Agricultural Interoperability Network

- Closing the gap in Ag data exchange
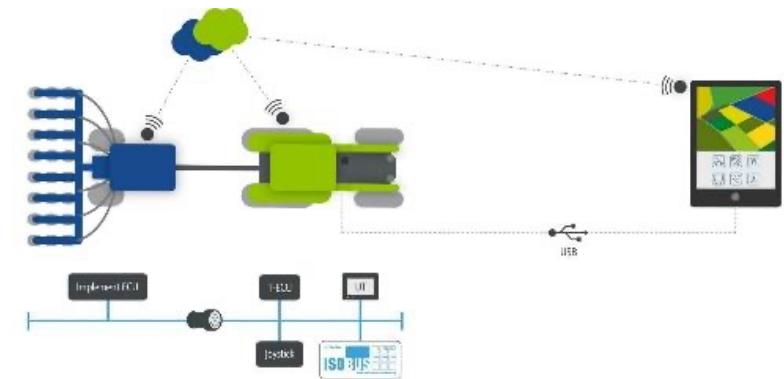
AgGateway Europe – March 14, 2025 – Berlin, GER

Norbert Schlingmann
General Manager
AEF e.V., Germany

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The AEF

- **A**gricultural Industry **E**lectronics **F**oundation
  - Founded in 2008; 8 major agricultural equipment manufacturers and 3 trade associations
  - Over 290 member companies

- Worldwide support of ISOBUS implementation
  - Structured in up to 19 different teams
  - Supported by 5 international test labs to certify products

- Define guidelines for Ag industry
  - Focus on Tractor – Implement connection using ISOBUS
  - Data exchange between machines and clouds
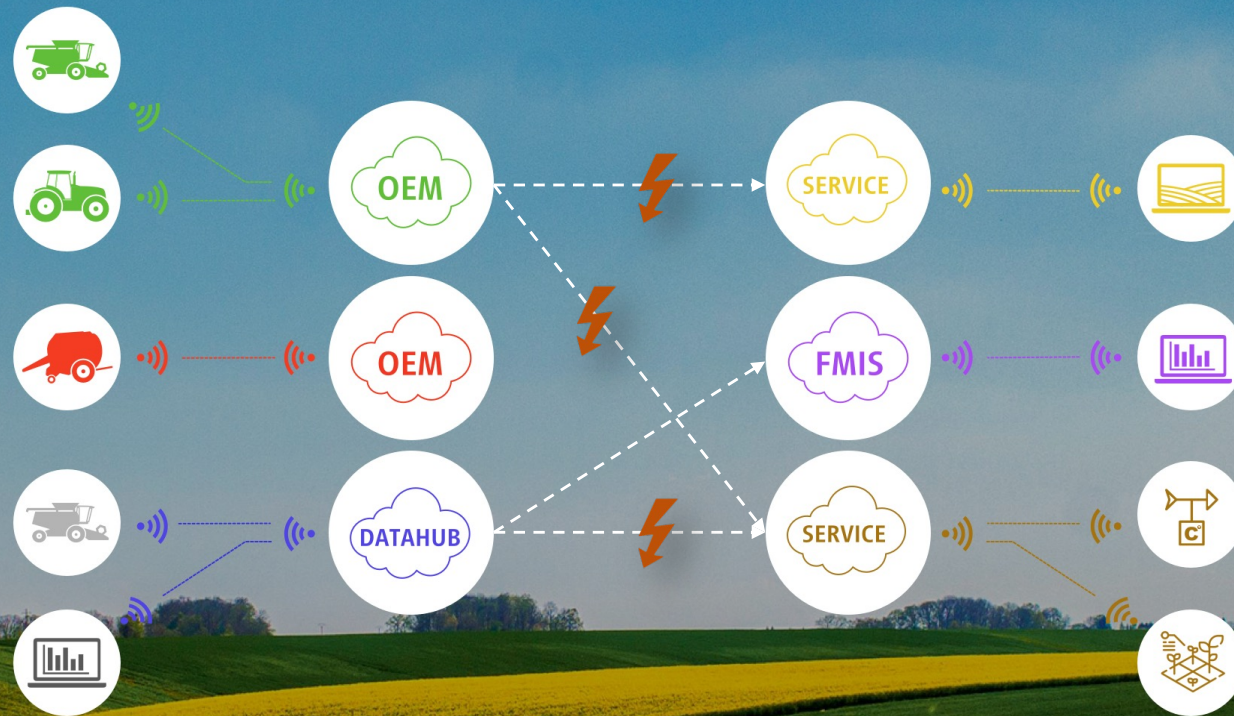 - Coordinate activities and developments

AGCO Your Agriculture Company · CLAAS · CNH · JOHN DEERE · KUHN · PÖTTINGER · Kubota · SDF · AEM Association of Equipment Manufacturers · FEDER UNACOMA Italian Agricultural Machinery Manufacturers Federation · VDMA

AEFs vision for digital farming

Platform to platform

Tractor implement

Wireless infield

High speed

Farm Management

Autonomous machines

Artificial intelligence

Robotics

Interoperability

Reporting

Resources

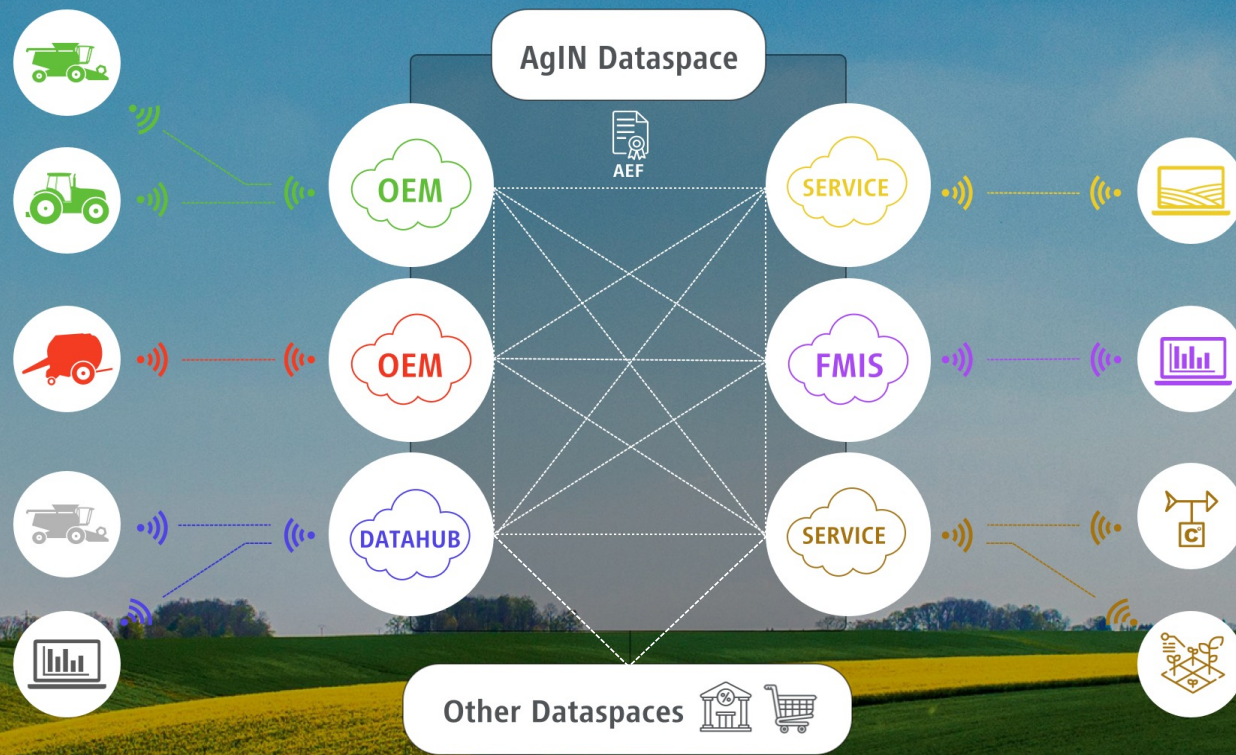©2021 Agricultural Industry Electronics Foundation e.V.

Agricultural Interoperability Network (AgIN) – Purpose and Mission

- Simplify and improve data exchange to enhance interoperability.

- Foster collaboration between members, partners and related initiatives towards creating an industry-wide solution

- Addresses aligned Ag industry wide use-cases.

- AEF members joining AgIN network with their existing clouds and access each other's services on a peer-to-peer basis.

- Each participant will continue to host its own platform and service and will gain access to connect with other AgIN participants.

- AgIN will not exclude data routers or data hubs.

- AgIN is not a new platform.

Agricultural Data – Need for Seamless Interoperability

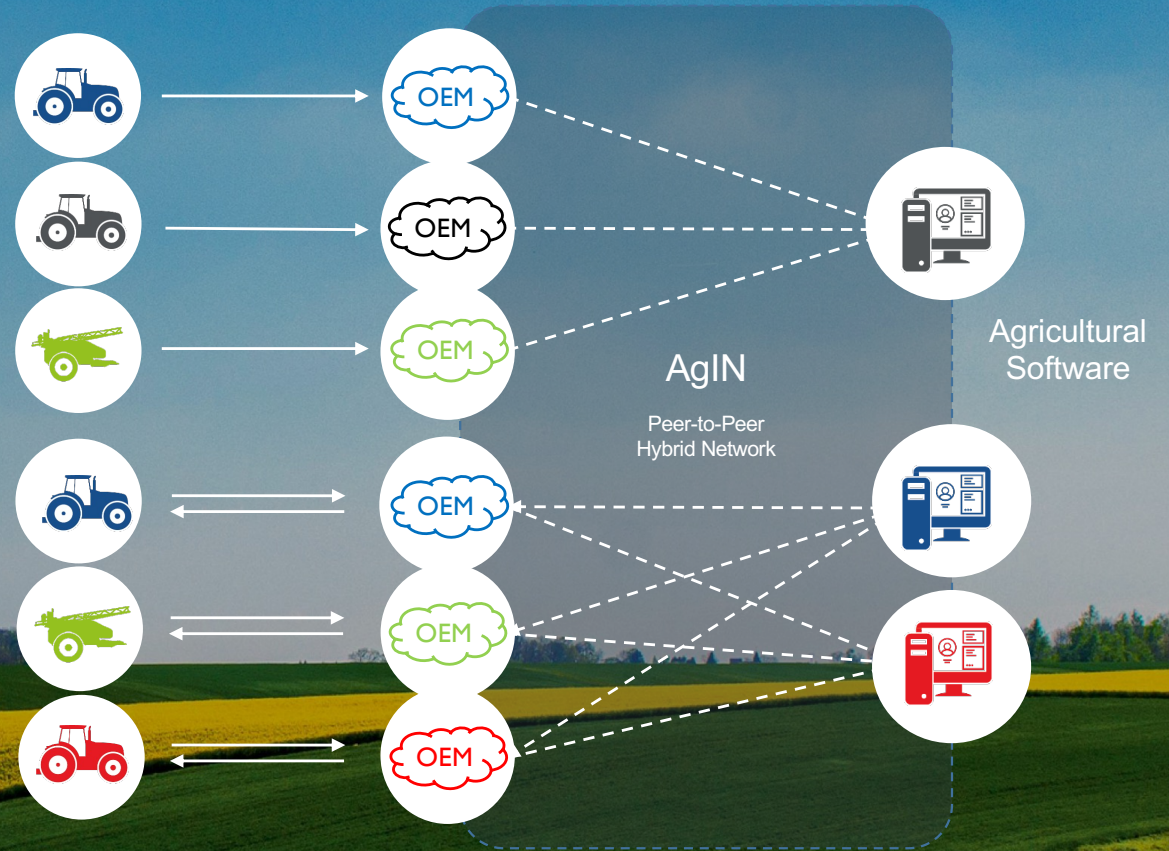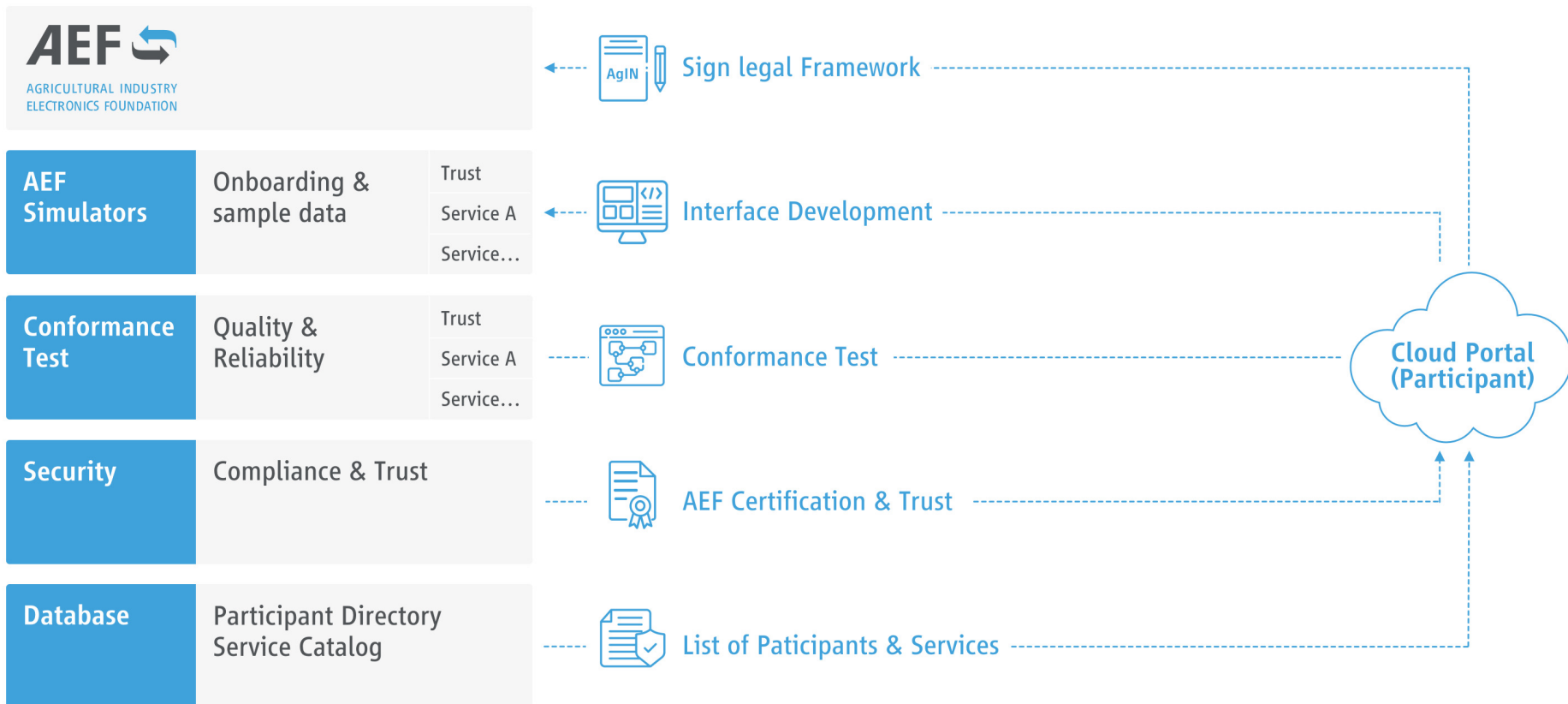# AgIN enables – Peer to Peer Network

AgIN – Use Cases

- Machine Tracking

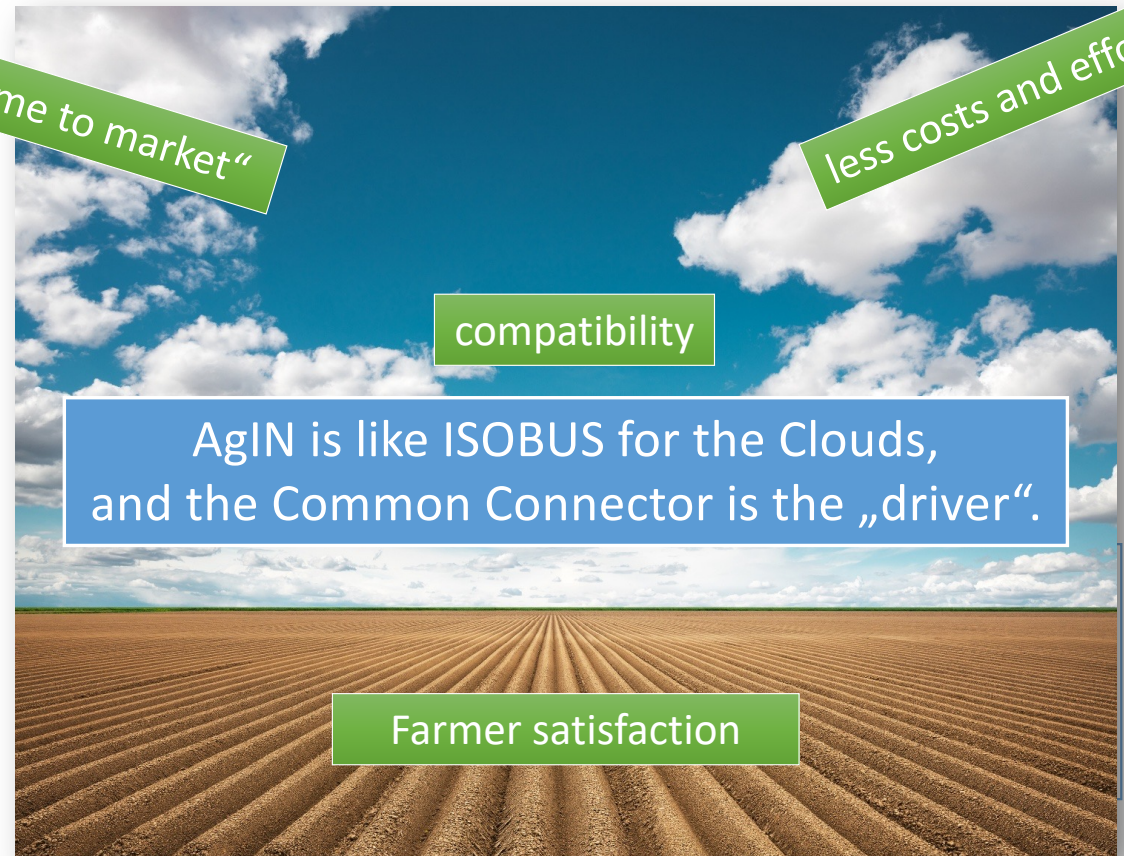- Online Task-Management
  - Work Order
  - Word Record / Documentention

AgIN

Peer-to-Peer
Hybrid Network

Agricultural
Software

AEF Infrastructure as an anchor of trust and enabler

AEF AGRICULTURAL INDUSTRY ELECTRONICS FOUNDATION		
AEF Simulators	Onboarding & sample data	Trust / Service A / Service…
Conformance Test	Quality & Reliability	Trust / Service A / Service…
Security	Compliance & Trust	
Database	Participant Directory Service Catalog	

Sign legal Framework

Interface Development

Conformance Test

AEF Certification & Trust
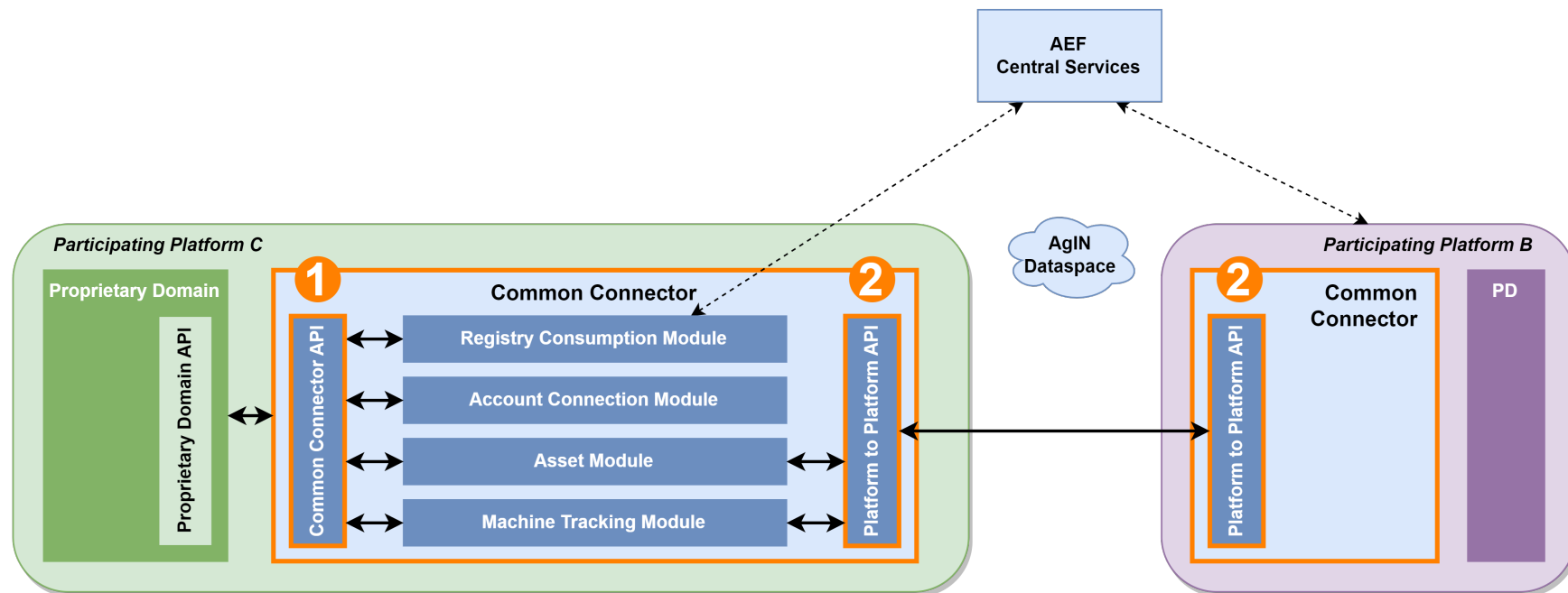
List of Paticipants & Services

Cloud Portal (Participant)

AgIN Common Connector as concept decision

- A scalable and easy to use application

- Use standards and state of the technology

AEF Certified

ISOBUS

UT	TECU	AUX-N
TC-BAS	TC-GEO	TC-SC
...	...	...

www.aef-isobus-database.org

„time to market"

less costs and efforts

compatibility

AgIN is like ISOBUS for the Clouds,
and the Common Connector is the „driver".

Farmer satisfaction

How does it work? – The Common Connector Architecture

1) **Proprietary Domain Interface:** Connection to the host platform's internal systems
2) **Platform-to-Platform Interface:** Standardized communication with other platforms
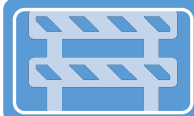
Starter package and benefits

Common Connector Starter Package

CC = Container Application	
Documentation	
Onboarding Support for AT25	
Access to reference platform	

Benefits

- Less efforts, complexity and risk
- High Quality Industry Software: Specified, developed and tested from first class experts
- Cost-effective opportunity to participate in AgIN
- Access to improvements and new functionalities
- Accelerated onboarding

AgIN benefits

- AgIN will be a scalable data space for agriculture
  - One API to AgIN Data Space and CEADS
  - Open to host and facilitate further services and use cases
  - End-User controls account based Peer-2-Peer data exchange
  - No central data transfer, creates benefits such as avoiding risk of Single Point of Failure

- AEF Infrastructure as enabler
  - One legal framework
  - Industrywide trust anchor
  - Enriched by AEF Simulators & Conformance Test
  - Accelerated by Common SW modules

- Global approach
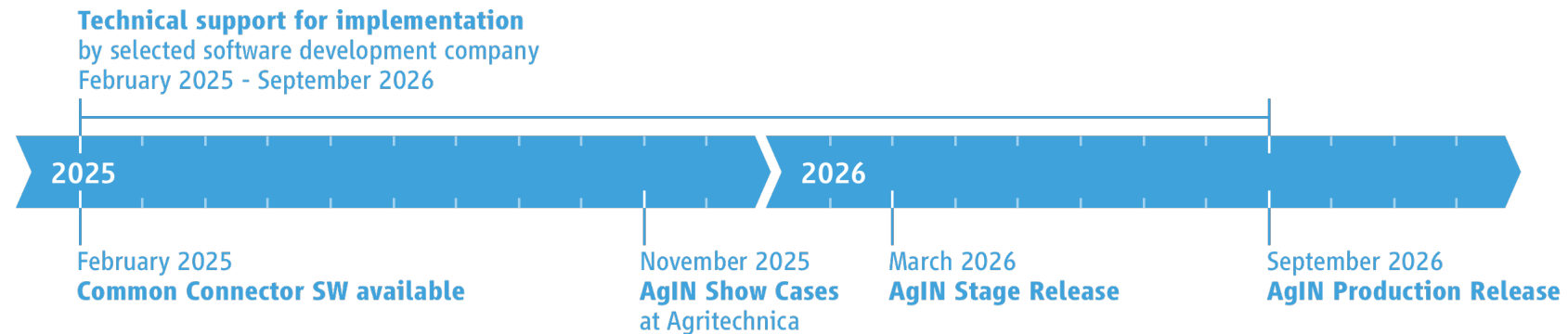 - No regional restrictions
  - Global Use Cases

AEF partner in EU project CEADS

CEADS: Common European Agricultural Data Space

AgIN – Roadmap and next steps

- Roadmap

Technical support for implementation
by selected software development company
February 2025 - September 2026

| 2025 | 2026 |

February 2025
Common Connector SW available

November 2025
AgIN Show Cases
at Agritechnica

March 2026
AgIN Stage Release

September 2026
AgIN Production Release

- Next Steps
  - Member companies to sign in for joining the network
  - Preparation of Agritechnica showcase – Details will be announced soon
- More information on AEF website: AgIN Landing Page

AgIN – Closing the gap in Ag data exchange

- AgIN is a scalable data space for agriculture

- Use-case based data exchange will simplify, improve and enhance interoperability

- AEF Infrastructure as enabler – End user and farmer to use well known platform

- Development has not only been started – a first **release** is **available**!

- Show case during Agritechnica in Hanover, GER in Nov 2025

- Data Space Initiatives arise all around us

  ➔ Have the unique **opportunity** to shape the future in our industry

Thank you