



***Global Insights from iDDEN:
Real-World Applications and
Lessons from Implementing
the ADE Standard***

28th May, 2025



Who are we?



15 countries

- Australia
 - Canada, USA
 - The Netherlands & Belgium
 - Denmark, Finland, Iceland, Norway, Sweden
 - Austria, Germany, Luxemburg
 - Italy, Switzerland
- ... expansion ongoing



7 owners dairy data organisations (DDOs)

with dairy data from
35 herd recording organisations
representing

**20 million cows
&
200,000 dairy herds**



6 technical equipment companies

Three strategic partners

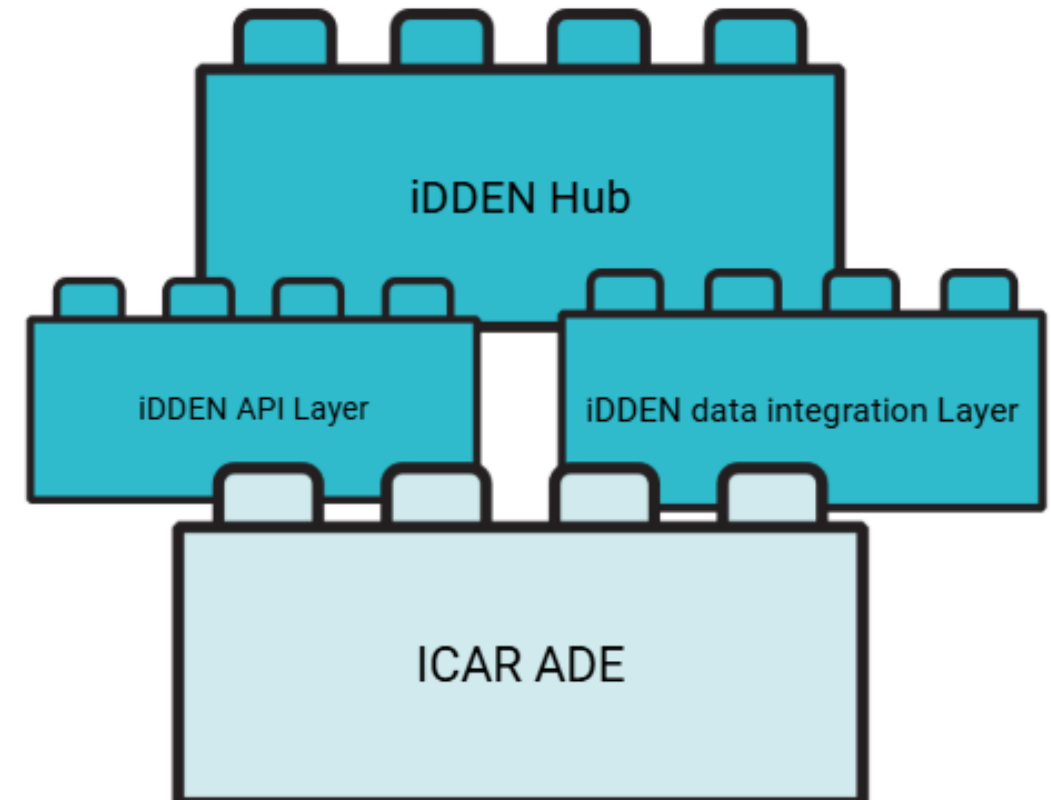
- Lely
- GEA
- DeLaval

Specialised manufacturers

- CowManager
- smaXtec
- Afimilk

ADE as the core building block from the beginning of iDDEN

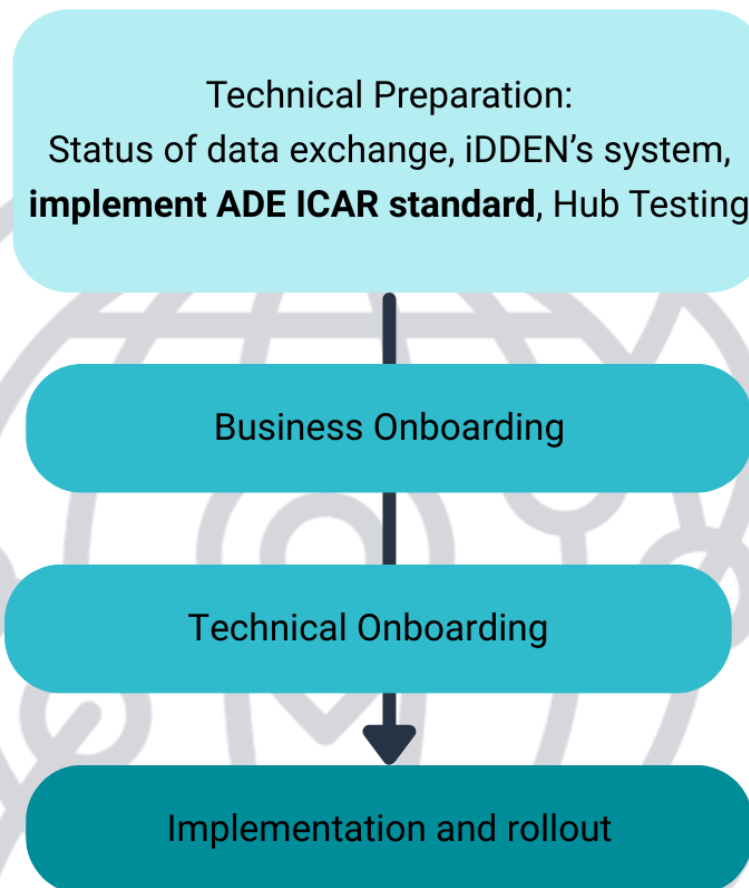
- iDDEN Hub is a **REST interface** that is built on ICAR ADE
- **It provides ICAR ADE-standardised data** for clients, abstracting communication logic and database addresses



How does iDDEN help its users use ADE?



- First part of the onboarding: Introduction to the ADE standard and its implementation within iDDEN
- Implement messages gradually, driven by the needs and priorities of the data exchange partners
- Begin with a pilot, testing selected messages and farms before broader rollout
- Add new ADE messages incrementally, typically 1–2 weeks of effort per message

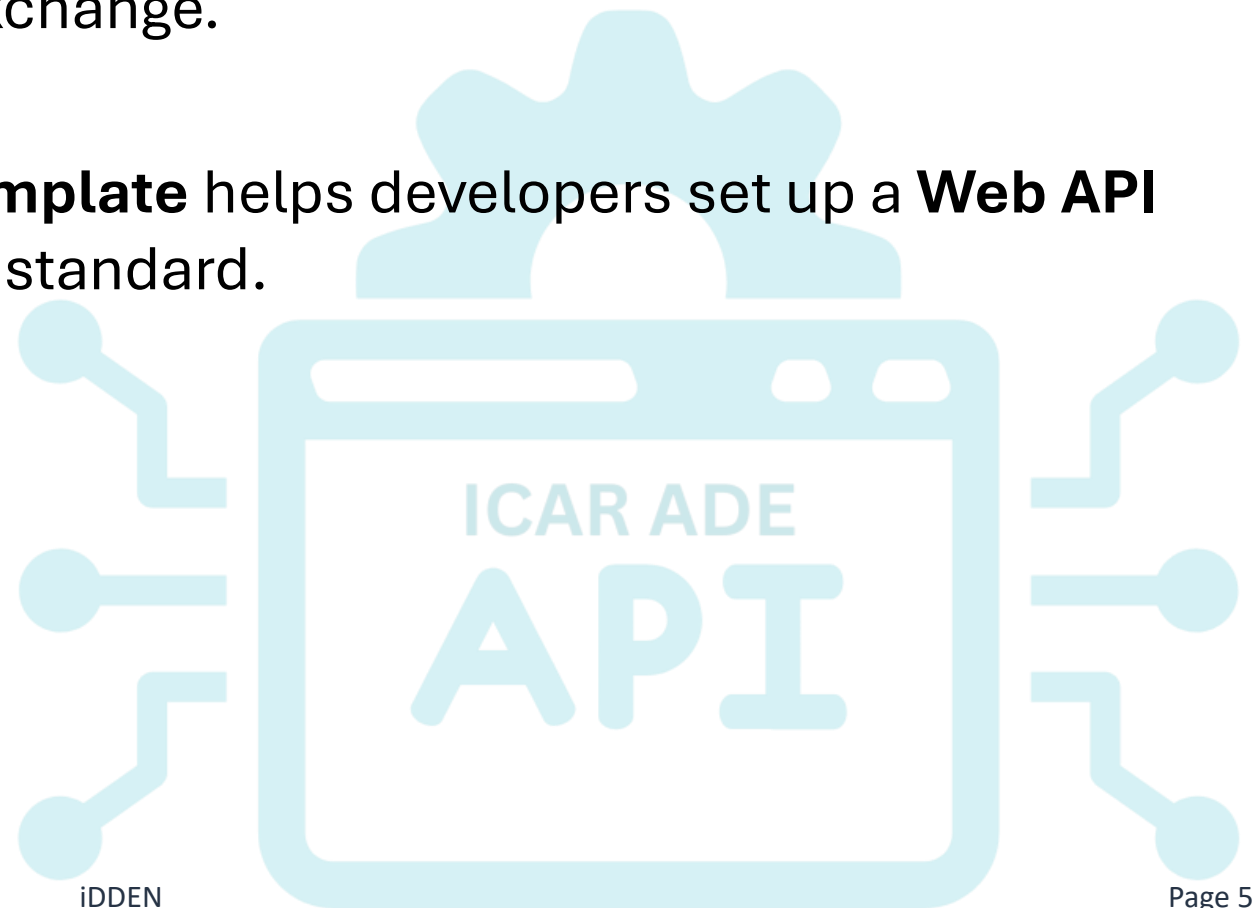


How does iDDEN help its users use ADE?



Each registered data provider needs to develop and provide **its own ICAR ADE compatible data service** for data exchange.

A ready-made technical project template helps developers set up a **Web API** that is compliant with the **ICAR ADE** standard.



How does iDDEN help its users use ADE?



The template includes:

- A **starter codebase** that is functional right out of the box.
- It is delivered as a **NuGet package** (a common way to distribute .NET libraries or templates).
- The code follows ICAR ADE **version 1.3** (a specification for animal data exchange).
- The setup includes essential tools for documentation and JSON processing.

How does it help you?

- Save time by starting with working code
- Avoid setup errors
- Stay compliant with the required data exchange format
- Have a built-in test interface (Swagger UI) to check your API easily

ADE Implementation Today



6 out of 7 shareholders have implemented 10+ ADE POST & GET endpoints



iDDEN is continuously encouraging and supporting more organisations to implement ADE Standard, distributing documentation and support services

ADE Implementation Today



Current status:

Version 1.3 in production

Version 1.4 in integration/testing

Goal: Full **compliance and interoperability** across the network

iDDEN is using the upgrade to **reduce custom deviations**

Next steps for 1.4: Partner implementations and production rollout pending
Finalisation planned by December 2025

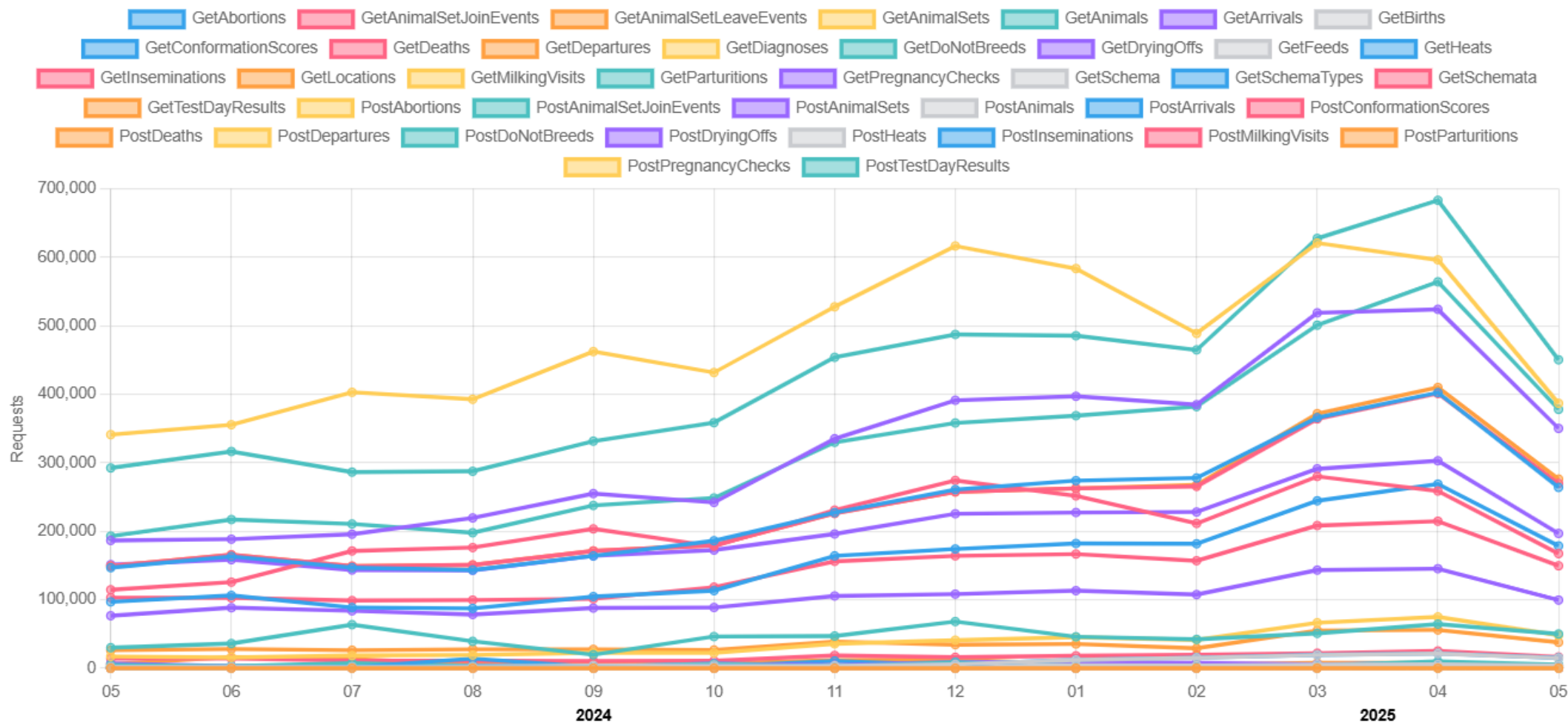
Most used ADE messages in the past year



iDDEN

The international dairy data exchange network

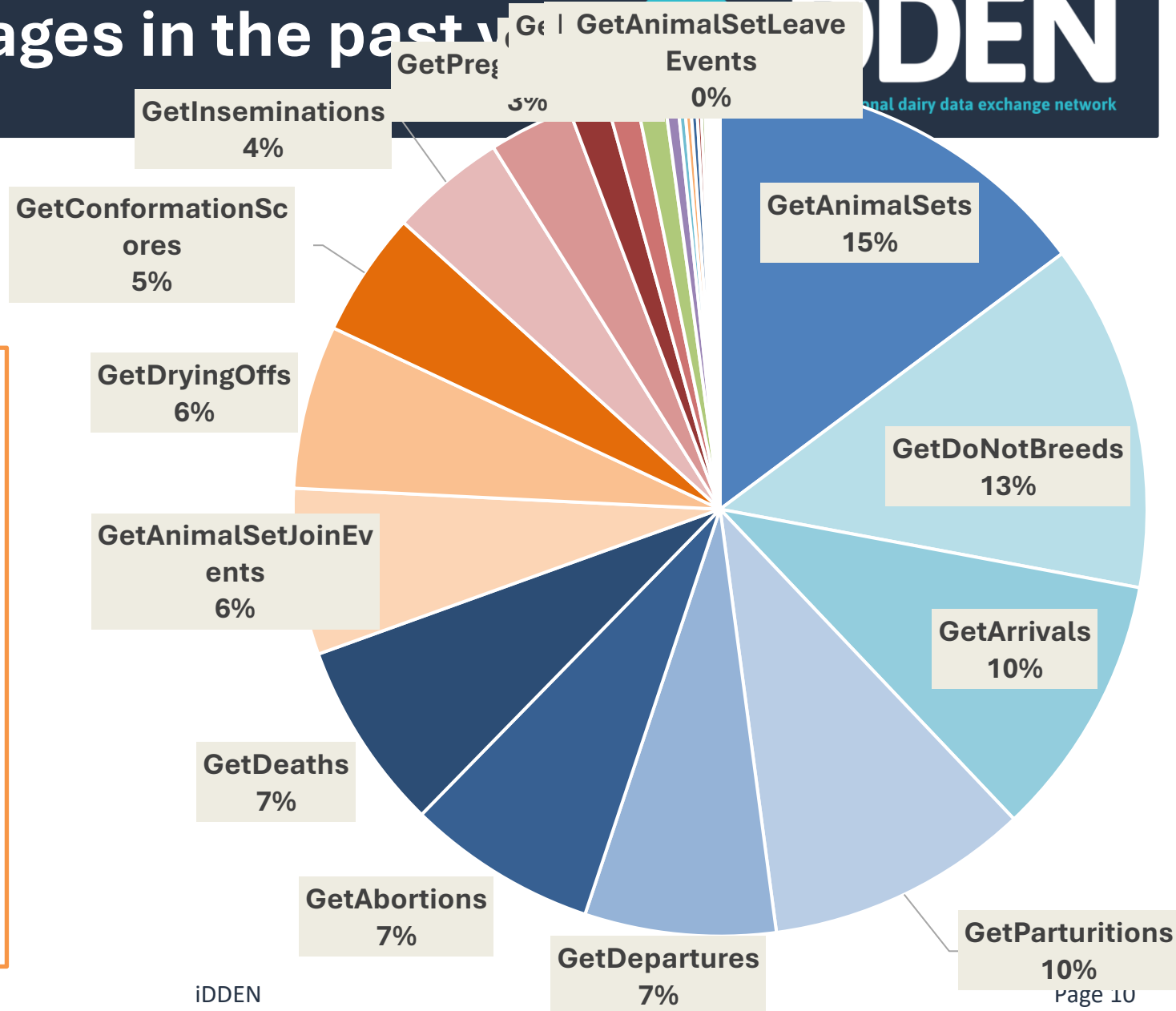
All requests for last year (by month)



Most used ADE messages in the past year

Most used Post messages:

- PostMilkingVisits
- PostParturitions
- PostDryingOffs
- PostAnimalSetJoinEvents
- PostInseminations
- PostHeats



ADE-compliant ≠ plug-and-play

Even when systems support ADE, users encounter *country-specific exceptions* that break compatibility—such as custom enumerations, missing optional fields, or unstandardised extensions.

Every country has its own interpretation:

From reason codes to event structures, different DDOs implement the standard differently, forcing **separate configurations** and mappings for each market.

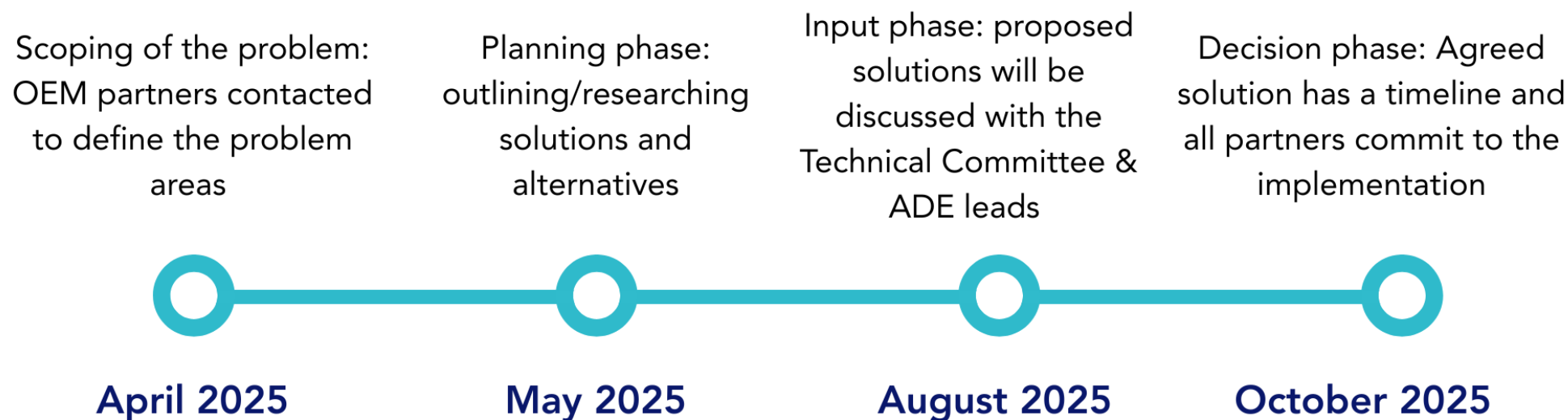
DDOs have different responses (enums) for certain messages.

- Departure reasons/types
- Arrival reasons
- Calving Ease
- Death reason/type

Challenges and Future Prospects



An iDDEN task force was established to review exceptions and additional codes that differ from the ADE standard and suggest solutions with the support of ADE WG



Adding the iDDEN reason codes scheme to [icarReasonIdentifierType](#)

ADE 1.4 includes **icarReasonIdentifierType**

- Scheme-based method of defining extended reason codes
- These extended reason codes can be added to the death, departure, and do-not-breed events
- Each of these events may have an array or list of extended reasons, in case there was more than one reason for death or departure

Call to Action



Join us in helping to improve the ADE standard and find work arounds for these challenges! If you have any comments, questions or suggestions, please reach out!

Contact: valerija.volcic@idden.org



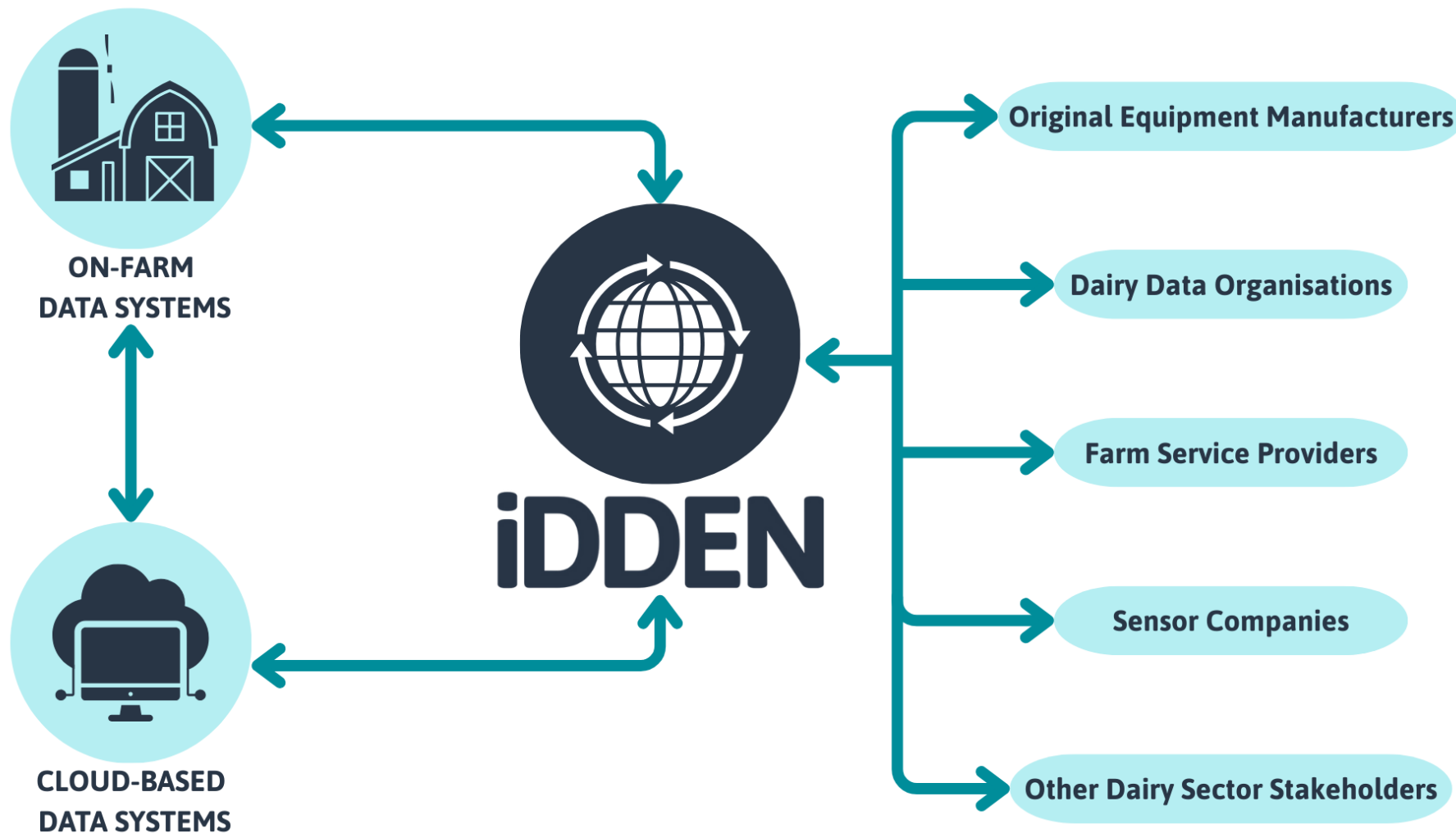


THANK YOU

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Scope of iDDEN



Standard data transfer mechanism

- Standard API with minor tweaks

Decentralised authentication

- Ensuring sovereignty of all users and reusing existing infrastructure

AdminTool

- For troubleshooting, and monitoring
- No data storage beyond 24h



Data standardization

- Data definitions based on the ICAR ADE standard

Centralised iDDEN-ID

- unique ID connected to the Hub API key