# Continued implementation of the Data Management Plan

The current DMP work will be split into two parts:

* Core services will remain within an IM hub (call finalized and PSNC will continue the core services support)
* Site services and additional activities will be in a new project hosted under the new Digital Services Office (Call for PMU Office Head out now). Deadline 26/9 !
* Not a self contained DMP project but somewhat broadened scope with AMNS and EUROfusion databases as well and with an Area Coordinator (also to be called for )

*Relevant extract from the Call document.*

***Data Management Plan***

Further development of database infrastructures and data management strategies that ensure FAIR

(Findable, Accessible, Interoperable, Reusable) access to EUROfusion data from both experiments and simulations.

* Implementation of “Scenario C” to enable traceable data access using Persistent Identifiers (PIDs), and some aspects of “Scenario D” for open access to selected metadata and data in human-readable formats, as outlined in the **DMP blueprint**, will be the main focus of the hub.
* Evaluation and implementation of software solutions for data storage, management, analysis, and access control, including account provisioning and resource allocation (supported by ACHs)
* Promotion of AI/ML technologies for data validation, analysis, and optimization

**This is largely in line with our previous thinking…**

* **Fully implement the EUROfusion Data Management Plan** by Q4 2027, ensuring compliance with FAIR principles across all IMAS enabled EUROfusion devices and sponsored modeling activities.

It can be envisioned that we have two project deliverables on a pathway to the grant deliverable:

* **Develop and deploy an IMAS integrated data-sharing environment** by Q4 2026, standardizing experimental and simulation data in IMAS formats to enable seamless interoperability using remote data access and local databases. (Scenario C)
* **Establishing open data access** for select long-term storage datasets by Q2 2027, ensuring secure, structured availability for research and analysis. (Scenario C + D)

**Implementation**

* Use the IMAS toolset for sharing data that are either from experimental devices or born from simulations (modelling experimental discharges or born digital) we will promote scenario C for this assuming a LTDSF is available and that the ability to mint PID’s has been installed in PSNC.
* Extending to Scenario D is straightforward, assuming the LTDSF can promote a publicly available partition, and that a data set for open access is being made available.

We are assuming that we are implementing access for AUG, [COMPASS/-U], TCV and WEST which are to be funded under the project and MAST/-U (UKAEA budget) and JET (???) that will be funded through other means. So far, we have had about 6-9PMs per site for the site services covering:

* Maintenance and IT support for local remote access server (UDA)
* Local data mappings to support stakeholder driven use cases
* Development, support and maintenance for local ingestion workflow
* Improved provenance capture to support scenario C implementation.

Each site should provide the necessary capabilities to support extended data mappings, data access

services, and secure remote access for authenticated users (e.g., via UDA or equivalent tools).

The following elements are considered essential (in the call text) :

* Maintenance and IT support for the local remote access server (e.g., UDA)
* Integration of Authentication and Authorization Infrastructure (AAI) with ACH technologies
* Implementation of local data mappings tailored to stakeholder-driven use cases

We have previously also identified

* Development, support and maintenance for local ingestion workflow
* Improved provenance capture to support scenario C implementation.

However, the current call structure allows for 4-5 PM/site.

We will also need to Include Modelling data as a “new” facility with some support - here the new TSVV structure need to be engaged “somehow”. The TSVVs are split away from the WP AC and are to be implemented under a new work package WP TM (Theory and Modelling) under Xavier Litaudon as PL.

Potential amendments:

Core workflow amendments (not funded in the call)

* IDA mappings support for core\_profiles (ongoing work in WP PrIO with deliverable 2025 – support needed 26-27)
* Core\_sources, Distributions (ASCOT/RABBIT etc)

|  |  |  |
| --- | --- | --- |
| Activity | 2026 (PM) | 2027 (PM) |
| Site Services (AUG, COMPASS, TCV, WEST) | 20 ~~36~~ | 20 ~~36~~ |
| Site Services (Modelling and IDA) | 0 ~~12~~ | 0 ~~12~~ |
| Site Services (MAST/MAST-U cooperation) | (5) | (5) |
| Site Site Services(JET) | (5) | (5) |
| Management | 3 | 3 |
| Totals | 33 ~~51~~ | 33 ~~51~~ |
| HW/SW | ??? | ??? |
| Core Services (funded in ACH) | (24) | (24) |

ACH support needs (24 PM - reduced to ??? in 2026 and 2027)

* Development, Maintenance and support of Dashboard/ catalogue tools and UI. Including a potential move to document-based databases (currently only prototyped)
* Development, Maintenance and support for Remote access tools for ingestion and data access (UDA based)
* Further development of batch processing functionality (e.g. CLI access to resources)
* Integration with local IMAS data storage (including SimDB)
* integration with EUROfusion AAI - development of quasi AAI
* PID minting
* Code refactoring/migration towards Python based tool set to align with general fusion developments including ITER

What about provisioning for AI/ML?

What about resource for DD3🡪 DD4?