AgGateway Portfolio Overview

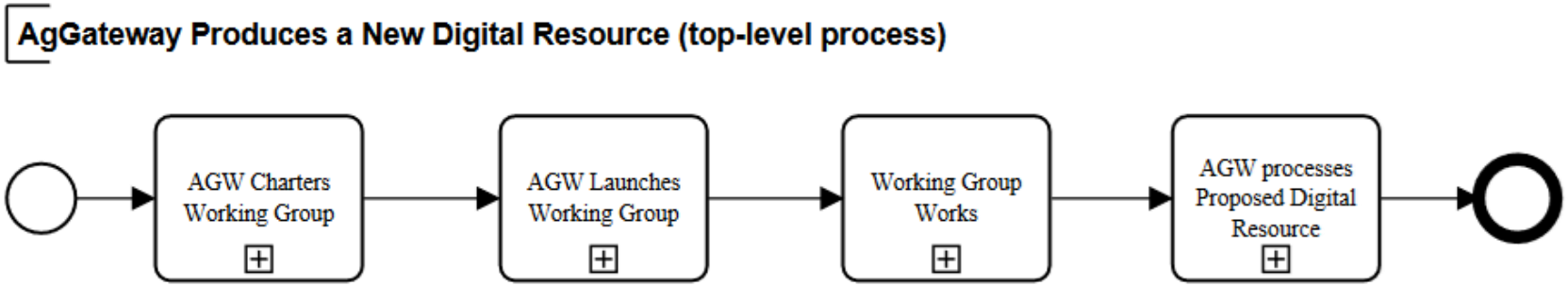
Q3 2024 PMC Overview

PMC Groups

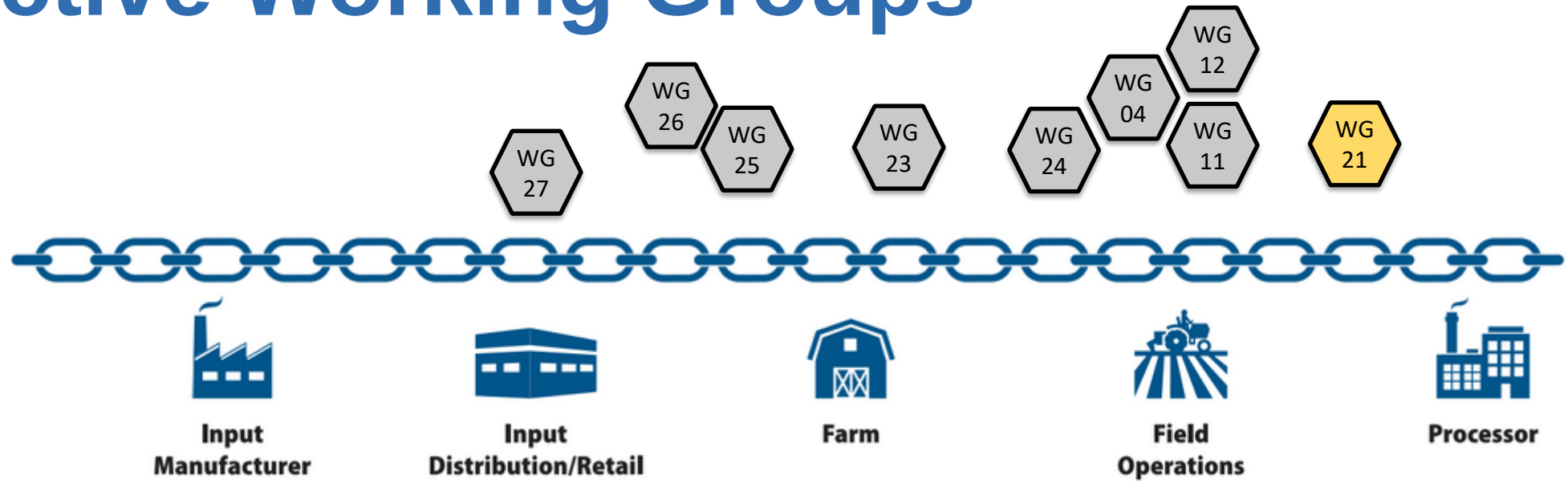
 Found within Portfolio Management Center	
 Portfolio Team	Strategic in nature, providing longer term guidance across the portfolio
 Meetups	Open meetings to discuss a topic often leading to a new Working Group by identifying scope/deliverables,
 Working Groups	Specific deliverables and timeline (goal of <3 months), creating 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

Current Working Groups

AgGateway Digital Resource Development Process



Active Working Groups



- WG04 Ag Lab Data (Modus)
- WG11 LATAM Soil Data
- WG12 PAIL
- WG21 European Reporting ADAPT Mapping (on Hold)
- WG23 Weather Data API
- WG24 Field Boundary: GNSS Accuracy
- WG25 Dairy Feed Data Standards Assessment
- WG26 Data Ethics and Stewardship
- WG27 Entity Identification Rules

WG04, WG11 Ag Lab Data (Modus 2.0)

WG04 Chair: Open
WG11 Chair: Ronaldo Pereira de Oliveira (Embrapa)
Staff Liaison: Ben Craker

Business Value:

Standardized lab test data management to improve data exchange between labs and other software tools. Goal to clearly document test method used and efficiently transfer data among systems.

Scope: Soil and Manure methods as well as data exchange schema. Separate working groups to follow focused on plant/botanical, water, feed, nematode, micro-organisms, etc. methods to follow

Deliverables:

- Updated Modus method lists (soil & manure)
- Alignment with ADAPT, ISO 7673-2 Observations and Measurements
- JSON and XML Schema

Status: v2.1 Soil list posted, v2.0 Manure list 99% complete, v2.0 plant tissue/botanical list WG kicking off, Schema work stream going through ADATP Standard

Planned Completion: WGs will end with release of v2.0 Manure methods list, schema work transition to ADAPT Standard

Current Estimate: Manure Methods complete Sept 2024, Schema with ADAPT, end of year 2024

Member Organizations:

WG04
A&L Great Lakes Laboratories, Inc.
Aaron Ault
AGCO Corporation
Agriculture Laboratory Testing Association
American Society of Agronomy
Embrapa Informatica
Jason Ellsworth
Land O'Lakes
Nancy Bohl Bormann
National Institute of Standards and Technology
OpenTEAM
PCT
Purdue University OATS Center
Simplot Grower Solutions
Software Solutions Integrated, LLC
Soil and Plant Analysis Council
Soil Science Society of America
SoilView LLC
Syngenta Crop Protection, LLC
TELUS Agriculture
Varda AG
Winfield United

WG11
AsBraAP
Centro de Inovação no Agrononegócio (CIAG)
Embrapa Informatica
Nutrien
Proagrica
Venturus

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: ISO 7673 Parts 1, 2, and 3 Committee Draft status in ISO/TC 23/SC 19, ISO making translations and distributing for vote/commenting

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

Member Organizations:

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

Association of Equipment Manufacturers
Charles Hillyer
Kodai Watanabe
Purdue University OATS Center
Syngenta Crop Protection, LLC

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

Planned Completion: On hold until ADAPT Standard v1 release

Current Estimate: Plan to restart group after ADAPT release and team has more available bandwidth, likely in Q4 2024

Chair: Conny Graumans (AgGateway)

Staff Liaison: Ben Craker

Member Organizations:

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

WG23 Weather and Forecast Data API

Business Value:

Within the agricultural industry there is a need to share weather data and other earth observation information. This data is available and consumed by a multitude of companies using proprietary, one-off API connections around the world. This process consumes substantial development resources on both sides to develop and maintain company specific integrations. Agreeing to a standardized set of API's for sharing this information within the agricultural industry will make connections easier to maintain lowering the costs required to connect to new data sources. This will free companies to focus more on developing their services and product offerings instead of on getting bogged down with data integration.

Deliverables:

- Document use cases, process diagrams and list of data elements and definitions
- Ensure alignment with PAIL (ISO 7673-2)
- Focus on query path pattern required by use case (e.g. point, box, polygon, zip code)
- Both for historical lookup and future prediction
- API Specification including GET, POST, PATCH calls needed for each use case

Status: Initial use cases reviewed, surveyed industry on requirements, reviewing GRIB2 codes as basis for parameters, aligning efforts with ADAPT Standard Observations & Measurements (O&M) work. Will tentatively be second use case for O&M framework after lab testing data (Modus).

Planned Completion: April 2024

Current Estimate: Nov 2024, dependent on ADAPT Standard O&M work

Chair: Open

Staff Liaison: Ben Craker

Member Organizations:

AGCO Corporation
Charles Hillyer
Co-Alliance Cooperative Inc
Corteva Agriscience LLC
DKE Data
EMILI Canada
Purdue University OATS Center
Syngenta Crop Protection, LLC
Topcon Agriculture

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
- lPotential 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: Collected feedback from key organizations on boundary requirements, initial list of data elements created for “high fidelity boundary”, cleaning up and working through key decisions to propose boundary requirements to ADAPT Standard team

Planned Completion: April 2024

Current Estimate: Nov 2024

Chair: Zach Leiser (Growmark)

Staff Liaison: Ben Craker

Member Organizations:

AGCO Corporation
Agdatahub
AgGateway
Agro EDI Europe
CNH Industrial
EverAg
Growmark, Inc.
John Deere
Nutrien
Proagrica
Seirrowon Labs Inc
Software Solutions Integrated, LLC
SoilSerdem
Syngenta Crop Protection, LLC
Taranis

WG25 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: Finalizing last few use cases, beginning data element identification, coordinating with ICAR, GS1 France, and other organizations active in adjacent areas

Planned Completion: July 2024

Current Estimate: October 2024

Chair: Dr. Kristan Reed

Staff Liaison: Ben Craker

Member Organizations:

Agdatahub
AgGateway
Association of Equipment Manufacturers
BESTMIX Software NV
Cornell University
EMILI Canada
EverAg
Farhad Ameri
FarmBelt North, Inc.
Format Solutions, a Datacor Company
Mtech Digital Solutions Oy
National Institute of Standards and Technology
Protekta
Seirrowon Labs Inc
Topcon Agriculture
Vita Plus Corporation

WG26 Data Ethics and Stewardship

Business Value:

In 2014 AgGateway released a first version of a data privacy and security whitepaper seeking to provide common context for the industry in the rapidly evolving space. In 2017 an updated version was released to help better align with developments in the industry. Since that time many changes have occurred including the EU enacting the General Data Protection Regulations, the release of ChatGPT, and public cyber-attacks on major agricultural business; all driving the topic to the forefront of many people's minds. To help address these major shifts this group will review and update the white paper, as well as identify what, if any additional actions AgGateway should consider related to data stewardship and ethics.

Deliverables:

- Updated data privacy whitepaper
- List of potential topics to address via AgGateway working groups related to data stewardship and privacy

Status: Revieing OpenTEAM ag data use documents, planning to create a best practices or topics and capabilities to consider guide referencing OpenTEAM, Ag Data Transparent and other efforts as examples.

Planned Completion: July 2024

Current Estimate: November 2024

Chair: Stuart Rhea

Staff Liaison: Ben Craker

Member Organizations:

Agricultural Data Coalition
Corteva Agriscience LLC
Format Solutions, a Datacor Company
John Deere
Key Cooperative
Land O'Lakes
National Crop Insurance Services, Inc.
Nutrien
OpenTEAM
Seirrowon Labs Inc
Stuart Rhea
Syngenta Crop Protection, LLC

WG27 Entity Identification Rules

Business Value:

Since the mid-1980's, electronic business messages used by input manufacturers, distributors, and retailers, as well as their service providers, contained unique identifiers for businesses, individuals, and locations. While the identifier scheme has changed over the years, and the repositories in which they and their attributes are houses have evolved, the business rules for enumerating them have gone largely unchanged. AgGateway members have identified discrepancies between how these identifiers are being used today and the original rules developed to enumerate them.

Deliverables:

- Entity definition documentation (who, what is identified for what process internally and externally by stakeholder)
- Proposed revisions to entity enumeration rules
- Revised entry, edit, and notification process recommendations
- Recommendation for AGIIS enhancements to DOC

Status: Documenting current business processes within participant organizations to inform creation of updated implementation guidelines as well as any enhancements needed to entity databases

Planned Completion: August 2024

Current Estimate: Q1 2025

Chair:

Staff Liaison: Brent Kemp

Member Organizations:

AGDATA LP
AgGateway
AMVAC Chemical Corporation
Bayer Crop Science LP
Corteva Agriscience LLC
Growmark, Inc.
John Deere
Key Cooperative
Lexagri SAS
Nutrien
Rosen's, Inc.
Seirrowon Labs Inc
Simplot Grower Solutions
Syngenta Crop Protection, LLC
TELUS Agriculture
Winfield United

Work being done outside of current Working Groups

Other Activities

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

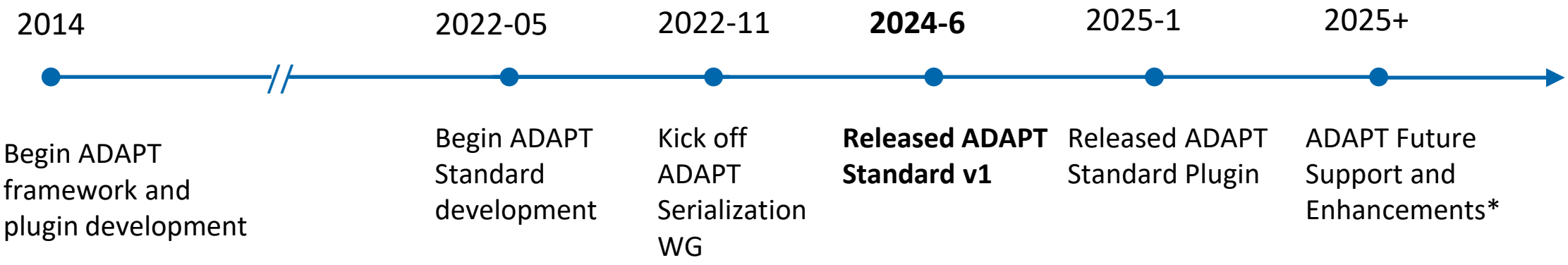
Technical Co-Chair: Stuart Rhea
Technical Co-Chair: Kelly Nelson
Business Chair: Dan Danford
Staff Liaison: Jim Wilson

3
Packages

524,745
Total downloads of packages

As of: 16 Aug 2024

ADAPT past, present, and future



***ADAPT Future**

- 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

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 Standard Principles

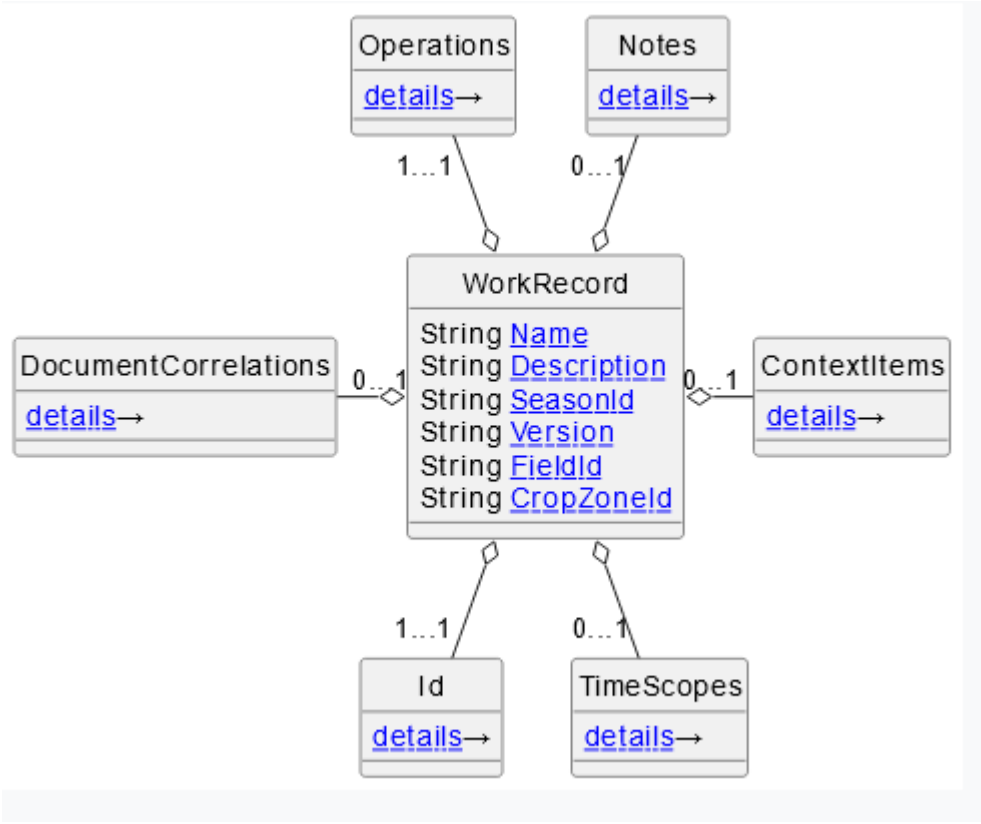
- **Data Transfer**: The purpose of the ADAPT Standard is to facilitate data transfer between systems.
- **Field-Centric**: The ADAPT Standard is a data representation for agricultural information centered on the field/production space.
- **No Flexibility in How to Model**. The ADAPT Standard seeks to avoid the data consumer needing to handle conditionality for multiple data producers.
- **Flexibility in What is Modeled**. The ADAPT Standard will allow serialization of subsets of the data model.
- **No Software Dependencies**. The ADAPT Standard is an open format and not platform dependent. All data authorization, encryption, etc. is external to the standard itself.
- **Burden on Data Producer**: It presumes that the data producer has sufficient interest in the consumer being able to correctly interpret the data to put forward the effort to accurately transform data into the model.

ADAPT Standard Documentation

- https://ADAPTStandard.org

Child Components

- Id 1..1
- Name 1..1
- Description 0..1
- Context Items 0..1
- Season Id 0..1
- Notes 0..1
- Document Correlations 0..1
- Time Scopes 0..1
- Version 0..1
- Field Id 1..1
- Crop Zone Id 0..1
- Operations 1..1



ADAPT Standard Next Steps

- How do we define ADAPT? What belongs in ADAPT Standard going forward?
  - Current Focus: Harmonizing Field Operations with Observations and Measurements (ISO 7673-2): Weather, lab sample results, soil moisture sensors, scouting, …
- Possible Future Topics
  - Alignment/integration of PAIL/ISO 7673-3 Irrigation Field Operations
  - Traceability: Supply chain integration & commodity movements
  - Data Provenance/Data Quality framework: Field Boundaries
  - Regulatory/GHG reporting use cases, Livestock, Specialty crops, …
- What controls are needed to guide future development?
- How do mechanics of updates, versions, etc. Work?
- Formal standards body submission?

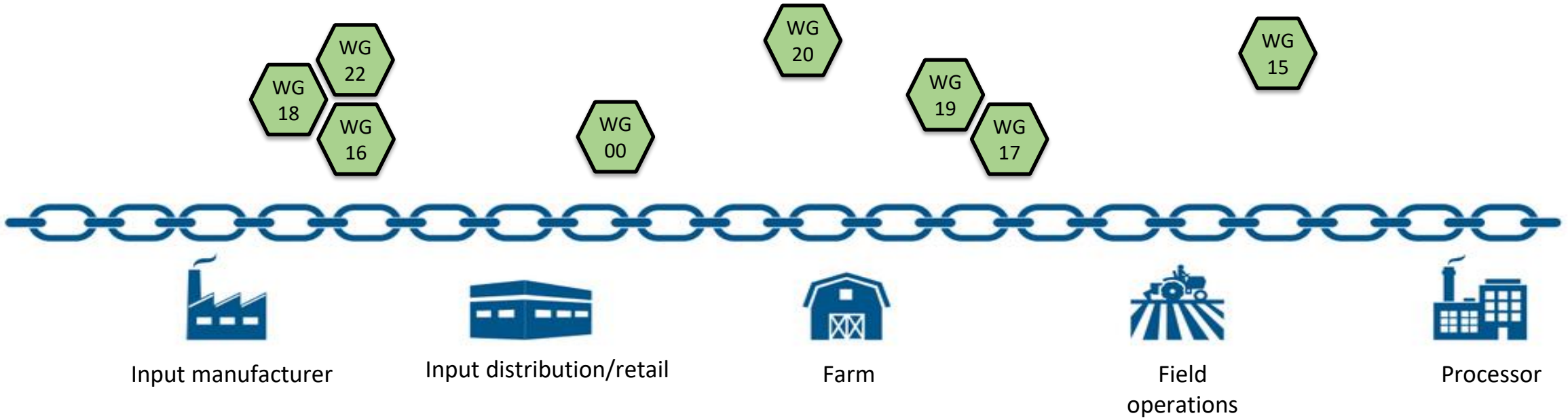
ADAPT Resources

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

Completed Work

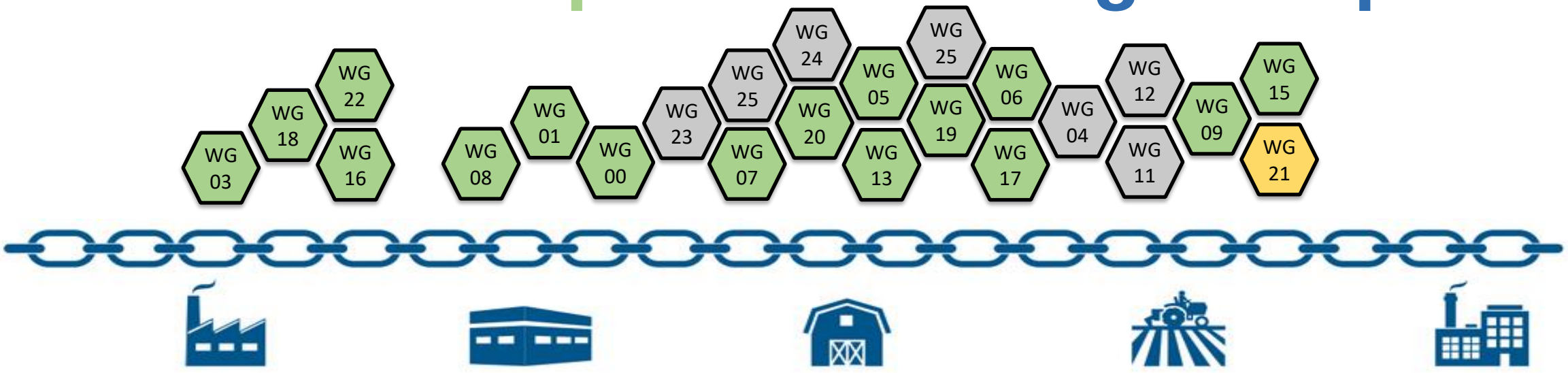
Completed digital resources delivered by previous Working Groups

Recently Completed Working Groups



- WG00 Agrisemantics PoC
- WG15 Scale Ticket
- WG16 Crop Protection Product Guidelines
- WG17 Field Boundaries: Terms & Definitions
- WG18 Crop Nutrition 3rd Party Product Management
- WG19 ADAPT Serialization
- WG20 Traceability API
- WG22 Booking & Prepay Reporting

Active & Completed Working Groups



- WG00 Agrisemantics PoC
- 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
- WG15 Scale Ticket
- WG16 Crop Protection Product Guidelines
- WG17 Field Boundaries: Terms & Definitions
- WG18 Crop Nutrition 3rd Party Product Management
- WG19 ADAPT Serialization
- WG20 Traceability API
- 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

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: Crop Definition Model complete, cleaning up documentation Creation of standing Agrisemntaics Committee recommendation made to AgGateway board

WG04 Co-Chair: Andres Ferreyra (Syngenta)
WG04 Co-Chair: Samantha Murray (Proagrica)
Staff Liaison: Ben Craker

Member Organizations:

Agrimetrics
CDMS, Inc.
Combyne Ag
Enterprise Ag Strategies, LLC
FarmBelt North, Inc.
John Deere
Lexagri SAS
ListenField
LNRS Data Services Inc
Proagrica
Purdue University OATS Center
Syngenta Crop Protection, LLC
Vis Consulting Inc.

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, v1.1available 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

Chair: TBD
Staff Liaison: Brent Kemp

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

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

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

Where to find Completed WG Digital

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

Use this form to request access to private(Members only) GitHub 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) https://github.com/AgGateway/ScaleTicket
WG16 Crop Protection Product Guidelines	Wiki pages, publication in process
WG17 Field Boundaries: Terms and Definitions	Being added to AgGlossary, ADAPT Standard https://github.com/ADAPT/Standard/issues/97
WG18 Crop Nutrition 3rd Party Product Management	XSLM file, publication in process
WG19 ADAPT Serialization	Being implemented within the ADAPT Standard https://ADAPTStandard.org, https://github.com/ADAPT/Standard
WG20 Traceability API	Public GitHub Repo https://github.com/AgGateway/TraceabilityAPI
WG22 Booking & Prepay Reporting	Ag eStadnards to be updated https://www.aggateway.org/GetConnected/Messaging.aspx

Use this form to request access to member only private repo.

Future Working Groups

Future working groups or meetups

Planned Working Groups & Meetups

- WGxx Modus: Plant Tissue/Botanical Methods
  - Update plant tissue/botanical methods list to v2.0 structure
- Harmonized Contract Meetup – Sept 2024
  - Building off Scale Ticket effort to align on digital contracts
  - Potential to harmonize with Seed, Crop Nutrition, Crop Protection Contract Message
- Mix Ticket (Dispensing Work Order/Record) Meetup – Sept 2024
  - Review and update the existing Mix Ticket standard based on feedback from implementations, requirements to support feed mixing, etc.
- PICS Completion Meetup – Q4 2024
  - Finalize PICS imagery metadata implementation guideline work that was started several years ago but was not released

Other Potential Future WG's

- Agrisemantics: Common controlled vocabularies
  - Find/create common controlled vocabularies identified common between multiple WG's
  - Infrastructure recommendation to host Crop Definition (WG00) model and other future resources
- 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
- Crop Nutrition Messaging
  - Updates to crop nutrition related messages
- 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
- GHG Reporting Data
  - Identification of data needs for GHG reporting, gap check of ADAPT Standard to simplify data exchange for verification
- Training imagery tagging standard
  - Basic metadata standard for tagging imagery used to train AI tools for weed identification, etc.
- Buffer zone data exchange
  - Digital exchange or buffer zones, predominantly in European markets
- **Other ideas? Contact ben.craker@aggateway.org**