



GLOBAL ENERGY STORAGE DATABASE (GESDB): DATABASE UPDATES AND NEW FEATURES

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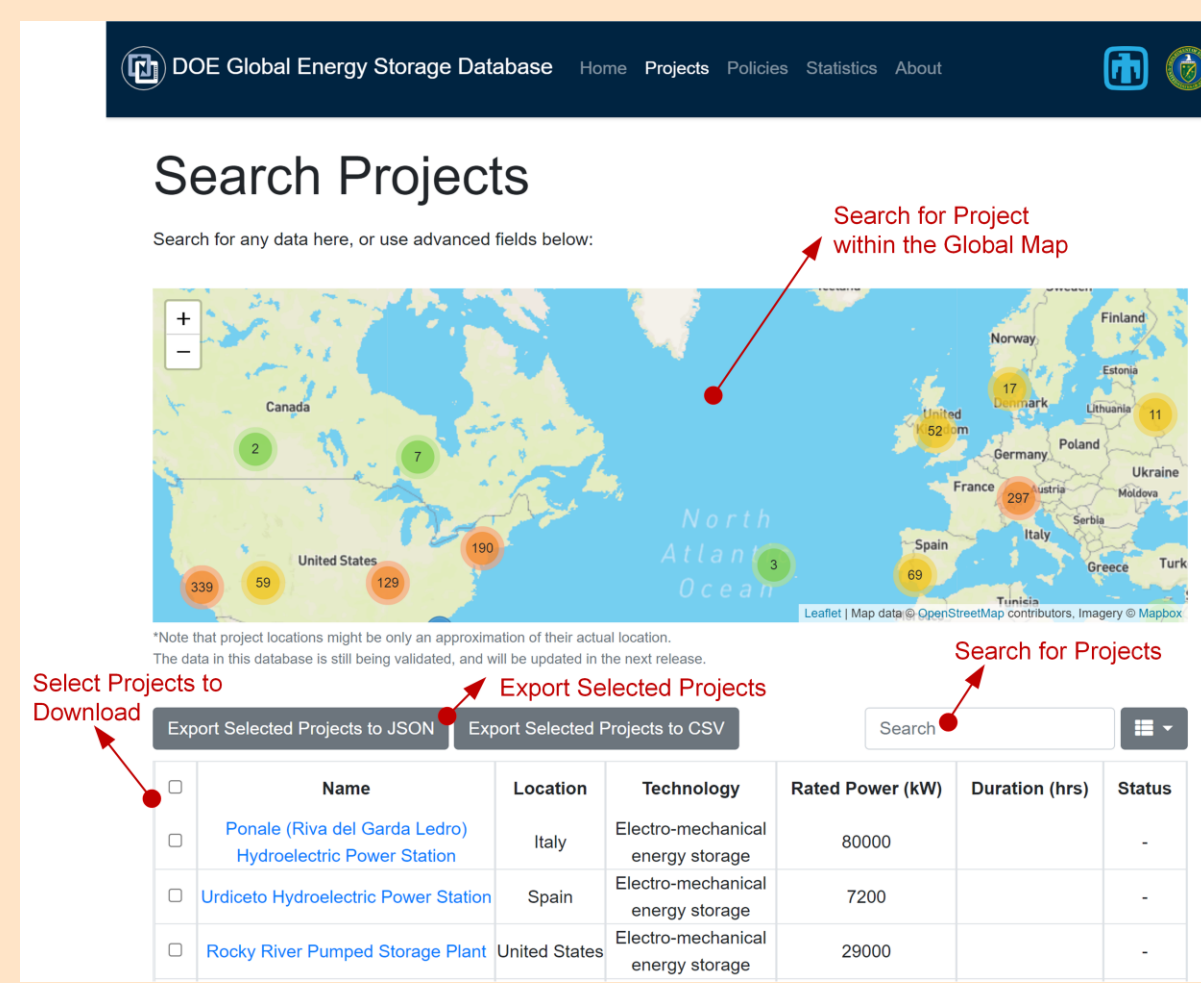
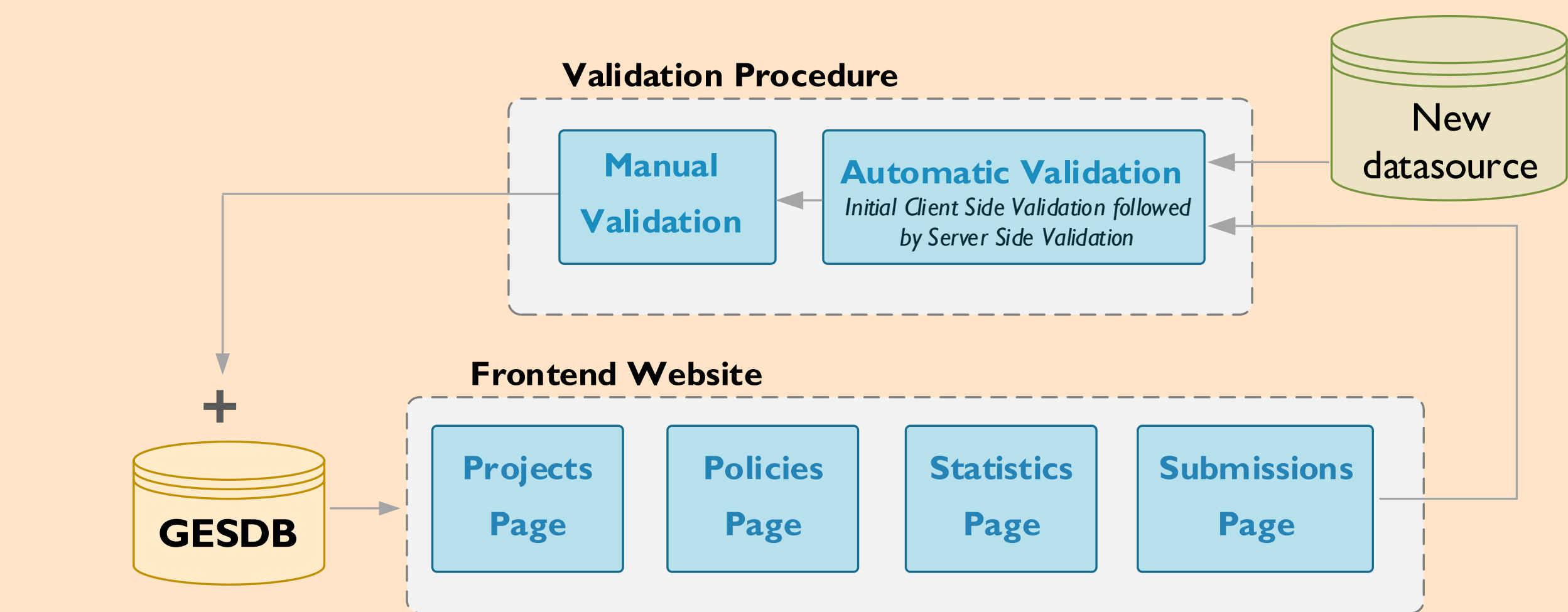
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Abstract

The Global Energy Storage Database (GESDB) aims at providing high-quality and accurate data on energy storage projects around the globe. In this poster, we present an overview of all the features of the GESDB including recent updates to the database. The poster also highlights some backend features being developed to automate data entries into the GESDB.

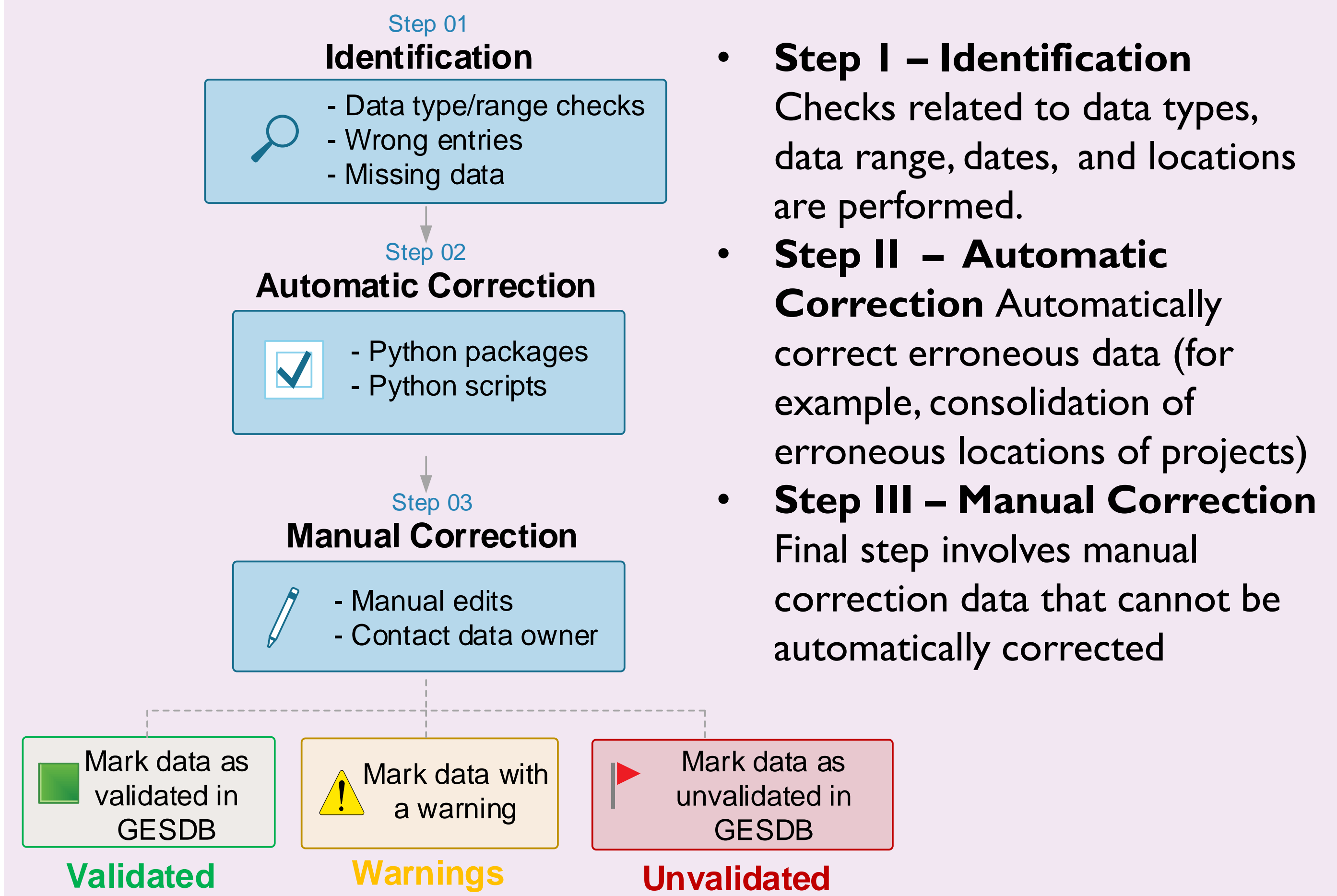
Overview of GESDB

Website: <https://gesdb.sandia.gov>

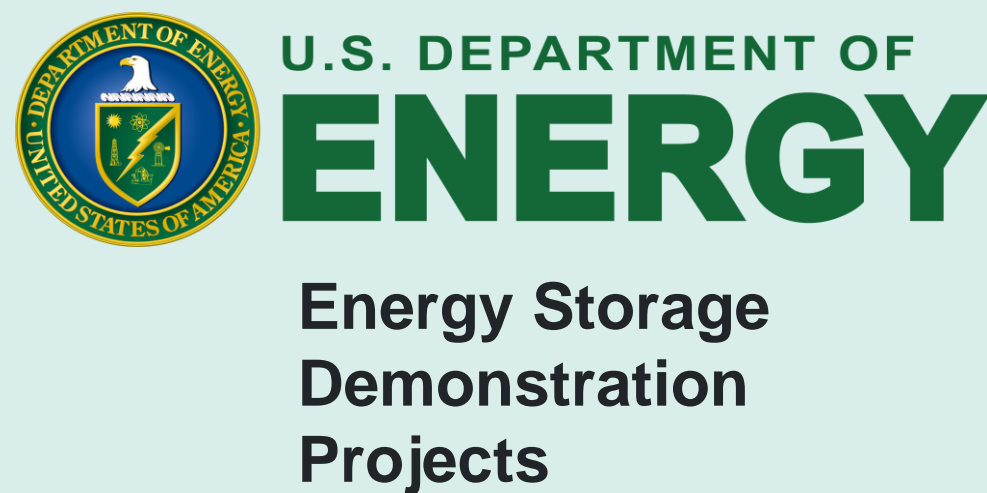
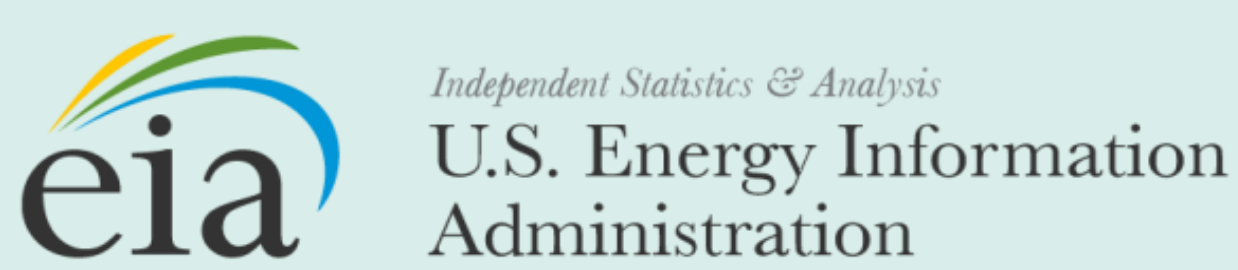


- **Project Page-** Users can navigate, search, and download a particular project or a set of projects
 - 2300 projects → >90 GW of energy storage projects worldwide
- **Policies Page-** Relevant federal and state policy documents
- **Statistics Page-** Interactive statistics and visualizations
- **Submissions Page-** Allows users to submit new data to the GESDB

Data Validation Process



New Data Sources

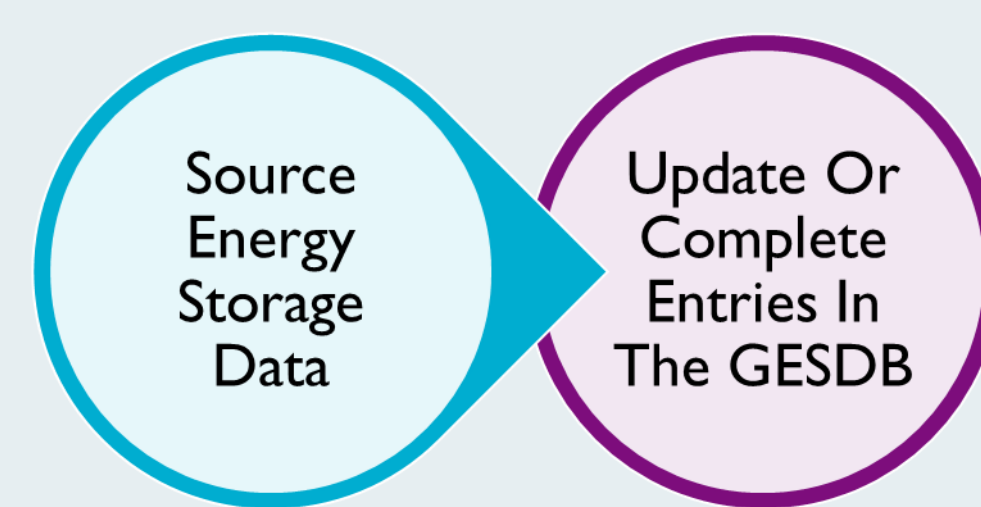


Data submitted directly by users

- Several new data sources now incorporated into GESDB
- **About 600 entries added / supplemented**
- Team has incorporated a sophisticated 'Similarity Checking' process into the methodology
 - **Avoids duplication of projects in GESDB**

Web Scraping Framework

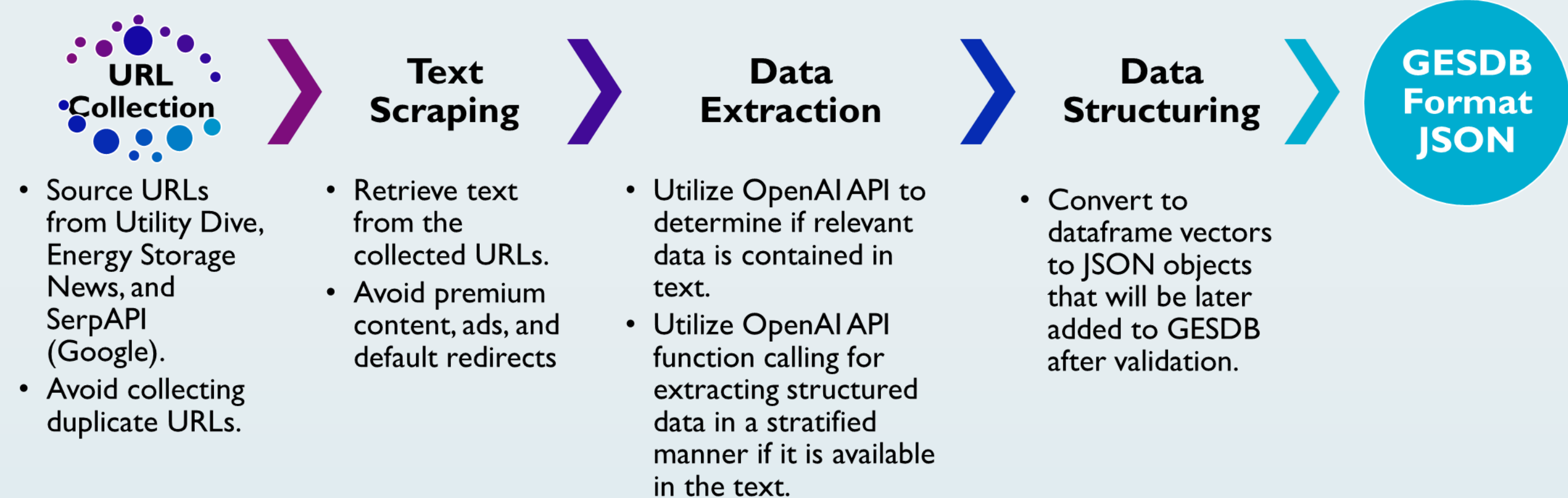
Objectives



Results

- Data Accuracy**
 - Automatically Verified Entries
 - Zero Hallucinated Data
- Data Reliability**
 - Consistent Data Formats
 - All Data Fields Verified Against Source
- Validation Methods**
 - Cross-referenced with source
 - Quality control measures interleaved with each function call

Web Scraper Pipeline



Future Work

- Deploy web-scraping tool in coordination with the validation process to automate data entry procedure
- Continue to incorporate new data sources and update existing sources
- Deploy a chat-bot experience to automate data extraction and visualization