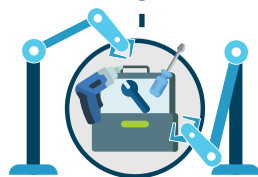
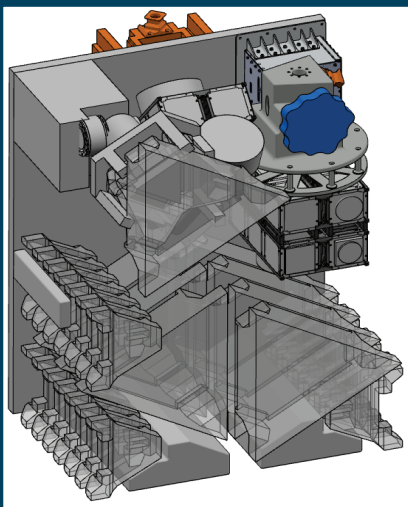


PERIOD DEMONSTRATION MAIN OBJECTIVE

*Build a satellite in orbit from a kit
with a robotic system* ”

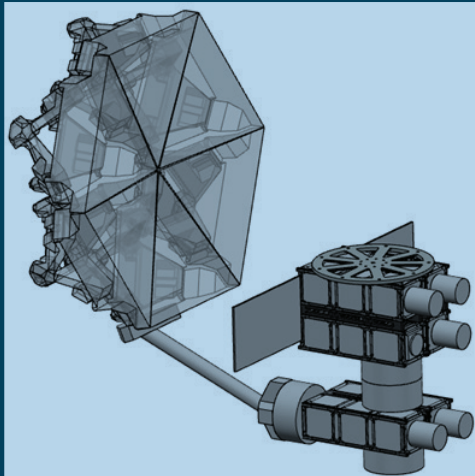
From a satellite kit...



... via the Orbital Factory...



...to a functioning
assembled satellite,
including inspection,
reconfiguration,
attachment,
refuelling.



OUR TEAM

AIRBUS



CONNECT WITH US

PERIOD



PERIOD_H2020



period-project



period-h2020.eu



info@period-h2020.eu

PERIOD

PERASPERA In-Orbit Demonstration



“Preparing the paradigm shift for changing the way
space systems are designed, built and operated



This project has received funding from the
European Union's Horizon 2020 research and
innovation programme under grant agreement
No 101004151

design by EASN-TIS

MISSION STATEMENT

Towards independent European ISMA capabilities

Demonstrating ISMA capabilities, the PERIOD mission will initiate the transformation of the lifecycle of space systems toward higher value, higher system capacities, higher resilience and lower capital expense, and toward independent European capabilities allowing Europe building the future orbital infrastructure and being competitive on the ISMA market.



Higher value means the part of the total mass of the space asset dedicated to the payload generating revenues is higher.



Higher system capacities will be provided by larger reflectors for communication or telescope and larger hub to integrate and operate numerous payloads.

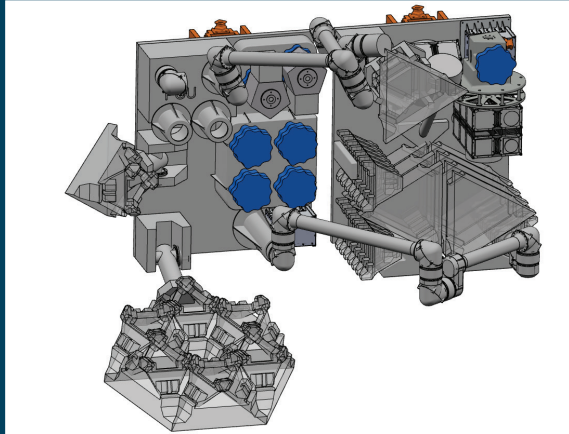


Higher resilience comes from the built-in servicing capabilities of the spacecraft.



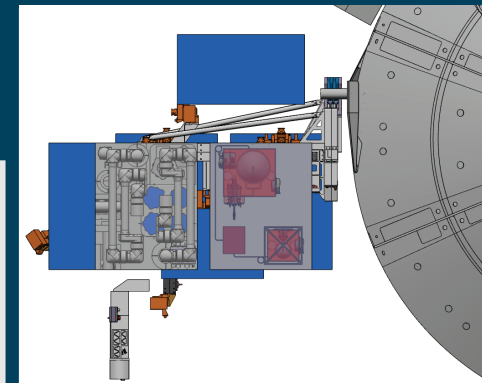
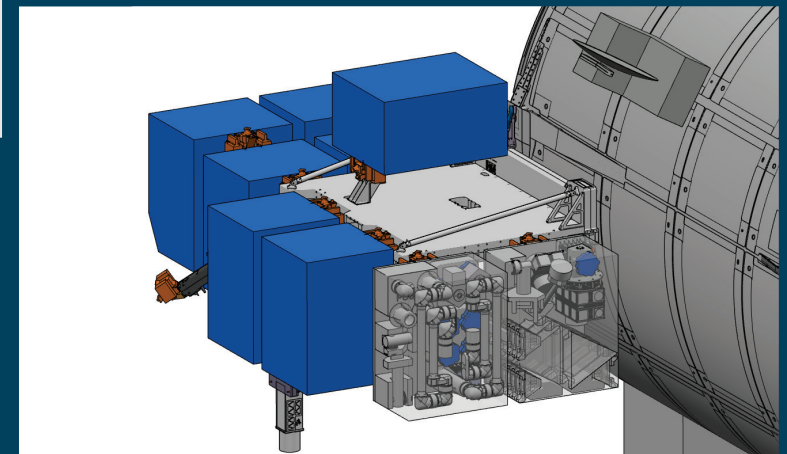
Lower capital expense (Capex) for providing additional and new capacities is made possible as not the overall spacecraft needs to be replaced on a regular basis but potentially only the parts related to the payload.

ORBITAL FACTORY ACCOMMODATION



Initially the slots will be occupied by:

- ◆ the factory box containing robotic manipulators, required tools, the system avionics and observation hardware.
- ◆ a satellite assembly box including the required material and workbench infrastructure.



After the successful demonstration of the satellite assembly and re-configuration, the empty box will be replaced by an attachment and refueling element providing both the fuel depot as well as an empty reservoir to receive a Xenon propellant (used for electrical propulsion).

TECHNOLOGY MATURATION & STANDARD INTERFACES BENCHMARKING

Further development of key technologies of the Strategic Research Cluster's Building Blocks is currently in progress to assure that by the end of the project phase A/BI (2022) they are at TRL5.



The availability of reliable Standard Interfaces (SIs) is critical for ISMA applications. A benchmarking of the SI technologies SIROM and HOTDOCK is also in progress.

