



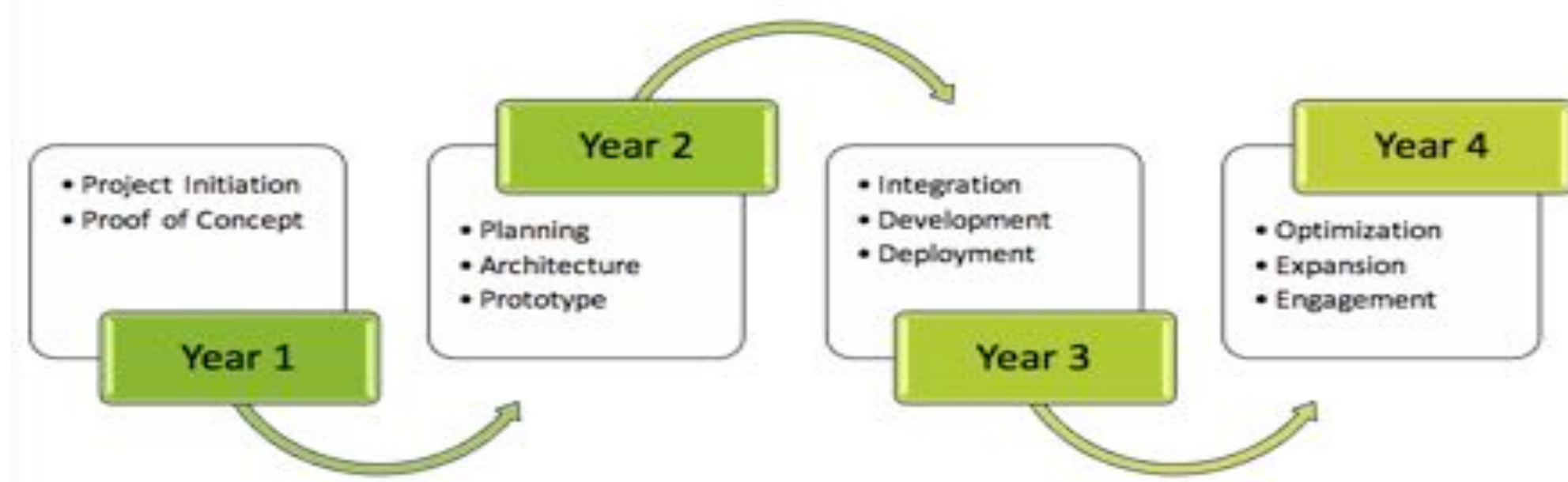
Geospatial Data Analysis Building Blocks (GABBs)

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<https://mygeohub.org/groups/gabbs>

What is GABBs

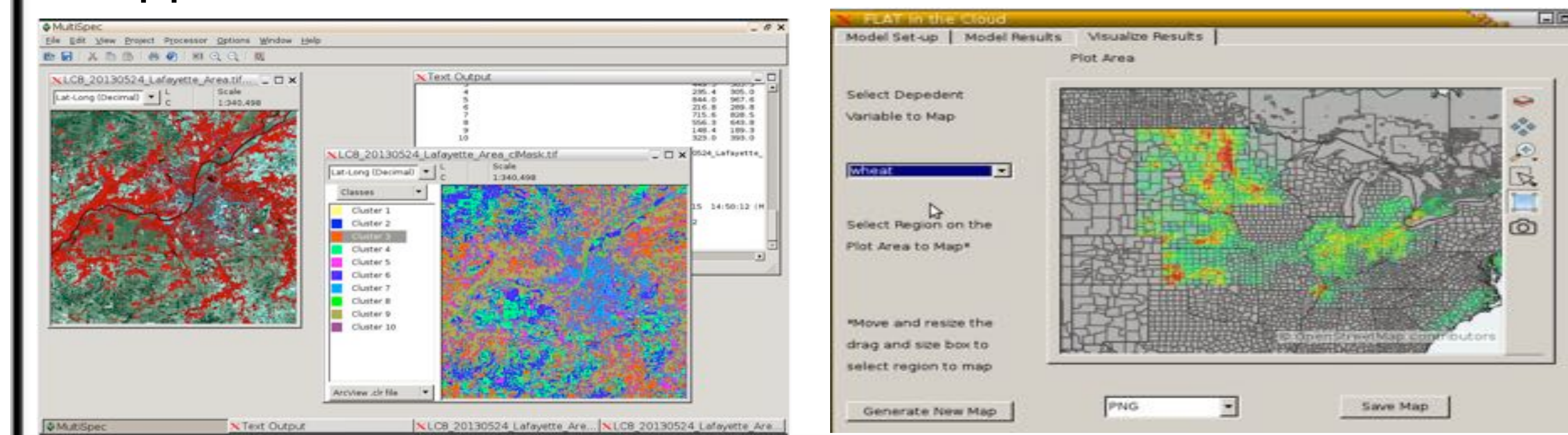
GABBs is an NSF DIBBs Implementation project to develop geospatial data analysis building blocks on the HUBzero Scientific Collaboration Platform. GABBs allows researchers, who are not GIS experts, to **create, manage, curate, analyze** and **share** geospatial datasets and GIS-enabled tools in a DIY style. This opens the way for rapid development of a variety of web-enabled tools for probing and presenting geospatial data.



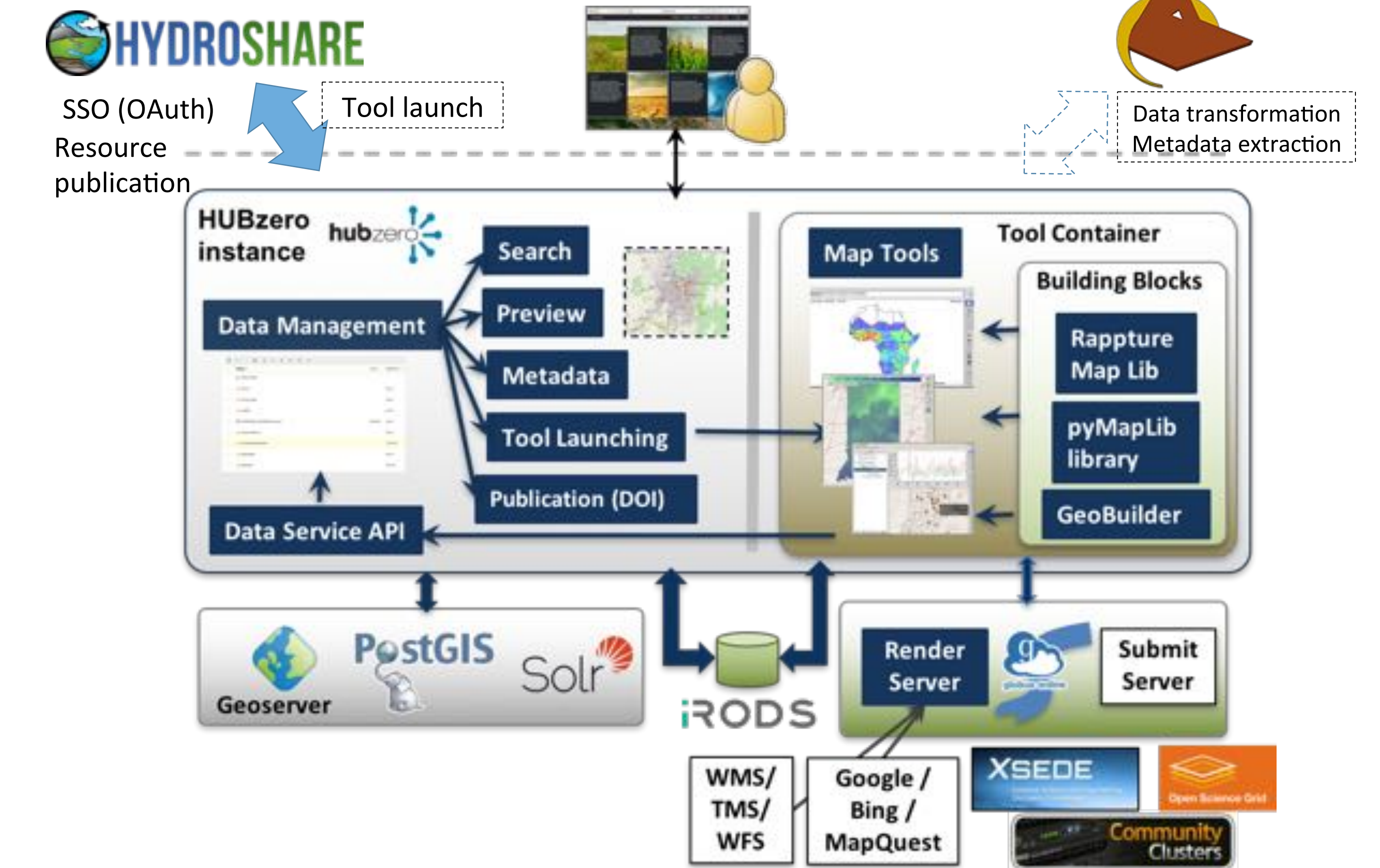
Science Use Cases

GABBs software development is driven by the requirements from multiple user communities, including:

- **Hydrologic** modeling and data sharing
- Applied **economics** modeling workflow
- **Meteorological** data management and visualization
- **Remote sensing** data processing and analysis
- **K-12** education tools
- High **education** course development with online modeling support

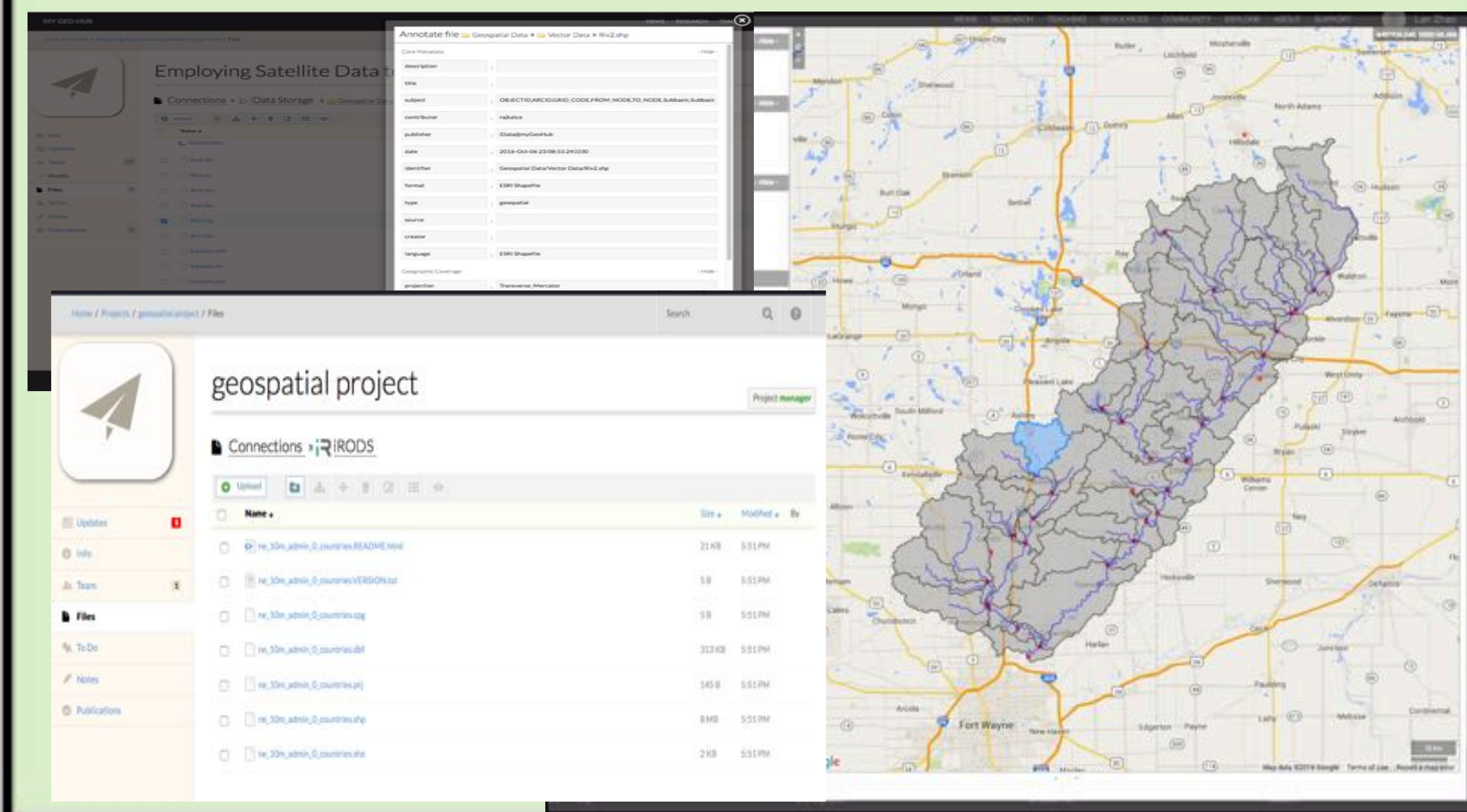


Build on Open Source



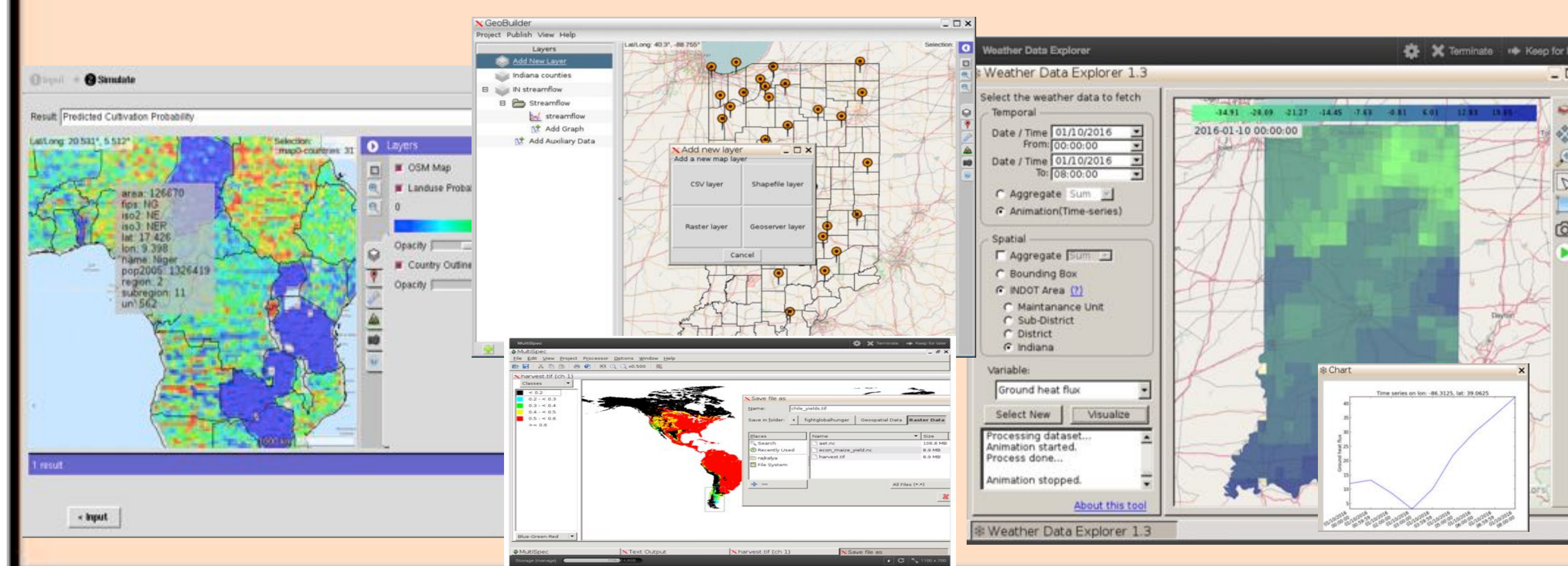
Geospatial Data Management

iRODS based spatial data management functions are integrated into HUBzero Project. In addition to **automatic metadata extraction**, it allows users to easily **upload, share, annotate, preview, and search** geospatial data sets.



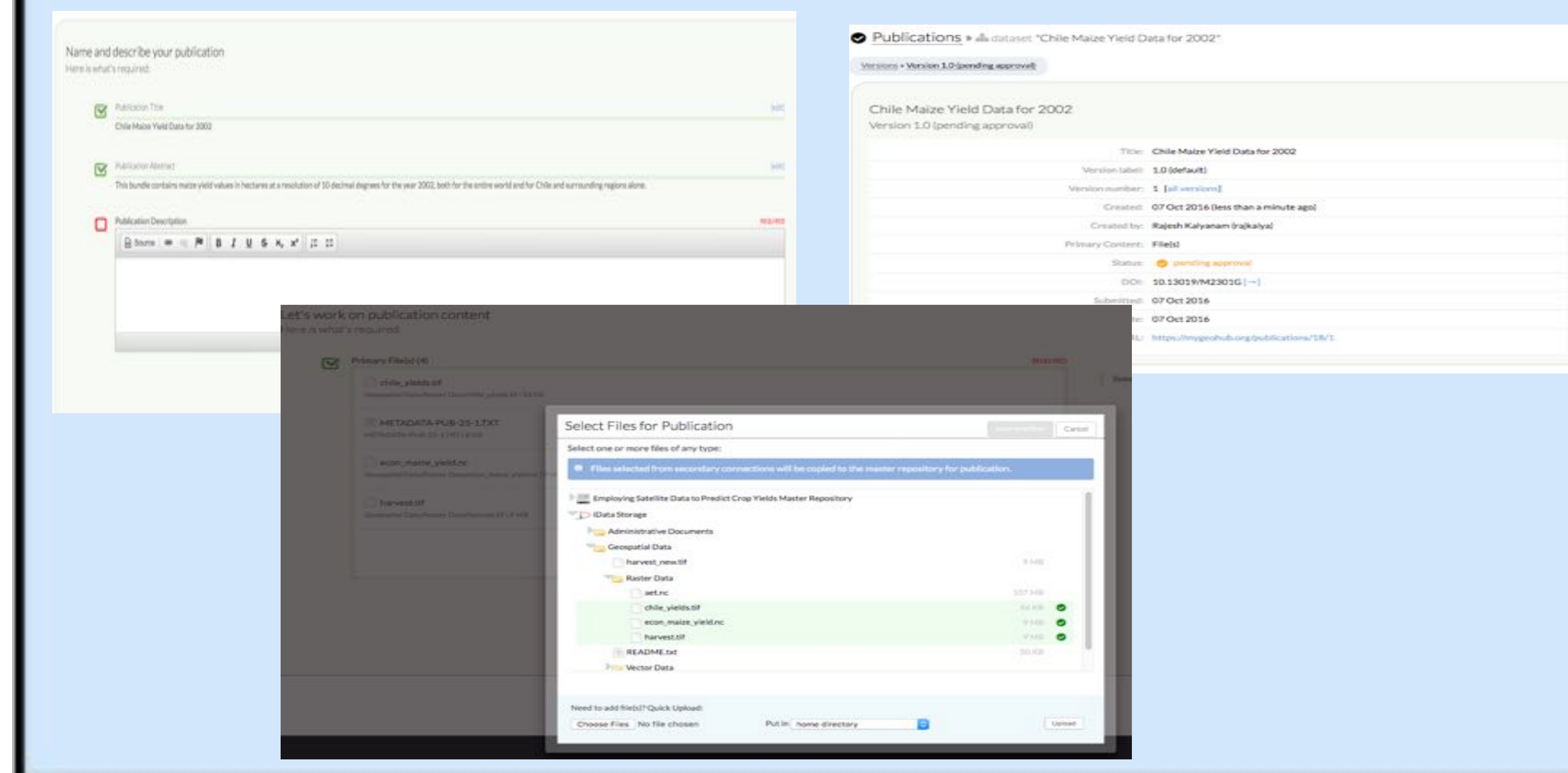
Tool and Data Integration

- Software and hardware based **mapping libraries, map viewer widgets** and **builder tools** help researchers quickly create geospatial data analysis tools.
- Resource intensive simulations can be submitted to both **local** and **XSEDE** resources using HUBzero *submit*.
- HUBzero projects can function as both input source and output destination for hub tools, enabling construction of data-driven workflows.



Data Publication

- Any subset of project files can be **published**
- **Versioned** copy of selected files created for posterity
- Extracted **metadata** for selected files saved to publication as RDF document
- **DOI** created for publication to enable citation



Next Steps

Dec 2016
GABBs VM for download

Spring 2017
Amazon Machine Image (AMI)

Fall 2017
User engagement, interoperability with other CI projects

