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INTEGRATED DATA MANAGEMENT AS A TOOL TO PREVENT DISEASES

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Background

- Many data relevant for optimization of herd health management are generated
- Many different data sources (on farm, labs, breeding, performance recording, animal health, ...)

Need of farmers

Integration of data on farm

Data from animal identification

Calving, insemination,
culling information
Performance recording

Veterinarian diagnoses
and treatments

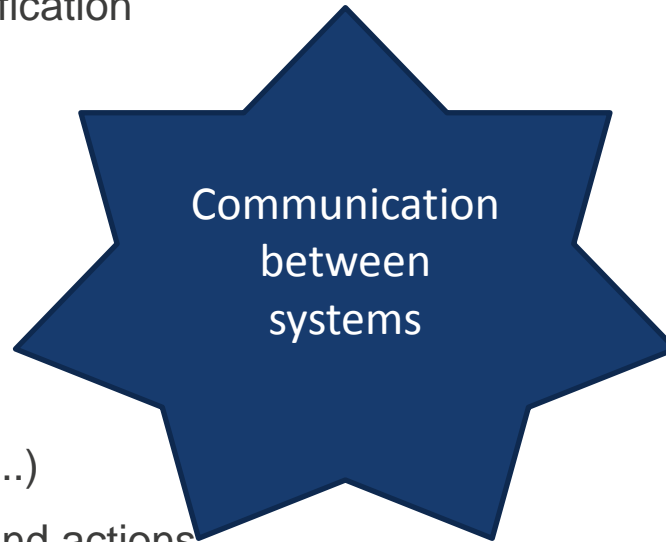
Lab data
(bacteriological findings,..)

Farmers' observations and actions,..

Genetic evaluation (EBVs, conformation,..)



Data from automation (milking, feeding,..)



Slaughterhouse, other
health data,..

Data from dairies

Feeding information
(analyses, feed plans,..)

Hoof trimming



Further data of interest
for farmer,..

Background

- Many data relevant for optimization of herd health management are generated
- Many different data sources (on farm, labs, breeding, performance recording, animal health, ...)
- **Benchmarking – comparisons between farms,...**
 - harmonization and standardisation
 - expected benefit due to integration of data
 - little communication between systems – data have to be recorded not only once
 - challenge data security concerns

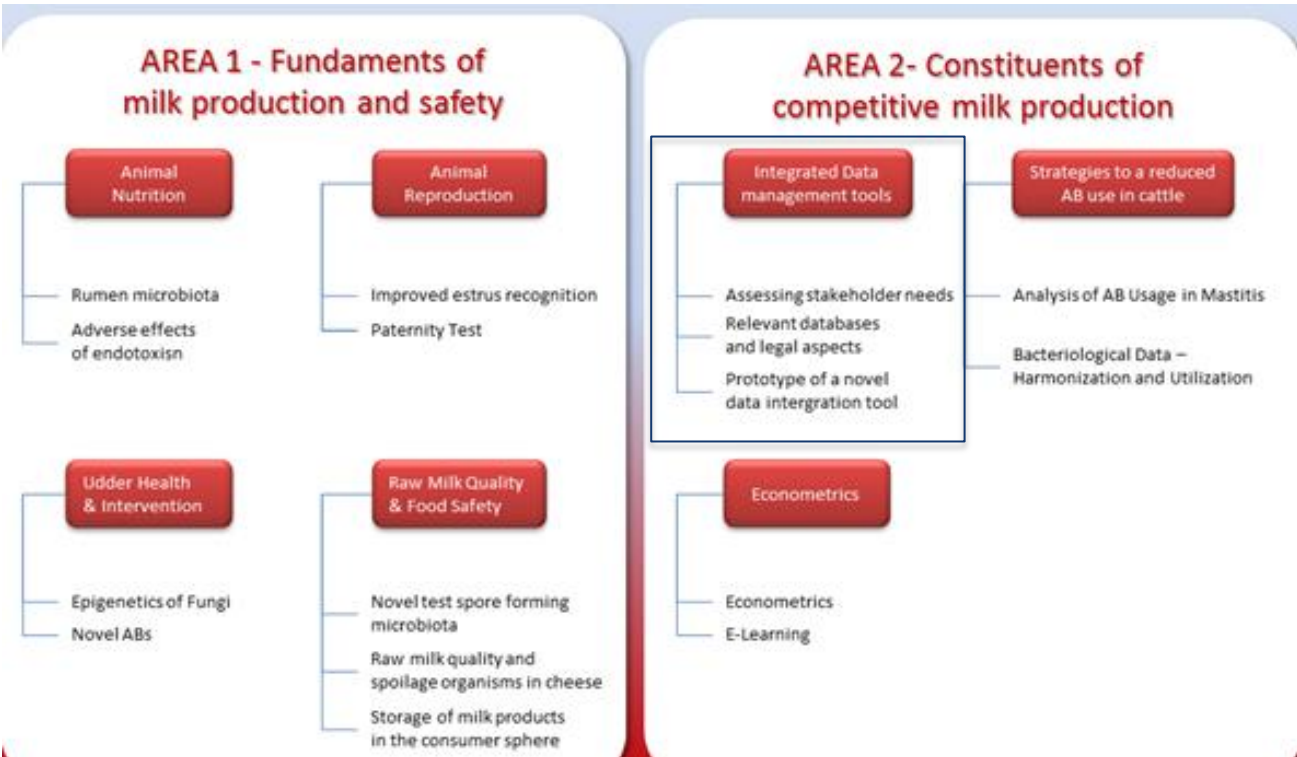


Project aim: integration of relevant data to prevent diseases

ADDA „Advancement of Dairying in Austria“

Project 2014-2017

- Research along the dairy chain including partners from farmer organisations, animal health, feeding, dairy plants, food company, labs, chambers,...to universities



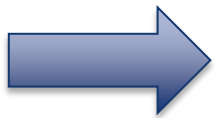
Project measures:

- Assessment of needs of farmers and veterinarians concerning use of data for herdmanagement with focus on health
- Assessment of relevant data presently available
- Studies on added value of integration of data and central availability of data
- Standardisation and harmonization (bacteriological findings,..)
- Elaboration of data security concept
- Concept for technical solution
- Organisational concept

Survey on farmers and veterinarians

Assessment of needs: topics

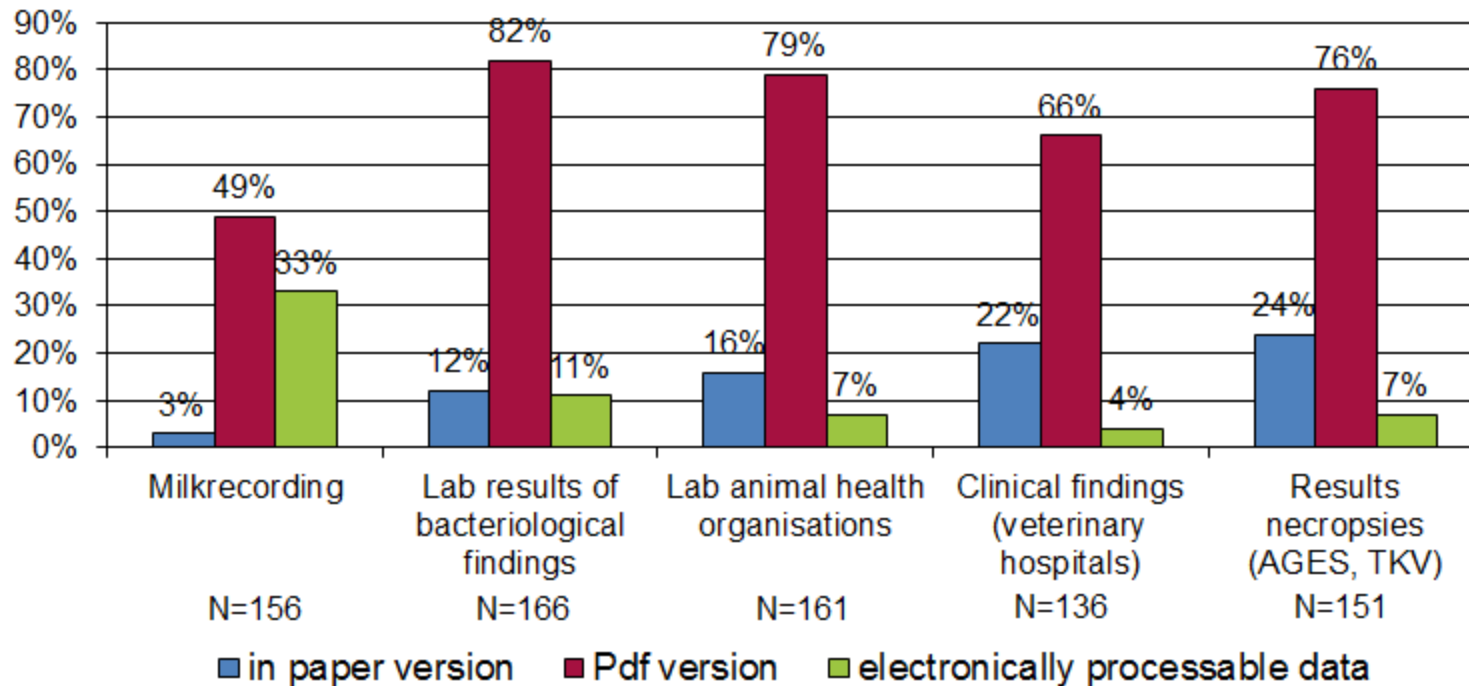
- Technical equipment on farm
- Use of electronic devices and software products
- Documentation and recording on farm
- External information for herd management
- Data interfaces
- Use of data
- Need for further developments



Similar topics assessed from veterinarians
(participation around 20% of contacted farmers (1.905) as well as
veterinarians (214))

Type of availability of external information

Results veterinarians



Only a small part of the information is received in a form that can be integrated via interfaces

Central availability of data / data exchange

Results veterinarians

	Very important/ important	Little important
Bacteriological findings	88	6
Data from milk recording	79	15
Insemination data	77	20
Status of infectious diseases	74	20
Daily updated data on animal identification	71	21
Bulk milk sample from dairies	70	23
Electronic receipt on use of drugs	68	24
Export to other programs	68	21

Central availability of data

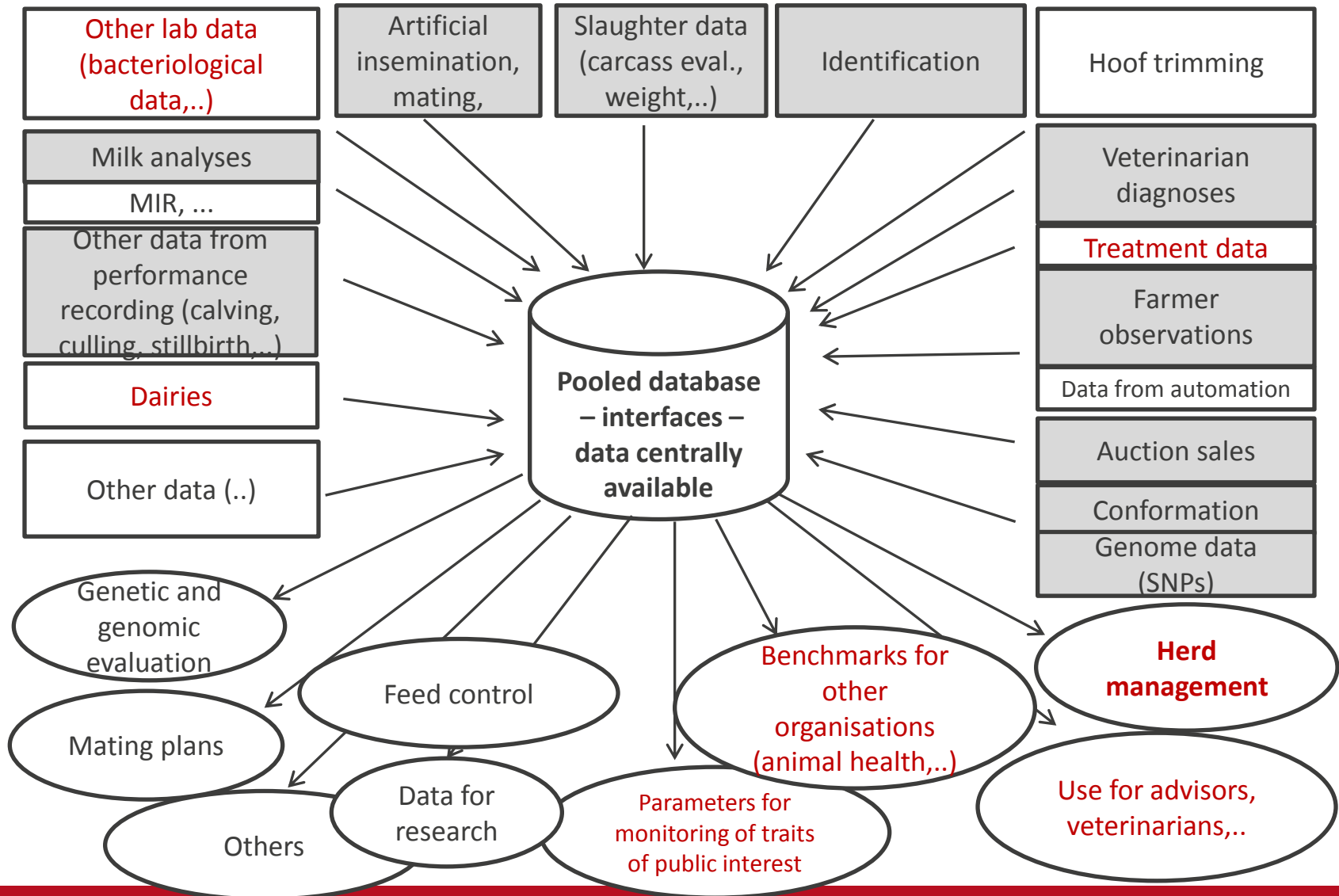
Results farmers

	Very important/ important	Little important
Bulk milk sample from dairies	82	19
Bacteriological findings	81	16
Result pregnancy test	78	19
Status of infectious diseases	72	24
Treatment data from veterinarian	72	24
Other management information (BCS...)	40	36
Hoof trimming data	39	51

Need for further developments Results farmers

	Very important/ important	Little important
Combination of existing systems on farm	78	13
Electronic transmission of veterinarian diagnoses to cattle data base (RDV)	64	29
Electronic receipt for drug use	57	37
Import of results from feed analyses	50	33
Export of data to other programs	40	36

Central availability of data Vision (Egger-Danner et al. 2014)



Central availability - easy overview for farmer

Information per cow

Datum	LTag	Text
11.08.2015	105	---- 2. Belegung ---- CASHCOIN
07.08.2015	101 PM 29,7 2,77 2,44 25 6,2
19.07.2015	82	---- 1. Belegung ---- CASHCOIN
07.07.2015	70 PM 30,5 2,99 3,05 412 20,0
03.07.2015	66	akute Euterentzündung
24.06.2015	57	Stillbrunst, Azyklie
18.06.2015	51	Stillbrunst, Azyklie
28.05.2015	30 PM 31,8 4,00 2,80 86 9,0
18.05.2015	20	Azetonämie, Ketose
28.04.2015	0	1. Kalbung 2 N
05.11.2014		Fieber, fieberhafte Allgemeinerkrankung
17.07.2014		---- 1. Belegung ---- CASHCOIN

- Auswahl anzeigen:
- Belegungen
 - Beobachtungen
 - Kalbung
 - Diagnosen
 - PM-Ergebnisse
 - Untersuchungen

Central cattle
database (RDV)

Central availability - easy overview for farmer

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Central cattle
database (RDV)

Currently information of **lab results or treatments** have to be **entered by the farmer** – automatic intergration of these data aim!

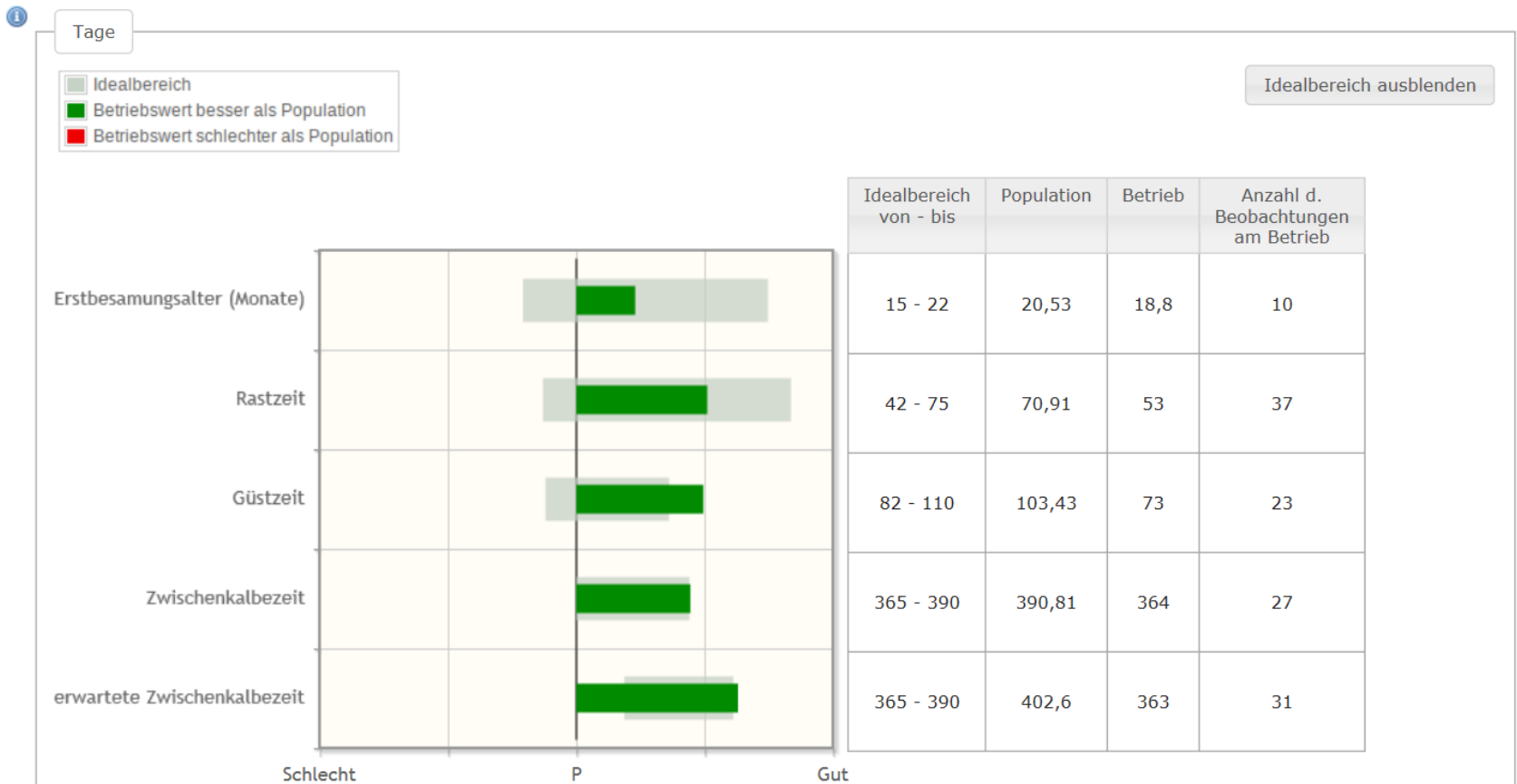
22.04.2013	173	NOTIZ : <u>BMU staph aureus</u>
29.10.2013	283	KLAUENPFLEGE Klauenpflege ohne Befund vor TS
29.10.2013	283	TROCKENSTELLEN trockengestellt <u>Orbenin LH/RH+</u>

Central availability – comparisons between farms

Praxis
Betrieb
Tier

Fruchtbarkeit

Datum von: 25.08.2014 Datum bis: 26.08.2015 anzeigen



Summary

- Many different data are generated on farm, but also externally which are relevant for optimization of herd health management
- Need for standardisation and communication between systems (less work for farmer; better quality of tools,..)
- Elaboration of an integrated data management tool in cooperation with the different partners involved in herd health management and prevention
- Challenges (data security, complexity, many different partners,...)



Chance of added value, which one organisation can not achieve!

Acknowledgement

- Very good cooperation between project partners within ADDA („Advancement of Dairying in Austria“)
- The funding agencies of the project:

COMET

Competence Centers for
Excellent Technologies



FFG

bm v f

Bundesministerium
für Verkehr,
Innovation und Technologie

wirtschafts
agentur
wien

Ein Fonds der
Stadt Wien

bm w fi

Bundesministerium für
Wirtschaft, Familie und Jugend



Project partner

Research partner



Company partners

From production till processing within dairy sector



natürlichrind
vöcklabruck





Thank you for your attention!