



# EarthCube Council of Data Facilities

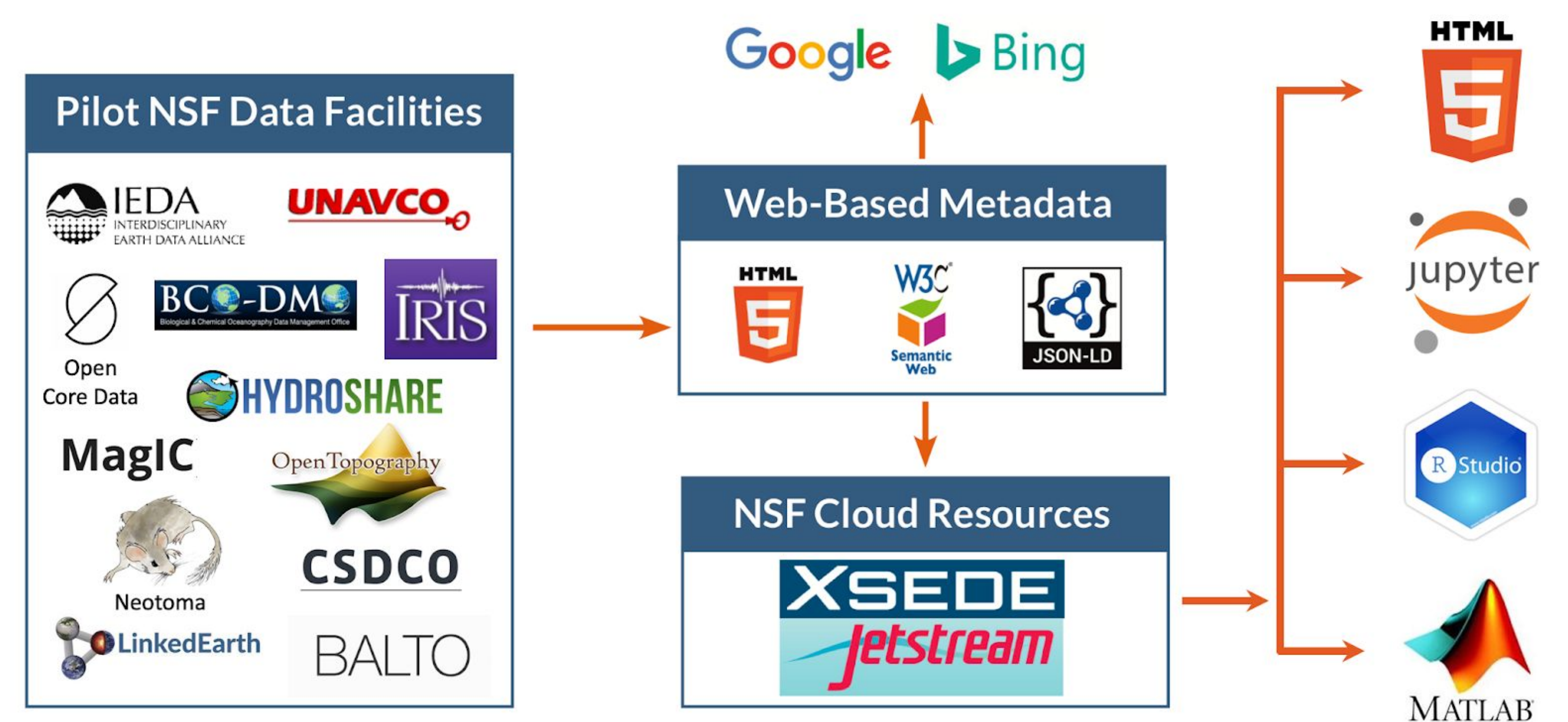


## Enabling advanced cyberinfrastructure for integrative science

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### Introduction

Digital data repositories provide valuable services to the research community through provision of documentation, veracity, persistence, transparency and reproducibility of the scientific process. Although geoscience domain repositories have traditionally served their own specific communities, the growing need for open, discoverable, well-documented cross-domain data to answer complex Earth system questions is driving increased repository coordination. The Council of Data Facilities (CDF) was formed in 2014 to serve the common goals and needs of geoscience data repositories by facilitating increased coordination, collaboration, and innovation. CDF repositories serve as an effective foundation for EarthCube, and include federally-funded, state, local, international, private, and not-for-profit or academic organizations.



### CoreTrustSeal Certification

A cohort of data repositories has assembled to apply for CoreTrustSeal certification.

This certification demonstrates to a repository's users and funders that they have been evaluated by an independent authority and endorsed for their trustworthiness.

### Project 418 and GeoCODES:

An EarthCube computational platform for resource registration, data discovery, and data access

Project 418 (P418) is an EarthCube pilot software project facilitating the harvesting of standardized published metadata on datasets using **schema.org** and **external vocabularies** and provides robust online search tools and electronic notebooks for data discovery over spatial and text/keyword entries.

P418 accelerates data discovery and access from 10 participating facilities, decreases overall time to science, and enables discovery through the **Google Dataset Search Tool**.

The GeoCODES platform is an expansion of P418 into a full production system and is scheduled for release in Summer 2019.

#### Next Steps

- Development and integration of time into the metadata description of resources.
- Development of an integrated graph scoping time, geospatial and text information.
- Handle dynamic source based products/services and real time data streaming services

### CDF Member Organizations

American Geophysical Union (AGU)	Geothermal Data Repository
Arctic Data Center	Information Technology and Systems Center (ITSC)
Biological and Chemical Oceanography Data Management Office (BCO-DMO)	Integrated Earth Data Applications (IEDA)
Bureau of Economic Geology	International Ocean Discovery Program
CINERGI/DDH	IRIS DMC
CLIVAR & Carbon Hydrographic Data Office	KNB Data Repository
Community Surface Dynamics Modeling System (CSDMS)	Magnetics Information Consortium (MagIC)
Consortium for Ocean Leadership	National Center for Atmospheric Research (NCAR)
Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI)	National Ecological Observatory Network (NEON)
Continental Scientific Drilling Coordination Office	National Snow and Ice Data Center (NSIDC)
Cooperative Institute for Research in the Atmosphere	Neotoma
Core Research Center	Ocean Observatories Initiative
Data Observation Network for Earth (DataONE)	OpenTopography
dbSEABED	ORNL DAAC
Digital Rocks Portal	Physical Oceanography Distributed Active Archive Center (PODAAC)
DKIST Data Center	Rolling Deck to Repository Program (R2R)
Earth Science Information Partners (ESIP)	UNAVCO
Environmental Data Initiative	UNIDATA
Fundamental Technologies, LLC	University of Maryland
Geological Data Center	University of Rhode Island
	World Data System

### Shared Infrastructure

The CDF is organizing a workshop in July 2019 for data facilities to develop a plan and roadmap for the creation of shared infrastructure including **hardware, software and human resources**.

The workshop is supported by the Alliance Testbed Project, which is an EarthCube Integrative Activity.

