

## ADE implementation at iDDEN

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Exchange of data between on farm equipment and farmer owned Dairy Data organization (DDO) databases has been a subject for years. With the updated ADE standard and the iDDEN integration we see the following advances to be ready to be harvested for the different stakeholders

### Abstract

- MRO (milk recording organization) / DDO (Dairy Data organization)
  - Data for milk recording
  - Data for breeding evaluation
  - Data for decision support
  - Only one integration (there will be some minor extra work pr OEM)
- OEM (management system in connection to on farm equipment)
  - Only one integration (there will be some minor extra work pr MRO/DDO)
  - Maybe even better market position
  - Data back up
- Farmers
  - Data only have to be recorded once
  - Better data - Les bugs in data
  - Better decision support on more data from management systems
  - Easier daily routines – les trouble

Exchange of data within the dairy business has been a subject for many years. The farmer and the service sector around the farmer see a growing need to have data available wherever relevant. With the dramatical growing number of sensors in the business and the increasing number of data the challenge is only growing

### Introduction

Throughout the years the Electronic Data exchange, ADE, working group in ICAR has been working on a harmonized data description and some entities in the market has started the implementation of the standard. One of them is iDDEN, who is a not profit company of DDOs from the countries listed in Table 1

Table 1. List of countries participating in the ICAR ADE WG.

| Shareholders   | Designated Area Responsibilities  |
|--|---|
| <ul style="list-style-type: none"> <li>• CRV</li> <li>• DataGene</li> <li>• Lactanet</li> <li>• NDHIA</li> <li>• NCDX ApS</li> <li>• RDV</li> <li>• vit</li> </ul> | <ul style="list-style-type: none"> <li>• The Netherlands &amp; Belgium</li> <li>• Australia</li> <li>• Canada</li> <li>• USA</li> <li>• Den, Ice, Fin, <u>Nor</u>, Swe</li> <li>• Austria, Germany</li> <li>• Germany, Luxemburg</li> </ul> |

With the whole set up in place we are see that we are about to overcome the challenge about “who to be the first if nobody else are using the system”

### Experiences of implementation

The Danish DDO (Dairy Data Organization) owned by the farmers organization and operated by SEGES innovation has for more than 10 years work with exchange of data first on national level, then in cooperation with the other Nordic organisation, where the NCDX system was developed and latest in a worldwide perspective with the iDDEN system. The main challenge has been that all supplies of on farm equipment must integrate to a variety of different DDOs and wise versa seen from DDOs point of view – in the perspective that the farmer is asking for the exchange

With development of NCDX we saw positive attitudes in the market, and some integrations that increased the amount of data which were exchanged. When iDDEN was established and used the NCDX as basic and decided to upgrade to the ADE standard it seems like a breakthrough. There is a growing interest from suppliers of equipment and DDOs outside iDDEN

### Which data

From the start there has been a demand to start with most used data like reproduction data. Later came other data items like milking data, health data, which are the main categories in the iDDEN system today. The wishlist for more data items is long and are dynamic prioritized by the ADE WG and the users of the ADE standards. Next in line is right now sensor data, feeding and group data

### Data both way

To cover the variety in usages and practice in different situations, it has been important for iDDEN that data can be exchanged both ways. In the most ideal situation this means that the farmer can choose where to enter data and that data are available where needed

### Variety in which data to exchange

In the iDDEN agreement is included a data exchange agreement which is meant to be local. The data exchange agreement will regulate which data are to be exchanged by

the individual supplier of equipment and the individual DDO. In that way it is possible to respect the different business situation, there is in different local areas

From the DDOs in iDDEN 4 have been working on there integration and on the supplier side at least to are working on the integration, and more are about to start. In Denmark we expect to go in production test on a farm and test on real data in June 2022

## Status to day

The challenge of getting data to flow between the stakeholders around the farmer can be solved. By having an independent body as the ADE WG in ICAR, and non-profit company to take care of the implementation in an IT system, it is possible to develop and maintain a HUB so cost effective that it is attractive for the different stakeholders. We hope this will continue with increasing user, because with more users the fee for using the system will decrease

## Conclusion

Thanks to iDDEN group, both the shareholder representatives and other related who have worked on making iDDEN a valuable system for the farmers that are listed below:

## Acknowledgement

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