



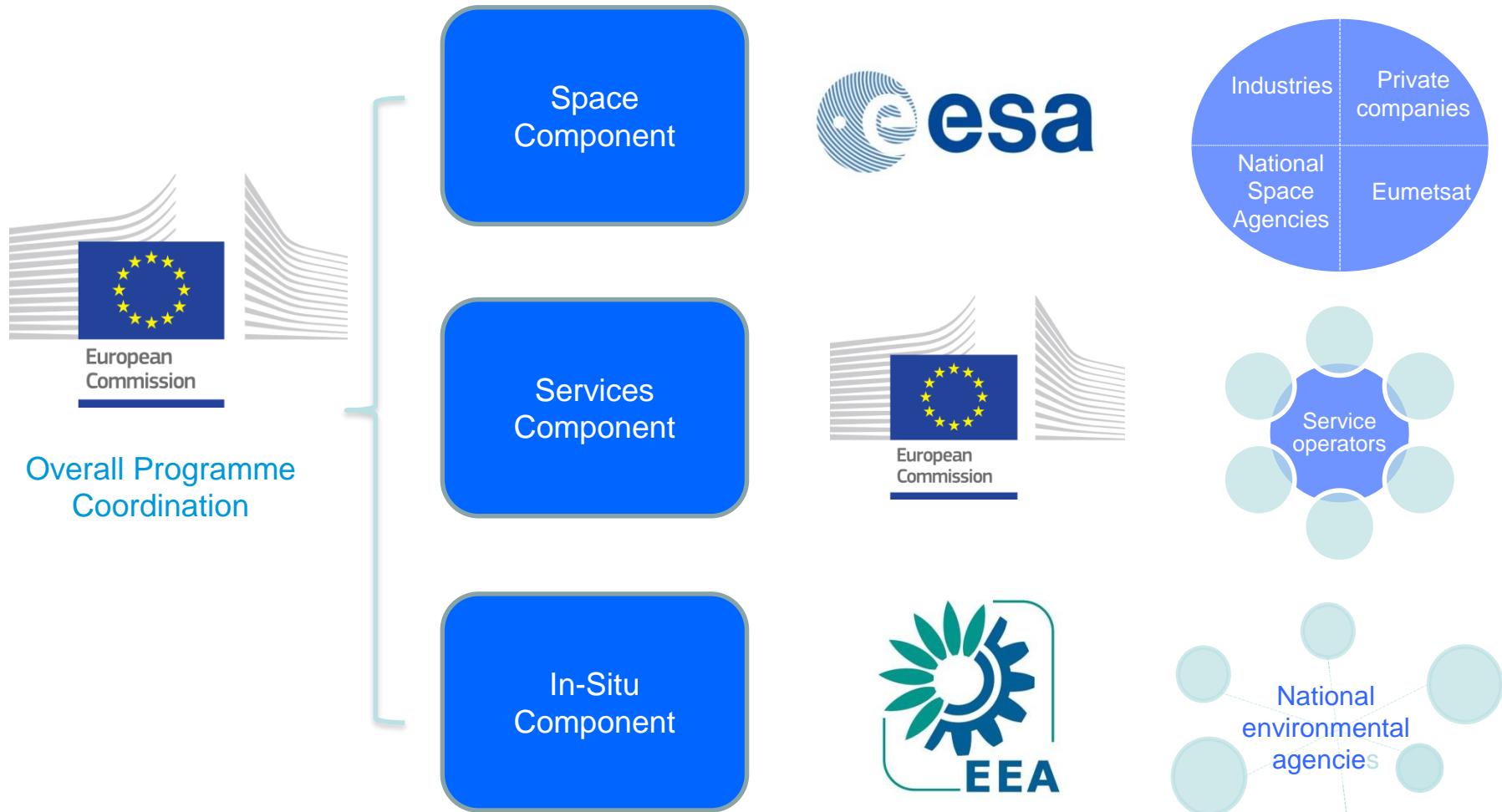
Delegated Agreement EC-ESA

per l'implementazione del programma Copernicus

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Resp. Unità OST – Deleg PB-EO - Resp. Accordo ASI.ESA Collaborative

Componenti & Competenze

Earth Observation



Copernicus Sentinels

Earth Observation



S1A/B: Radar Mission

2014/end 2015



S2A/B: High Resolution Optical Mission

2014/2016



S3A/B: Medium Resolution Imaging and Altimetry Mission

2014/2017



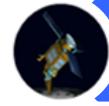
S4A/B: Geostationary Atmospheric Chemistry Mission

2019/2027



S5P: Low Earth Orbit Atmospheric Chemistry Mission

2015



S5A/B/C: Low Earth Orbit Atmospheric Chemistry Mission

2020/2027



Jason-CS A/B: Altimetry Mission

2019/2025



- Regola i rapporti tra ESA (Contracting authority per il segmento spaziale – eccetto che per i servizi di lancio)

“A dedicated Procurement Board, chaired and staffed by Commission officials, is set up, authorising the annual procurement plan and all relevant procurement and contract proposals (ITTs, contract awards and CCNs) exceeding an amount of 4 Meuro”
- Viene regolato il possesso dei satelliti, anche di quelli sviluppati da ESA
- Costi ESA
- Visibilità dei documenti e accesso ai meeting
- Regole di procurement
- Misure finanziarie e gestione dei rischi
- Annesso Tecnico: **DESCRIPTION OF THE TASKS AND THE IMPLEMENTING ARRANGEMENTS**



- The purpose of this Technical Annex is:
 - i) to describe the list of technical tasks to be undertaken by ESA within the scope of this Agreement, and how these tasks should be implemented;
 - ii) to define the respective responsibilities of the European Commission and ESA and their interaction in order to ensure an efficient monitoring and steering of the entrusted tasks, as required by the Copernicus Regulation.



- Section 2 provides an overview of the Copernicus Programme and of its main components, with particular focus on the Copernicus Space Component, including its functionalities and interfaces;
- Section 3 describes the tasks to be entrusted to ESA within the scope of this Agreement, as well as arrangements for their implementation;
- Section 4 describes the programme schedule, as well the activities tasks associated with the various phases;
- Section 5 describes the approach to change control management of the tasks under this Agreement;
- Section 6 describes the tasks to be carried out in cooperation with EUMETSAT and the interface management in relation to this Agreement;

Data Dissemination



- *The data dissemination process should ensure that the Sentinel data are accessible on an equal footing by the Member States of the Union and ESA Member States participating in the Copernicus Programme, while recognising data access rights granted under the ESA GSC Declaration. Beyond the primary users, and in accordance with the data policy, the Sentinel data should also be available for the wide community of users referred to in Article 3(9) of the Copernicus Regulation [RD 1]. For each user category, specific rules are defined for their access to data (timeliness, access, support etc.). These rules for the data under the responsibility of ESA are detailed in the ESA CSC Data Access High Level Description Document [RD 15], to be agreed with the Commission prior to the finish of the ramp-up phase of Sentinel-1A.*



- Fase iniziale (2000-2006): Earth Watch DUP/DUE, GMES Service Element
- 2007 (decisione della CE - FPVII) e 2008 (Agreement CE-ESA)
 - ESA gestisce ed implementa l'(Initial) GMES Space Component (GSC): Sentinel 1 e 2 ed Initial Operation of GSC
- Dal 2005: Programma GSC ESA, opzionale, cui l'Italia aderisce, implementato in segmenti e fasi.
 - contributo ESA al GMES
 - Oggi: GSC-3 fase 2 (2014-2020)



- Il GSC-3 finanzia:

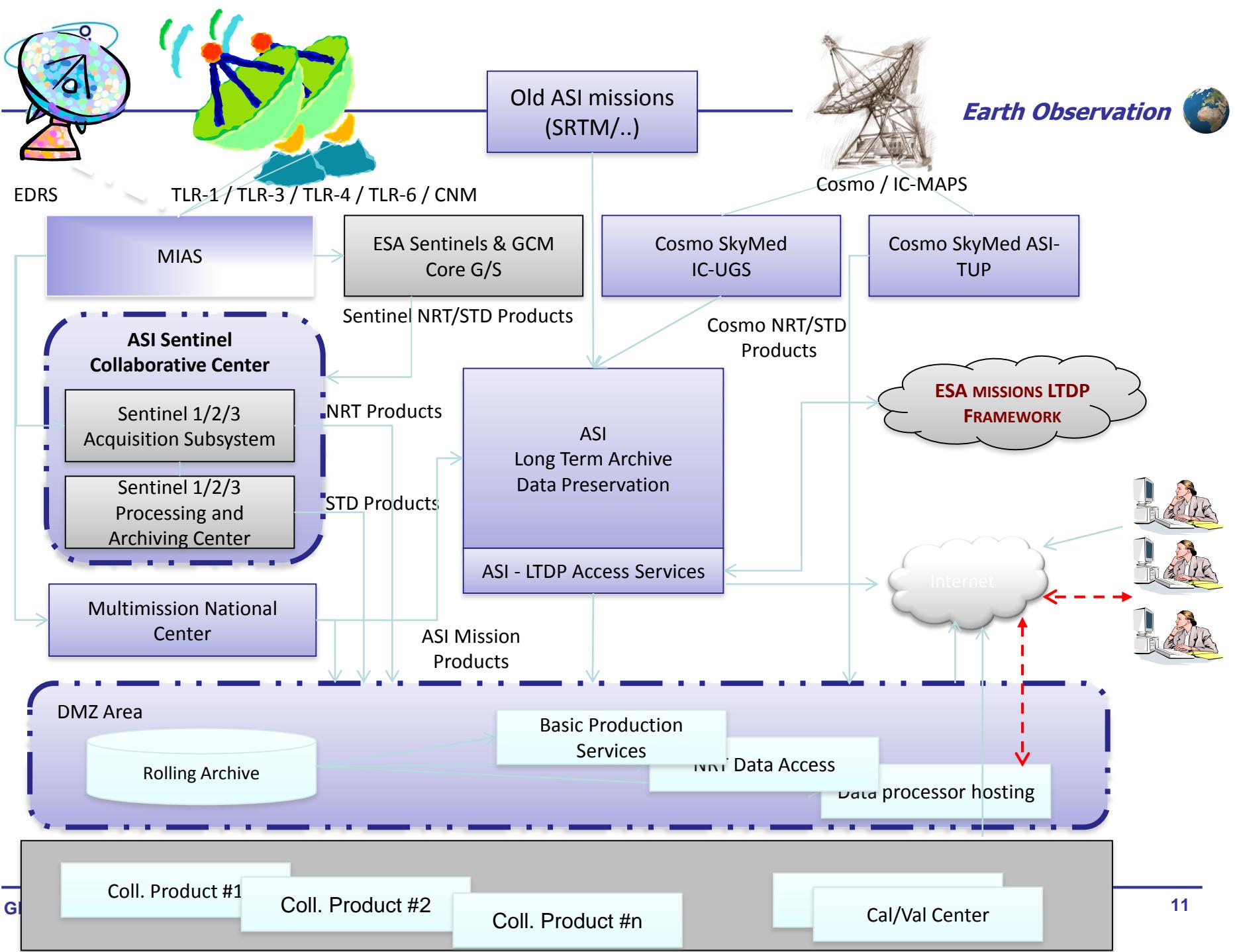
A set of development, procurement and maintenance activities to implement and operate Sentinels data access interfaces required for national use (2014-2020)

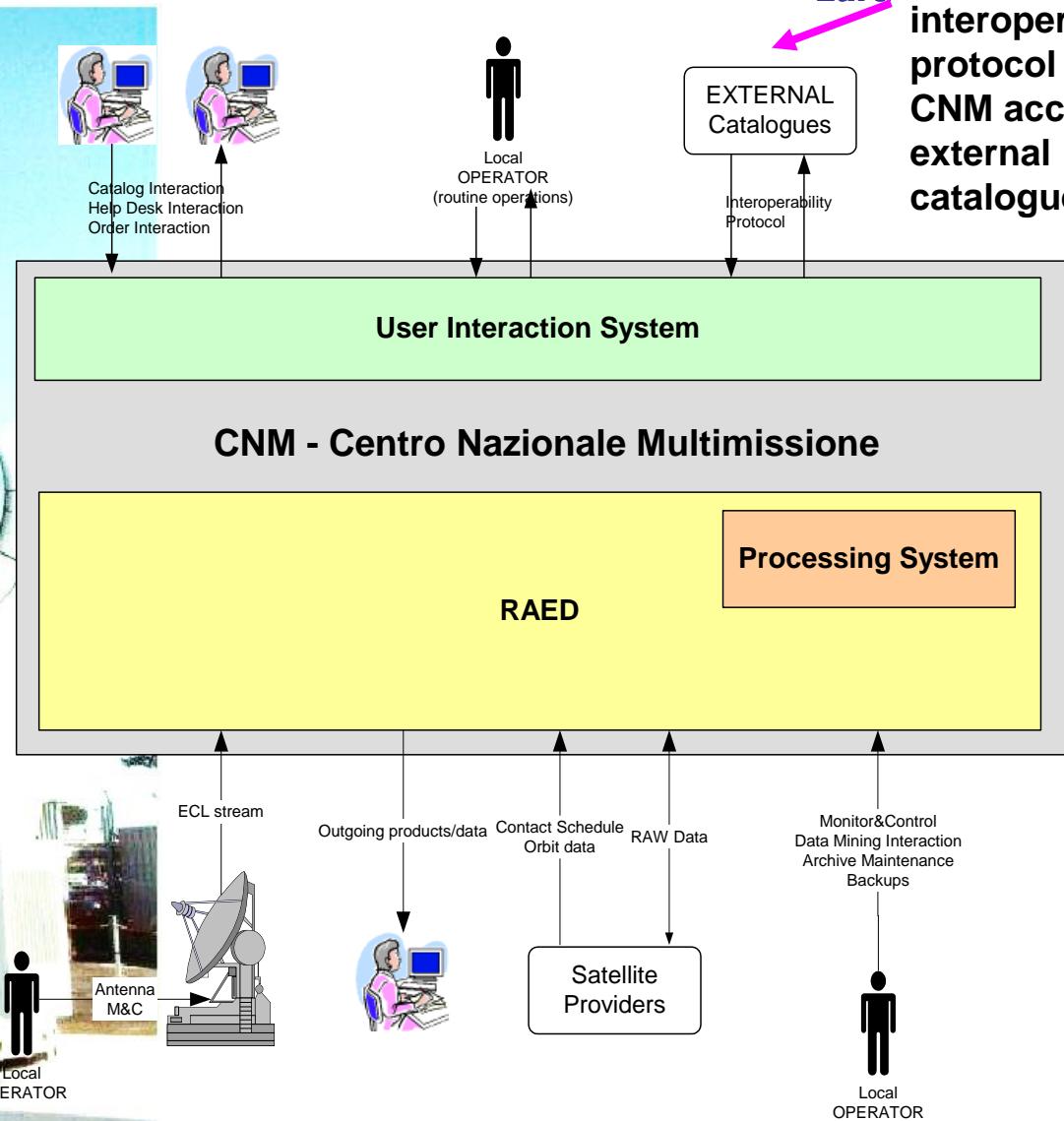
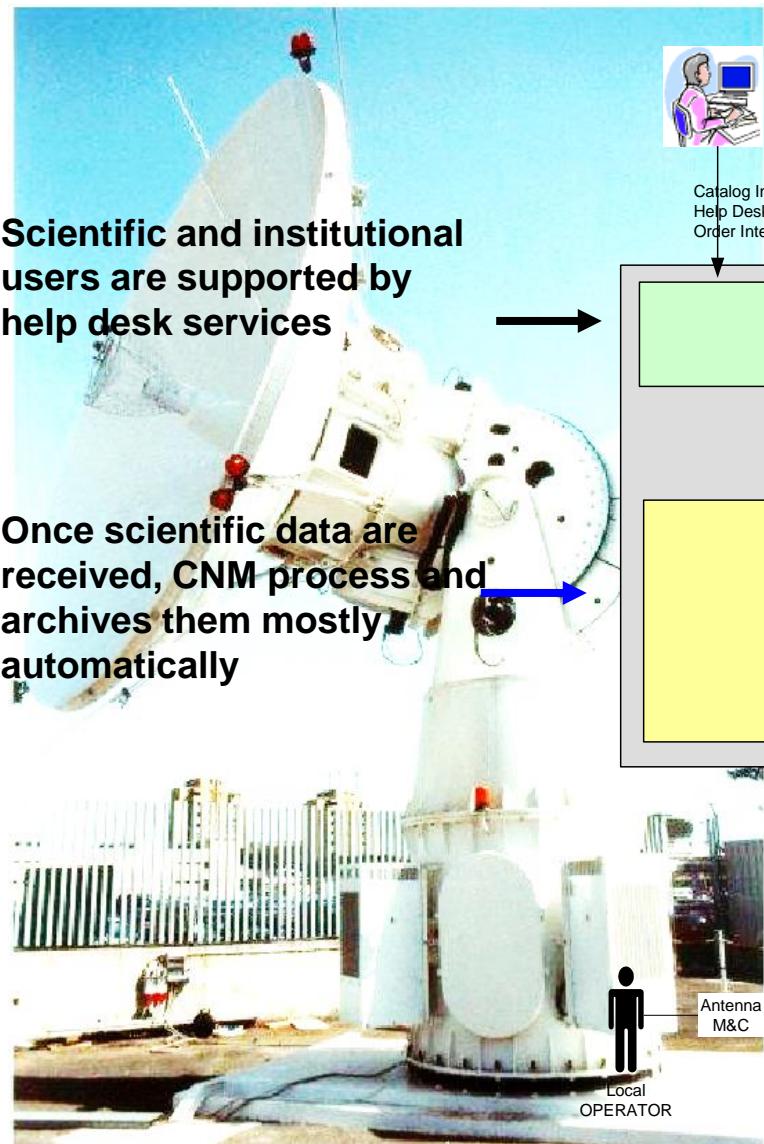
-> **Collaborative Ground Segment**

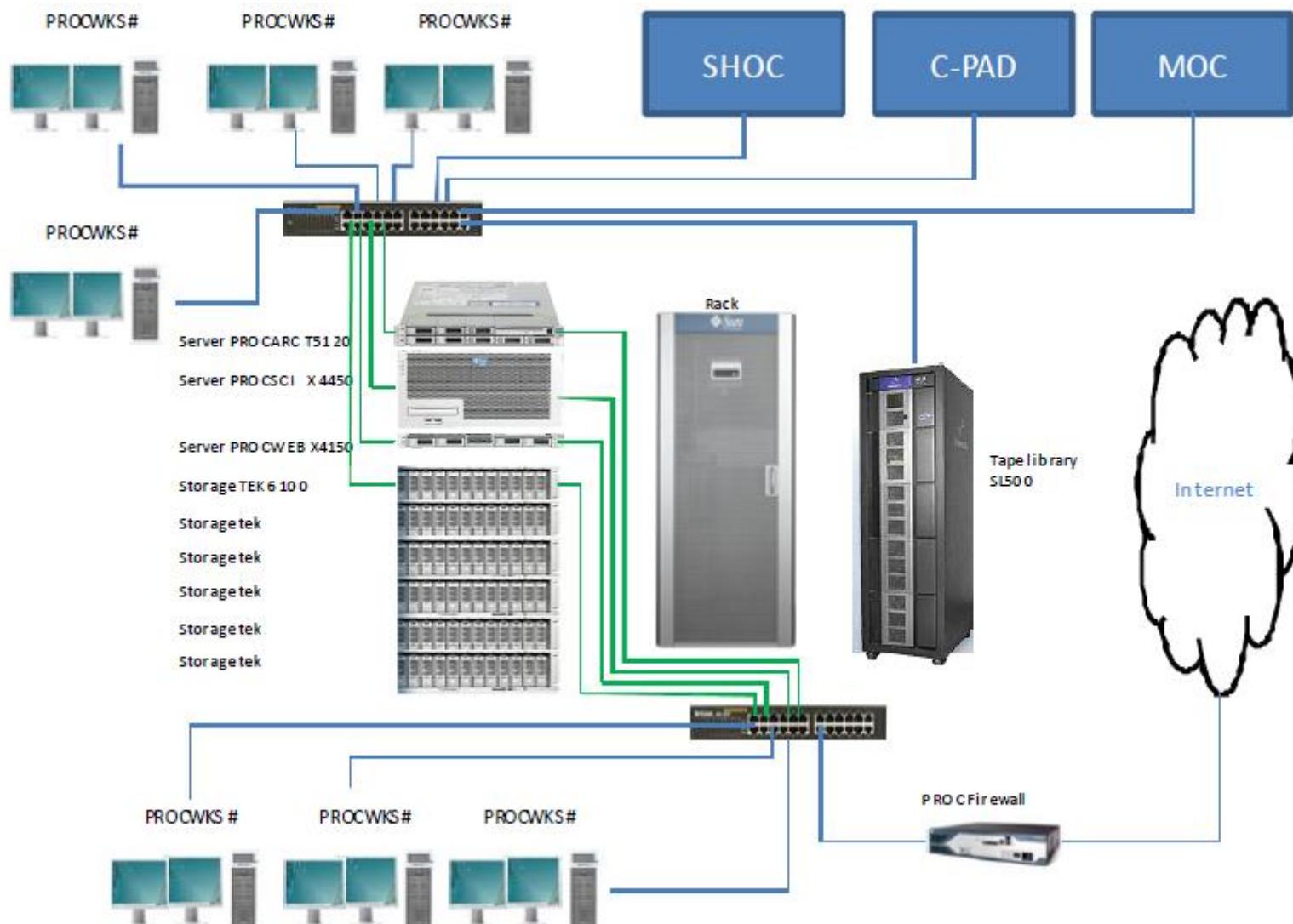
Agreement ASI-ESA



- Firmato il 6 Ottobre 2014 da ASI in quanto l'ASI in quanto *National Point of Contact* vs ESA. Comprende:
 - L'Accordo per la cooperazione nel quadro del *Sentinel Collaborative Ground Segment*;
 - le Clausole Generali e le Condizioni per la cooperazione nell'ambito del Sentinel Collaborative Ground Segment con i Paesi Partecipanti della Componente spaziale del programma GMES;
 - l'Annesso Tecnico;
 - i "Termini e le Condizioni per l'uso e la distribuzione dei dati delle Sentinelle".
- Nell'Annesso tecnico di tale Accordo vengono individuate le prime due funzioni del *collaborative italiano*:
 - la realizzazione dell'archivio *mirror* di interesse nazionale;
 - la disponibilità del dato in (*near*) *real time* attraverso l'utilizzo diretto dell'antenna di ricezione in banda X e EDRS

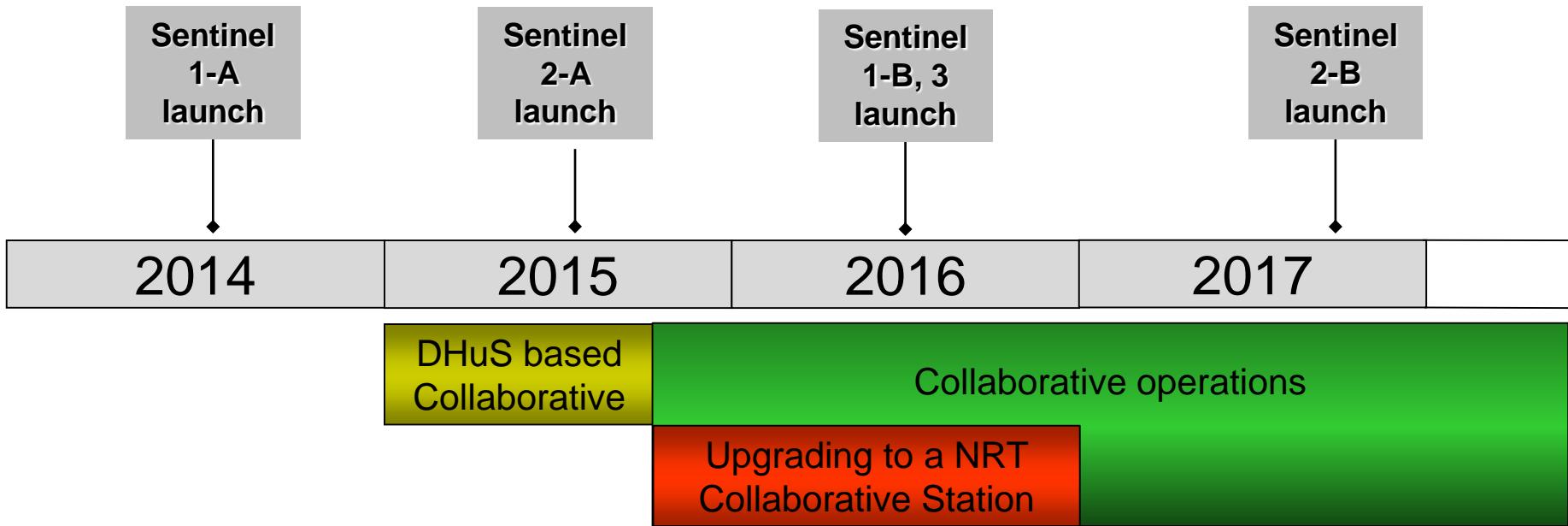






TIMELINE

Earth Observation



Collaborative GS is very important also in the GS evolution strategy: holds a pivotal role in a simple approach to testing and demonstrating many GS federation concepts e.g.

- Collaborative GS is based on common blocks developed by ESA
- space infrastructures federation can be initiated hosting national missions product in collaborative GS
- NRT collaborative station developments is based on service contracts to industry
- DHuS collaborative uses a federable processing services (G-POD cloud)
- Support of the Thematic Exploitation Platform (TEP) concept at national level



- Il Collaborative Ground Segment è finanziato da ASI su fondi Nazionali funded initiative e supportato da ESA attraverso il programma GSC-3.
- Deve garantire l'accesso e la disponibilità dei dati Sentinel alla Comunità nazionale (istituzionale, scientifica, industriale).
- Può diventare il nucleo di una struttura a rete, che comprende altri centri nazionali che utilizzano i dati Copernicus (prodotti collaborative e cal/val).
- È di base allo sviluppo delle capacità di servizio nazionali.