



## **17. Data Governance How do Organizations Deal with Stewardship of Farmer Data?**

### **Title presentation**

iDDEN: An international perspective

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### **Abstract**

The dairy industries world wide are facing many of the same challenges: fewer and larger dairy farms, more investment in on-farm technology and significant industry demand for the efficient collection, exchange and integration of this data. The on-farm technology choices traditionally available from a few brand name equipment manufacturers is now being crowded with a growing number of start up sensor/tech companies and increasing market penetration of herd management software companies. The ability to effectively move and manage data with a growing number of suppliers and lack of industry standardization has created an increasingly inefficient process. As well, equipment manufacturers are continually pressured to meet the data interface demands of multiple (national) organizations and this detracts from their primary objectives of developing innovative milking and herd management technologies.

To address this increasingly costly issue, seven farmer owned organizations have collaborated in the establishment of a unified international dairy data exchange network partnership (iDDEN GmbH). Together the organizations represent about 20M dairy cows on 130,000 dairy farms in 13 countries on 3 continents. The objective of the partnership is a critical mass of organizations that would coordinate unified data exchange and integration with dairy equipment manufacturers and other entities involved in herd management. Given our intent to integrate ICAR-ADE standards wherever possible, we have started work with three initial manufactureres given their intent to switch to the ADE standards. Once completed, we will continue with the addition of manufacturers and then expand the geographic service regions. The end goal is to provide global access for other organizations while retaining leadership by a farmer lead organization.

iDDEN has purchased the former NCDX data exchange system used in the Nordic countries and expands it currently to connect to cloud based data repositories. In principle the newer data exchange technologies (JSON-REST) using ICAR-ADE standards will be implemented where possible and available. The objective is to create a standard process for parties involved in data exchange being milk recording, genetic evaluation or other groups.

As it relates to data governance, the data will be real time transfer and no data would be stored or retained by iDDEN. As well, appropriate authentication will be required by the farm and the end user



to ensure that only approved parties will have access to farm data or data centrally stored – either direct or via cloud connections where available. Other than data transfer security, the data governance issues of privacy and ownership will remain the responsibility of the organizations and farms using the exchange service