



# AgGateway Portfolio Overview

Q4 2023 PMC Overview

# PMC Groups



Found within [Portfolio Management Center](#)



Advisory Groups

Strategic in nature, providing longer term guidance in a subject area



Working Groups

Shorter in duration, delivering defined digital resources



Member organizations affirmatively join a Working Groups via [Join Form](#)

Company participation must be confirmed by AgGateway primary contact per IP policy

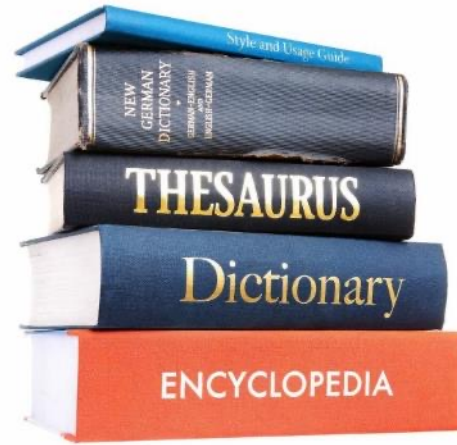
# Agrisemantics Advisory Group

## Purpose and Areas of Oversight:

- Ensure that as data is shared among systems the meaning is also shared enabling better interoperability
- Glossary of Agricultural Terms
- Controlled Vocabularies & Units of Measure
- Common model to express geo-political context

## Related Working Groups and Digital Resources:

- WG04, WG11 Ag Lab Data (Modus)
- WG00 Agrisemantic Infrastructure PoC
- Controlled vocabularies for an ADAPT
- Shipped Item Instance Controlled Vocabularies
- Dataset Metadata Controlled Vocabularies



**Chair: Andres Ferreyra (Syngenta)**

**Staff Liaison: Jim Wilson**

## Member Organizations:

Agrimetrics
CDMS, Inc.
Enterprise Ag Strategies LLC
FarmBelt North, Inc.
Lexagri SAS
ListenField
Syngenta Crop Protection

# Data Linking Advisory Group

Field -> Combine



Combine -> Cart



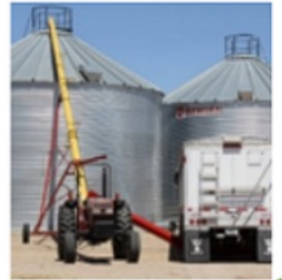
Cart -> Semi



Semi -> Elevator



Truck -> Bin



## Purpose

- Provide scope, direction, and prioritization of data linking related topics in coordination with other organizations and AgGateway efforts
- Allows awareness and linkage of related agricultural data
- Helps farmers who work with more than one data repository
- Enables farmers to share their data to gain insights
- Assist in product recalls, traceability, and consumer confidence

## Related Working Groups and Digital Resources:

- Infield Product ID / Shipped Item Instance
- Dataset Metadata
- WG13 Closed Loop Spray
- WG14 Potato Provenance
- WG20 Traceability API

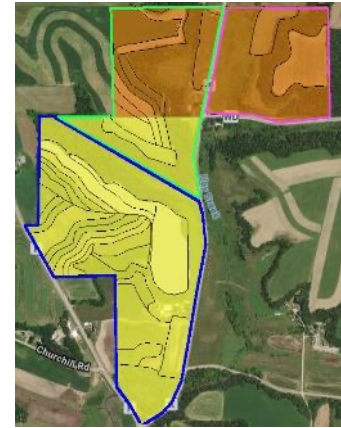
**Co-Chair: Joe Tevis (Vis4Ag)**  
**Co-Chair: Scott Nieman (Land O'Lakes)**

**Staff Liaison: Ben Craker**

## Member Organizations:

Agricultural Industry Electronics Foundation
Bushel
Combyne Ag
DTN
National Institute of Standards and Technology
Vis Consulting
Winfield United

# Field Boundaries Advisory Group



## Purpose

- An unambiguous, core definition of a field and field boundary that can serve as the basis for different business use cases, can reduce effort and confusion across the value chain
- Preserving the meaning of that core definition, while adding relative meaning for different use cases
- Enable farmers to share their field data without having to learn a multitude of terms and meanings
- Assist in traceability efforts

## Related Working Groups and Digital Resources:

- WG17 Field Boundaries Use Cases and Definitions
- WG13 Closed Loop Spray
- WG14 Potato Provenance
- WG24 GNSS Accuracy

**Chair: TBD**

**Staff Liaison: Jeremy Wilson**

## Member Organizations:

Bayer Crop Science LP
Ceres Solutions
Enterprise Ag Strategies, LLC
Growmark, Inc.
Nutrien
Proagrica
Raven Industries
Software Solutions Integrated, LLC
Traction
Winfield United

# Animal Agriculture Advisory Group

## Purpose

- Review the animal agriculture space and identify where AgGateway may be able to help
- Identify industry trends and pain points that could be addressed via standards
- Prioritize efforts either by species, growth stage, or subject area
- Identify existing standards and efforts that AgGateway could collaborate with within the industry

## Related Working Groups and Digital Resources:

- WG25 Dairy Feed Data Standards Assessment



Chair: TBD

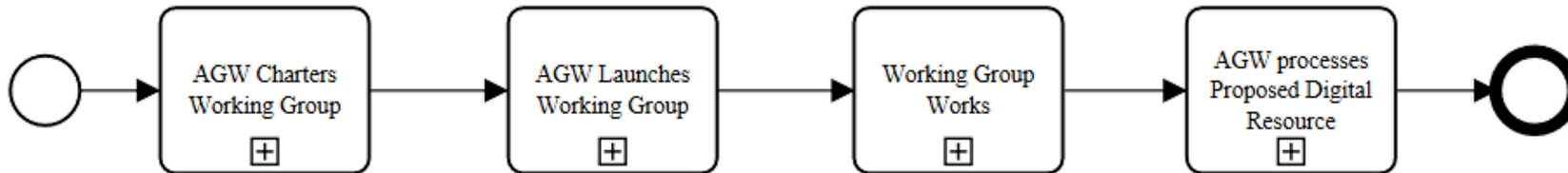
Staff Liaison: Ben Craker

Member Organizations:

# Current Working Groups

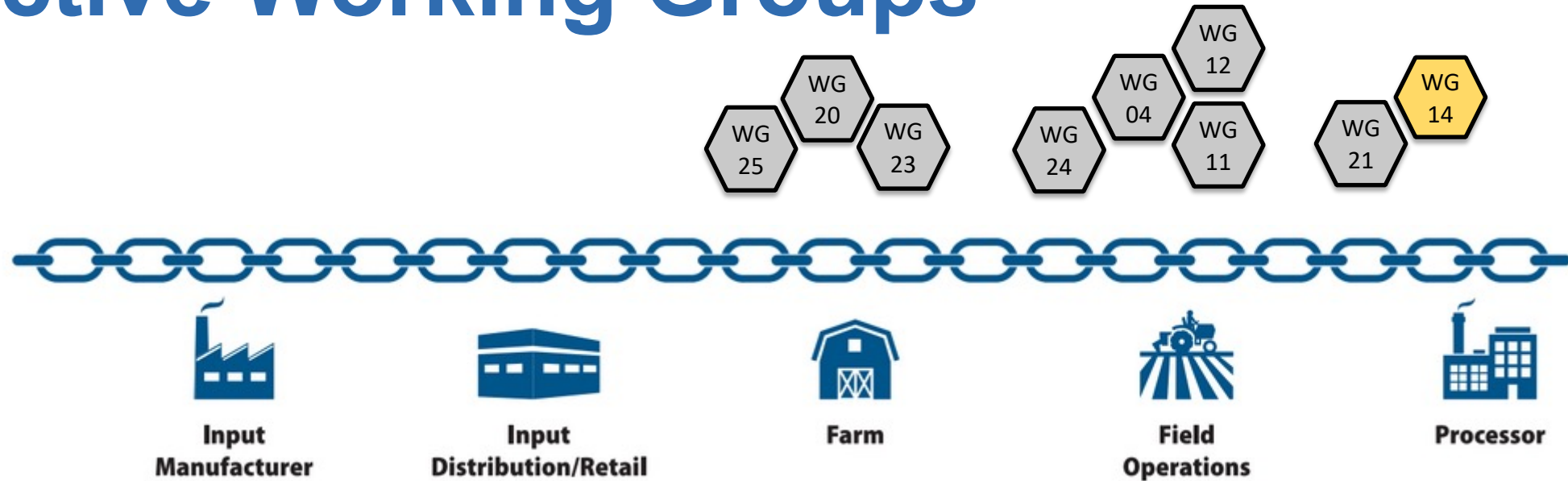
## AgGateway Digital Resource Development Process

**AgGateway Produces a New Digital Resource (top-level process)**





# Active Working Groups



- WG04 Ag Lab Data (Modus)
- WG11 LATAM Soil Data
- WG12 PAIL
- WG14 Potato Provenance (on hold)
- WG20 Traceability API
- WG21 European Reporting ADAPT Mapping
- WG23 Weather Data API
- WG24 Field Boundary: GNSS Accuracy
- WG25 Dairy Feed Data Standards Assessment



# WG04, WG11 Ag Lab Data (Modus 2.0)

## Business Value:

Automated test data management to improve labs' efficiency and enable increased sample throughput.

**Scope:** Soil initially, Water, Plant Tissue, Manure to follow

## Deliverables:

- Updated Modus Tables
- Observation codes
- JSON and XML Schema

**Status:** finalizing v2 soil list, working on v2 schema. Subsequent WG's will address Manure, Water, etc. methods

**Planned Completion:** v2 soil list & v2 schema Q1 2024

**Current Estimate:** v2 schema Feb 2023

**WG04 Chair:** Open

**WG11 Chair:** Ronaldo Pereira de Oliveira (Embrapa)

**Staff Liaison:** Ben Craker

## Member Organizations:

AsBraAP

Centro de Inovação no Agronegócio (CIA)

Embrapa Informatica

Proagrica

Venturus

A&L Great Lakes Laboratorie

Aaron Ault

AGCO Corporation

Agriculture Laboratory Testing

Embrapa Informatica

Jason Ellsworth

Land O'Lakes

Nancy Bohl Bormann

National Institute of Standard

OpenTEAM

Simplot Grower Solutions

Soil and Plant Analysis Coun

Soil Science Society of Amer

Syngenta Crop Protection, LL

TELUS Agriculture

Varda AG

Winfield United

# WG12 PAIL

## **Business Value:**

Improve agricultural irrigation by developing a common set of data standards and formats to convert data for use in irrigation data analysis and precision prescription programs. Effort broken down into three Parts:

1. [Core Concepts](#)
2. [Observations & Measurements](#)
3. [Irrigation System Operations](#)

**Status:** Parts 1, 2, and 3 Committee Draft status in ISO/TC 23/SC 19, currently reviewing and incorporating committee comments by Feb 2024

**Chair:** Charles Hillyer (Fresno St.)  
**Staff Liaison:** Ben Craker

## **Member Organizations:**

- **Leaders of ISO working group focused on 7673 standard**

# WG20 Traceability API

## Business Value:

Throughout the industry there are a variety of perceptions and needs of data through the value chain. The team will review and model two key elements and their relationship, the Traceable Resource Unit (TRU), and Critical Tracking Event (CTE). This will define the interface between partners for traceability to support general traceability initiatives like sustainability of FSMA (Food Safety Modernization Act) building off previous work in projects like CART (Commodity Automation for Rail and Truck) and Scale Ticket.

## Deliverables:

- Analysis of prior work and proof of concept(s)
- Creation of core components in Score that represent the superset of data elements needed across multiple scenarios
- Profile these components in Score needed to support these industry use cases
- Create the RESTful behavior including resource path definitions and verbs needed and path/query parameters

**Status:** Finalizing v1 API specification

**Planned Completion:** MYM June 2023

**Current Estimate:** Slightly behind schedule, should have v1 by end of 2023

**Co-Chair: Scott Nieman (Land O'Lakes)**

**Co-Chair: Joe Tevis (Vis 4 Ag)**

**Staff Liaison: Ben Craker**

## Member Organizations:

AGCO Corporation
CNH Industrial
Combyne Ag
John Deere
Mtech Digital Solutions Oy
National Institute of Standards and Techn
StrataBuilt
Vis Consulting Inc.
Winfield United

# WG21 European Reporting Data ADAPT Mapping

## Business Value:

A variety of e-messages are used to transfer data and report farming practices for regulatory purposes across Europe. New regulations are on the horizon that would require additional reporting by farmers making the need to exchange this data much more common and important. This working group will build on the work done by the Closed Loop Spray group by mapping the identified models commonly used in the Europe against the ADAPT Standard data model to ensure it supports the use cases identified by the working group.

## Deliverables:

- Recommendation for changes, additions to ADAPT committee based on gap check of specific datasets as listed above, to enhance the ADAPT Standard model to support data reporting use cases.
- Mappings between in scope datasets and ADAPT.
- A first example of an ADAPT standard based JSON message to report the use of crop protection products at farm level.
- Examples of serialized data in the different models to aid in understanding by implementers
- Recommendation on need for plugins to convert to various formats for subsequent WG

**Status:** Conducted initial review of EDI-Crop, moving to next model

**Planned Completion:** Limited resources and time slowing progress, competes with ADAPT Standard effort for resource

**Current Estimate:** Should have a report out for Annual meeting but will not have full mapping to any of the standards in scope, likely will require a follow up effort

**Chair: Conny Graumans  
(AgGateway)**

**Staff Liaison: Ben Craker**

## Member Organizations:

AGCO Corporation
Agdatahub
Agro EDI Europe
FarmBelt North, Inc.
Proagrica
SMAG

# WG24 Field Boundary: GNSS Accuracy

## Business Value:

Within the context of crop production around the world the concept of the field and its boundary are the fundamental building blocks for all field operations. The boundary is used to define the limits of where inputs should be geospatially applied by modern agricultural equipment. The field boundary is also used to partition data in farm management information systems (FMIS) whether for clipping imagery to the confines of the field or allocating as-applied and yield data to remove erroneous points. This necessity to share consistent and accurate boundaries between systems is increasing in importance in recent years as a systems approach to interoperability with broader adoption of technologies such as section control, individual row on/off, machine coordination and a potential diversity of autonomous vehicles.

## Deliverables:

- Implementation guideline for GNSS receiver manufacturers, in-cab display manufacturers, and other systems used to define boundaries regarding what data needs to be available and logged about a field boundary
- Required and optional metadata elements and definitions to ensure recipient of a boundary can accurately use and understand the boundary
- Controlled vocabularies required to convey information about boundary collection method, GNSS accuracy, and other related aspects of the boundary
- Recommendations to ADAPT Standard for changes and additions to ensure boundaries are accurately transferred from system to system via the ADAPT mode
- IPotential recommendations to other organization(s) if enhancements are required in related/enabling standards e.g. NMEA
- Potential revision to Field Boundary: Definitions and Use Case boundary classifications/types

**Status:** Call to participation issued 4 October 2023

**Planned Completion:** April 2024

**Current Estimate:** On Schedule, just kicking off

**Chair: Zach Leiser (Growmark)**

**Staff Liaison: Ben Craker**

## Member Organizations:

AGCO Corporation
Agdatahub
Agro EDI Europe
FarmBelt North, Inc.
Proagrica
SMAG

# WG25 Charter - Dairy Feeding Data Standards Assessment

## Business Value:

Animal agriculture is experiencing a shift driven by consumer demands to understand the green house gas (GHG) impacts of livestock production as well as the commercialization and adoption of new technologies. These forces and others are driving a need for systems and processes to be connected digitally. The cost of one-off connections between systems is expensive and inefficient, standardized interfaces can be employed to help data move more easily reducing maintenance costs and increasing the efficiencies throughout the value chain. There are many aspects to consider and a variety of use cases regarding data movement, having a clear understanding of who needs what data, and when is an important first step. This information can also be used to determine what existing standards are applicable or implemented and what gaps remain, in addition to what areas are “secret sauce” and will remain proprietary. This working group will deliver these core building blocks that will be used to identify and prioritize subsequent efforts and collaborations.

## Deliverables:

- High level process diagram
  - Feed Provenance → Procurement → Ration development → mixing → feeding → eating/consumption
- Documented use cases
  - Data coming to balancing software, ingredients, lab test values
  - Ration information sent from balancing software to mixer
  - Documenting the mixing process (Work Order, Work Record)
  - Quantifying refusals to input into balancing systems
  - Capturing production information to input into balancing system(s)
- Key data elements
- Identify any needed controlled vocabularies and if sources exists

**Status:** Call to participation planned for late Nov

**Planned Completion:** April 2024

**Current Estimate:** On Schedule, just kicking off

**Chair:** Dr. Kristan Reed

**Staff Liaison:** Ben Craker

**Member Organizations:**

Work being done outside of current Working Groups

# Other Activities

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# ADAPT

## AgGateway



[AgGatewayADAPTFramework](#) by: [AgGateway](#) [strhea](#) [knelson-farmbeltnorth](#)

↓ 207,722 total downloads ⓘ last updated 2 months ago 📦 Latest version: 3.0.2

🔗 [aggateway adapt agriculture](#)

AgGateway ADAPT framework



[AgGatewayADMPlugin](#) by: [AgGateway](#) [strhea](#) [knelson-farmbeltnorth](#)

↓ 81,574 total downloads ⓘ last updated 5 months ago 📦 Latest version: 3.0.1

🔗 [aggateway adapt adm agriculture](#)

AgGateway ADM Plugin for the ADAPT framework



[AgGatewayISOPlugin](#) by: [AgGateway](#) [strhea](#) [knelson-farmbeltnorth](#)

↓ 59,228 total downloads ⓘ last updated 2 months ago 📦 Latest version: 5.1.0

🔗 [agriculture aggateway adapt isoxml isoxmlv4 11783 11783-10](#)

AgGateway ISO v4 Plugin for the ADAPT framework

**Technical Co-Chair: Stuart Rhea**  
**Technical Co-Chair: Kelly Nelson**  
**Business Chair: Dan Danford**  
**Staff Liaison: Jim Wilson**

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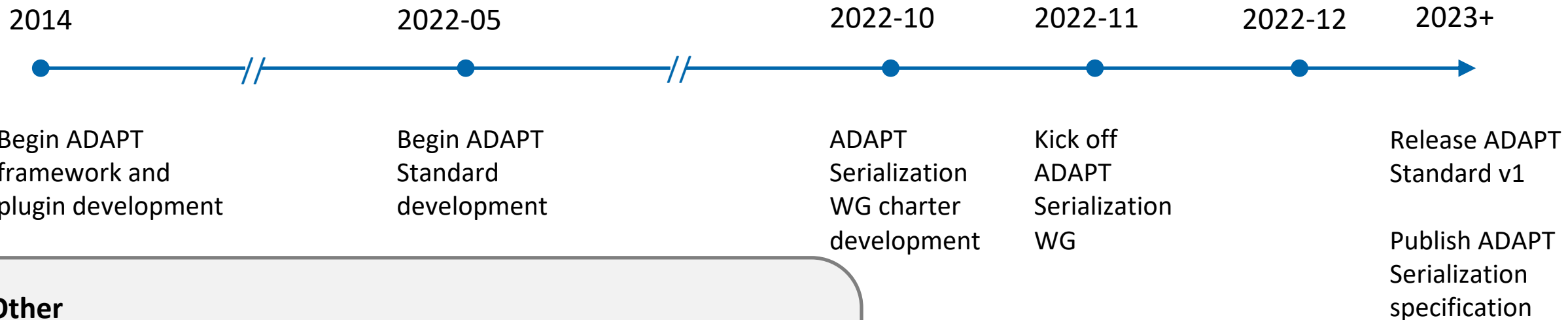
Packages

424,147

Total downloads of packages

9 Nov 2023

# ADAPT past, present, and future



## \*Other

- ADAPT Standards development and maintenance
- ADAPT Framework and plugin development and maintenance
- Explore seamless interoperability among ADAPT Data Model, ADAPT Plugins, and ADAPT Standard
- Consider process for ADAPT Standard → ISO Standard

Other\*

# AgGateway's approach to developing the ADAPT Standard

- Completely open activity. AgGateway membership is not required.
- Using a GitHub project for issue management.
- Using a cutting-edge tool for model development: Score
  - Developed by AgGateway member NIST and AgGateway partner OAGi
  - Enables creating ISO 15000-5-compliant information models
  - Enables creating ISO 15000-5-compliant message profiles in defined business contexts
  - Enables model expression in multiple syntaxes (currently OAS v3, JSON Schema, and XML Schema; future XMI, RDF, OWL as required)
  - Browser-based and multi-user
  - Supports versioning, model element state management

# ADAPT Resources

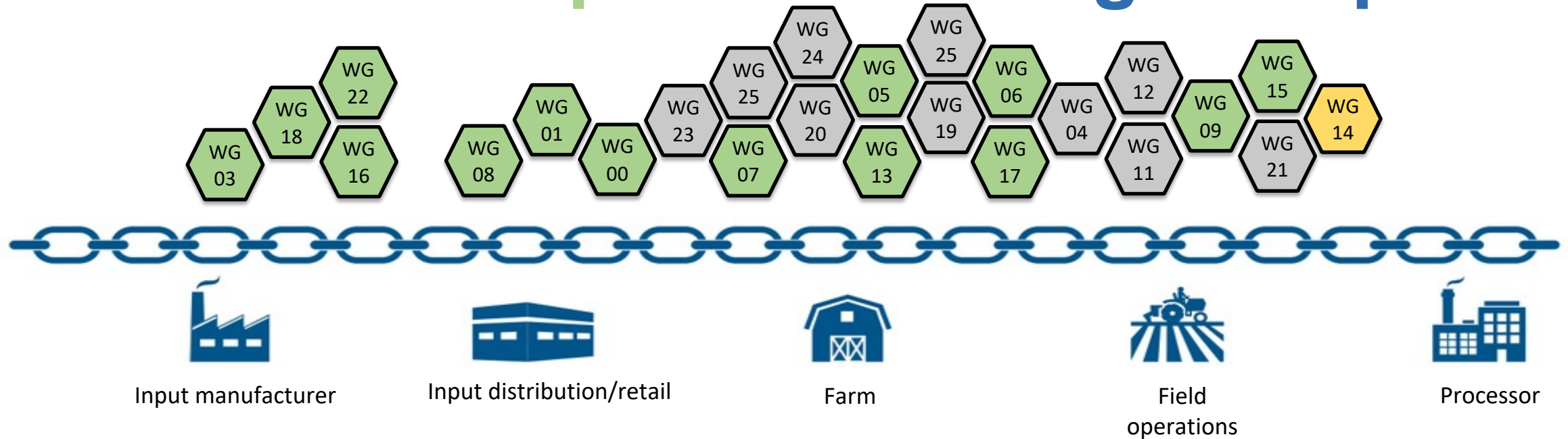
Resource	Location
ADAPT Homepage	<a href="https://AdaptFramework.org">https://AdaptFramework.org</a>
ADAPT Framework Repo	<a href="https://github.com/ADAPT/ADAPT">https://github.com/ADAPT/ADAPT</a>
ADAPT ISO Plugin Repo	<a href="https://github.com/ADAPT/ISOv4Plugin">https://github.com/ADAPT/ISOv4Plugin</a>
ADM (ADAPT Data Model) Plugin Repo	<a href="https://github.com/ADAPT/ADMPlugin">https://github.com/ADAPT/ADMPlugin</a>
ADAPT Visualizer Repo	<a href="https://github.com/ADAPT/ADAPT-Visualizer">https://github.com/ADAPT/ADAPT-Visualizer</a>
ADAPT Standard Issue Board	<a href="https://github.com/ADAPT/Standard/projects/1">https://github.com/ADAPT/Standard/projects/1</a>
ADAPT NuGet Packages	<a href="https://www.nuget.org/profiles/AgGateway">https://www.nuget.org/profiles/AgGateway</a>

# Completed Work

Completed digital resources delivered by previous Working Groups

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# Active & Completed Working Groups



- WG01 In-Field Product ID Seeding Pilot
- WG03 Product Catalog
- WG04 Ag Lab Data (Modus)
- WG05 Mix Ticket (dispensing Work Order/Record)
- WG06 Farm Inputs: Reference Data
- WG07 Farm Inputs: Work Order, Work Record
- WG08 In-Field Product ID ADAPT Plugin
- WG09 Linked Data (DatasetMetadata)

- WG11 LATAM Soil Data
- WG12 PAIL irrigation, Obs. & Meas. (ISO 7673)
- WG13 Closed Loop Spray
- WG14 Potato Provenance (on Hold)
- WG15 Scale Ticket
- WG16 Crop Protection Product Guidelines
- WG17 Field Boundaries: Terms & Definitions
- WG18 Crop Nutrition 3<sup>rd</sup> Party Product Management

- WG19 ADAPT Serialization
- WG22 Booking & Prepay Reporting
- WG23 Weather Data API
- WG24 Field Boundary: GNSS Accuracy
- WG25 Dairy Feed Data Standards Assessment

# Recently Completed Working Groups

Status and background on recently completed Working Groups

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# WG00 Agrisemantics

## Business Value:

Develop and implement infrastructure to provide the industry with controlled vocabularies or variable-type registries seeking to enable the communication and preservation of the meaning of digital agriculture data as it is exchanged between different actors in agriculture.

## Deliverables:

- Proof of concept semantic type registry for the ag industry
- Crop list objects and data able to map to other crop lists within the PoC Infrastructure
- Recommended policies and procedures to manage semantic resources administered by AgGateway

**Status:** Refining crop model, recommending policy & procedures

**Planned Completion:** Crop List utilizing PoC infrastructure at MYM June 2023

**Current Estimate:** Policy & Procedure recommendation provided Nov 2023, Crop model slower than planned, finalized with PoC infrastructure for annual meeting

**WG04 Co-Chair: Andres Ferreyra (Syngenta)**

**WG04 Co-Chair: Samantha Murray (Proagrica)**

**Staff Liaison: Ben Craker**

## Member Organizations:

<a href="#">Agrimetrics</a>
<a href="#">CDMS, Inc.</a>
<a href="#">Combyne Ag</a>
<a href="#">Enterprise Ag Strategies, LLC</a>
<a href="#">FarmBelt North, Inc.</a>
<a href="#">John Deere</a>
<a href="#">Lexagri SAS</a>
<a href="#">ListenField</a>
<a href="#">LNRS Data Services Inc</a>
<a href="#">Proagrica</a>
<a href="#">Purdue University OATS Center</a>
<a href="#">Syngenta Crop Protection, LLC</a>
<a href="#">Vis Consulting Inc.</a>

# WG15 Scale Ticket

## Business Value:

Provide electronic proof of receipt from entity to entity, starting at the point of origin in a standardized way (leveraging current standards), to a retailer or cooperative/ retailer/ processor who has received the commodity at the destination at the time of receipt.

We will define the Minimum Viable Product (MVP) that will help facilitate the financial settlements between the parties and provide sufficient identification that enables traceability.

## Deliverables:

- Sequence diagrams showing interactions among parties
- Open API spec addressing the MVP

**Status:** Approved, v1.1 available in members only GitHub repo

**Chair:** Phil Kubish (VitaPlus)  
**Staff Liaison:** Ben Craker

## Member Organizations:

Bushel
CHS, Inc
CNH Industrial
Combyne Ag
DTN
Key Cooperative
Mosaic Company
National Institute of Standards and Technology
Nutrien
Red Wing Software, Inc.
Software Solutions Integrated, LLC
Traction
Vita Plus Corporation
Winfield United

# WG16 Crop Protection Product Guidelines

## Business Value:

The working group proposes to develop a set of industry agreed-upon documents that allow data owners to consistently load reference data to AGIIS or similar repositories, as well as providing data owners and consumers best practices in managing and implementing the reference data so loaded.

## Scope:

- Industry agreed-upon field-level mapping and examples of crop protection product
- Industry agreed-upon best practices for product maintenance for both data owners and consumers
- Impact assessment for implementing GTINs in eBusiness Messages already in industry use

**Status:** Approved, publication in process

**Chair:** TBD

**Staff Liaison:** Brent Kemp

## Member Organizations:

AGCO Corporation
Agrian
Agro EDI Europe
AgVantage Software, Inc.
BASF
Bayer Crop Science LP
CDMS, Inc.
Ceres Solutions
Corteva Agriscience LLC
DXC Technology
Effingham Equity
Growmark, Inc.
GS1 US
Key Cooperative
Lexagri SAS
LNRS Data Services Inc
Praxidyn
Proagrica
Rosen's, Inc.
StrataBuilt
Syngenta Crop Protection, LLC
Winfield United

# WG17 Field Boundary Use Cases & Definitions

## Business Value:

An unambiguous, core definition of a field and field boundary that can serve as the basis for different business use cases, can reduce effort and confusion across the value chain. Preserving the meaning of that core definition, while adding relative meaning for different use cases enabling farmers to share their field data more easily as well as assist in traceability efforts

## Scope:

The Working Group will lead the effort in defining the overall use cases, terms and definitions surrounding field boundaries. The group will start with existing content from SPADE artifacts, work already done by WG14 Potato Provenance, work in the PAIL project as well as leverage existing standards and methods where possible. Such as ISO 19115 Geographic information — Metadata and ISO 19157 Geographic information — Data quality.

**Status:** Approved by Standards & Guidelines, being aligned with ADAPT Standard effort Issue #97

**Chair:** TBD

**Staff Liaison:** Ben Craker

## Member Organizations:

AGCO Corporation
Agro EDI Europe
BASF
Corteva Agriscience LLC
Enterprise Ag Strategies, LLC
Growmark, Inc.
IntelinAir, Inc.
John Deere
National Crop Insurance Services, Inc.
Nutrien
Proagrica
Raven Industries
Software Solutions Integrated, LLC
Syngenta Crop Protection, LLC
Traction
Varda AG
Vis Consulting Inc.
Winfield United

# WG18 Crop Nutrition 3rd Party Warehouse Management

## Business Value:

Crop nutrient product manufacturers and distributors have agreements for storage and handling of fertilizer to more readily and efficiently service customers. In order to effectively manage the inventory and resupply, stakeholders desire to implement electronic processes for ordering, shipping, and inventory management that align to existing ebXML processes for the segment.

## Scope:

Develop implementation guidelines based on the existing OrderCreate, OrderResponse, ShipNotice, Invoice, and ReceiptNotice messages. ReceiptNotice will require a new profile, while the other messages will likely only need tweaks in implementation rules.

- Messages and process documentation for Receipt into a *Warehouse Partner* location
- Messages and process documentation for Purchase out of *Warehouse Partner* location
- Messages and process documentation for Third-Party Sales Order out of *Warehouse Partner* location
- Messages and process documentation for *Warehouse-to-Warehouse* Stock Transfer as requested by the product owner

**Status:** Publishing

**Chair:** TBD

**Staff Liaison:** Brent Kemp

## Member Organizations:

AgGateway
Agro EDI Europe
Growmark, Inc.
Helena Agri-Enterprises, LLC
Nutrien
Nutrien
Proagrica
Smartwyre Inc.

# WG19 ADAPT Serialization

## Business Value:

With the widespread adoption of the ADAPT Framework and the ongoing ADAPT Standard work many stakeholders have expressed a need for a common method for serializing data. Once the standardized schema for the data model is complete a need will still exist to better facilitate the exchange of data between parties. This working group will develop a common approach to serializing data conformant to the ADAPT Standard.

## Deliverables:

- Standardized method for serializing data conforming to the ADAPT Standard
- Experiment/proof of concept to determine best serialization method based on requirements
- Tools to enable easy human readability of data if a more binary (i.e. protobuf) centric approach is taken
- Controlled vocabularies managed by Agrisemantics group within AgGateway where possible

**Status:** Documenting requirements for JSON schema to ensure tool generates needed format. Reviewing GEO Parquet as likely solution for high density data

**Planned Completion:** MYM June 2023

**Current Estimate:** Polishing documentation to be released with ADAPT Standard v1.0 before end of year 2033

**Co-Chair: Chris Ruttencutter  
(Corteva)**

**Co-Chair: Stuart Rhea  
(Syngenta)**

**Co-Chair: Zac Oler (Corteva)**

**Staff Liaison: Ben Craker**

## Member Organizations:

CNH Industrial
Corteva Agriscience LLC
DKE Data
FarmBelt North, Inc.
Google LLC DBA Mineral
John Deere
M2M Craft Co Ltd
Syngenta Crop Protection, LLC
Traction

# WG22 Booking and Prepay Reporting

**Business Value:**

Input manufacturers and distributors have a need to understand the grower level booking information for various products at the retailer level as general reports and not specific to individual transactions. They would like to receive this information via an XML message.

**Scope:**

- Seed Bookings reporting (pre-paid or not pre-paid)
  - Crop nutrition bookings reporting (pre-paid or not pre-paid)
  - Crop protection bookings reporting (pre-paid or not pre-paid)
- Note: When a booking is pre-paid, it is a firm commitment to purchase.

**Status:** Published in Ag eStandards v7.0

**Chair: Greg Mikel (Land O’Lakes)**  
**Staff Liaison: Brent Kemp**

**Member Organizations:**

AGDATA LP
Growmark, Inc.
HD Precision Analytics
Key Cooperative
Simplot Grower Solutions
Software Solutions Integrated, LLC
Winfield United



# Where to find Completed WG Digital

WG/Resource	Location
WG01 In-Field Product ID Seeding Pilot(ShippedItemInstance)	Private GitHub Repo (AgGateway members only) <a href="https://github.com/AgGateway/In-FieldProductID">https://github.com/AgGateway/In-FieldProductID</a>
WG03 Product Catalog	Private GitHub Repo (AgGateway members only) <a href="https://github.com/AgGateway/ProductCatalog">https://github.com/AgGateway/ProductCatalog</a>
WG04 Ag Lab Data (Modus) WG11 LATAM Soil Testing Data	Public GitHub repo <a href="https://ModusStandard.org">https://ModusStandard.org</a> , <a href="https://github.com/AgGateway/Modus">https://github.com/AgGateway/Modus</a>
WG05 Mix Ticket	Public GitHub Repo <a href="https://github.com/AgGateway/Dispensing">https://github.com/AgGateway/Dispensing</a>
WG06 Farm Inputs: Reference Data	AgGateway Confluence (Wiki) <a href="https://aggateway.atlassian.net/l/cp/zPjh3HqN">https://aggateway.atlassian.net/l/cp/zPjh3HqN</a>
WG07 Farm Inputs: Work Order, Work Record	AgGateway Confluence (Wiki) <a href="https://aggateway.atlassian.net/l/cp/oGiWwmD5">https://aggateway.atlassian.net/l/cp/oGiWwmD5</a>
WG08 In-Field Product ID ADAPT Plugin	Public GitHub Repo <a href="https://github.com/ADAPT/ShippedItemInstancePlugin">https://github.com/ADAPT/ShippedItemInstancePlugin</a>
WG09 Linked Data (DatasetMetadata)	Private GitHub Repo (AgGateway members only) <a href="https://github.com/AgGateway/DatasetMetadata">https://github.com/AgGateway/DatasetMetadata</a>

Use this [form to request access](#) to private repo.

# Where to find Completed WG Digital

WG/Resource	Location
WG13 Closed Loop Spray	AgGateway Confluence (Wiki) Final review & posting in process
WG15 Scale Ticket	Private GitHub Repo (AgGateway members only) <a href="https://github.com/AgGateway/ScaleTicket">https://github.com/AgGateway/ScaleTicket</a>
WG16 Crop Protection Product Guidelines	Wiki pages, publication in process
WG17 Field Boundaries: Terms and Definitions	Being added to AgGlossary, ADAPT Standard <a href="https://github.com/ADAPT/Standard/issues/97">https://github.com/ADAPT/Standard/issues/97</a>
WG18 Crop Nutrition 3 <sup>rd</sup> Party Product Management	XSLM file, publication in process
WG19 ADAPT Serialization	Being implemented within the ADAPT Standard <a href="https://ADAPTStandard.org">https://ADAPTStandard.org</a> , <a href="https://github.com/ADAPT/Standard">https://github.com/ADAPT/Standard</a>
WG22 Booking & Prepay Reporting	Ag eStandards to be updated <a href="https://www.aggateway.org/GetConnected/Messaging.aspx">https://www.aggateway.org/GetConnected/Messaging.aspx</a>

Use this [form to request access](#) to private repo.

# Future Working Groups

Planned and potential future working group identified by member's pain points or follow on work from current/past Working Groups

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# Working groups starting up soon

- Weather Data API
    - Standardized weather data API, starting with some of the most commonly used parameters
  - Contract
    - Building off Scale Ticket effort to align on digital contracts
  - Dairy Feed and Ration Use Case Documentation
    - Document use cases, data requirements, processes related to data exchange for dairy feed
  - Data Stewardship
    - Review and potentially update AgGateway Data Privacy White Paper
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# Other Potential Future WG's

- Agrisemantics: Common controlled vocabularies
  - Find/create common controlled vocabularies identified common between multiple WG's
- Agrisemantics: Budgeting & infrastructure
  - Evaluations of costs/benefits of various semantic resource management tool implementations
- Data Quality
  - Investigate a standard regarding data quality metrics so a data recipient can make an informed decision about what data they have received is suitable to be used for
- ASN (Advanced Ship Notice): Farmer to elevator/processor
  - Standardized message for an advanced ship notice from a farm to elevator/processor
- Scale head to ERP interface
  - Standardized interface between scale heads and ERP systems
- ShippedItemInstance gap check for crop protection, crop nutrition
  - Review ShippedItemInstance for support of crop nutrition and/or crop protection products
- DatasetMetadata controlled vocabularies
  - Identify or create controlled vocabularies needed by DatasetMetadata
- GLN Guidelines
  - Guidelines for assigning GLN's within AGIIS to help reduce duplicates
- **Other ideas? Contact [ben.craker@agateway.org](mailto:ben.craker@agateway.org)**