EMSL

Pacific Northwest NATIONAL LABORATORY
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U.S. DEPARTMENT OF ENERGY

EMSL and ESS-DIVE Collaboration To Expand DOE's Ability in Data Preservation and Dissemination

April 30, 2019

MyEMSL Data Preservation & Dissemination

- Enables EMSL projects to meet the DOE Data Management Directive
- Provides services to capture and store user project data directly from analytical instruments to a central repository
- Supports near-real-time access for EMSL users to their data
- Provides open sharing of public data
- Allows differentiation between proprietary, private, and public data

MyEMSL Data Preservation & Dissemination

- Current /ongoing activities to
  - Capture experiment metadata needed to comply with community-established standards
  - ***Enable interoperability with other BER data facilities, including JGI, KBase, and ESS-Dive***
  - Increase access to standard operating protocols that specify how data were collected
  - Increase metadata harvesting mechanisms for downstream analytics

EMSL / ESS-DIVE Collaboration

- Identified two integration pathways
  - Project-to-Repository transfer
  - Repository-to-Repository transfer

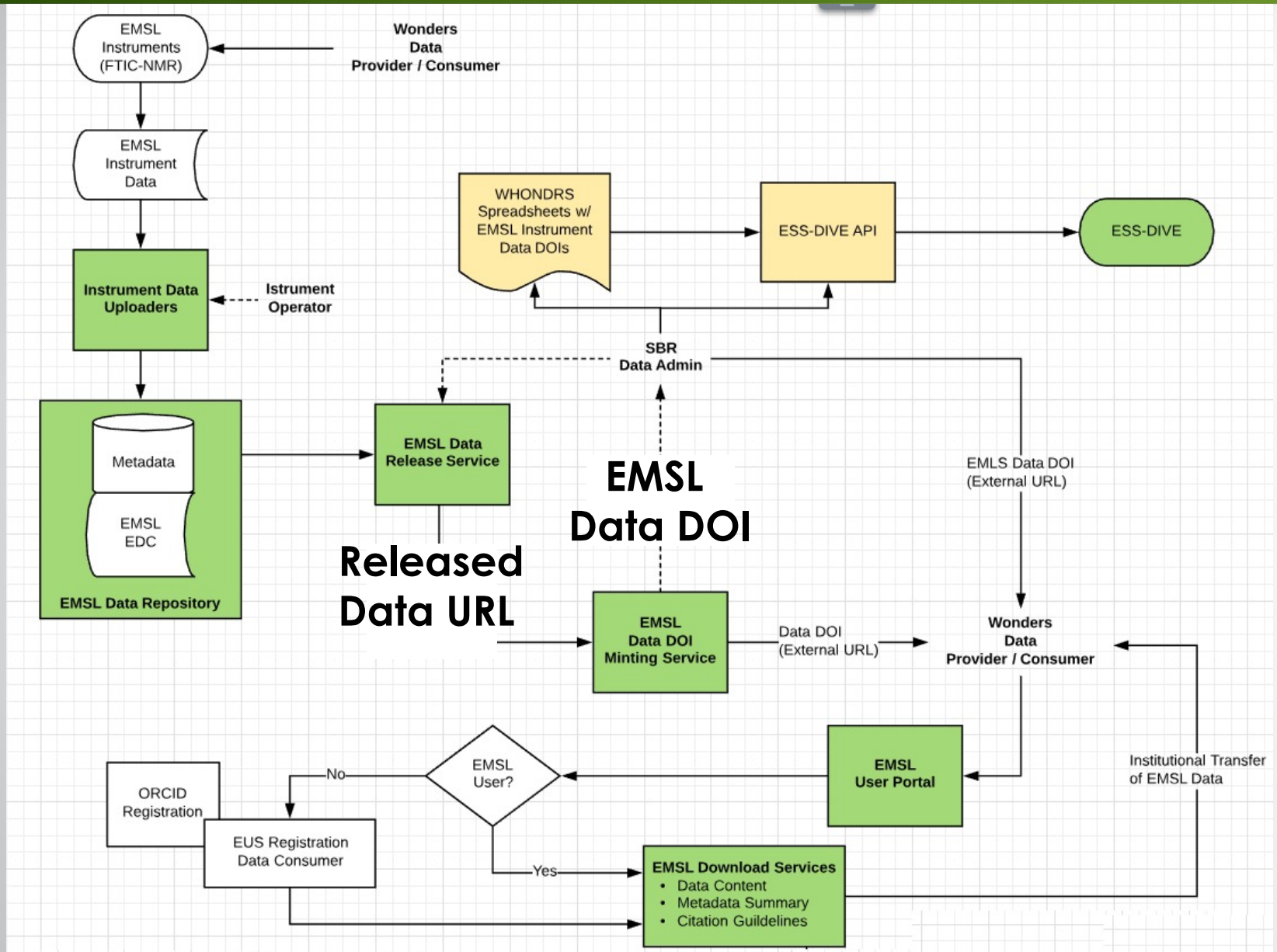
Project-to-Repository transfer

- First use case:
  - PNNL SBR SFA Project Data to ESS-DIVE
  - Non-EMSL data and metadata are generated by the SFA project
  - Results stored in a project-level repository
- ESS-Dive role
  - Provide APIs needed to transfer data assets
  - Be the final repository for project data
  - Assist in data curation
  - Mint the Data Collection DOIs

Repository-to-Repository transfer

- MyEMSL Instrument Data to ESS-DIVE
- Metadata captured using EMSL processes
  - Project metadata via EMSL Usage System
  - Instrument metadata via Resource Scheduling
  - Data via MyEMSL Instrument Data Uploaders
- Use MyEMSL services to:
  - Release Data – by team data manager
  - Mint the Data DOIs
  - Provide thought leadership in metadata capture across collaborative projects

MyEMSL to ESS-DIVE Data Asset Transfer



Repository-to-Repository transfer

- ESS-DIVE Role
  - Provide API for metadata transfer
  - Focal hub for all project data
    - Becomes canonical source for contributing projects
    - Can reach back to the canonical source of data for contributions from other repositories
  - Assist in data curation
  - Mint the Data Collection DOIs
  - Provide thought leadership in metadata application across collaborative projects

Questions?

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