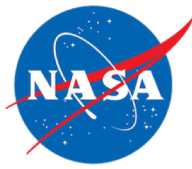


NASA ESDSWG Data Quality Working Group



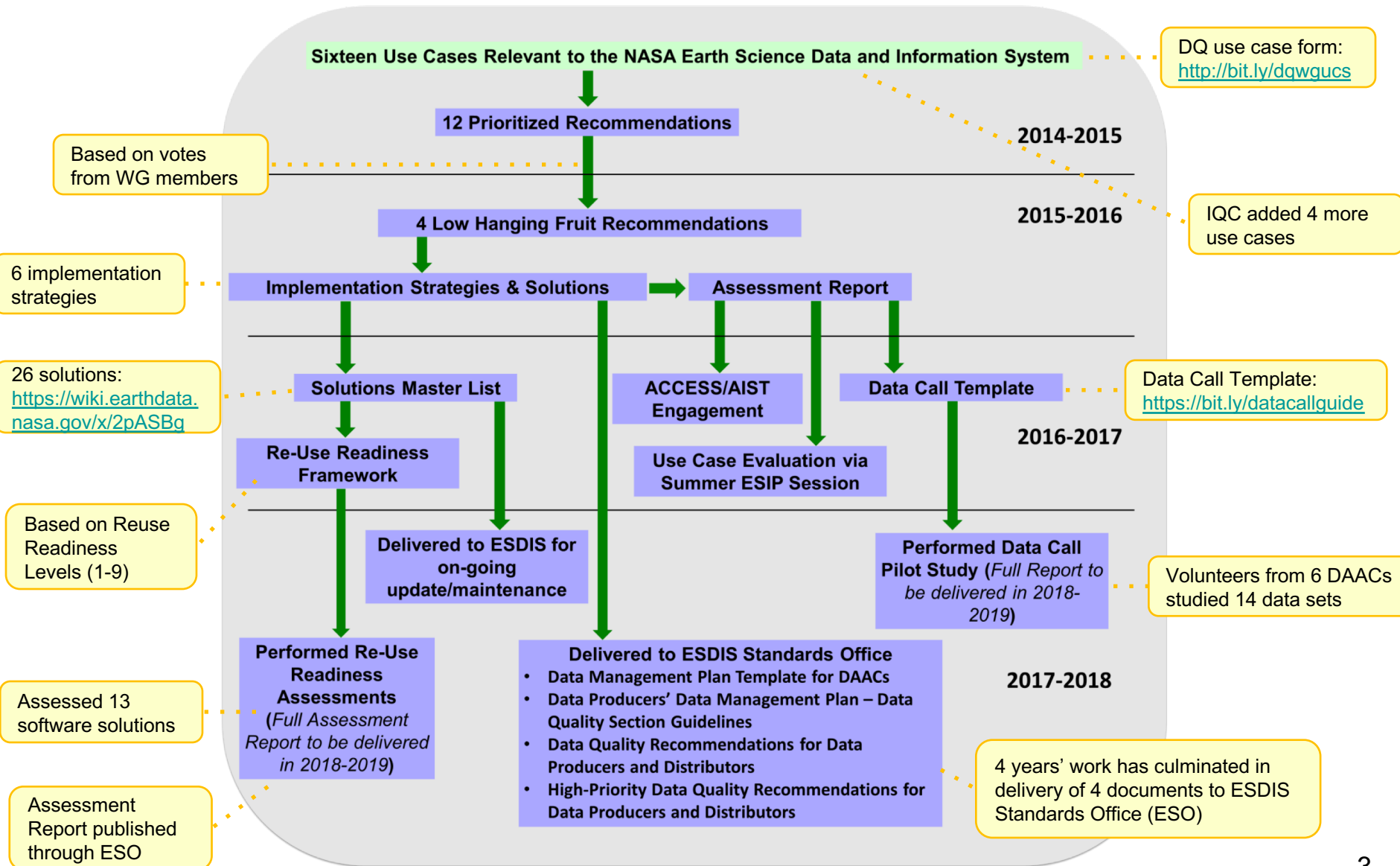
Chair: Yaxing Wei and David Moroni,
Co-Chair: H. K. “Rama” Ramapriyan,
Subgroup Chairs/Co-Chairs: Robert R. Downs, Zhong Liu, Donna Scott,
and many working group members

About ESDSWG DQWG



- One of NASA's [Earth Science Data System Working Groups](#) (ESDSWG).
- Formed at the annual meeting of the ESDSWG in 2014 as a result of interest expressed by the NASA's Earth Science Data and Information System (ESDIS) Project and Making Earth System Data Records (ESDRs) for Use in Research Environments (MEaSUREs) investigators.
- Concluded in 2019 after publishing 5 suggested practices and technical notes through NASA ESO
- Mission Statement
 - Evaluate and make recommendations to the ESDIS Project and HQ's Earth Science Data Systems (ESDS) Program for improvements in capturing, representing and enabling the use of data quality information describing accuracy, precision, uncertainty and applicability ("fitness for use") stewardship in the NASA Earth science domain.

DQWG Trajectories and Outcomes (2014-2018)

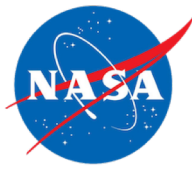


Operational Solutions Master List



- Intended to identify operational solutions (26) relevant to the Implementation strategies identified by the DQWG.
- <https://wiki.earthdata.nasa.gov/x/2pASBq>
- Solutions can either be software, documentation, or standards/practices.
- Solutions cover the following implementation categories:
 - Data Quality Information (representation/dissemination)
 - Facilitate Data Center and Provider/PI Communication
 - Metadata Creation
 - Standards Compliance Checking and Reporting
 - Guidance and Instruction
 - User Services
 - Knowledgebase

DQWG Publications through ESDIS Standards Office



<https://earthdata.nasa.gov/user-resources/standards-and-references/templates-for-nasa-data-management-plans>

- Data Management Plan Template for DAACs
- Data Management Plan Template for Data Producers

<https://earthdata.nasa.gov/user-resources/standards-and-references/recommendations-from-the-data-quality-working-group>

- Comprehensive Recommendations for Data Producers and Distributors
- High-priority Recommendations for Data Producers and Distributors
- Reuse Readiness Assessment of Data Quality Software Products

12 Prioritized Recommendations



Phase	Category	Recommendation – Data Systems	Recommendation - Science	Reco#	No. of Recos
1, 2	General	DAACs: Maintain continuous and effective communication with data producers throughout the duration of their projects.	Data Producers: Develop a data quality plan for each data product and submit it along with the data for dissemination.	1	1
1, 2	Standard Documents & Processes	ESDIS & DAACs: Provide a standard set of documents to be provided to investigators and potential proposers; documents should describe	HQ: Include references to standard set of documents in calls for proposals. Data Producers: Consult the existing guidelines that	2	4
1	Standard Documents & Processes			6	1
1	Quality of Input Datasets used in Generating Products		uncertainty of	28	9
2, 4	Quality Flags and Indicators		for	16	19
1, 2, 3, 4	Quality Flags and Indicators		and directly	11	3
1, 2, 4	Metadata Consistency Checking		ality related	35	5
2, 3, 4	Publicizing Quality Issues		atasets, for	10	1
2, 3, 4	Publicizing Quality Issues			11	3
1, 2, 4	Publicizing Quality Issues	DAACs: Include documentation on how accuracy and uncertainty of products were determined.	Data Producers: Provide all data with added quality and/or uncertainty flags for the areas that have potential limitations.	56	1
2, 3	Publicizing Quality Issues	DAACs: Inform users as soon as possible when data are compromised and provide status updates promptly.	Data Producers: Provide information to DAACs promptly regarding any compromised datasets.	62	16
3, 4	Dataset Recommendations	DAACs: Provide standing recommendations quickly to alternative datasets when a dataset has been retired or quarantined.		86	1

- Phase 1: **Capturing**
 - deriving, collecting and organizing the information
- Phase 2: **Describing**
 - documenting and procuring the information for public consumption
- Phase 3: **Facilitating Discovery**
 - publishing and providing access to the information
- Phase 4: **Enabling Use**
 - enhancing the utility of the information



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