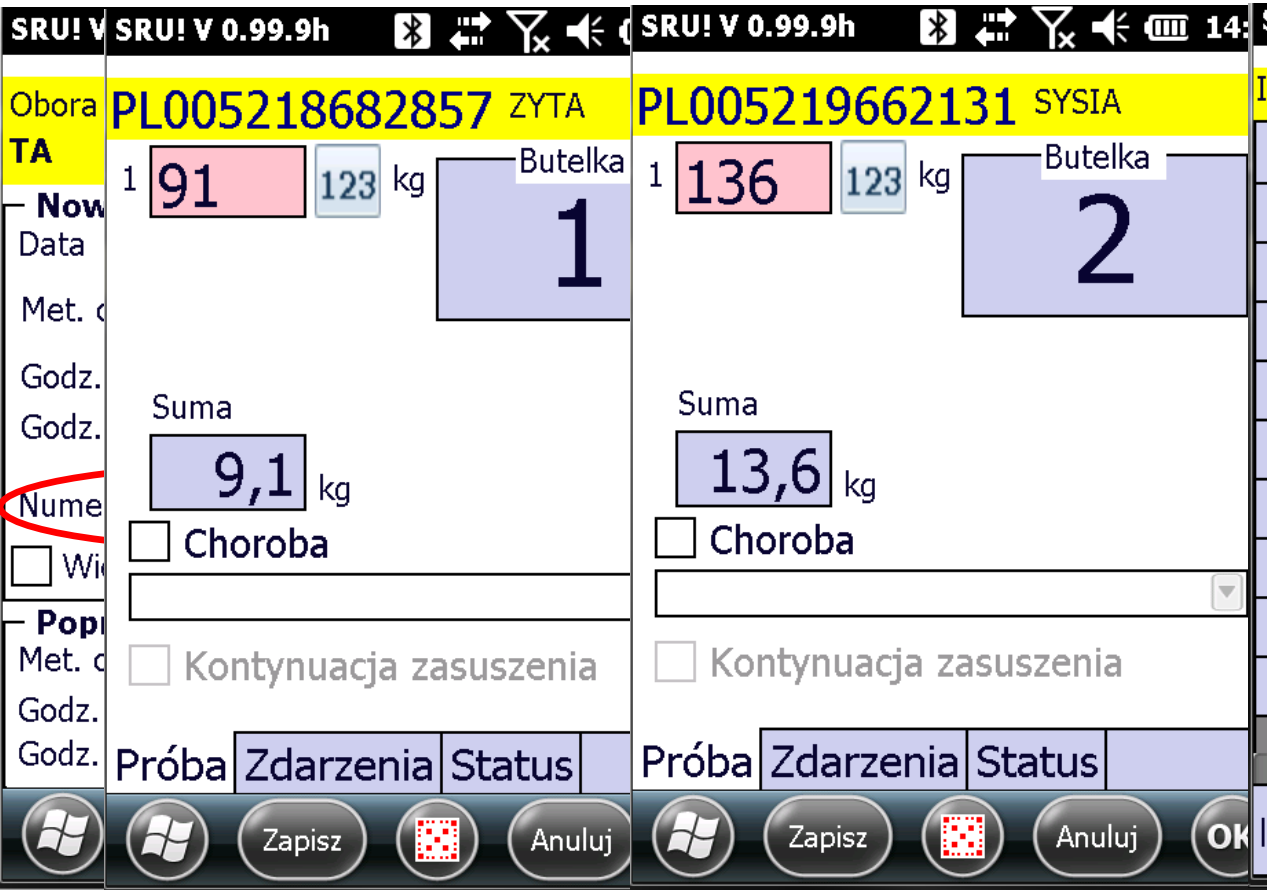
- Vials have numbers on lids
- The order of vials in a box is set

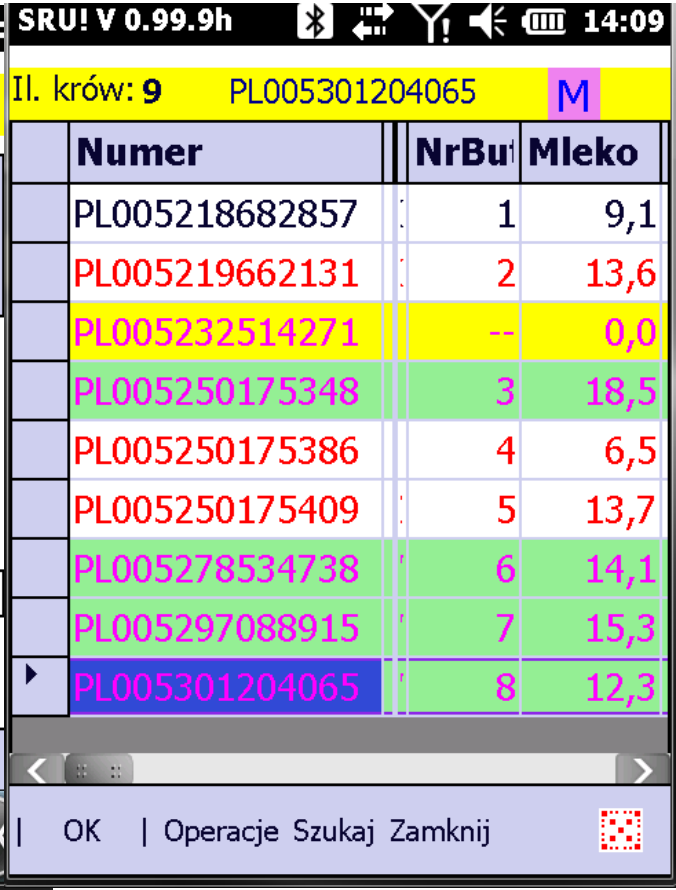
Cow - vial link
- how to make it easy

There is one general rule:

- Cows' milking order/data recording order
  = vial following number

Cow - vial link- electronic data recording





Cow - vial link: robots + EMM parlours

- Cows' milking order/data recording order = vial following numer
- In the case of AR (robot) vials numbers are set by robot
- In the case of AZ (calibrated milking parlour) vials numbers are attributed to a cow ID by a technician using APP.

Cow - vial link – shortcomings:

- **The vial lid isn’t attached to the vial body…**
- **The system demands staff’s full concentration while data recording**
- In the case of errors – lack of traceability
- **A4/A8 – at the second milking – need to find the right vial numer from the previous milking …**
- Problems in big herds where cows finish milking at the same time – need for more than one technician
- **Any change in the system needs time + money**

Cow – vial link: plans

- Implementation of bar code on vial body

Or

- Vials with RFID chips

THANK YOU

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