



THE GLOBAL STANDARD  
FOR LIVESTOCK DATA

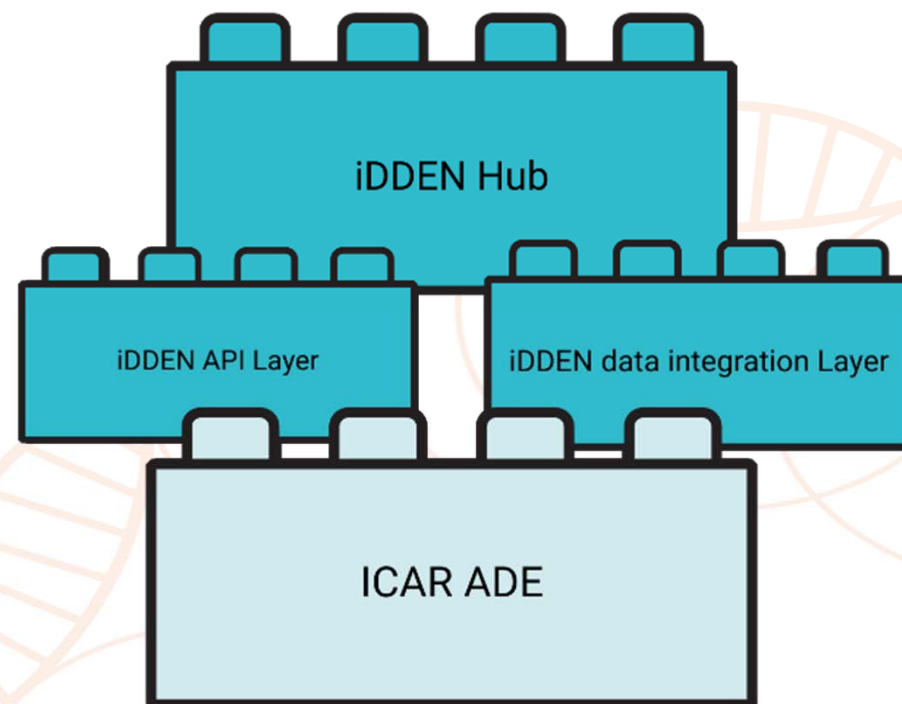
Network. Guidelines. Certification.

# Use of Animal Data Exchange Standard for Sensor Data Exchange in iDDEN

23-1-2026 Valerija Volcic, iDDEN

## ADE as the core building block from the beginning of iDDEN

- iDDEN Hub is a REST interface that is built on ICAR ADE
- It ensures ICAR ADE-standardised data for clients, abstracting communication logic and database addresses



## Sensor data in iDDEN

- Observation and attention events
- Mostly from pedometers, collars, eartags, boluses, but also from the milking robots' sensors
- These devices generate high-frequency, animal-level time-series data with strong potential for health, welfare, and management insights



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## Sensor data in iDDEN







The **ADE standard** enables **structured, interoperable exchange** of such data across systems

**However, only a subset of available data is currently exchanged,**  
due to:

- data quality and validation constraints
- intellectual property and commercial sensitivity
- unclear ownership, consent, and liability frameworks

## How is ADE used in iDDEN to exchange sensor data

- Countries have **different regulatory, operational, and industry requirements**
- iDDEN provides a **neutral platform** to jointly interpret the use of specific ADE fields and document **country-specific mappings**

			
			
heatDetectionMethod	only "visual"	not in use	Chemical, Visual, Pedometer, Collar, EarTag, Bolus, Other
certainty	always "InHeat"	not in use	InHeat, Suspect, Potential
heatIntensity	Veryweak, Weak, Normal, Strong, Very strong	Veryweak, Weak, Normal, Strong, Very strong	Weak, Normal, Strong

## How is ADE used in iDDEN?

- Real example

Farm ID (national ID)

Success, fail statuses

Response time

Id	Message type	Location Id	Client organization	Data provider organization	Created at	Status	Has errors	Duration (ms)
d31bcd2e-581f-401b-6732-08de5701fe47	PostHeats	06712	CowManager B.V.	Vereinigste Informatie	19.01.2026 20:01	200		298
ea38b578-8b49-490c-6728-08de5701fe47	PostHeats	06712	CowManager B.V.	Vereinigste Informatie	19.01.2026 19:04	200		299
da52857d-d034-4825-6727-08de5701fe47	PostHeats	06712	CowManager B.V.	Vereinigste Informatie	19.01.2026 19:03	200		4278



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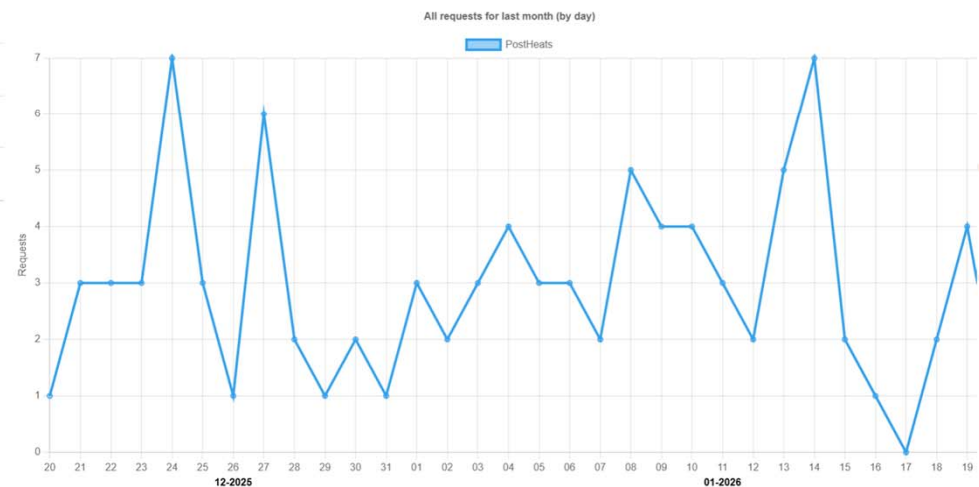
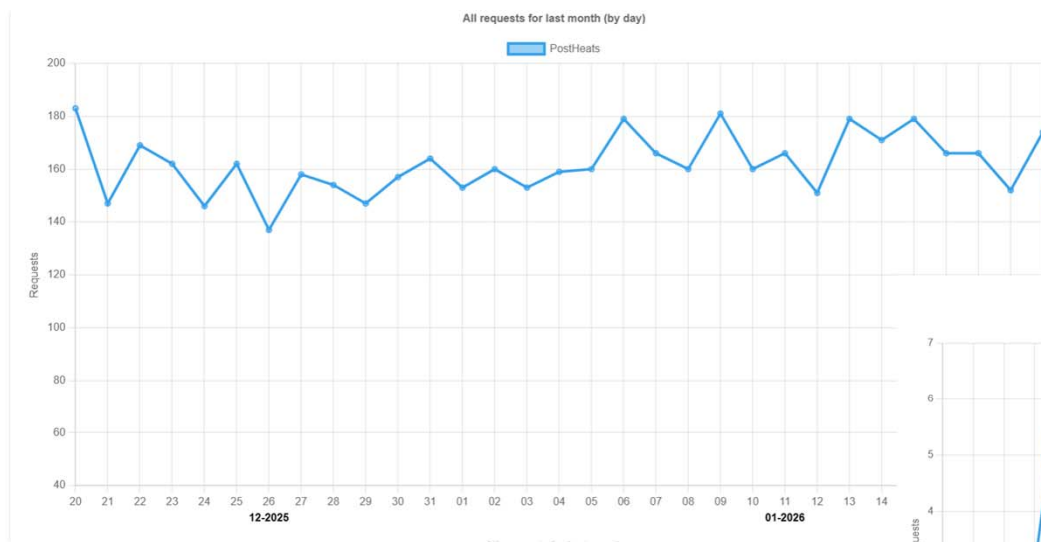
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## How is ADE used in iDDEN?

- Real example

Live demo from the AdminTool

# How is ADE used in iDDEN?





THANK YOU

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