Milk recording 2025

- Status and Possibilities for Improvement

in CMS and AMS milking system

NAV Workshop Dairy Cattle

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Viking DK

DHI Herds Denmark 2024

Farms	**1.852**
▪ Conv.	1.567 (85%)
▪ Organic	285 (15%)
Cows	**495.859**
▪ Conv.	433.288 (87%)
▪ Organic	62.571 (13%)
ECM kg	**11.533**
Fat%	4,38
Protein%	3,67
% DHI farms	**92%**

Annual report results (1.10 – 30.9)

Year	Number of farms*	Number of cows	Average herd size	Kg Milk	% Fat	Kg fat	% prot.	Kg prot.	Kg f+p	Kg ECM
2009-10	3.655	521.576	143	9.079	4,30	390	3,45	313	703	9.440
2018-19	2.373	512.558	216	10.468	4,31	451	3,60	376	827	11.032
2019-20	2.262	513.825	227	10.504	4,29	450	3,60	378	828	11.042
2020-21	2.132	504.049	236	10.518	4,32	454	3,61	380	834	11.092
2021-22	2.014	498.644	248	10.543	4,32	455	3,61	381	836	11.118
2022-23	1.900	493.565	260	10.669	4,34	464	3,65	389	853	11.310
2023-24	**1.788**	**491.027**	**275**	**10.799**	**4,37**	**472**	**3,66**	**396**	**868**	**11.496**
Difference from last year	-112	-5.079	15	130	0,03	8	0,01	7	15	186

* Operation unit of milking farms

More cows

More milk

Focus at Fat+Protein

% cows per breed

Holstein	69%
Jersey	15%
RDC	4,5%
Cross/other	12,5%

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Change of DHI herds and cows in Denmark

	2006	2024	2030
Herds	4.900	1.900	1.300?
Cows	521.000	496.000	450.000?

Herds with + 300 cows	2006	2024
Number of herds	61	537
Number of cows	24.734	275.352 (55%)

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Milking system 2022-2024

No. Farms pr. Milking system

	AMS/VMS	Tied up	Rotary	Side-By-Side	Herringbone	Tandem
2022	588	186	152	279	866	17
2023	623	153	146	286	776	10
2024	654	124	139	267	671	9

Avg. Cows pr. Milking system

	AMS/VMS	Tied up	Rotary	Side-By-Side	Herringbone	Tandem
2022	210	60	434	415	215	174
2023	220	65	459	421	217	143
2024	224	70	488	451	225	138

No. AMS boxes pr. Farm

AMS boxes	1	2	3	4	5	6	7	8	9	10	11	12	13	14	20	24
Farms	43	213	160	11	41	47	11	11	3	3	2	3	1	1	1	1

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Focus areas – the dairy farm

- **Milk is subject to daily interest from the public**
- **Documentation, documentation, documentation**
- **Increasing number of cows per time unit**
- **Increasing amount of data**
- **Larger distance between cows and crucial decisions**
- **Welldefined responsibilities**
- **Better precision in data catch**

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HERD RECORDING IN CMS & AMS

Focus area

- Catch a reprensentative milk sample
- Milk weights
- Data quality
- Cow ID
- Speed in our sampling procedures
- Data transfer
- Equipment for milk weigths and sampling
- Maintenance and cleaning
- Staff, recruitment and education

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What Data from where?

Body condition score
Body weigth

Yield
Fat, Protein
Cellecount
Urea, Lactose
Fattyacid
Milking time
Milkflow
Estrus
Pregnancy
Conductivity
Mastitis
Pathogens
BHB
Acetone
Johne´s
Salmonella
BVD
BLV

Temperature

Respiration
Feed Intake
Chewing/Eating
Metan emission

Rumination
Heart Rate

Mobility

Animal location
Stand/Rest/Movement
Hoof Health

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Accuracy & Precision

(a) Low accuracy / Low precision **(b) Low accuracy / High precision** **(c) High accuracy / Low precision** **(d) High accuracy / High precision**

Some traits need high accuracy & high precision

- Milking speed, body weight

Some traits high accuracy & lower precision may be okay

- SCC, fat, protein

Some traits high precision is ideal and low accuracy is acceptable

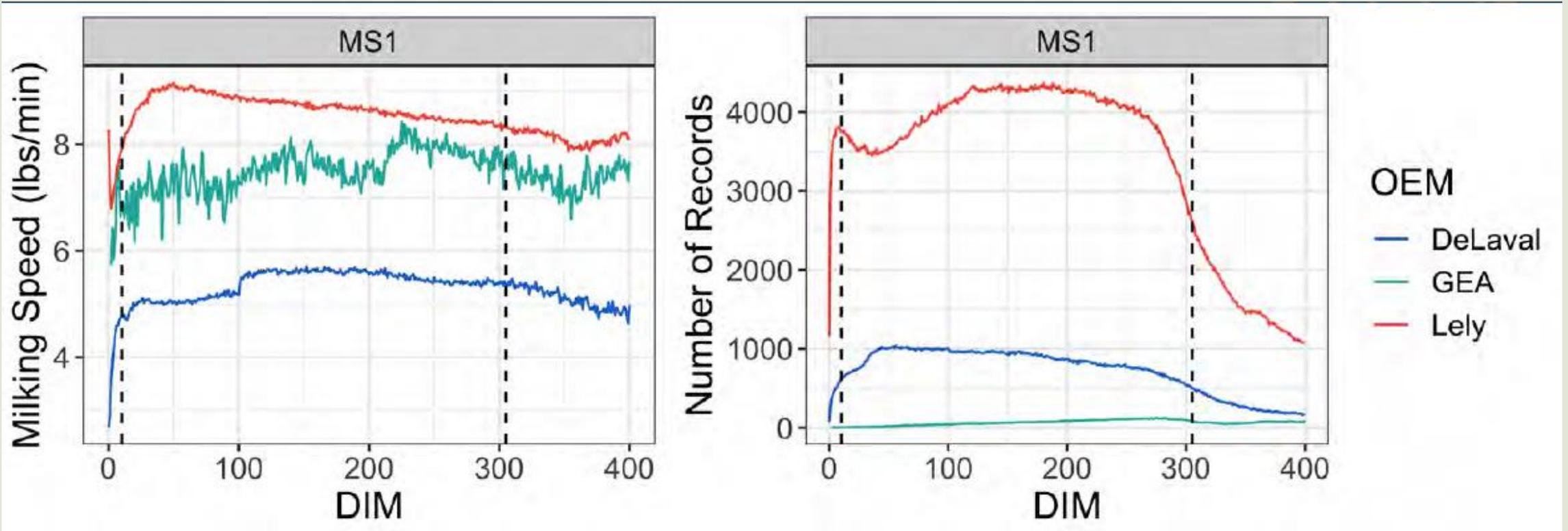- Body condition scores, activity measurements

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Cow ID and data is an issue of great concern

Cow ID
- Antenna

Device
- Milk meter
- Sensor
- Milk sample

Database
- Cow ID
- Milk weights
- Sensor data
- DDMMYYYY

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

Cow ID

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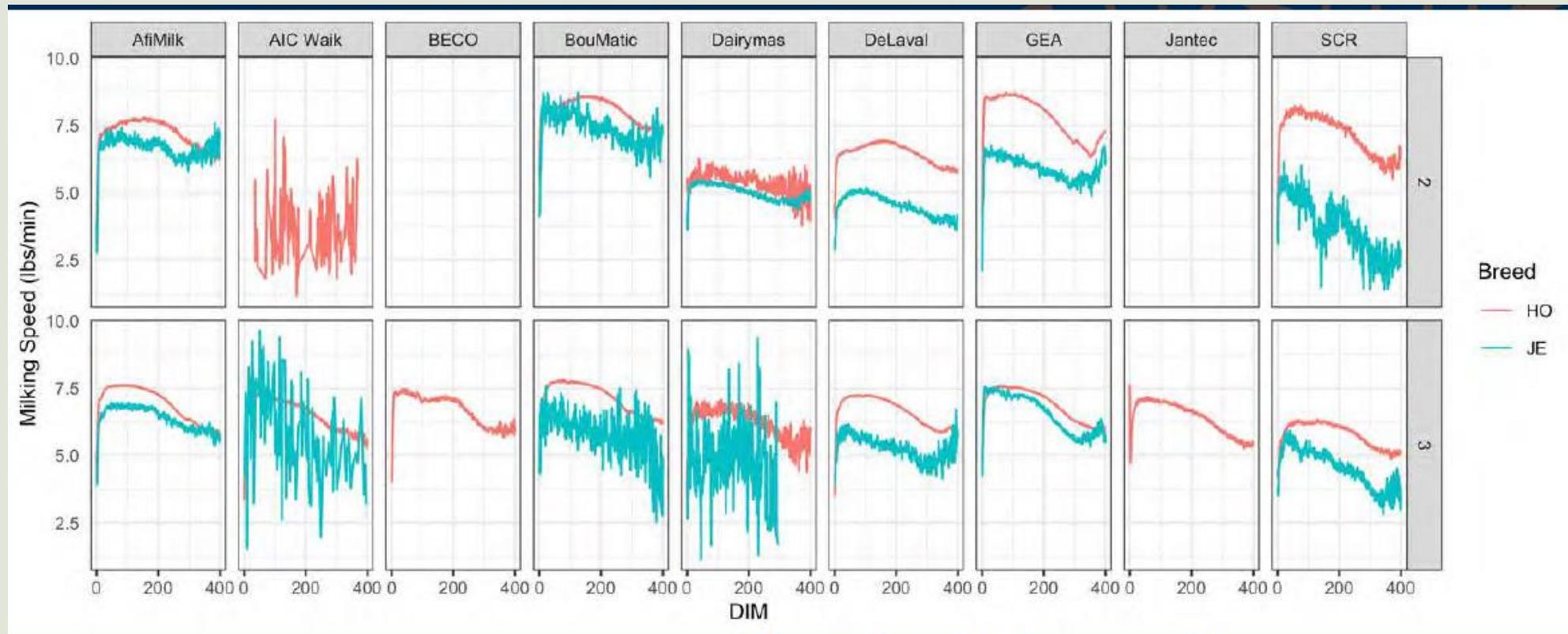# What we measure must show what we will change

Milking Speed by AMS Manufacturer   (reference: ICAR THE GLOBAL STANDARD FOR LIVESTOCK DATA)

Milk speed CMS by Manufacturer (ref: ICAR THE GLOBAL STANDARD FOR LIVESTOCK DATA)

Data driven decision….

Data driven decision….

Fedtsyre målinger

De novo fedtsyre målinger (g fedtsyrer / 100 g totale fedtsyrer) på kontroldato ( )

	9/8	20/9	12/10		Alarmgrænse
Kritiske køer % 120-250 dage	1 % (1)	17 % (12)	1 % (1)		
Gns. de novo, alle køer 120-250 dage	25,5 (73)	23,2 (69)	25,4 (70)		
- 1. kalvs 120-250 dage	25,5 (22)	24,1 (25)	24,8 (25)	✅	23
- 2. kalvs 120-250 dage	25,3 (21)	22,3 (18)	25,3 (16)	✅	24
- Øvrige kalvs 120-250 dage	25,6 (30)	23,0 (26)	26,1 (29)	✅	24

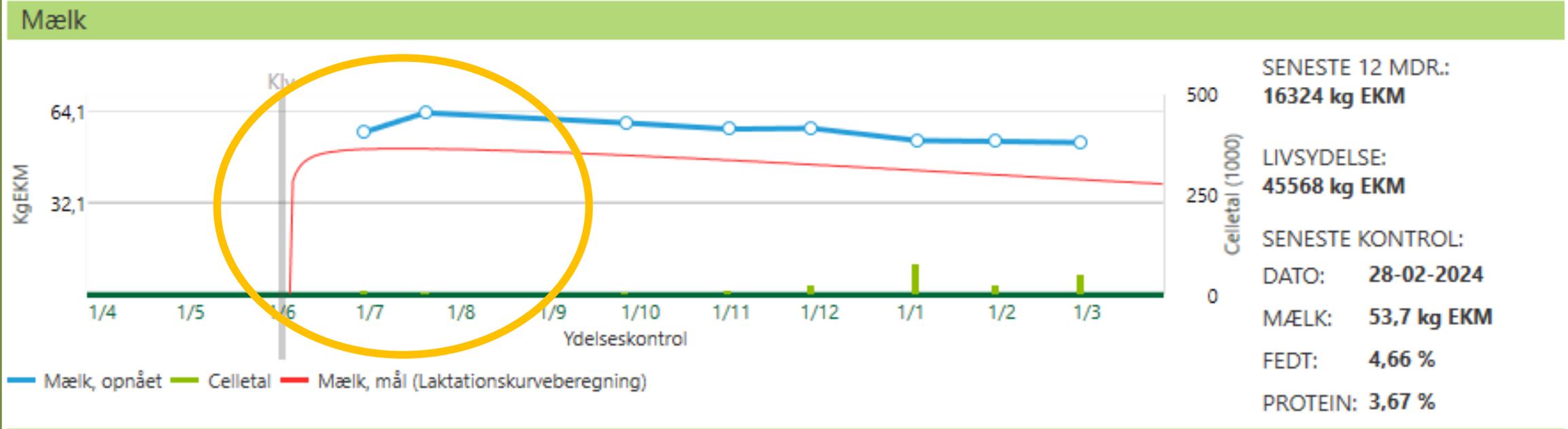Andel kritiske køer med De novo fedtsyremåling under 20 g fedtsyrer / 100 g fedtsyrer

De novo fedtsyre målinger (g fedtsyrer / 100 g totale fedtsyrer) seneste 12 måneder, alle køer 120-250 dage

Decrease in fat % connected with

low De novo

Many cows

under 20 g de novo

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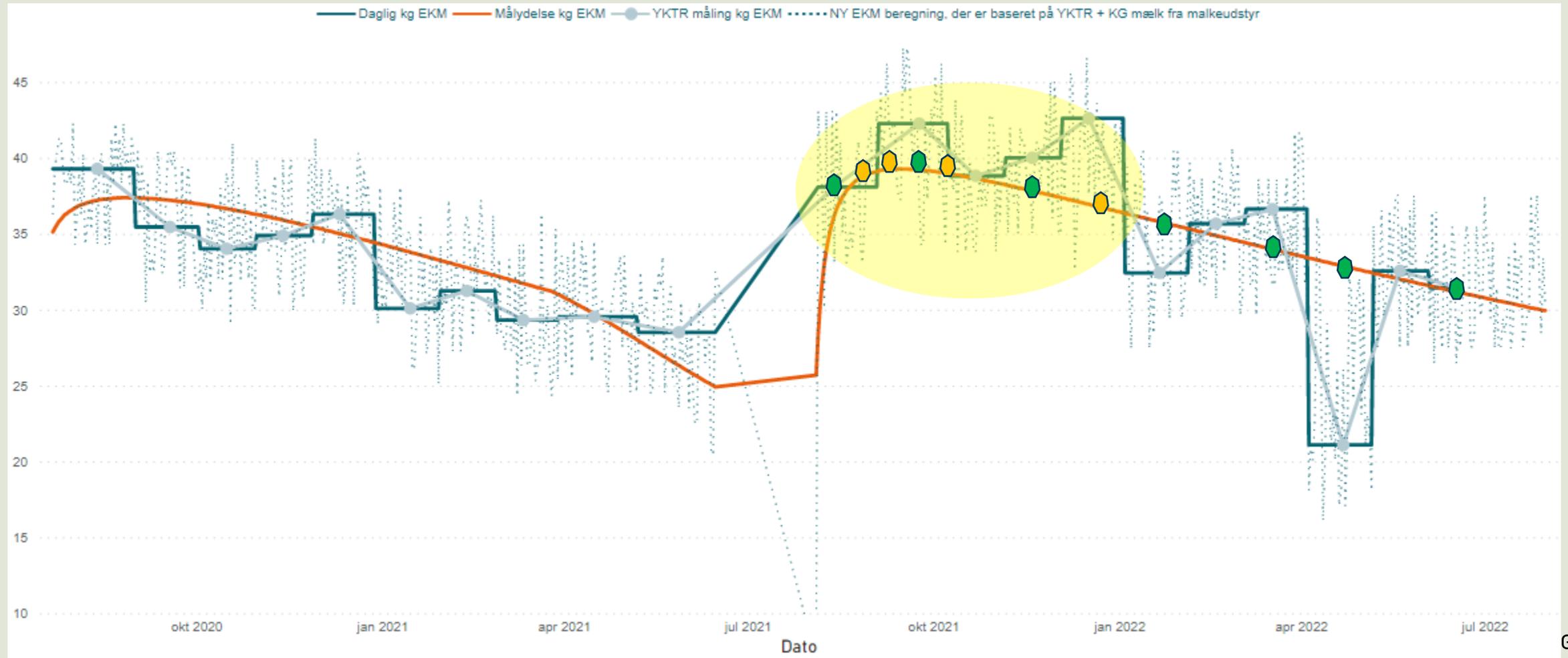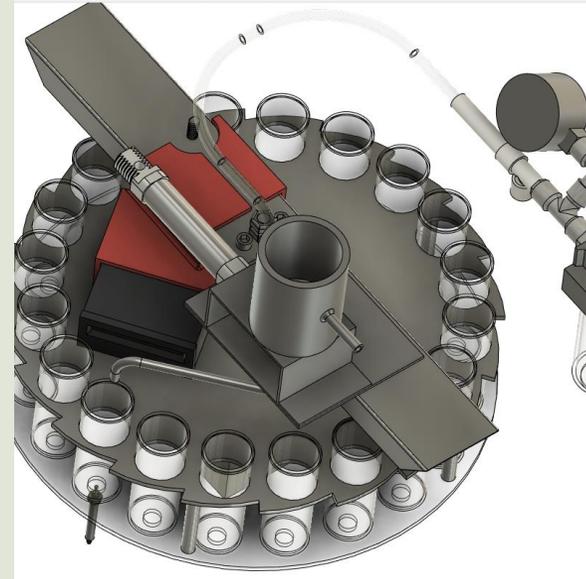# WHERE IS OUR FOCUS?

Lactation curve

Future Developments…

Daily milk yields and Sampling intervals

Future Developments…

Sampling selected cows every week

- Ori-collector sampling between recording days

- Farmer connect, sample cows, pack samples and send data.

- Data exchange AMS Farms – Central database
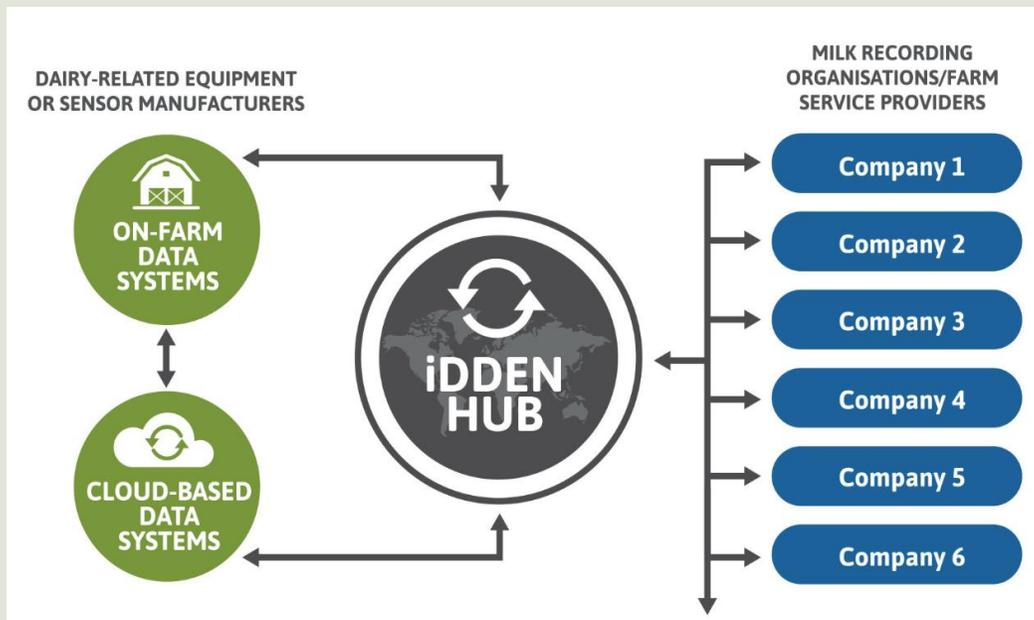

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www.idden.org iDDEN hub

Who we are.

iDDEN is the largest international dairy data partnership, bringing together farmer-owned organisations and national databases across thirteen countries representing approximately 200,000 dairy herds, 20 million dairy cows and 13 million milk recorded dairy cows.

iDDEN is owned and governed by a consortium of farmer-controlled member organizations providing dairy data services in Australia, Austria, Belgium, Canada, Denmark, Germany, Iceland, Finland, Luxembourg, Norway, Sweden, The Netherlands and the United States.
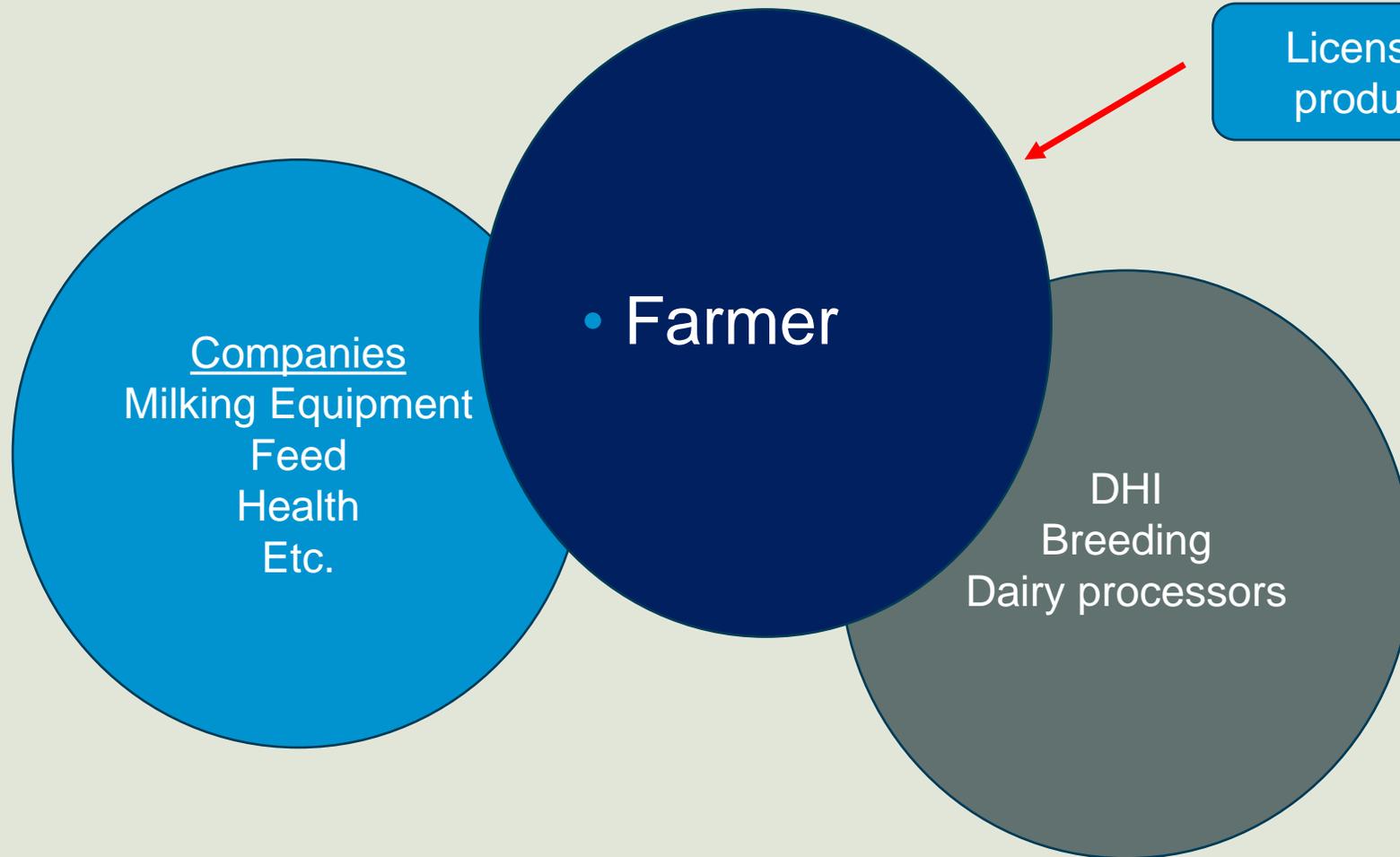
iDDEN operates in other countries through its partnerships with dairy data organisations.

iDDEN collaborates with a range of Original Equipment Manufacturers (OEMs) and further companies and organisations globally to enable faster, easier, and more cost-effective data exchange.

Data that drives decision making
The key to sustainable dairy success

Companies
Milking Equipment
Feed
Health
Etc.

• Farmer

DHI
Breeding
Dairy processors

Licens to produce

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Thanks for your attention....
Questions?

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