Seeking Feedback from the ESIP Community on Two Developing Dataset Maturity Assessment Models

- **Session Conveners:** Ge Peng (CICS-NC/NCEI), Michael J. Brewer (NCEI), Ruth Duerr (Ronin), William Wright (BOM/WMO), and Christina Lief (WMO)
- **Session Type:** Working Session with Presentations
- **Group Leads:** Ruth Duerr, Christina Lief, Nancy Ritchey (NCEI), Sophie Hou (NCAR) and Ge Peng

Session Sched Link: http://sched.co/Eypn
Remote Participation Link: https://global.gotomeeting.com/join/733401397
Remote Participation Access Code: 733-401-397
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Session Agenda

Part I: Presentations (~30 mins)

- **Ge Peng** – Opening remarks & MMs status (5–8 mins)
- **Ruth Duerr –** Introduction to NCEI/ESIP-DSC Data Use and Services Maturity Matrix (MM-Serv) (10 mins)
- **Christina Lief –** Introduction to a WMO-Wide Stewardship Maturity Matrix for Climate Data (SMM-CD)

Part II: Reviewing (~ 60 mins)

- **Group one** – MM-Serv (group leads: G. Peng, S. Hou, R. Duerr)
- **Group two** – SMM-CD (group leads: C. Lief, N. Ritchey, G. Peng)

Why Providing Quality Information Is Important?

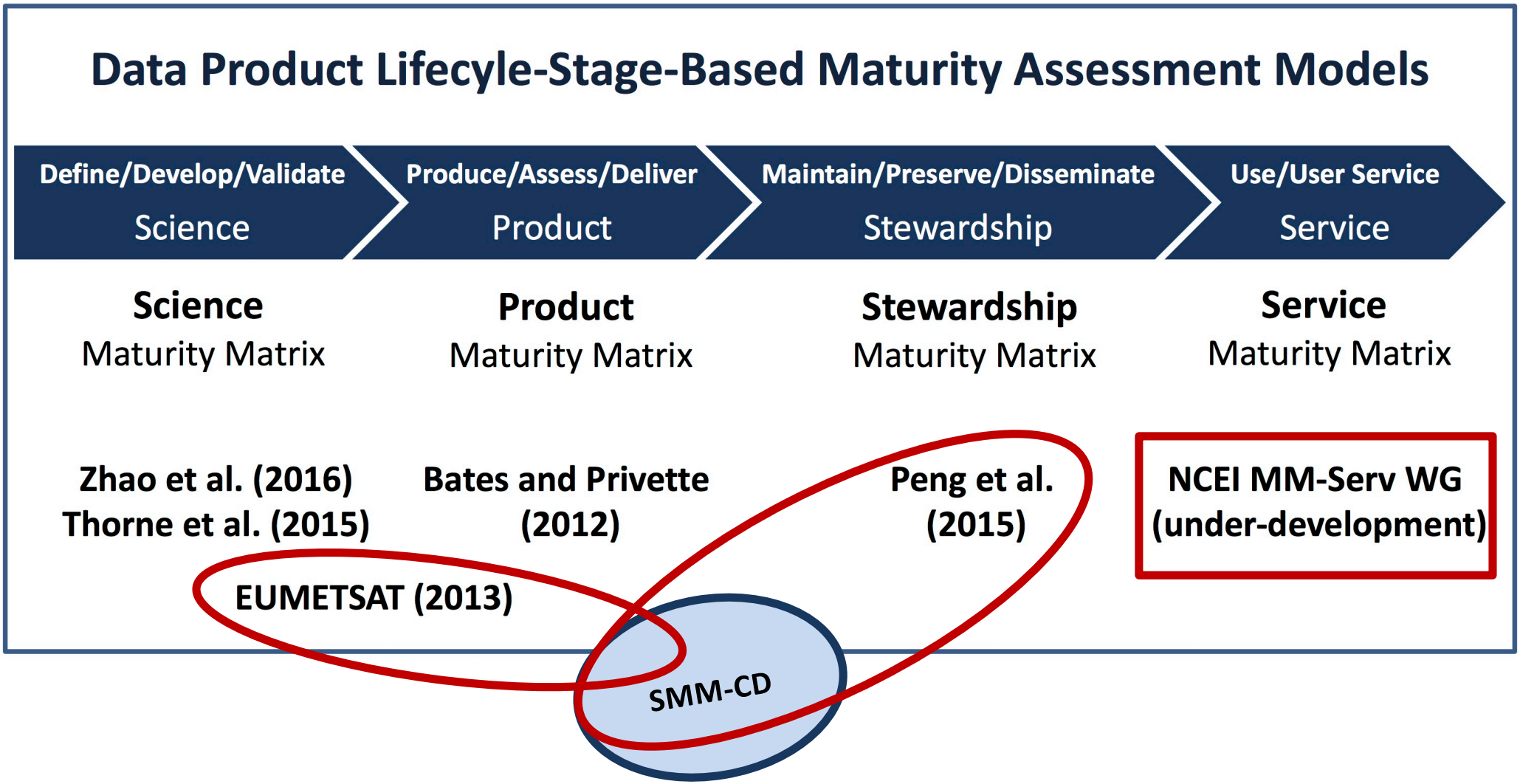
- Be compliant with federal and agency requirements
- Meet users' requirements
- Ensure trustworthiness of data products and services

Information Quality Is Multidimensional

- **Science Quality** – defined in terms of accuracy, precision, uncertainty, validity and suitability for use.
- **Product Quality** – degree to which the data product is produced and described correctly.
- **Stewardship Quality** – degree to which the data product was being preserved and cared for properly.
- **Service Quality** – how easy it is for users to discover, get, understand, trust, and use a given data product, as well as the level of user engagement.

(Based on Ramapriyan et al., 2017; D-Lib Magazine)

Data Product Lifecyle-Stage-Based Maturity Assessment Models



(Diagram from Peng, 2018; Data Science Journal)

Status of MM–Serv

Developed jointly by NOAA's NCEI and ESIP DSC –> External Review

Maturity Scale / Key Component	Level 1 - Ad Hoc Not Managed	Level 2 - Minimal Managed Limited	Level 3 - Intermediate Managed Defined, Partially Implemented	Level 4 - Advanced Managed Well-Defined, Fully Implemented	Level 5 - Optimal Level 4 + Measured , Controlled , Audit
Data Discoverability	*The state of a dataset being easy to be found*				
Services Accessibility	*The state of services being accessible for the dataset*				
Services Usability	*The state of services being easy to use for the dataset*				
Data Use	*The state of a data product's use, usability, and understandability*				
Data Impact	*The state of product impact being assessed & publicly available*				
Data Monitoring	*The state of the data product being utilized for direct and indirect monitoring services*				
Data Services	*The state of a data product being available and distributed*				
Customer Services	*The state of customer service and subject matter experts being available to users supporting the data product*				
Customer Engagement	*The state of user engagement for the data product*				

Status of SMM-CD

- Developed under the WMO High Quality Global Data Management Framework
- External Review (**Due Tues July 24, 2018**)

SMM-CD Category

Aspect

Accessibility	Usability & Usage	Quality Management	Data Management
Discoverability	Portability	Quality Assurance & Control	Preservation
Accessibility	Documentation	Quality Assessment	Metadata
	Usage	Data Integrity	Governance

Contact Us

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