

Work plan for implementing an EarthCube standards process.

This plan is intended to implement the recommendations in the [Report of the EarthCube Standards Working Group](#). Summary of recommendations:

1. EarthCube needs a registry for specifications of EarthCube practice; the barrier for entry into the registry should be kept low—focused on the quality and completeness of documentation and testing.
2. Utilize a tiered scheme to categorize specifications in different levels of adoption/recommendation
3. Collect feedback and evaluation on the utility, usage, and performance of registered specifications and use this to categorize adoption/recommendation levels; this must be a transparent process.
4. Implement validation processes for recommendations with a high level of adoption.
5. EarthCube governance should constitute a permanent “standards authority” to carry out the evaluations and recommendations of the Standards WG.
6. The hierarchical and versioned nature of standards will require development of a structured taxonomy allowing specific customizations and profiles to carry the context of the parent standard(s).

Please [reference the definitions in the Standards WG report](#) to understand usage of the terms standard, specification, practice.

Implementing the recommended standards process will require establishing policies and implementing a content management system as a registry for specifications.

Establishing policies

Requirements: community decision making process that can be implemented and sustained with low resource overhead, and that will have sufficient recognition that recommendations are used

Policies required:

- what may be added to the registry,
- Information model for documentation of standards in the registry. There is a start on this in the [Google Spreadsheet standard compilation](#) from the TAC Standards WG. This model needs to account for inheritance relationships between base specification and profiles that restrict the base spec or add additional assertions.
- how specifications of practice are assigned a maturity category

Deploying the registry

Requirements:

- low barrier to entry, easy to get low-maturity entry into process
- Ability to collect user comments, feedback, annotation.
- Ability to support users to find the spec they need, taking into account user feedback/annotation and maturity information.

Validation processes

This can be tabled until the policies and registry are implemented. The ECite integrative activity should be implementing some aspects of this capability that can be built on in the future.

Steps for deploying the registry:

Note in this discussion 'governance' refers to EC authority, either as Standards Working Group, TAC, LC, or perhaps NSF... that's a management decision, but whoever the entity is, they must have a budget and spending authority.

1. Governance names working group to develop information model (reusing existing metadata where possible). They will draft a proposal and put out for review and revision, followed by Governance adoption.
2. Governance puts out funding opportunity to select implementation team for registry content management system. This announcement should specify requirements, production deployment host options, time line, potential budget, and acceptance criteria. This work item includes adding new register items, adding comments/annotation on existing items, and searching the register via web pages that can be integrated into the EarthCube.org site. Search results should show registration documentation for a specification, as well as any associated annotation. Work also includes documentation to guide production operators in operation and maintenance of system.
3. Governance determines where the registry will be deployed
4. Governance selects implementation team and sets up contract
5. Implementation team gets information model from working group and gets to work.
6. Deploy v1 CMS for registry.
7. Governance hire workers (students and specialists) to work on adding content under supervision of standards specialists, iterates with implementation team to refine the workflow and UI for adding content.
8. Governance works with EarthCube.org web master and implementation team to integrate standards registry interfaces into the EarthCube.org website. These would include interfaces for new specification documents, for commenting/annotating existing standards registry items, and for finding specifications related to some resource or workflow and inspecting the documentation and annotation.
9. Iterative testing and refining interfaces at EarthCube.org via community outreach and training events.
10. Hand off from development team to maintenance team for production operations.

Budget:

Coordinator:

If EarthCube is serious about implementing a production system, this should be treated like a contracted job for someone who gets paid and is accountable for getting it done.

- Collects input from Governance and community to define requirements for registry CMS in sufficient detail to write funding opportunity announcement. 40 hrs.

- Organizes meetings of information model team, acts as editor for specification document 40 hrs
- Coordinates review process to select implementation team 20 hrs.
- Make arrangements for v1 deployment 20 hrs.
- hiring and supervision of workers to conduct initial population and testing. 40 hrs
- Coordinate integration with EarthCube.org 40 hrs
- Organize iterative testing, outreach and training events 80 hrs
- Review documentation 10 hrs
- Sign off on product delivery 2 hrs
- Coordinate hand off to production team 20 hrs

Total estimate 312 hours, or about 2 months of work. At \$6500/month, estimate \$13000.

Implementation Team:

This one is hard to estimate. Hopefully there will be people out there that have sites already constructed that meet many of the requirements and can adapt an existing application at relatively low cost. Based on some web investigation on the question 'what should a Drupal web site cost', it looks like low end for what we're talking is in the \$5000 range, high end \$25000. I think we should make the requirements doc and see what kind of responses we get to a request for bids.