



RODEO

RODEO Project Presentation

HVD Group Webinar

19.11.2024

Online

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RODEO Project

- RODEO – The Provision of Open Access to Public Meteorological Data and Development of Shared Federated Data Infrastructure for the Development of Information Products and Services
- Three-year project funded by the EU Digital Europe Programme (DIGITAL) and EUMETNET
- HVD requirements are implemented by following the EUMETNET strategy and compatible with WMO WIS2.0 requirements
- A user interface and APIs developed for accessing open meteorological datasets of surface weather observations, climate data, weather warnings, weather radar data and AI datasets
- Engagement through the project External Advisory Board and a user group ensuring to meet the user needs
- RODEO website: <https://rodeo-project.eu/>
- Please participate our survey: <https://rodeo-project.eu/news/#take-a-minute-to-respond-to-the-rodeo-user-survey>



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Meteorological High Value Datasets

Implementing Regulation (EU) 2023/138

Datasets	Observation data measured by weather stations	Climate data: validated observations	Weather alerts	Radar data	NWP model data (Not part of RODEO)
Granularity	Per weather station, full temporal resolution	Per weather station, full temporal resolution	Alerts, 48hrs or more ahead	Per radar station in the MS and national composite	Minimum 48hrs ahead in 1hr steps, national, at 2.5km/best available grid
Key attributes	All observation variables measured	All validated measured observation variables; daily average per variable		Reflectivity, Backscatter, polarization. Precipitation, wind, and echotops	Deterministic and/or ensembles if available, for meteorologically relevant parameters and levels

Publication and re-use of meteorological HVDs

Implementing Regulation (EU) 2023/138

Datasets	Observation data measured by weather stations	Climate data: validated observations	Weather alerts	Radar data	NWP model data (Not part of RODEO)
Format	BUFR, NetCDF, ASCII, CSV, JSON	NetCDF, JSON, CSV	XML (Cap or RSS / Atom), JSON	HDF5, BUFR	GRIB (or NetCDF)
Update frequency and timeliness	Every 5-10 minutes in real time for automated stations, hourly unvalidated for all stations, for the last 24 hrs	Daily validated hourly (and better temporal resolution) and daily average observations data; all digitised historical Data	As issued or hourly	Near real time in 5 minute intervals (or available shortest interval)	Every 6 hrs, or better temporal resolution, from the last 24 hrs.

FEMDI and RODEO

FEDERATED EUROPEAN METEO- HYDROLOGICAL DATA INFRASTRUCTURE

FEMDI

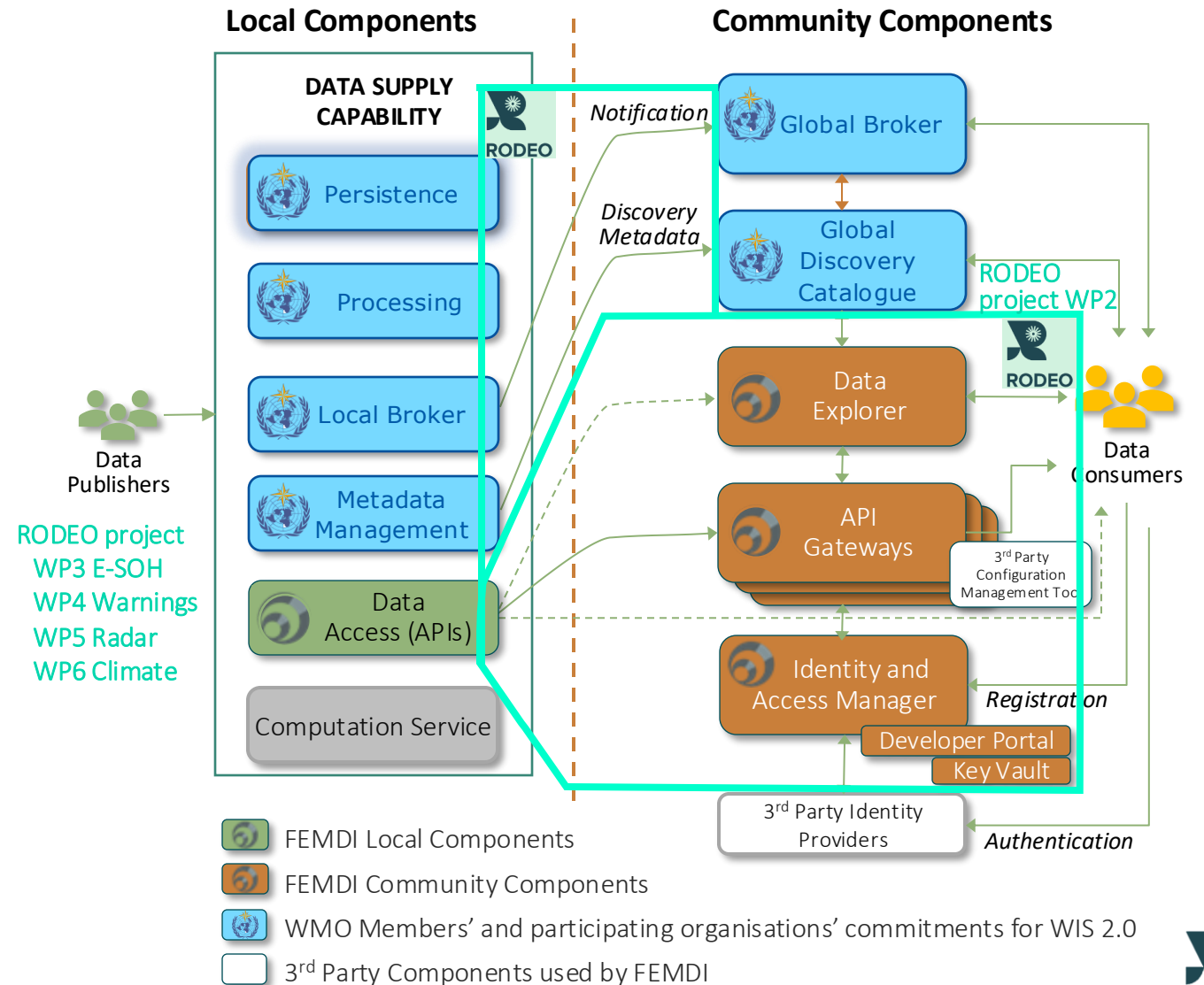
FEMDI is our new data-sharing infrastructure made up of:

- **FEMDI Community Components**
- **FEMDI Local Components** – Any data supply, i.e. APIs, connected to the Community Components
- **WMO Members' commitments for WIS 2.0**
- Other 3rd party components

RODEO project is developing and implementing



- **FEMDI Community Components**
- Some FEMDI Local Components – **Data Access APIs** (E-SOH, Warnings, Radar, and Climate). Separate from the RODEO project, EUMETNET Members may choose to connect their own Data Access APIs to the FEMDI Community Components as well.



FEMDI Owners: EUMETNET. Responsible for:

- Standard Programme responsibilities, e.g. budget, strategy.
- FEMDI policies

FEMDI Programme Manager:

- Responsible for the overall delivery of FEMDI
- Standard EUMETNET Programme Manager role, e.g. Central point of contact for FEMDI; Authority to commit expenditure and resources; Risk management; reporting; Facilitating exchange and collaboration, incl. catalogue update reminders; Managing consortium, e.g. Service Level Agreements (SLAs), if required

FEMDI Solution Manager: Technical, non-operational support for stakeholders.

FEMDI Service Desk Operator: Centralised Incident management

FEMDI Community Capability Operators:

- Standard technical component responsibilities, e.g. operate and maintain service
- The Coordinating Member may also be running one or more of the Community components

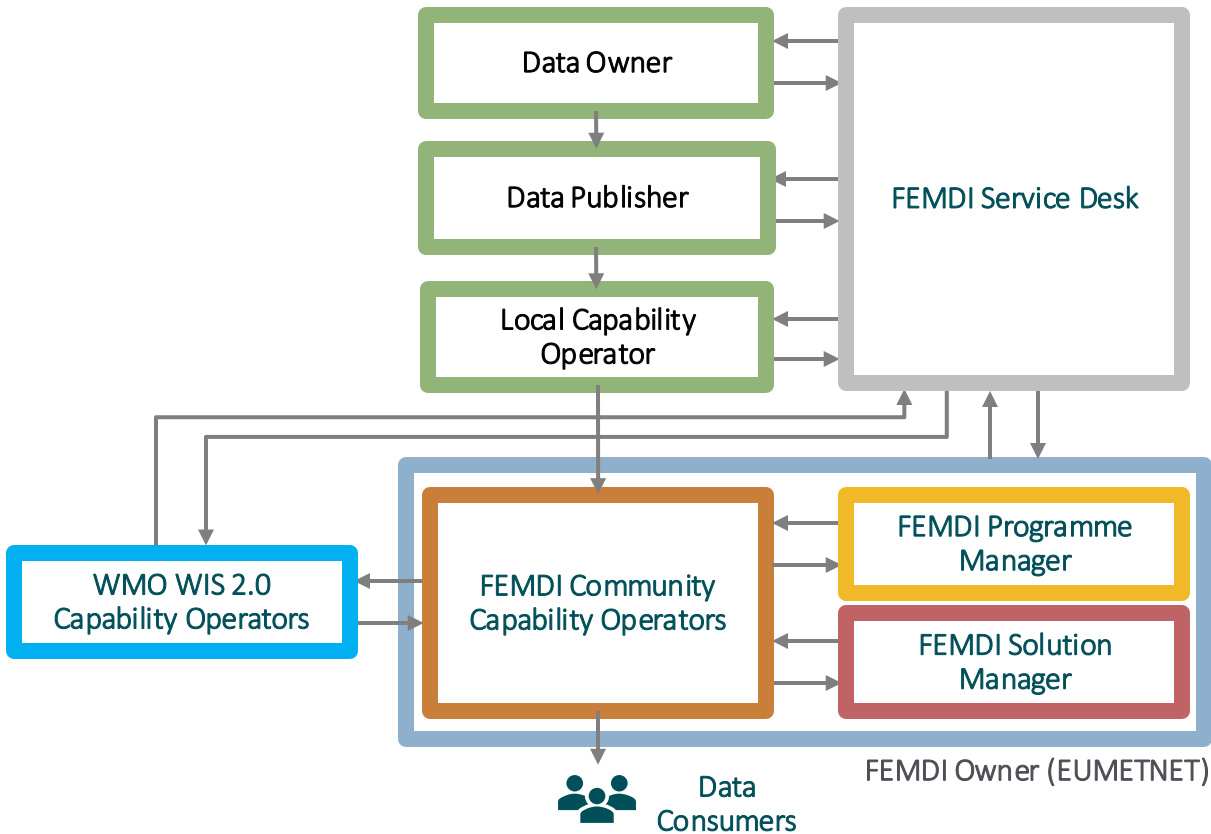
Data Owner: Authority to decide how their data can be used through rights, obligations, terms and conditions.

Data Publisher: Collects and shares data using FEMDI. This role may

1. Be the Data Owner as well, or
2. Do this on behalf of another Data Owner

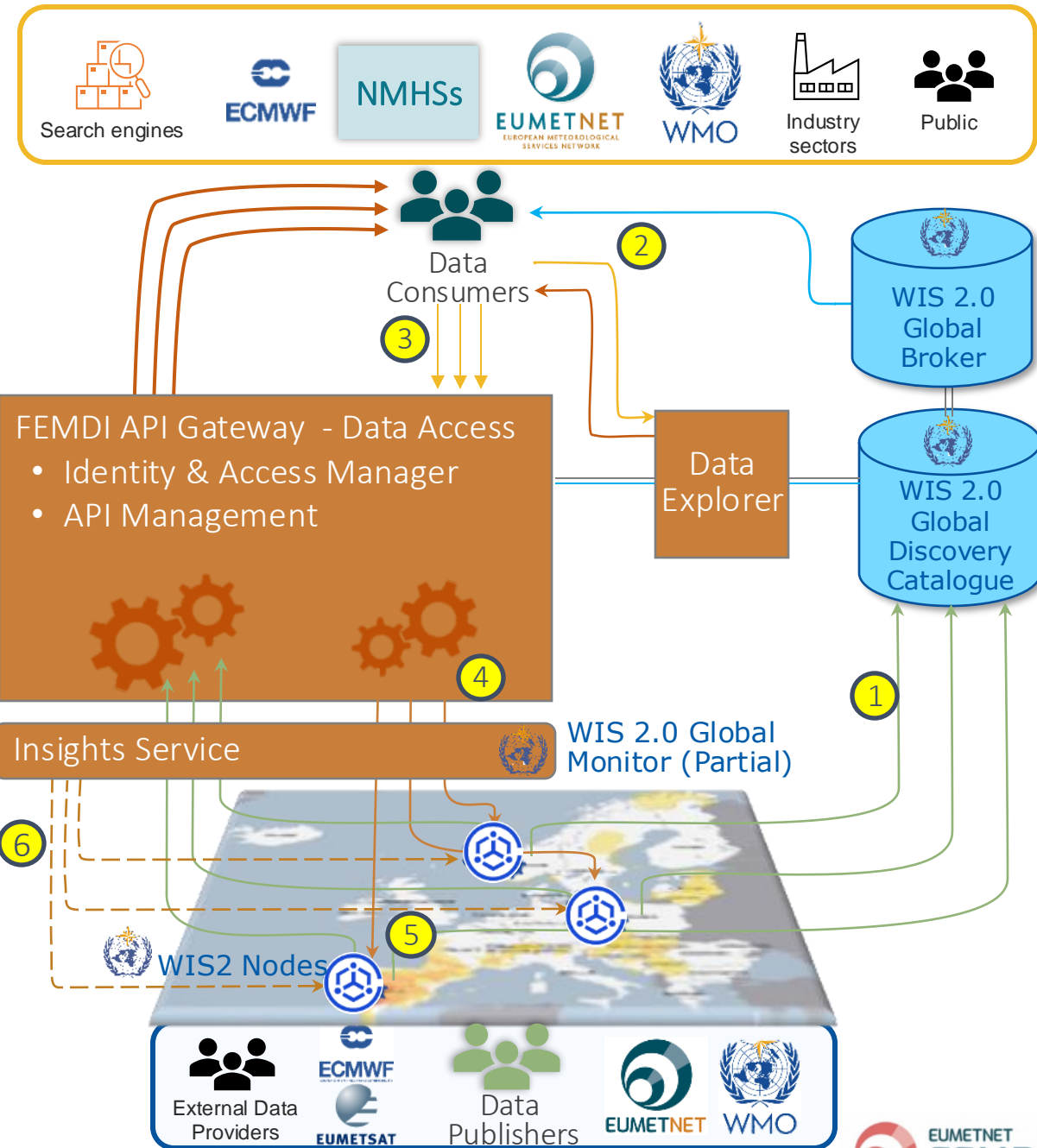
Local Capability Operator:

- Provides and operates a Data Supply Capability which integrates with the FEMDI Community capabilities.
- Provides support services and manages access to the data they are responsible for.
- Can provide the capability for their own data, other's data who have delegated technical responsibility to them, and to other Data Publishers.



FEMDI 'One-Stop Shop'

1. We publish our metadata to WMO's **WIS2.0 Global Discovery Catalogue**.
2. People use the **FEMDI Data Explorer** to discover what is available; searching, browsing and previewing our data. They decide what they want. They get the URLs here and use these to set up routine access to data. They also use the URLs to subscribe for data updates from the **WIS 2.0 Global Broker**.
3. They submit requests for the data to the **FEMDI API Gateway**. Alternatively, where Members want to allow direct data access, they can also access data directly from Members' data services.
4. **FEMDI API Gateway** lets us see who's using our data, protect ourselves against overload, and prioritise users during high demand.
5. Our **Local components** process their requests and return the data.
6. We receive useful information on the use of our data and service.





Thank you

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