

TASTE Case Study for PUS Services (TAPS)

Maxime Perrotin (TEC-SWT)

04/12/2019

- *Budget:* 200 k€
- *Duration:* 18 months
- *Prime:* Institute of Space Science (RO)
- *Main Objectives:*
 1. Define the methodology for using the PUS in an MBSE process
 2. Create the foundations for a reusable, tailorable and free PUS-C library

Context: PUS-C Tooling development



- The Packet Utilization Standard (PUS) specify services needed for flight operations
 - e.g. housekeeping, monitoring, file transfer...
- The last revision (PUS-C) of the standard was released in April 2016
- It is big and complex:
 - more than **600 pages** of normative and informative material
 - cleanup of the PUS-A services and introduction of new services
 - formal representation of the PUS concepts to avoid misinterpretations



How to deal with that complexity ?

(more than 3000 requirements!)

- Industry needs tool to help
 - Implementing the PUS-C on new missions
 - Tailoring the pre-defined services
 - Creating new, mission-specific services
 - Documenting their PUS-compliant interfaces

Two complementary tracks

