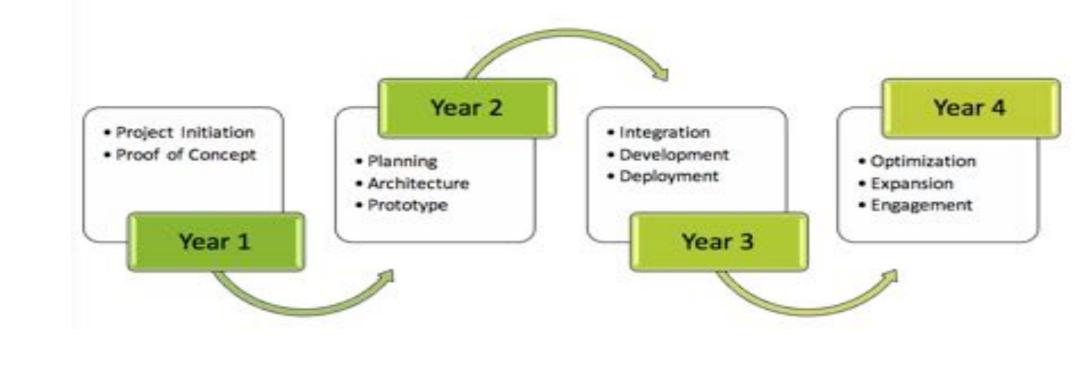


# What is GABBs

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 <u>not GIS experts</u>, 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.

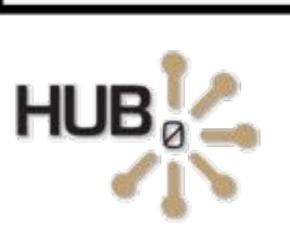


# **Geospatial Data Management**

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.

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## **Dec 2016** GABBs VM for download



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GABBS

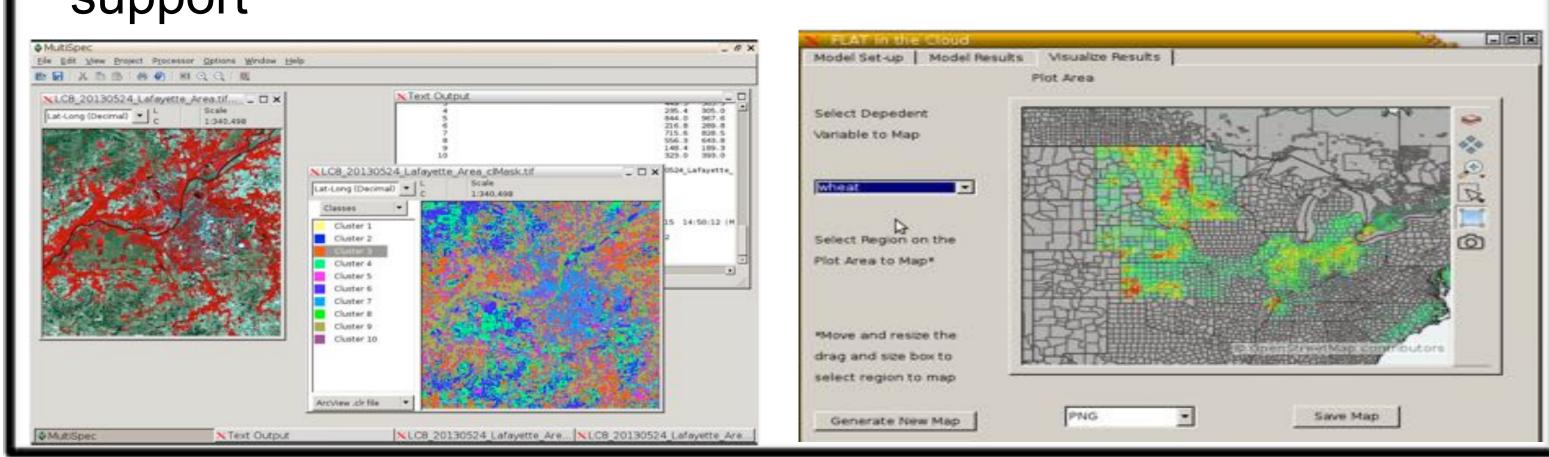
# **Geospatial Data Analysis Building Blocks**

### PI: Carol Song, NSF Award #1261727

# 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



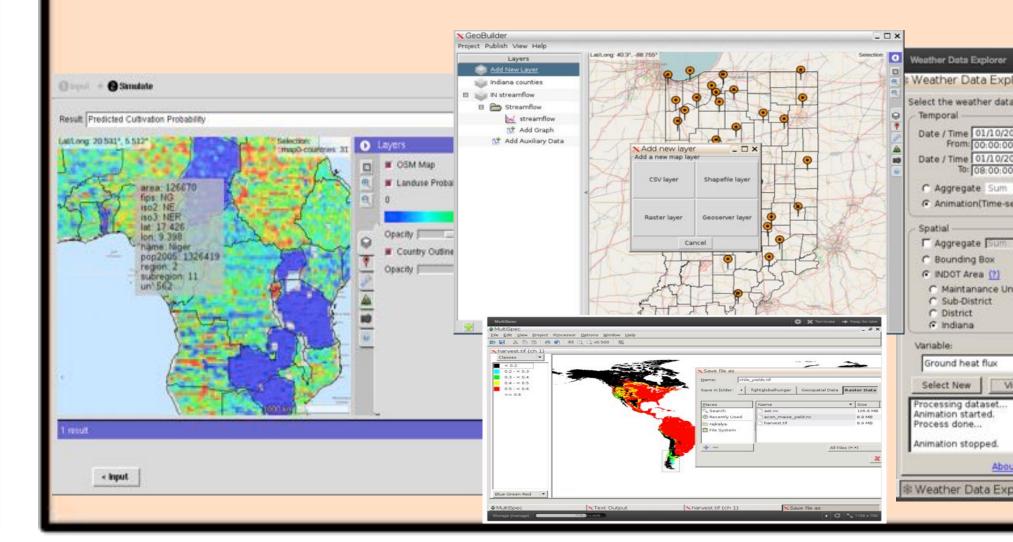


# **Tool and Data Integration**

Software and hardware based mapping libraries, map viewer widgets and builder tools help researchers quickly create geospatial data analysis tools.

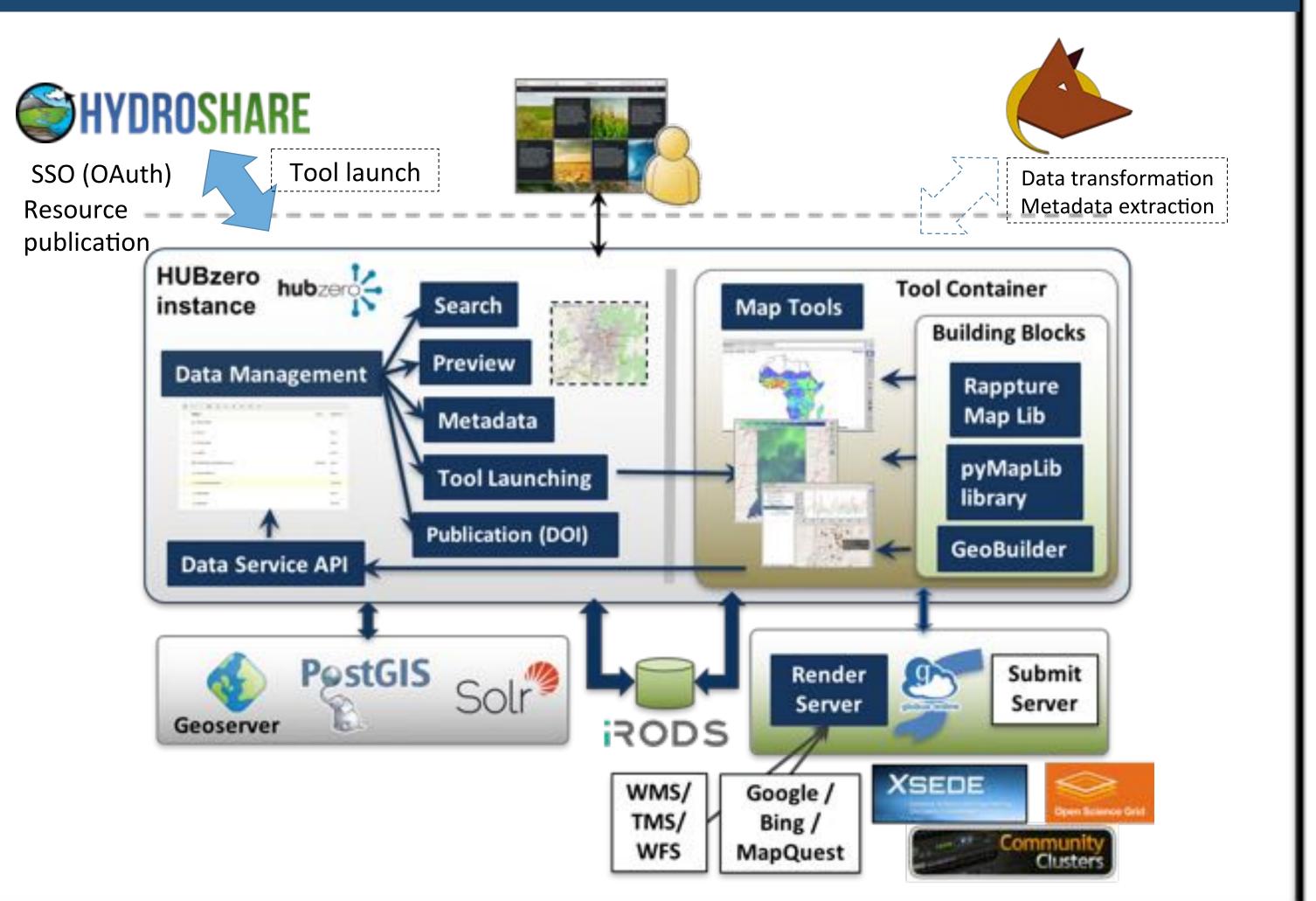
- Resource intensive simulations can be submitted to both local and XSEDE resources using HUBzero submit.

- HUBzero projects can function as both input source and output destination for hub tools, enabling construction of data-driven workflows.

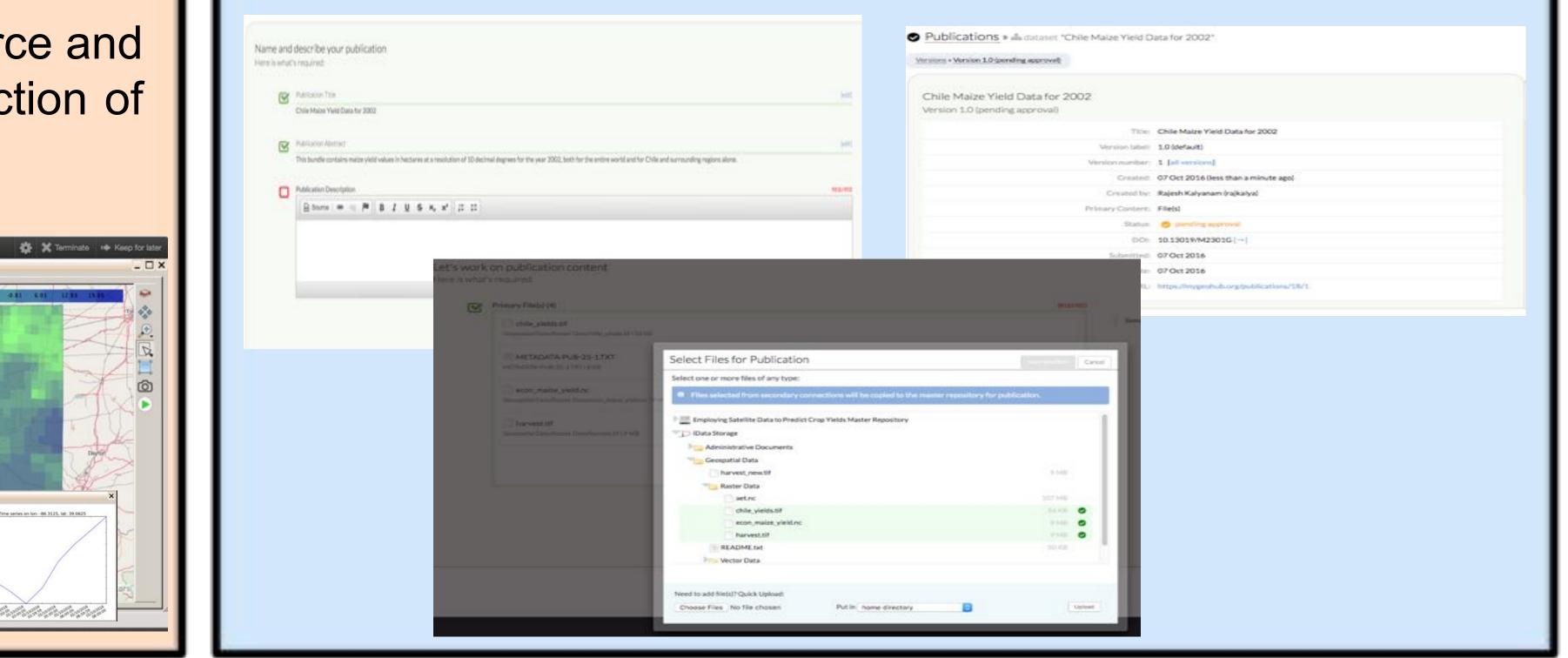


Carol X. Song, Larry Biehl, Venkatesh Merwade, Nelson Villoria, Adnan Rajib, Betsy Hillery, Carolyn Ellis, Derrick Kearney, Erich Heubner, Hou-Jen Ko, I Luk Kim, Jaewoo Shin, Kevin Wojkovich, Lan Zhao, Leif Delgass, Rajesh Kalyanam, Rob Campbell

# https://mygeohub.org/groups/gabbs



- 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



## Spring 2017 Amazon Machine Image (AMI)

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### Fall 2017 User engagement, interoperability with other **Cl projects**



# **Build on Open Source**

# **Data Publication**

This work is supported in part by. NSF award 1261727

