

PLEIADES

Smarter Plant Decommissioning



Requirement analysis, specification and test design

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Requirement analysis, specification and test design

- Requirements set-up for the design of the PLEIADES concept
- Specifications development for the PLEIADES system prototype & validation tests
- Input data/information (BIM) base design
- Ontology generation



Requirements for the design of the PLEIADES concept

Requirements for concept design

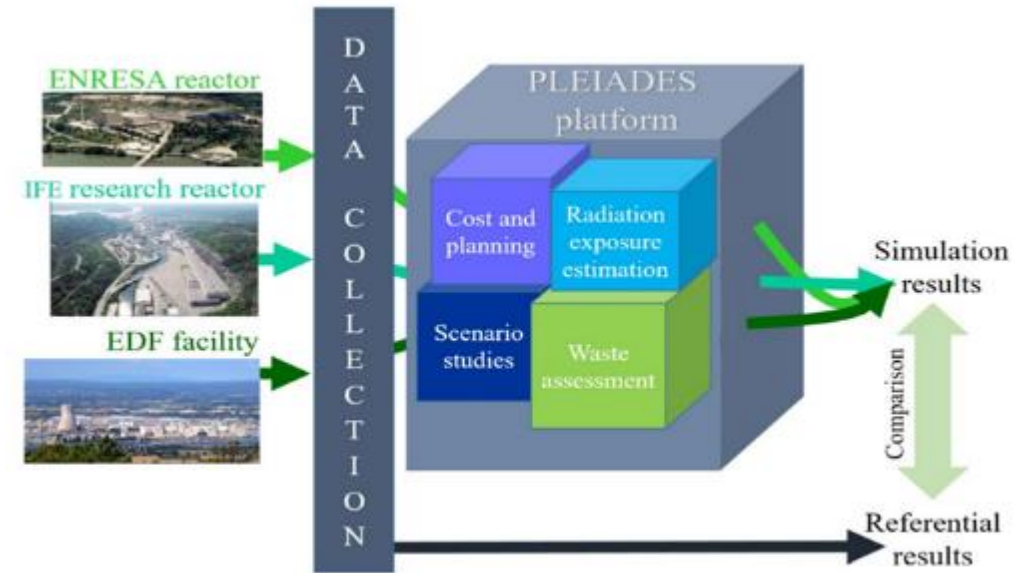
- Survey to stakeholder for input needs related to the integrated decommissioning support ecosystem proposed by this project.
- A questionnaire was used to survey stakeholders and group discussions were carried out at the DigiDecom 2021 workshop, which included project partners and other attendees.
- The result of the gap analysis was used as a base for
 - developing a system architecture for the software prototype to be developed in the project
 - design of the validation tests aiming at verifying compliance of the resulting system prototype with the requirements



Specifications for the PLEIADES system prototype and validation tests

Implementation of PLEIADES on data from real sites

- HRR: Halden Research Reactor (IFE)
- BCOT: Base Chaude Operationnelle du Tricastin (EDF)
- SMG: Santa Maria de Garona (Enresa)



Test PLEIADES through use cases based on different user stories

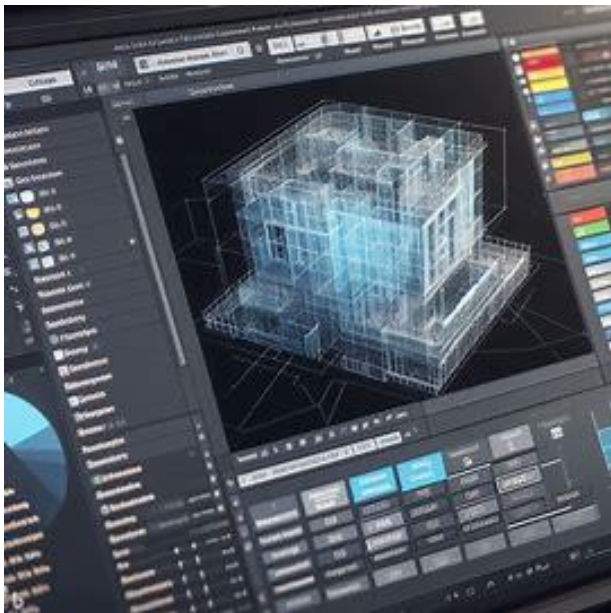
- User Story #1: Manual vs. remote radiological characterization
- User Story #2: 3D supported vs Digitally enhanced dismantling
- User Story #3: Manual vs. Automated decontamination of building surfaces



Input data/information (BIM) base design

Objective is to focus on designing a coherent input data/information base required for performing the system validation tests

- Assess data formats and data sources
- Evaluation of different database solutions
- Connectivity between tools and database(s)
- Requirements for BIM platforms



PLEIADES - Multiscale based on Energy and Sustainability Applications for enhanced Decision-making processes

PLEIADES project
D1.3 Input BIM data base
(deliverable from WP1 of the project)
(M13, IFE, R, CO)

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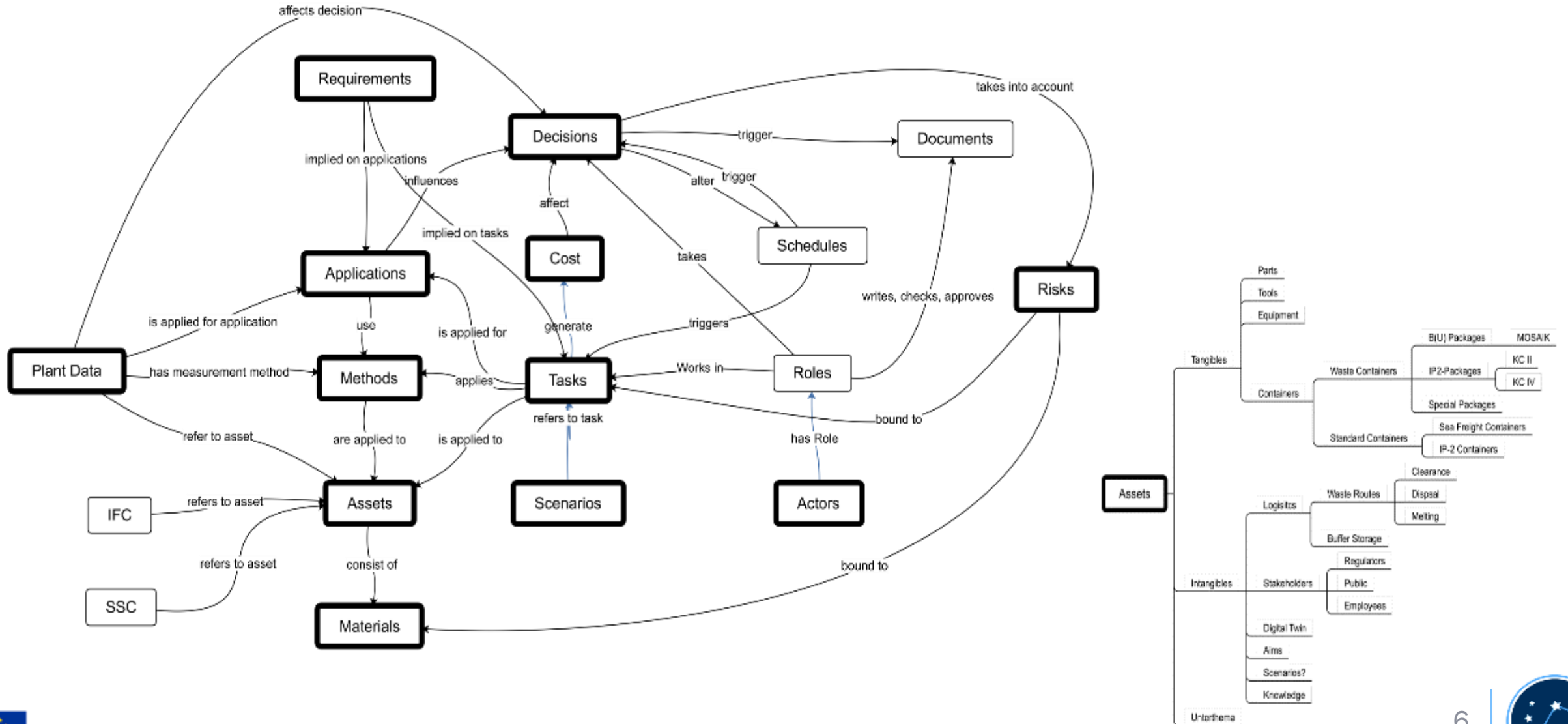
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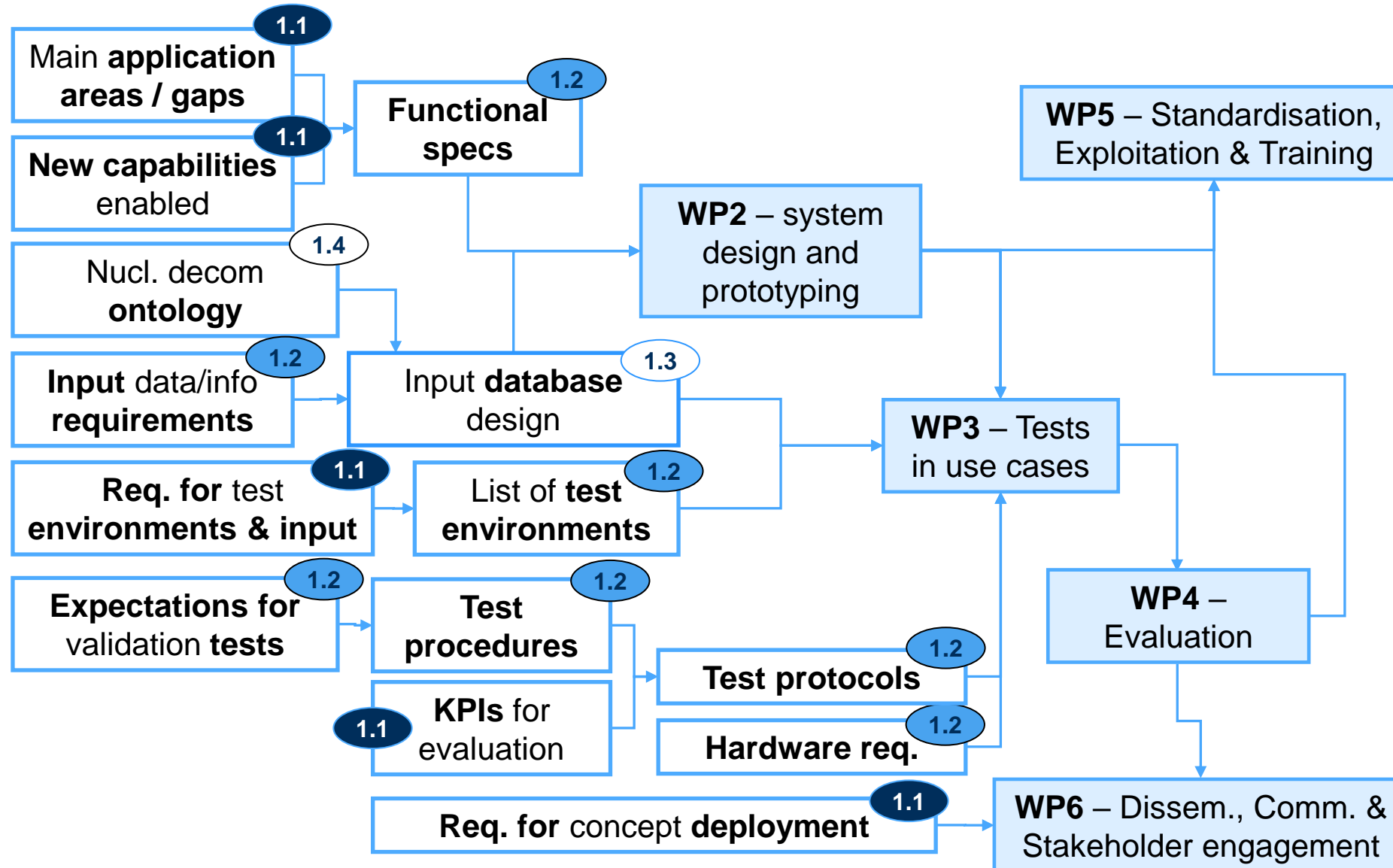
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Nuclear, Decommissioning, Digitalisation, 3D modelling, 3D simulation, Digital twins, XR, holistic approach, software ecosystem, nuclear ontology, BIM, IFC, ISDC, integrated software, modular platform



Ontology for decommissioning tasks



Requirements & Specs: Foundation for other WPs





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