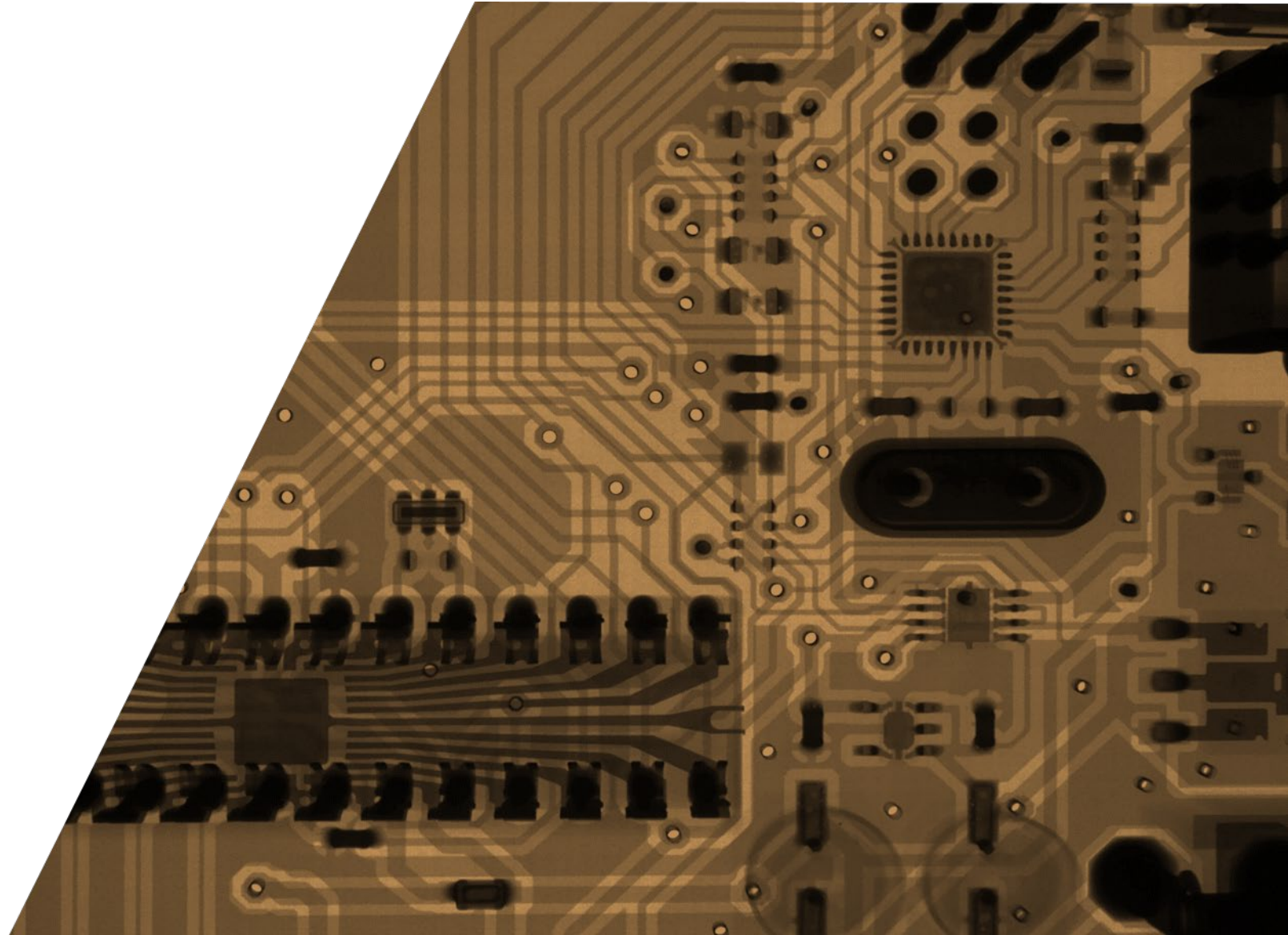




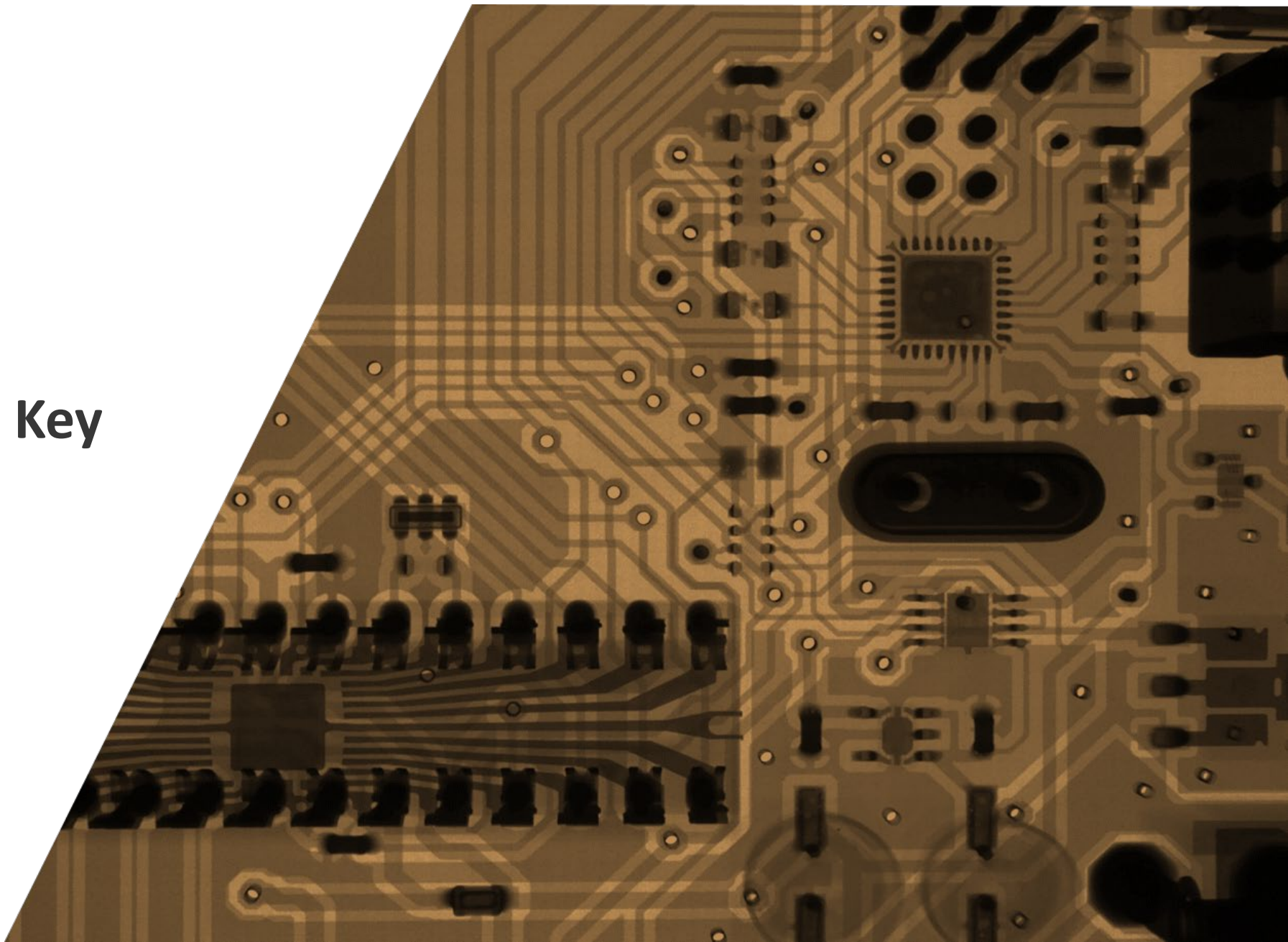
**ENTERPRISE**  
information services

## **GEOHub Portal Introduction and Overview**

**October 25, 2022  
Framework Forum**



# Background and Key Definitions



# GEOHub Background

- ORS 276A.500-515
- Key Definitions
  - Geospatial Framework Data
  - Custodian
  - Public Body
- Piece of Oregon's Data Strategy
- Provides Infrastructure, User Access Control, & Data Mgmt
- One-Stop Hub for Geospatial Data and Resources

## OREGON GEOGRAPHIC INFORMATION COUNCIL

**276A.500 Definitions.** As used in ORS 276A.500 to 276A.515:

(1) "Critical infrastructure information" means information about infrastructure that is so vital to this state or the United States that the incapacity or destruction of the infrastructure would detrimentally affect the personal and economic security, health or safety of residents of this state, including information about the security of items listed in ORS 192.355 (33).

(2) "Custodian" has the meaning given that term in ORS 192.311 (2)(b).

(3) "Geographic information" means geographic data as that term is defined in ORS 276A.203 (4)(b).

(4) "Geographic information system" has the meaning given that term in ORS 276A.203 (4)(b).

(5) "Geospatial framework data" means geographic information that a public body, under applicable provisions of law or on the basis of scientific methodology, technical standards or technical expertise, creates, generates, provides or aggregates and that the Oregon Geographic Information Council, in consultation with the public body, identifies as necessary to support the business processes of a governmental agency.

(6) "Public body" has the meaning given that term in ORS 174.109. [2017 c.166 §1]

**276A.503 Oregon Geographic Information Council; establishment; purposes; membership; terms of office.** (1) The Oregon Geographic Information Council is established within the office of Enterprise Information Services. The State Chief Information Officer shall provide administrative and staff support and facilities that are necessary for the council to carry out the purposes set forth in this section. The purposes of the council are to:

(a) Serve as the statewide governing body for sharing and managing geospatial framework data;

(b) Oversee the preparation and maintenance of a plan to enhance geographic framework information sharing and management and to enhance coordination with respect to geographic framework information among public bodies within this state; and

(c) Coordinate geospatial framework data sharing and management that occurs among public bodies.

# Key Definitions

- Geospatial Framework Data (FW Data Elements)

*“geographic information that a public body, under applicable provisions of law or on the basis of scientific methodology, technical standards or technical expertise, creates, generates, provides or aggregates and that the Oregon Geographic Information Council, in consultation with the public body, identifies as necessary to support the business processes of a governmental agency”.*

- Custodian (FW Data Source)

*“has the meaning given that term in ORS 192.311 (2)(b)”. Custodian means a public body mandated, directly or indirectly, to create, maintain, care for or control a public record. Custodian does not include a public body that has custody of a public record as an agent of another public body that is the custodian unless the public record is not otherwise available (ORS 192.311 (2)(b)).*

- Steward

Data Steward means an agency or organization that has volunteered to be accountable for a Framework data element for the well-being of the State of Oregon. (programmatic definition; not defined in Statute)

## Minimum Criteria for FW Data Elements

- multiple, well-defined business uses that articulate the importance of the creation and long-term maintenance of the data
- well-defined set of users, organizations, or agencies who rely on the data for their business needs
- Data created due to legislative mandate.

**\*\*statewide authoritative datasets\*\***

# Key Definitions: Public Body



## Public Body

*“has the meaning given that term in ORS 174.109 (ORS 276A.500 (6))”*. Public body means state government bodies, local government bodies and special government bodies ([ORS 174.109](#)) [2001 c.74 §2].

### State Government Body

is defined in ORS 174.111 as the executive department, the judicial department and the legislative department. [2001 c.74 §3]

For more information on these definitions, see ORS 174.112-114.

### Local Government Body

is defined as all cities, counties and local service districts located in this state, and all administrative subdivisions of those cities, counties and local service districts (ORS 174.116). The definition of local service districts includes many specific district types.

Metropolitan service districts, also commonly referred to as regional governments, are included in ORS 174.116 (2)(h).

See ORS 174.116 for more information.

### Special Government Body

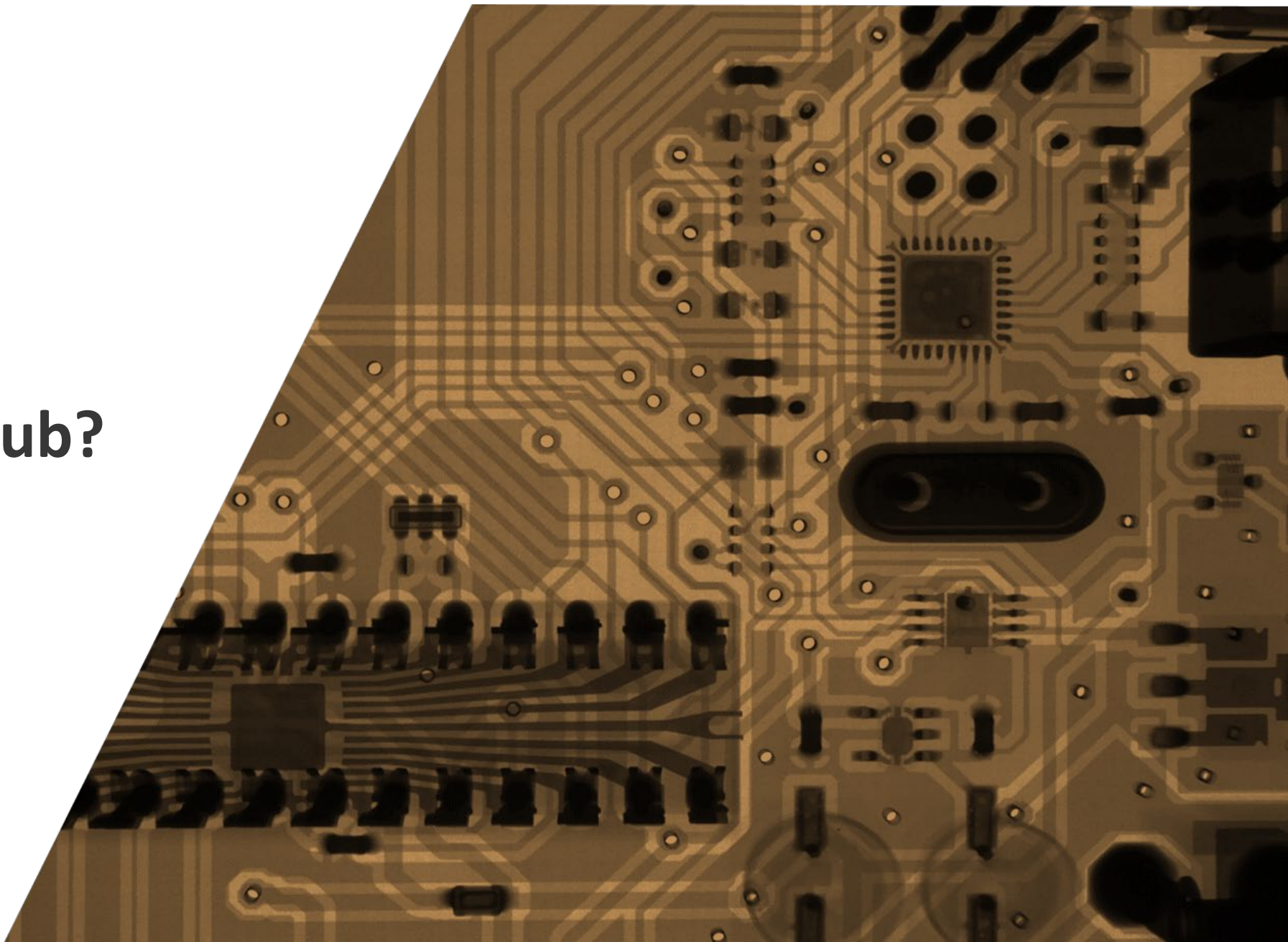
is defined in ORS 174.117 and includes commonly known special districts such as school districts and other specifically defined districts.

The definition of special government body includes public universities listed in ORS 352.002 including:

- University of Oregon
- Oregon State University
- Portland State University
- Oregon Institute of Technology
- Western Oregon University
- Southern Oregon University
- Eastern Oregon University

See ORS 174.117 for more information.

**What is GEOHub?**



# What is GEOHub?

- One-stop hub for geospatial data and resources
- Public-Facing Hub Initiative
  - Pages for Framework Themes
  - Links to other geospatial data catalogs and services
- Secure login for public bodies to access restricted data.


Example Hub Site: [AZGeo](#)

The screenshot shows the AZGeo Data website. At the top, there is a navigation menu with links for Hub, Groups, Data, Metadata, Partnerships, AGIC, Members, and Help. The main header features the text "AZGeo Data" over a stylized landscape background with palm trees and mountains. Below this is a dark blue banner with the AZGeo Data Hub logo and a welcome message: "Welcome to the AZGeo Data Search page. This platform, supported by the Arizona Geographic Information Council (AGIC) and the Arizona State Land Department, was built to allow people to explore and download authoritative data for the state of Arizona. The majority of data published by AZGeo is accessible to the general public. AZGeo also utilizes groups to allow people to share sensitive data within groups. For more information on groups, please see the Groups page." The main content area is titled "Explore AZGeo Open Data" and includes a search box and a grid of icons representing different data categories: All, Agriculture/Farming, Biota, Boundaries, Climatology, Economy, Elevation, and Environment.

Hub Groups Data Metadata Partnerships AGIC Members Help

## AZGeo Data

★











Welcome to the AZGeo Data Search page. This platform, supported by the Arizona Geographic Information Council (AGIC) and the Arizona State Land Department, was built to allow people to explore and download authoritative data for the state of Arizona. The majority of data published by AZGeo is accessible to the general public. AZGeo also utilizes groups to allow people to share sensitive data within groups. For more information on groups, please see the Groups page.

### Explore AZGeo Open Data

The icons below, based on ISO 19115, will find data that was assigned the appropriate category by the data contributor. For other searches (e.g. city name, police, fire, etc.) use the data search box below.

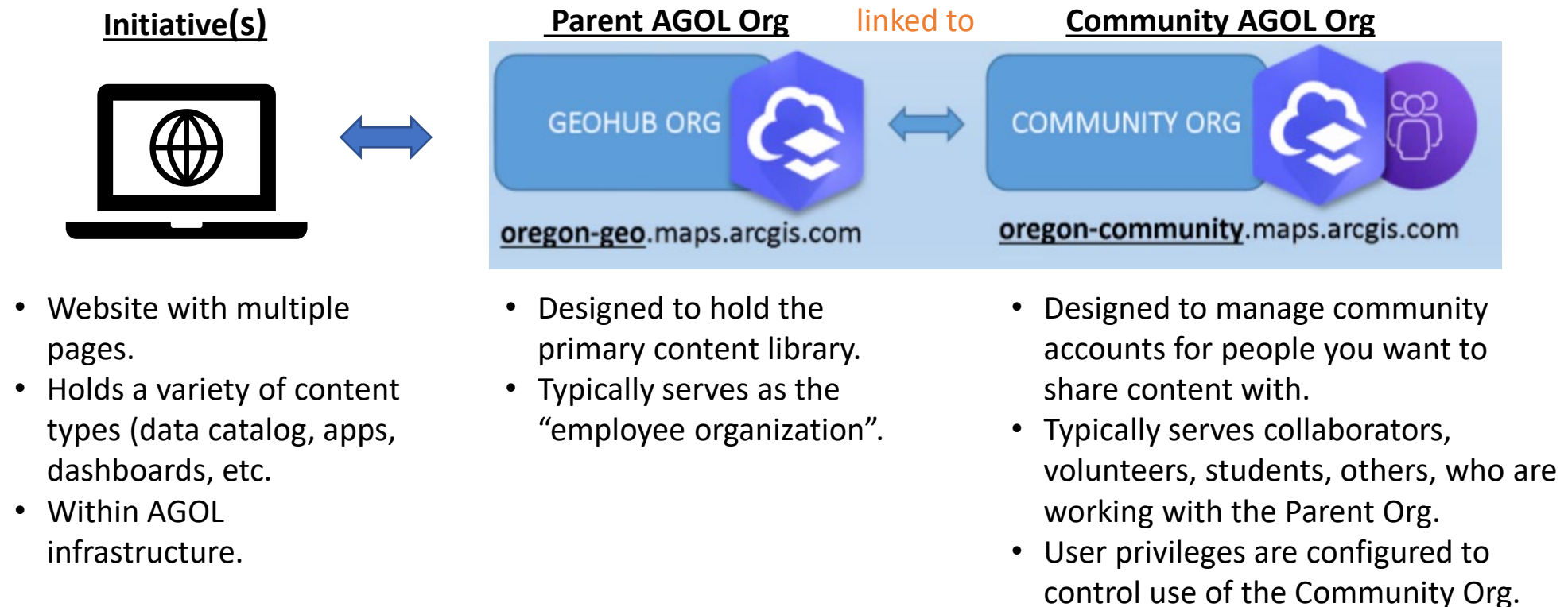
To view secure/controlled data sets that have been shared with you, in addition to open data, please login to AZGeo and then visit the [AZGeo Hub Data Gallery](#)

 All	 Agriculture/Farming (e.g. rearing of animals and/or cultivation of plants)	 Biota (e.g. flora and/or fauna in natural environment)	 Boundaries (e.g. legal land descriptions)
 Climatology (e.g. processes and phenomena of the atmosphere)	 Economy (e.g. economic activities, conditions and employment)	 Elevation (e.g. height above or below sea level)	 Environment (e.g. environmental resources, protection and conservation)

# What is ArcGIS Hub?

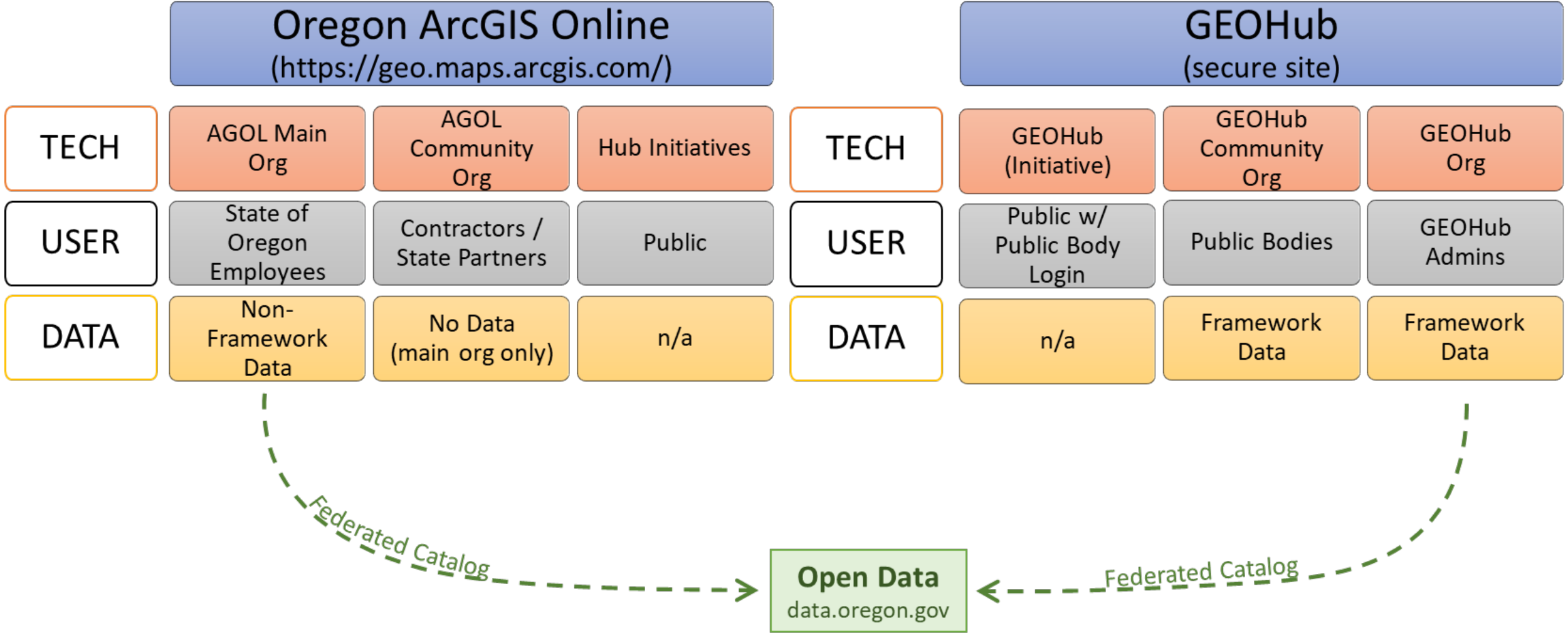
ArcGIS Hub is a cloud-based engagement platform that enables organizations to communicate more effectively with their communities. (Esri, [What is ArcGIS Hub?—ArcGIS Hub | Documentation](#))

ArcGIS Hub has 3 components: Parent AGOL Org, Community AGOL Org, and Initiatives/Sites.





# DAS GEO has 2 Hub Premium Subscriptions





Data Published to  
GEOHub Community  
Org (via AGOL)



GEOHub  
Community  
Org

**Administrators**

- Create GEOHub Accounts
- Configure user roles and permissions

**Data Stewards (custodians)**

- Publish data to QA/QC group
- Upload metadata .xml (TBD)

TBD: Metadata Process / Details  
TBD: User Validation Process / Access Rules  
TBD: Terms of Use



Hosted Feature Services  
Published to GEOHub  
Org (via ArcServer)



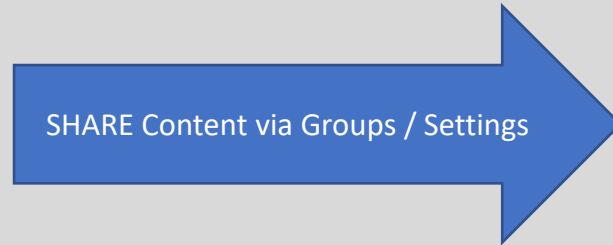
GEOHub Org

**Administrators**

- Publish data as REST Services
- Register external REST Endpoints
- Register data .zip files stored on FTP
- Share data to group(s)

**Data Stewards (custodians)**

- Publish data to group
- Upload metadata .xml (TBD)



**Back End**

**Public and Public  
Body Access**

GEOHub  
(Initiative)

**All Users**

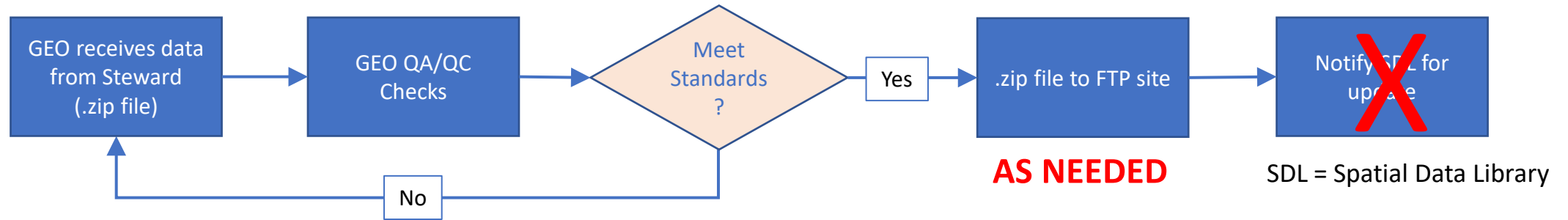
- Search the data catalog
- Data organized by Framework Theme
- Download data (CSV, KML, Shapefile, GeoJSON, File GDB)
- Feedback Form
- Request Access Form

**Public Bodies**

- Login to access restricted datasets
- Data Readiness Form

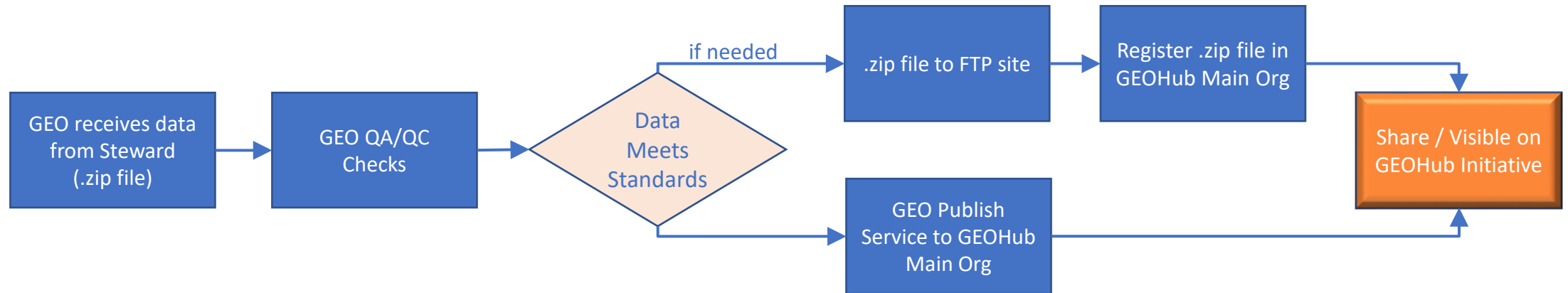
**Front End**

# Current Data Publishing Workflow



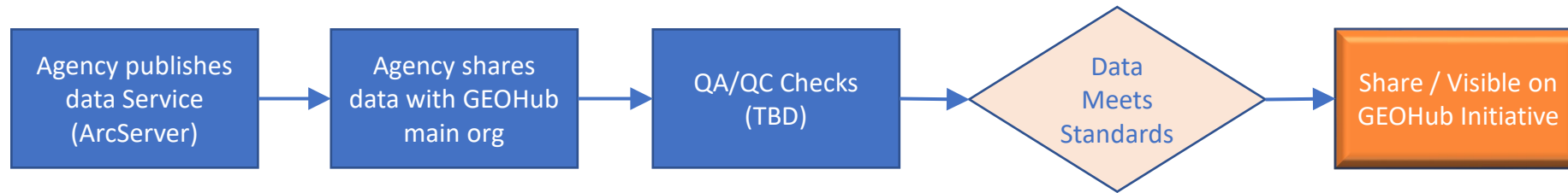
# Future Data Publishing Workflows

## 1) Data sent to GEO (.zip file)



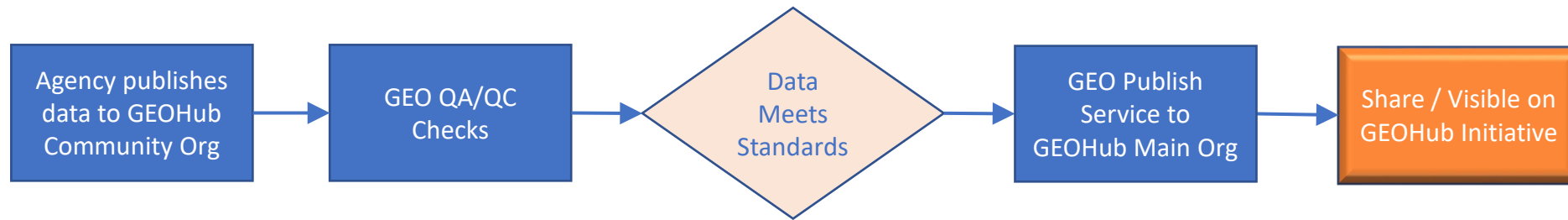
# Future Data Publishing Workflows

## 2) Data published via Agency ArcGIS Enterprise (ArcServer)



# Future Data Publishing Workflows

## 3) Data published to GEOHub Community Org (AGOL)

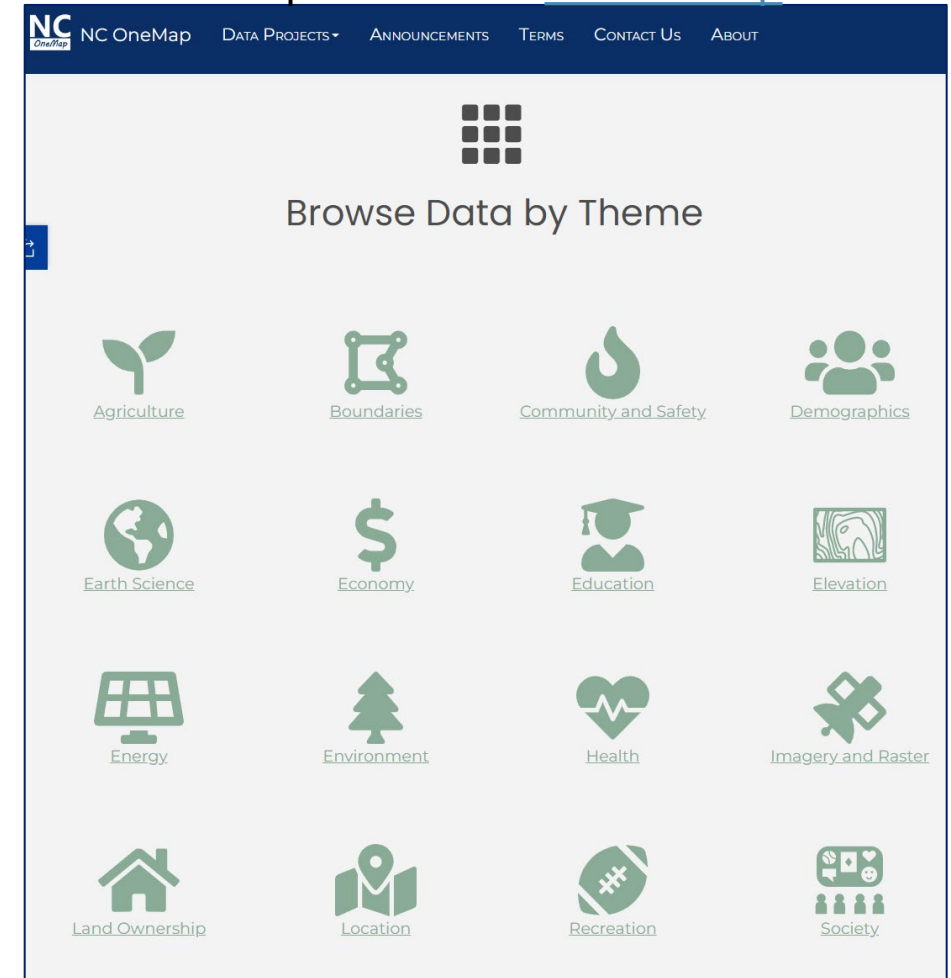


# What you can expect – Phase 1

- **Phase 1: 2021-23 Biennium**

- Designing and building infrastructure
  - New pages for Framework Themes
  - Old pages will be removed from existing GEO web site.
- Defining governance processes and publishing workflows
- New tools for data inventory and management and QA/QC

Example Hub Site: [NC OneMap](#)



# What you can expect – Phase 1

- Imagery as Services; searchable and discoverable in GEOHub
- Spatial Data Library will be replaced or removed.
  - SDL uses old technology; need to modernize the data catalog.
  - Transition period to populate new site and to deprecate SDL.
  - Transition period will address **ALL** data currently in SDL.

## Oregon Statewide Imagery

Imagery is acquired through the Oregon Statewide Imagery Program (OSIP). OSIP meets increased demand for high resolution aerial imagery and distributes new and historical imagery via web hosted services to every level of government in Oregon, the academic community, private sector business, non-governmental organizations, and the public. Data acquisition is made possible through cooperation and partnership, resulting in reduced overall costs and increased returns-on-investment for all. Learn more about [OSIP](#) and the [Imagery FII](#).

### OREGON IMAGERY SERVICES BY YEAR

REST Service URLs Included

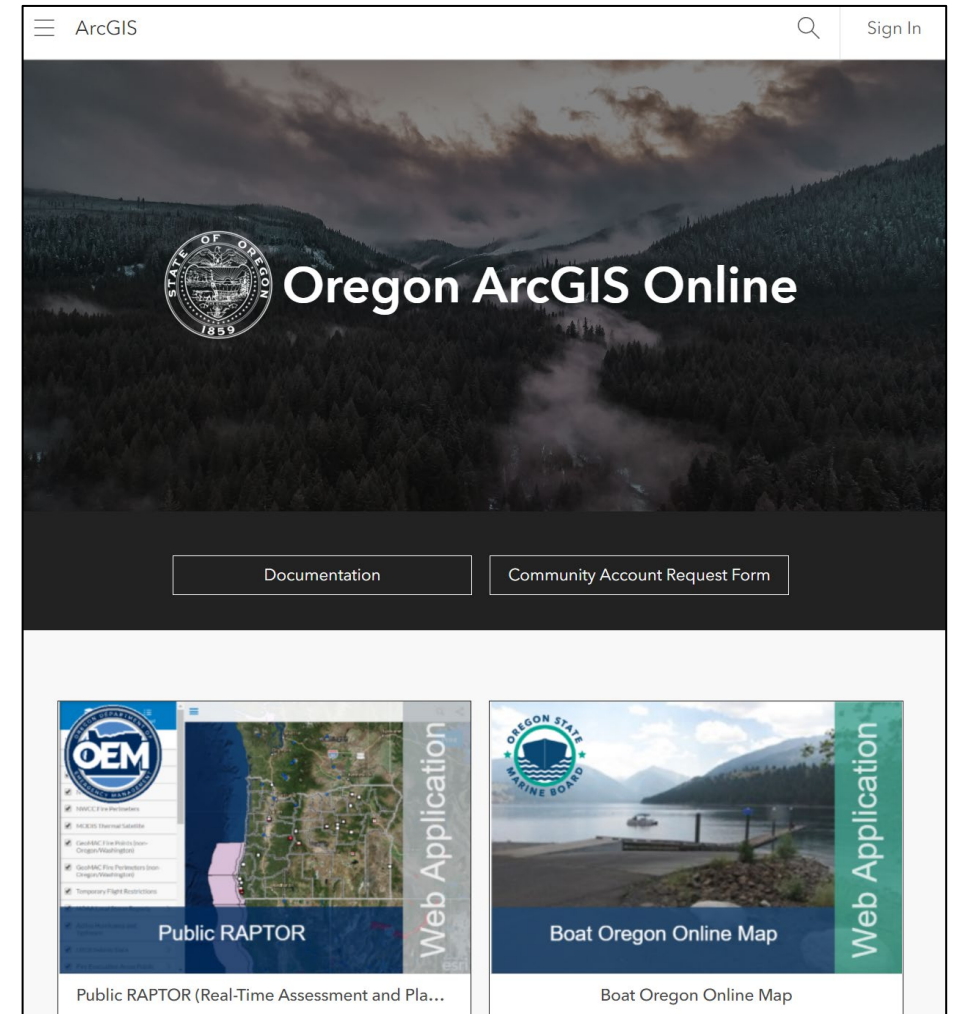
Title	Description	Data	Resolution
2020 NAIP	4-band ortho imagery...	<a href="#">REST URL</a>	60-centimeter
2018 Western OR	52200 square miles o...	<a href="#">REST URL</a>	1-foot
2017 Eastern OR	47600 square miles o...	<a href="#">REST URL</a>	1-foot
2016 NAIP	natural color and nea...	<a href="#">REST URL</a>	1-meter
2014 NAIP	natural color and nea...	<a href="#">REST URL</a>	1-meter
2012 NAIP	natural color and nea...	<a href="#">REST URL</a>	1-meter
2011 NAIP	natural color and nea...	<a href="#">REST URL</a>	1-meter
2009 NAIP	natural color and nea...	<a href="#">REST URL</a>	05-meter



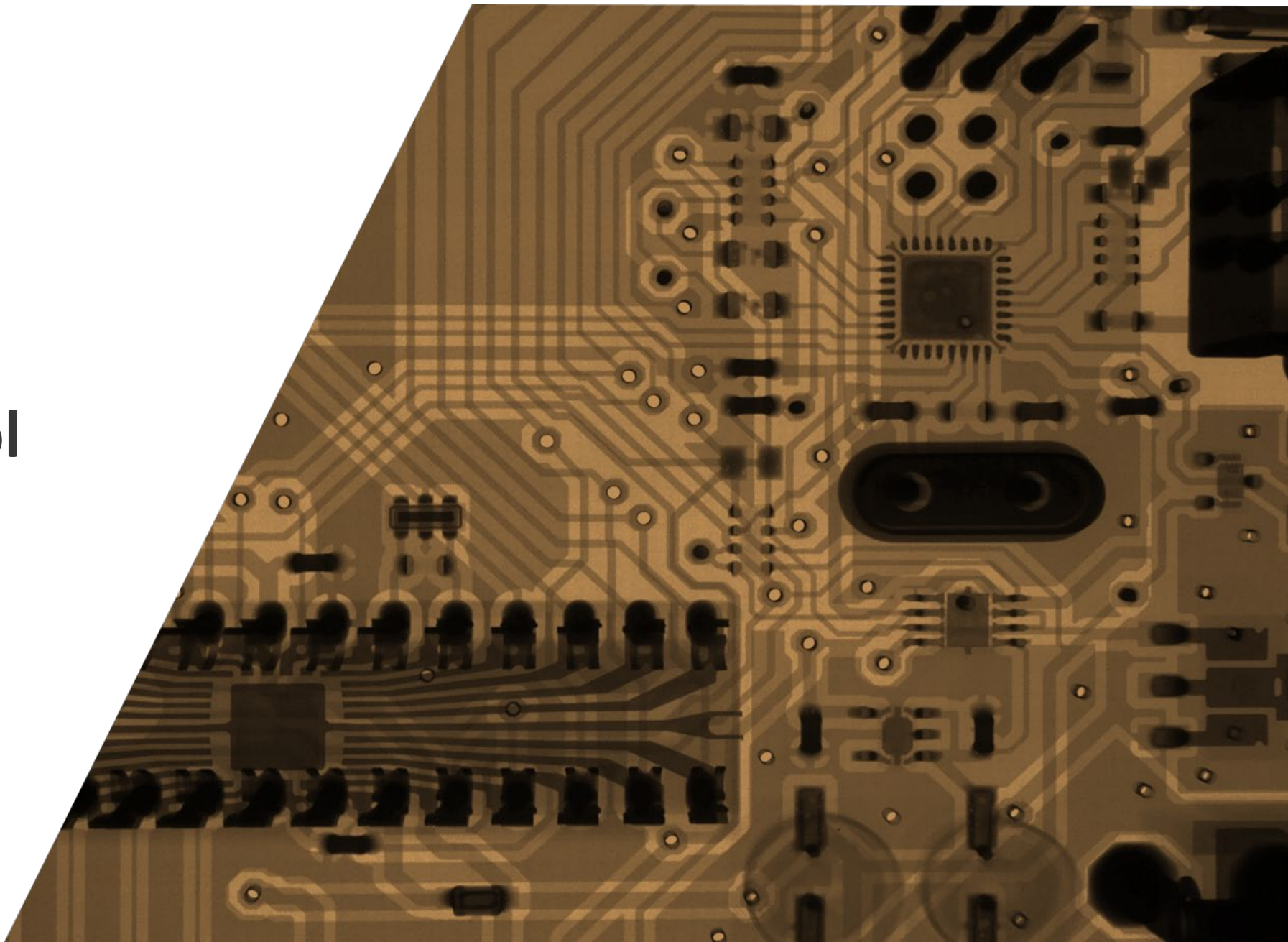


# What you can expect – Phase 2

- Phase 2: 2023-25 Biennium
  - Launch of QA/QC tools for State and **Local/Regional Gov't** Data Stewards
  - Data aggregation support
  - Supply Chain Management
  - Better Organize Non-Framework Data and our Main AGOL Org



# QA/QC Tool



# Research of QA/QC Tools

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## QA/QC Tool Goals

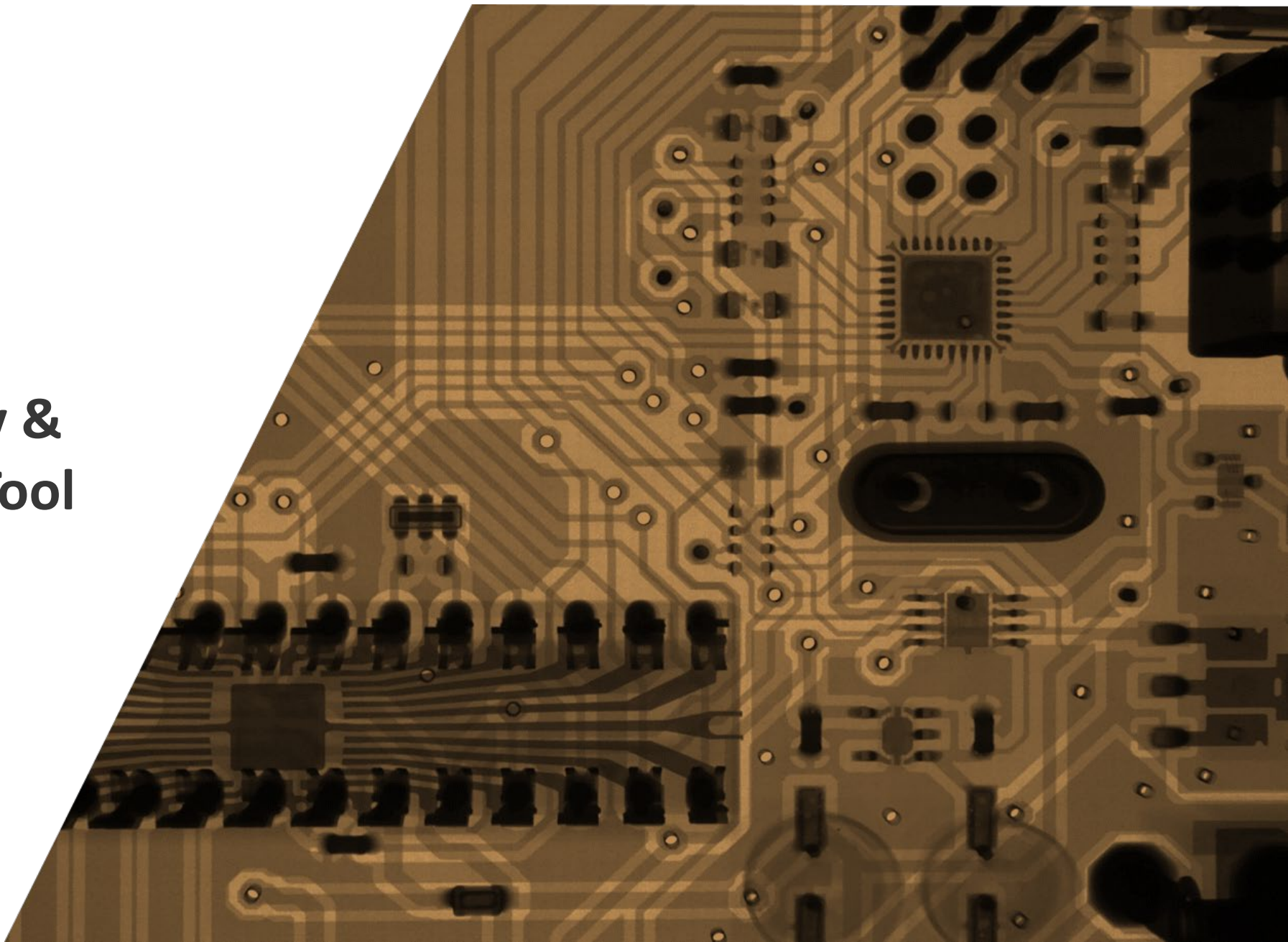
- More robust, automated QA/QC checks of data.
- QA/QC details:
  - Metadata
  - Schema / Comparison to Standard
  - Projection / Datum
  - Topology
  - Feature Classes & Services
- Training and Support for Users
- Friendly User Interface / Usability
- Licensing / Cost ROI

## Tool Research

- 3 Tools Researched:
  - [Safe Software's FME](#)
  - [Esri's Data Reviewer](#)
  - [1Spatial](#)
- Recommended Solution: **1Spatial**
- Supports **all** Data Custodians
- Licensed for State agencies; supports data aggregation of local data.
- Best of FME and Best of Data Reviewer combined into a polished package.



# Data Inventory & Management Tool



# Research of Data Inventory & Mgmt Tools

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## Inventory Tool Goals

- Better transparency for Framework Program
- Identify Framework data elements for public body sharing vs. those not adopted by OGIC
- Public-facing dashboard to support funding decisions
- Automatically read / ingest some key attributes of datasets
- Easier access to data contacts, standards, and stewardship plans

## Tool Research

- 3 Tools Researched:
  - Voyager Safe Search
  - Progressive Technology Federal Systems (PTFS)
  - Published hosted table (Esri AGOL)
- Recommended Solution: **Esri**
- Supports all Data Custodians
- Users/Editors managed via AGOL existing functionality.
- Easy implementation.



# Data Inventory Minimum Attributes

Four sections of information: Descriptive Information, Distribution, Governance, and Funding

Descriptive Information							
Unique ID	Framework Theme	Data Element Name	Description	Status	Aggregated Dataset	Date Last Updated	Update Frequency

Distribution		
Shared Publicly	Link to Metadata	Link to Data (service url)

Data Element Governance						
Custodian Org Name	Steward Org Name	Contact Name	Contact Email	Stewardship Plan	OGIC Endorsed Data Standard	OGIC Endorsed Public Body Sharing

Funding
Received Framework Grant Funds

FIT Leads are reviewing the data element list now and beginning to complete the minimum attributes for each dataset.

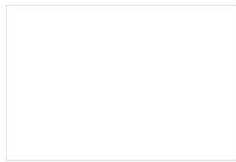
Spreadsheet completion deadline for all FIT Themes is **November 30, 2022.**



# Data Inventory Hosted Table

Home Gallery Map Scene Search Sign In

**OR GEOHub Service Catalog Test** Overview Data



This hosted table is published from an Excel spreadsheet as a test.

Table by [brian.kingery@timmons.com](mailto:brian.kingery@timmons.com)\_Timmons\_Group

Created: Aug 30, 2022 Updated: Aug 30, 2022 View Count: 72

[Open in Map Viewer](#)

[Open in ArcGIS Desktop](#)

## Description

An in-depth description of the item is not available.

## Tables

Sheet1  
Table

## Terms of Use

No special restrictions or limitations on using the item's content have been provided.

## Comments (0)

[Sign in](#) to add a comment.

## Details

Source: [Feature Service](#)  
 Data Last Updated: Aug 30, 2022, 6:42 PM  
 Size: 32 KB  
 Attachments Size: 0 KB



## Share



## Owner

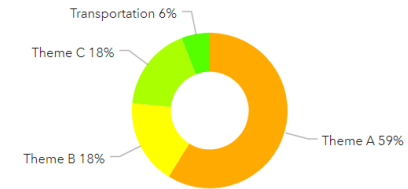
[brian.kingery@timmons.com](mailto:brian.kingery@timmons.com)

## OR GEOHub Service Catalog Test

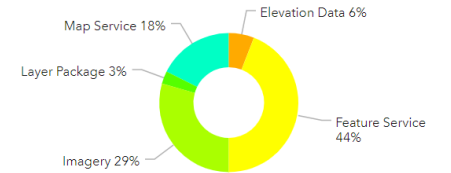
GEOHub Content Count

34

Content by Framework Theme

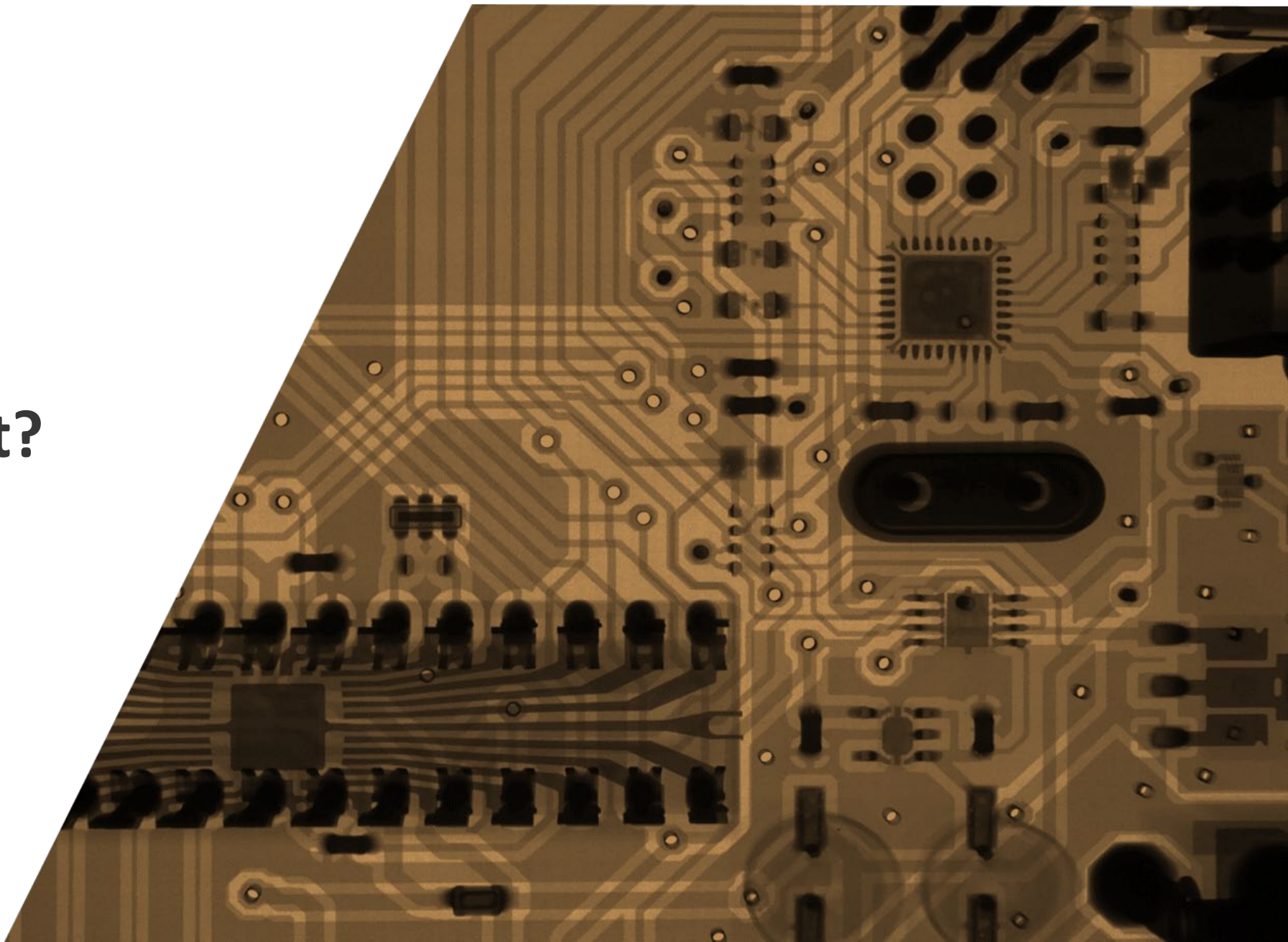


Content by Data Type

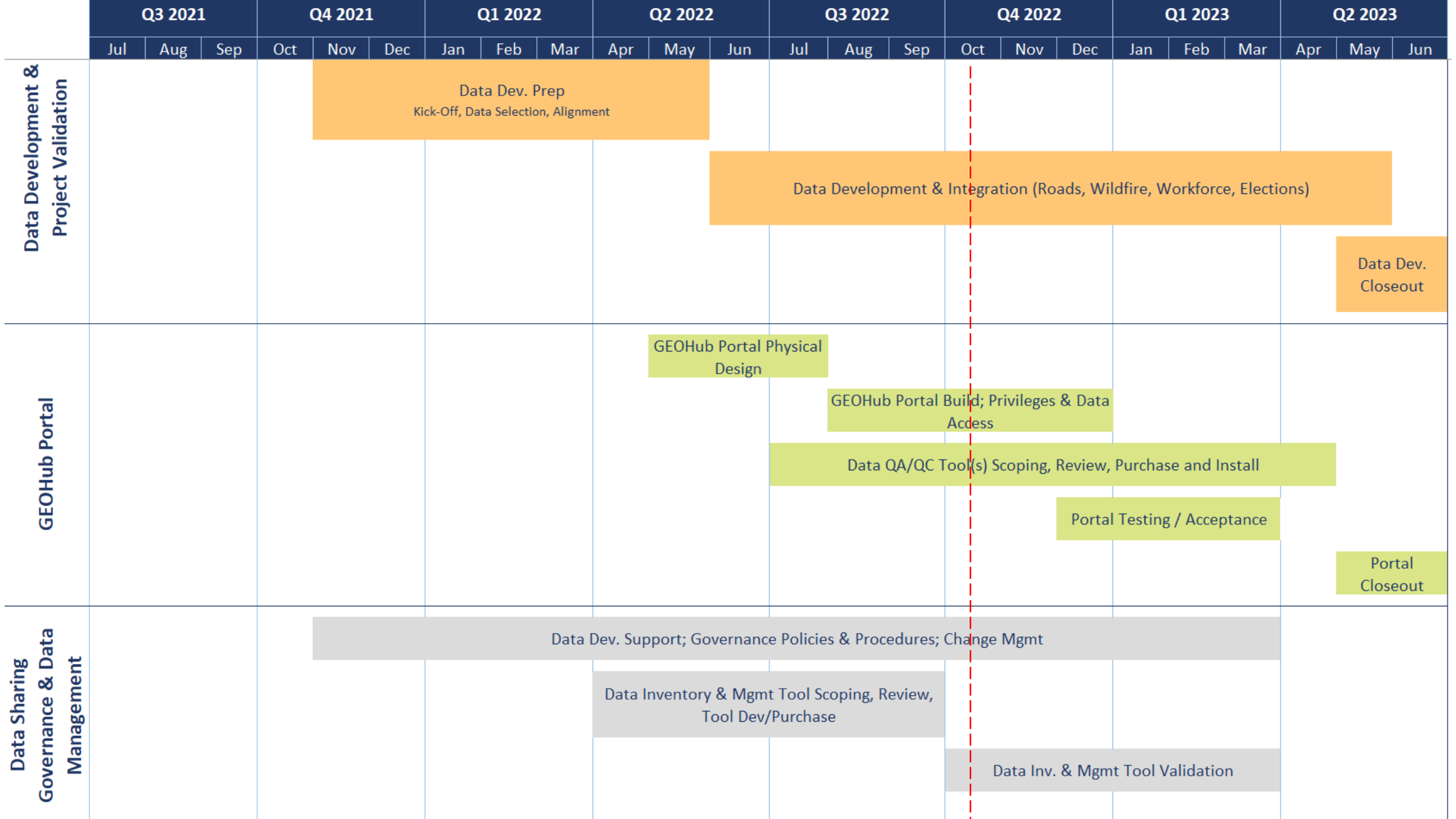


Status	Data Type	Name	Provider	Framework...	POC	POC Email	Update Fre...	Published ...	Last Update	GEOHub Li...	REST Link
Retired	Map Service	Dataset Na...	Agency Na...	Theme C	First Last	First.Last@...	Quarterly	August 31, ...	August 31, ...	https://ww...	https://www...
Active	Feature Ser...	Oregon State	U.S. Depart...	Theme B	First Last	First.Last@...	Monthly	July 13, 2018	July 31, 2022	https://hub...	https://servic...
Active	Feature Ser...	Oregon Pri...	U.S. Depart...	Theme A	First Last	First.Last@...	Quarterly	July 12, 2018	May 31, 2022	https://hub...	https://servic...
Active	Imagery	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	Annually	May 4, 2015	May 4, 2022	https://ww...	https://www...
Retired	Elevation D...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	Annually	May 4, 2015	May 4, 2022	https://ww...	https://www...
Active	Elevation D...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	Annually	May 4, 2015	May 4, 2022	https://ww...	https://www...
Retired	Feature Ser...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	Annually	May 4, 2015	May 4, 2022	https://ww...	https://www...
Active	Feature Ser...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	Quarterly	May 4, 2015	May 4, 2022	https://ww...	https://www...
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Active	Feature Ser...	Dataset Na...	Agency Na...	Theme C	First Last	First.Last@...	As Needed	May 4, 2015	May 4, 2022	https://ww...	https://www...
Active	Feature Ser...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	As Needed	May 4, 2015	May 4, 2022	https://ww...	https://www...
Active	Feature Ser...	Dataset Na...	Agency Na...	Theme A	First Last	First.Last@...	As Needed	May 4, 2015	May 4, 2022	https://ww...	https://www...

**What's Next?**







# Goals:

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***GEOHub** is the data repository for authoritative geospatial data in Oregon.*

*Public bodies should increasingly see **GEOHub** as a reliable and trusted source of geospatial data and realize the efficiencies and improvements in government service delivery because of data collaboration and sharing efforts.*



# Questions?

Rachel L. Smith  
Oregon Geographic Information Officer  
[rachel.l.smith@das.oregon.gov](mailto:rachel.l.smith@das.oregon.gov)

