



An Emerging Platform for Resource Registration, Discovery, and Access Utilizing Schema.org and Geoscience Vocabulary Extensions

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Motivation and Subaward Projects

Currently, there is **no common way** for geoscience data providers and researchers to publish data sets and other resources. The upcoming **GeoCODES** platform will enable **resource registration, discovery, and access** by applying web standard practices, community engagement, and cloud-based technologies and interfaces. **GeoCODES** is a computational services platform for accelerating multi-domain geoscience research and is the integration of four subaward projects managed and led by the

EarthCube Science Support Office at UCAR in Boulder, CO.



GeoCODES is an **evolution** of **Project 418**.

EarthCube.org/GeoCODES

[Project 418](#)

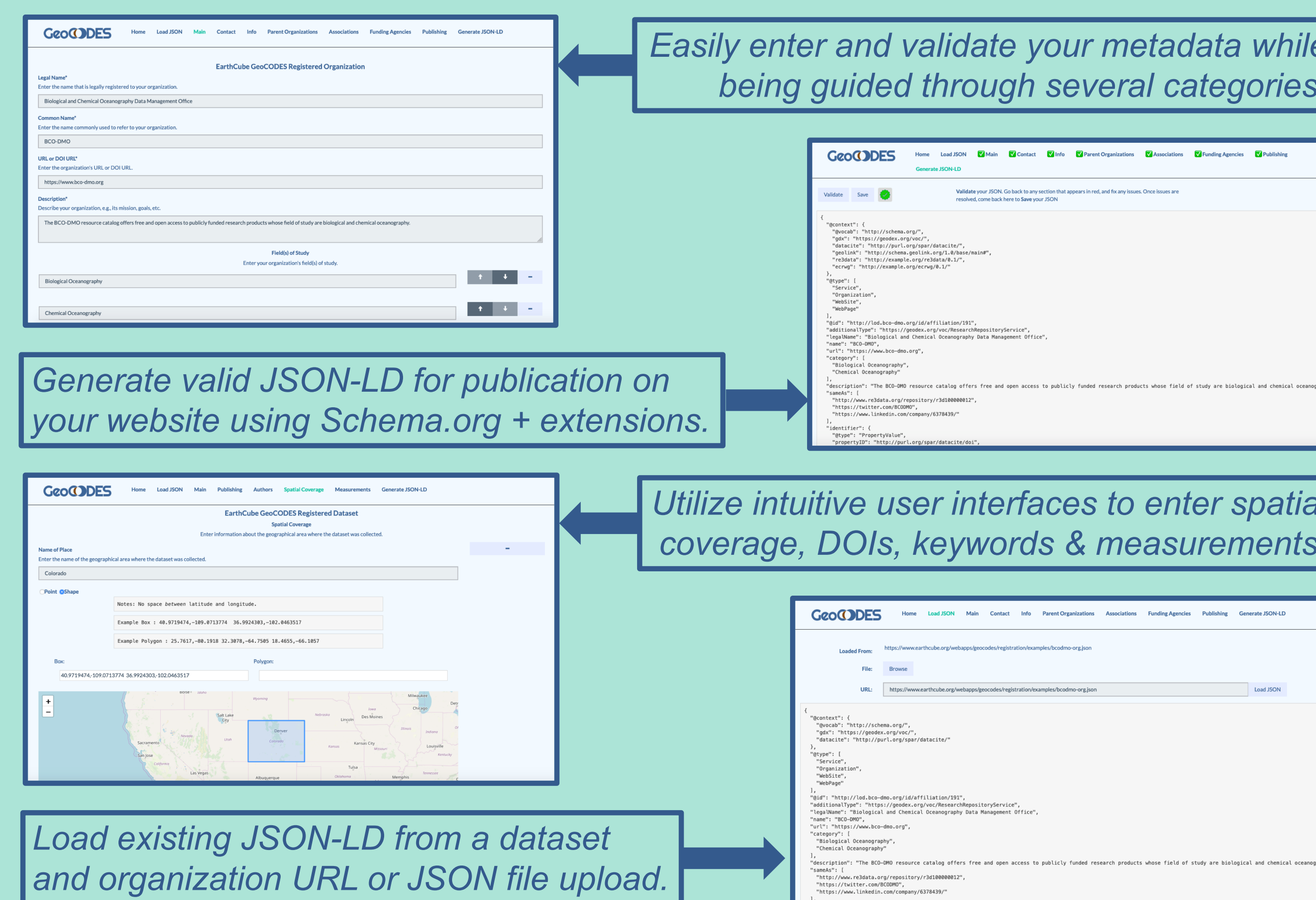
[Project 418 Graphical User Interface](#)

[Project 419 Upgrade](#)

[EarthCube Resource Registry](#)

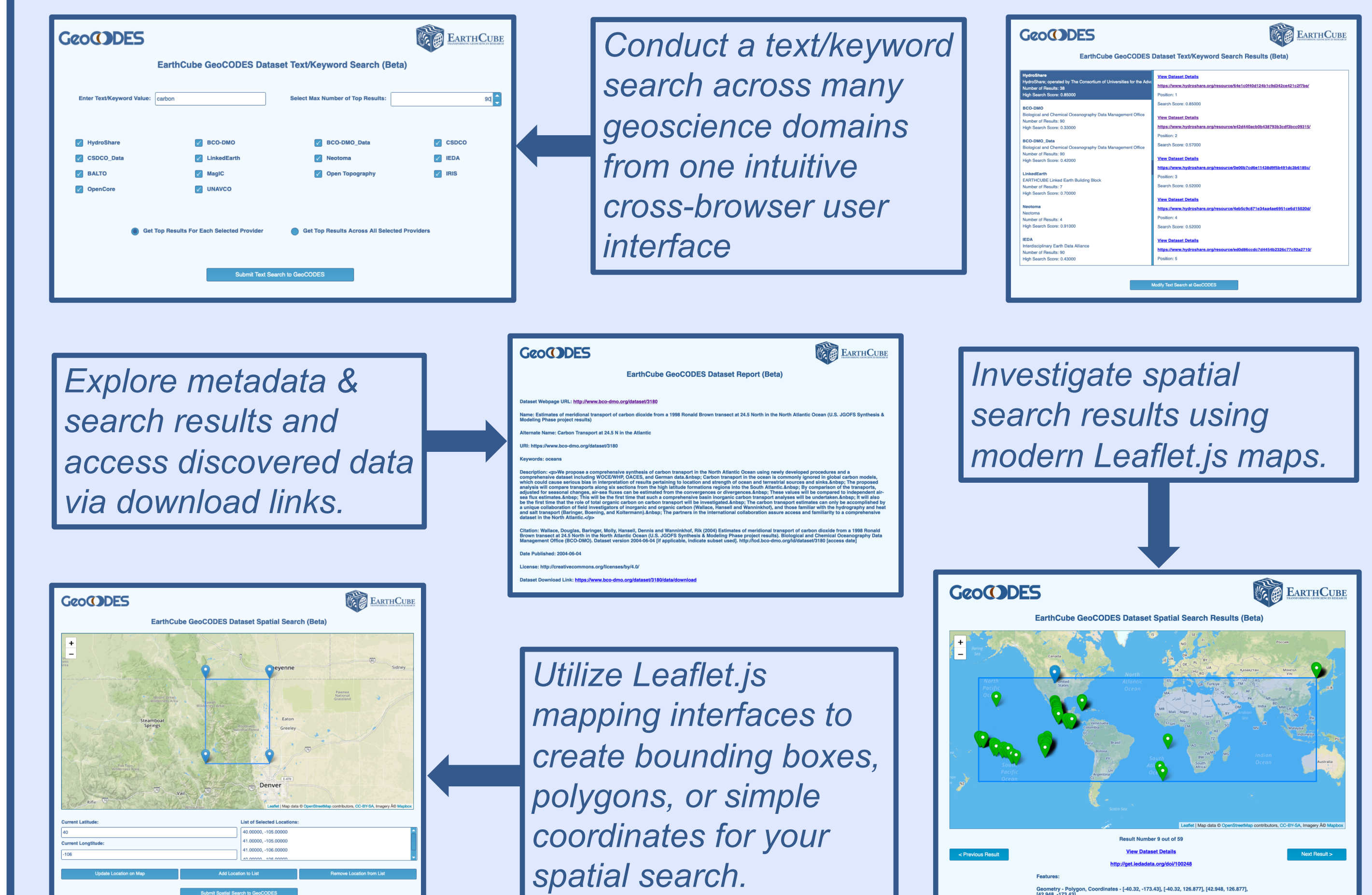
Geoscience Resource Registration

GeoCODES offers mobile device-ready web applications for creating the JSON-LD metadata for your organization & data sets.



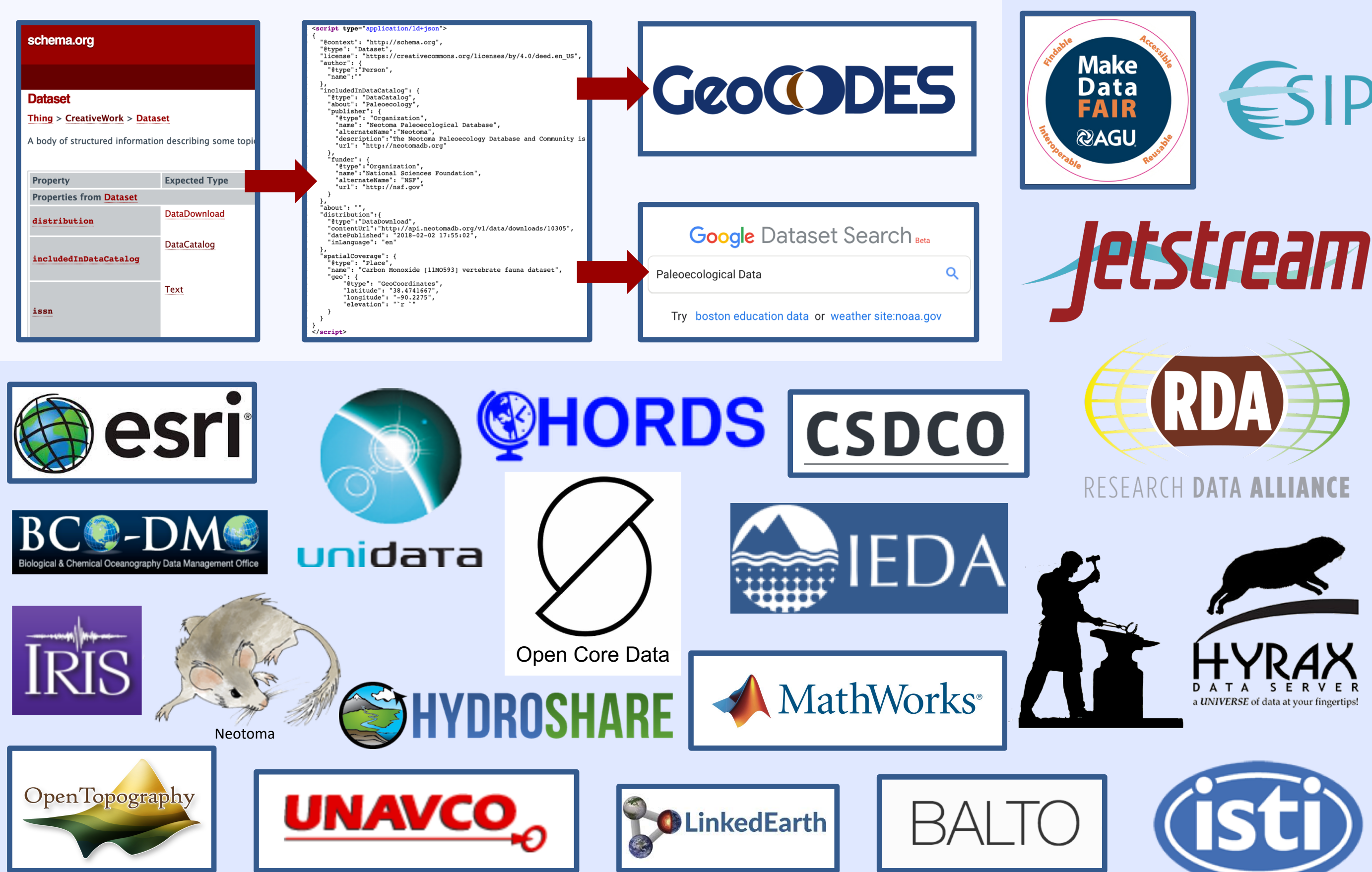
Geoscience Dataset Search Tools

GeoCODES' web apps will enable researchers to easily conduct spatial, text/keyword, & temporal searches of registered datasets.



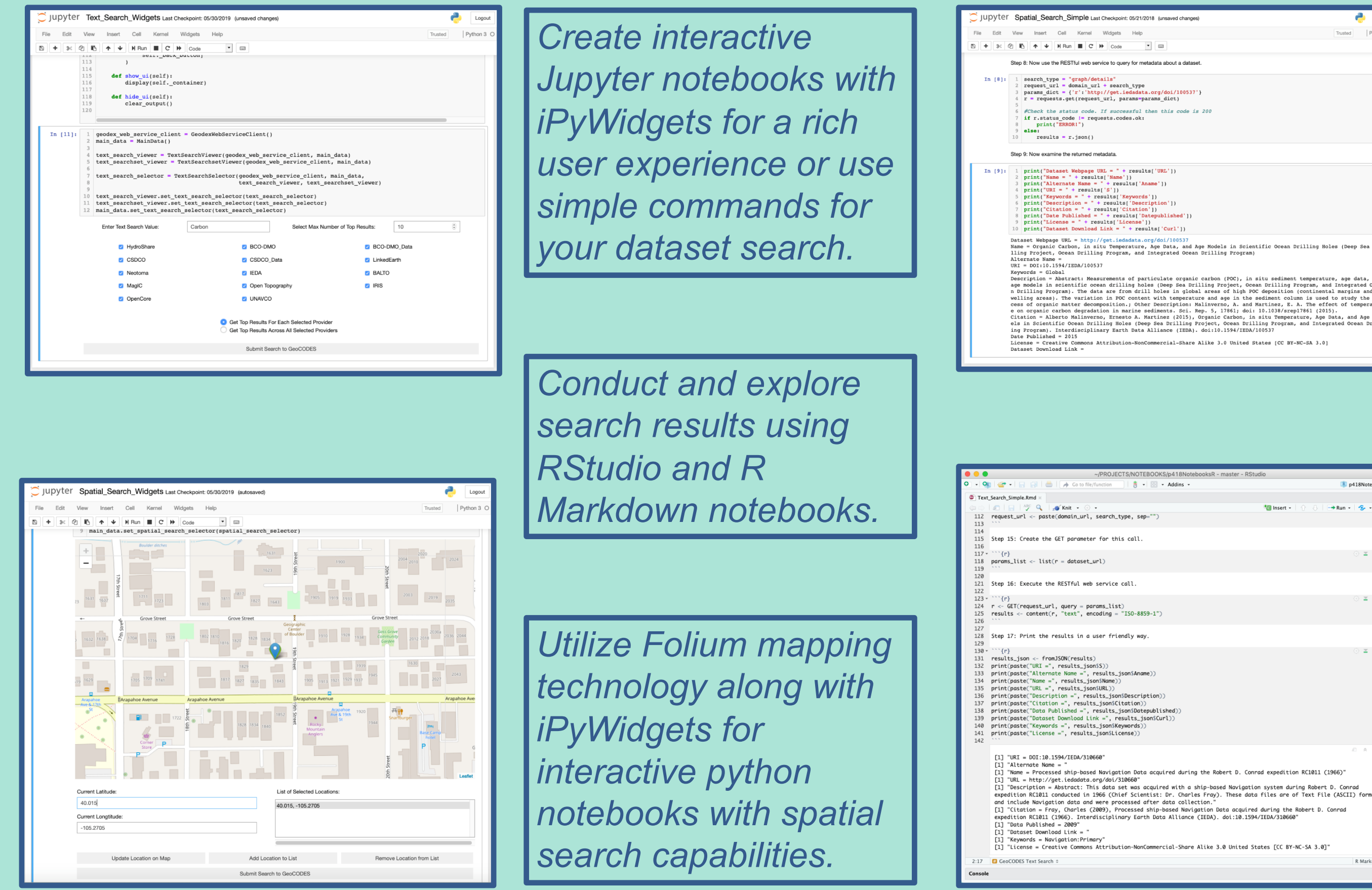
Methodology and Pilot Partners

GeoCODES utilizes the Schema.org metadata vocabulary as a basis set for resource discovery and access. But this vocabulary **must be extended** to accommodate geoscience-specific terms.



Geoscience Notebook Integration

GeoCODES' REST web services can be integrated with any programming language or eNotebook technology including Python Jupyter notebooks, R Studio, and MATLAB LiveScript.



Geoscience Workflow Integration

