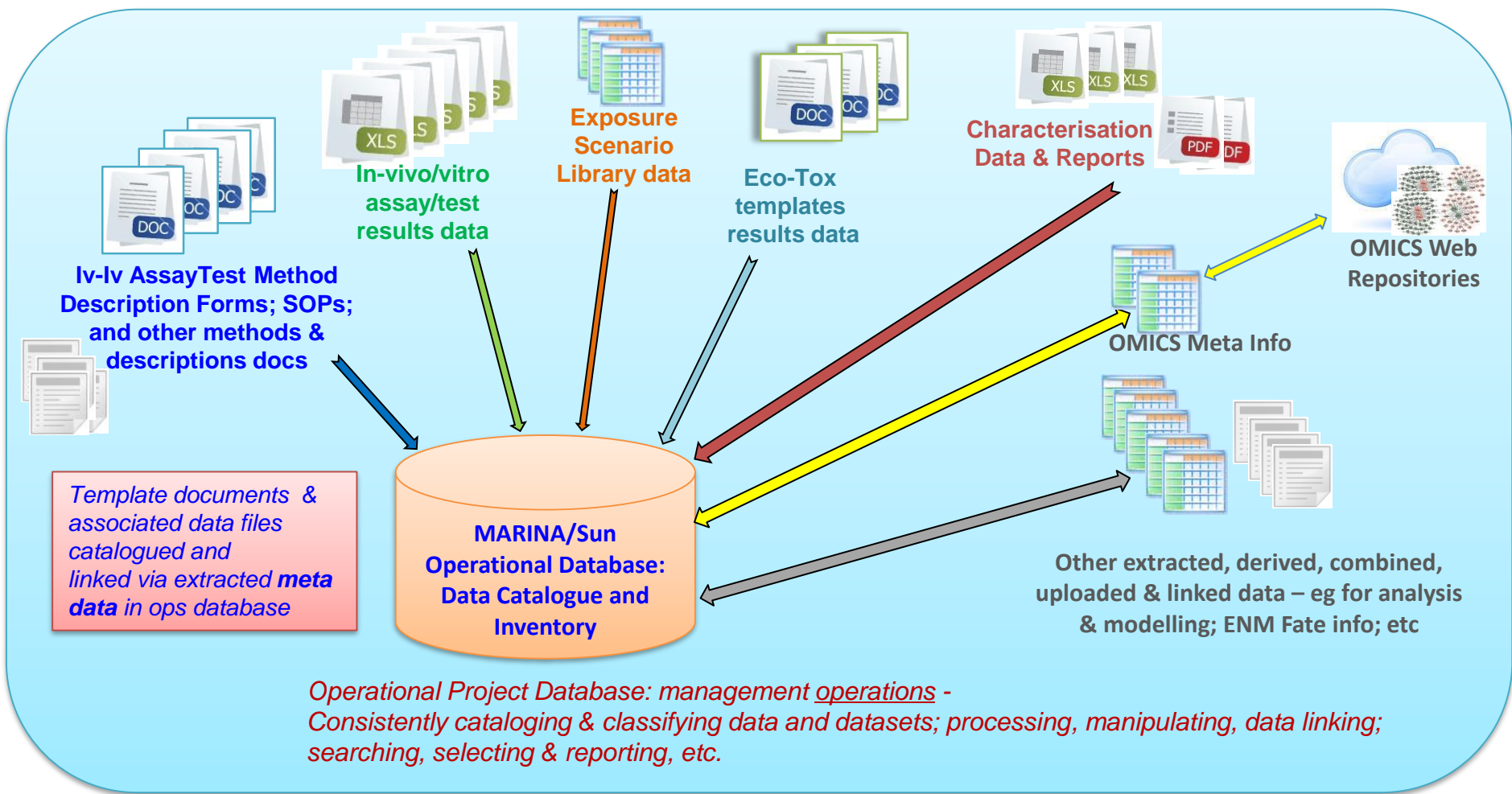# ENanoMapper – Knowledge Infrastructure and Framework

Operational Database and Template Use for FP7 Projects

Peter Ritchie (IOM)

IOM

Operational data inventory database – overview

Iv-Iv AssayTest Method Description Forms; SOPs; and other methods & descriptions docs

In-vivo/vitro assay/test results data

Exposure Scenario Library data

Eco-Tox templates results data

Characterisation Data & Reports

OMICS Web Repositories

OMICS Meta Info

Template documents & associated data files catalogued and linked via extracted **meta data** in ops database

MARINA/Sun Operational Database: Data Catalogue and Inventory

Other extracted, derived, combined, uploaded & linked data – eg for analysis & modelling; ENM Fate info; etc

Operational Project Database: management operations - Consistently cataloging & classifying data and datasets; processing, manipulating, data linking; searching, selecting & reporting, etc.

For conclusion of project (enpra/marina),

relevant data files uploaded to EU-NANOhub

NANOhub DB - JRC

Data collection methods via templates

- Use of standardised data templates where possible
- Adapted & updated OECD in-vitro templates- Evolved and adapted with each project
- Used in NANOMMUNE, NANOTEST, ENPRA, MARINA. With NanoHub obligations .
- Updated and used for parts of NANOSOLUTIONS & SUN – interaction with eNM planned

- Test Method Description Form (Word) – describing assay as a whole (& related SOPs, available or linked)
- Results data file (Excel) - worksheets for:
- Test Conditions, Raw Data, Test Results, Summary Data; in-situ characterisation (+ PROAST analysis)
- Ecotox results reporting format , adapted from MARINA; Exposure scenario library format

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Data collection methods via templates

- ➢ Needs v good ongoing liaison & collaboration tween experimentalists and data managers; mixed results
- ➢ Enhanced if future benefits understood / shared
- ➢ Principles close in several ways to ISA-Tab-Nano – though easier (more adaptable) excel use
- ➢ But less uniform; Less rigid; No standard cv/ontology
- ➢ Data extracted where needed for analysis, maintain format for NanoHub requirements
- ➢ Collaborating with eNM on import, export, etc and aim to align with NanoReg I-T-N developments
- ➢ Future system requires flexible, easy end-user tools to capture and manage data on ongoing basis

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