

# Innovate ISO for EPA and Idaho Interim Report

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## Executive Summary

Innovate! Inc. (Innovate) is collaborating with the US EPA Environmental Dataset Gateway (EDG) and the State of Idaho – INSIDE Idaho metadata clearinghouses to evaluate the requirements for transitioning from FGDC CSDGM metadata to ISO 19115-2. Both organizations currently contribute metadata records to Data.gov and Geo.data.gov and have many years of history in metadata creation and development. This project will create a model for metadata transition that other groups across the US can follow. The anticipated outcomes of this project include:

- A “cookbook” for efficiently and effectively transitioning from FGDC to ISO
- Tutorials
- Presentations
- Publications

This project is organized in five tasks:

1. Gather information
2. Identify existing FGDC business processes and linkage points
3. Create recommended ISO solution
4. Apply solution to a subset of metadata records
5. Document process and write up future recommendation



Thus far Innovate has completed Tasks 1 and 2. Task 3 is currently in progress.

## Project Narrative

In this project Innovate is developing a recommended migration route from FGDC CSDGM metadata to ISO metadata for the US EPA (<https://edg.epa.gov/>) and the State of Idaho metadata clearinghouses (<http://insideidaho.org/>). The migration will address not only technical aspects, but also policy, procedure, and personnel considerations to ensure that the recommendation provides a holistic approach. We will test the migration route by transitioning a sample of the clearinghouses' records from FGDC CSDGM to ISO. Both the EDG and INSIDE Idaho are robust metadata clearinghouses that store metadata adhering to the FGDC CSDGM standard. Each organization has a desire to identify best practices for migrating to the ISO 19115-2 metadata standard. In both cases the organizations have a well-documented process for creating, sharing, and leveraging FGDC CSDGM metadata. Each group desires to investigate how best to streamline and facilitate creation, query, and display of ISO metadata, without re-architecting current systems. Making data easier to document will lead to more data being made available via these and other metadata clearinghouses.



## Development of CSDGM to ISO Transition Strategy

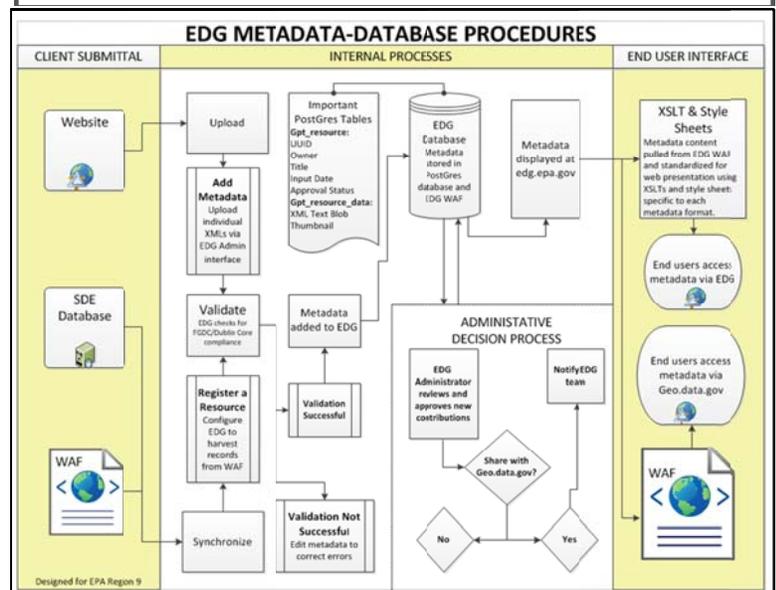
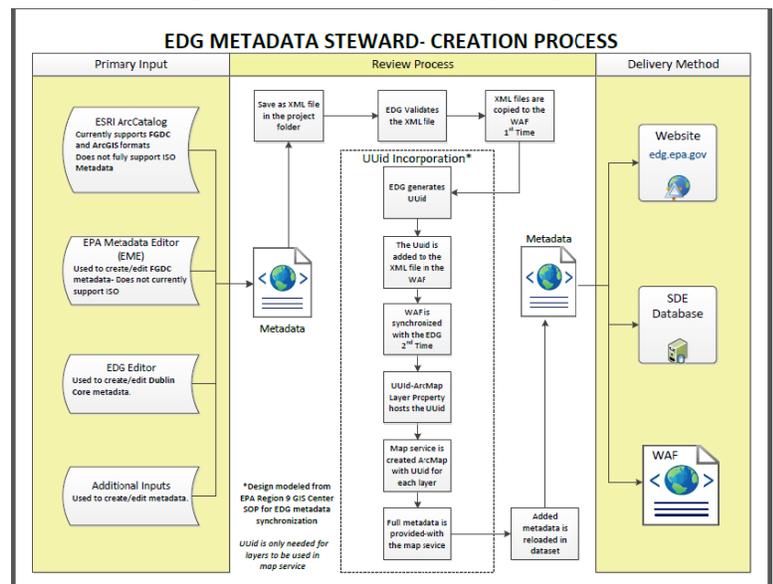
In the first phase of this project (Task 1), Innovate collected information about the EDG and INSIDE Idaho. Innovate staff organized Project Kickoff and Key Information Gathering meetings (onsite and via webinar) with subject matter experts from each clearinghouse. These meetings assessed the clearinghouses' current status, identified project goals, and predicted challenges. Over the course of these meetings, Innovate staff met the following objectives:

- Developed a list of participants for each clearinghouse
- Developed a list of subject matter experts for each clearinghouse (website architecture expert, metadata collection expert, outreach expert, etc.)
- Created list of overall desires, outcomes, and stumbling blocks as identified by subject matter experts
- Gathered information on previous ISO metadata activities at the clearinghouses
- Provided education on methods available to convert FGDC metadata to ISO metadata records

After concluding the information-gathering meetings, Innovate conducted an in-depth examination of the current business processes and technical architecture of the EDG and INSIDE Idaho (Task 2). Innovate worked with clearinghouse staff to diagram the architecture, specifically the touch points of the clearinghouse to the individual metadata

records, databases, and other components that make up the search mechanisms of the site. This will ensure that when the transition to ISO conversion occurs, the clearinghouse website will continue to function. The following steps were taken to accomplish this task:

- Met with subject matter experts to develop website architectural diagrams for search and retrieval of metadata records
- Met with subject matter experts to determine existing data flows for metadata coming into clearinghouse
- Determined existing data outflow for data going out to Geo.Data.gov, Data.gov and other locations



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- Determined other data flows that are supported by the existing metadata

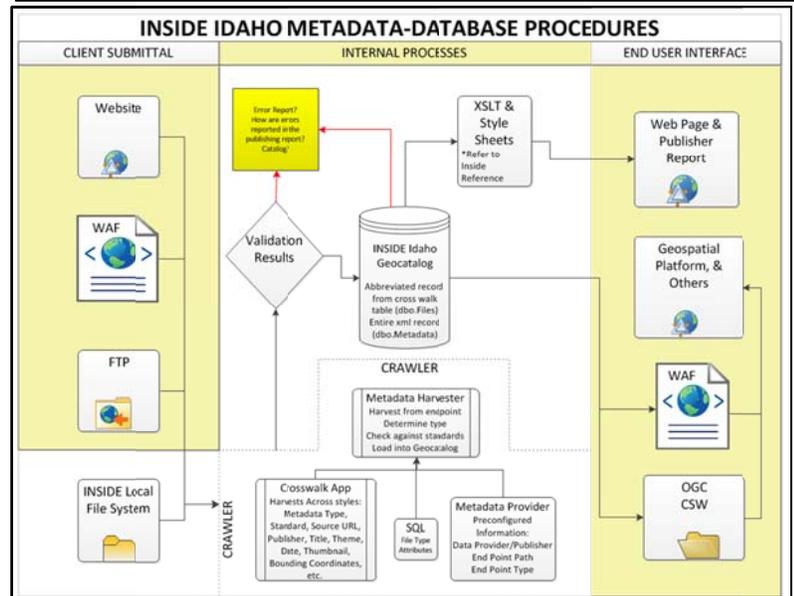
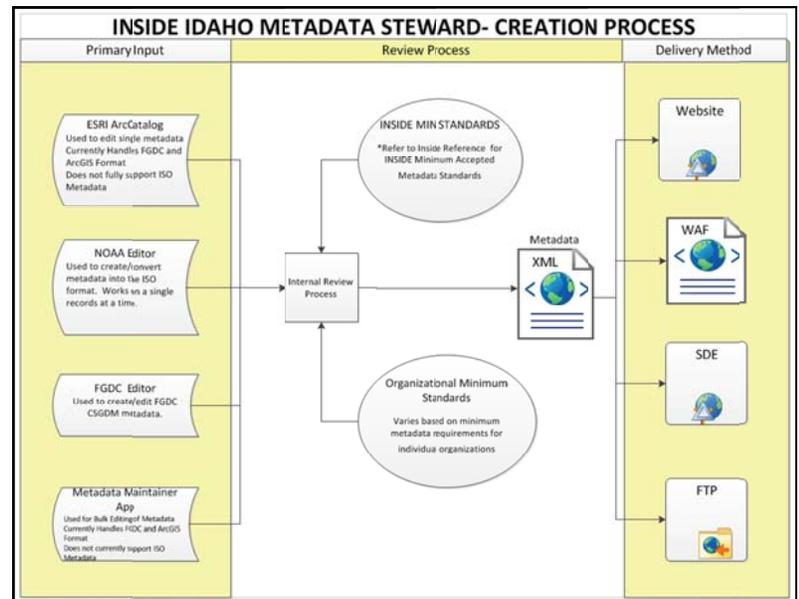
Innovate staff created architecture diagrams for each clearinghouse using Microsoft Visio software (Figure 2 and 3). The diagrams show how metadata are processed both by the data steward and the clearinghouse. These diagrams will be used to identify critical components affected by the transition to ISO metadata.

### Deviations from the Original Proposal

To date there have been no deviations from the original proposal.

#### Next Steps

Innovate is currently developing recommended ISO solutions for the EDG and INSIDE Idaho (Task 3), working closely with the clearinghouse staff to design a solution that will minimally impact the current end users of the site. Conceptually, the end users will experience no difference in search result speeds or other interactions with the site. We are exploring options to resolve several known transitional issues, including the integration of Esri Description and ISO metadata.



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### Will the project activities continue after the award is closed?

Yes. We anticipate that we will continue to publish educational documents and work with clearinghouse staff after the award closes. Since Innovate is responsible for administering and maintaining the EDG, our staff will remain closely involved with the EDG’s transition to ISO.

### What formal or informal organizational relationships were established to sustain activities beyond performance period?

Innovate has longstanding ties with both INSIDE Idaho and the EDG, which will ensure that our activities continue beyond the performance period. This project has strengthened INSIDE Idaho’s relationship with the EDG. As Innovate conducts outreach and training for this project

(Task 5), we will have the opportunity to build relationships with other regional and national organizations making the transition from FGDC to ISO metadata.

## **Describe the next phase in your project.**

Task 3 will culminate in a group meeting with the clearinghouse staff, which will cover the following items:

- Recommend conversion routine for existing records
- Recommend metadata verification technique
- Recommend metadata creation process for new records
- Review above solutions with partners and make modifications as necessary, and develop list of agreed-upon solutions
- Talk through how new records will be incorporated into existing search routines and databases

After leading this meeting, Innovate staff will apply the recommended solution to a subset of metadata records (Task 4) and document the process (Task 5). The project will culminate in a series of publications, presentations, and tutorials that will allow other clearinghouses to use the EDG/INSIDE Idaho solution as a model for their own FGDC to ISO transitions.

## **Do you need FGDC assistance?**

We do not require FGDC assistance at this time.

## **What requirements (more technical assistance, software, other?) do you have to continue project? What other areas need work?**

We plan to meet with Jacqueline Mize of NOAA within the next two weeks to request her technical assistance with NOAA's translation tools. At the point our team is well-equipped to move forward with the remaining phases of the project.

