



Copernicus - An EU Space Programme

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Outline



- ***Copernicus – an introduction***
- ***Governance***
- ***Data management***
- ***User requirements next generation***

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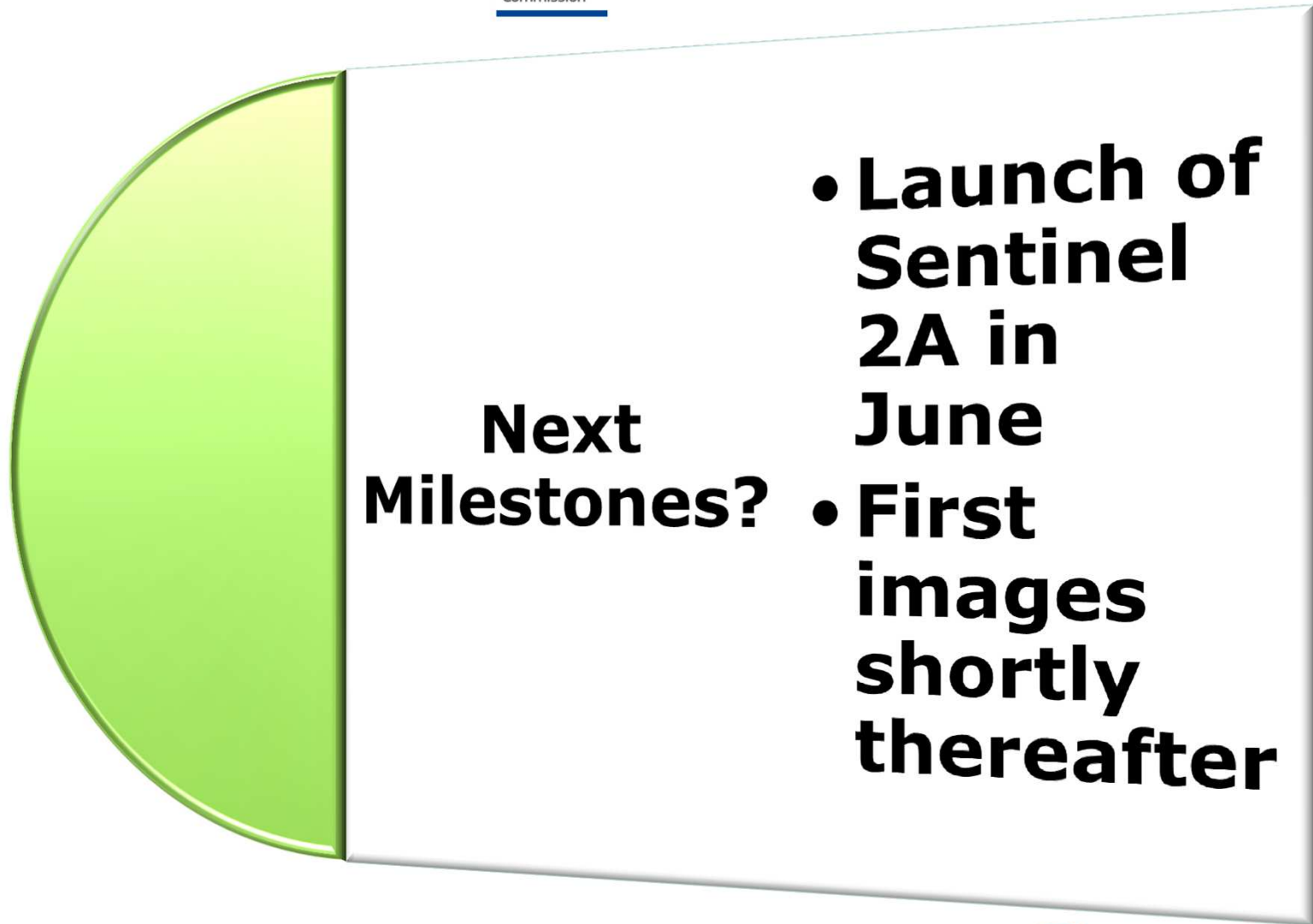
Copernicus current status



Six Milestones reached:

- **Budget of € 4.3 Bn for 2014-2020**
- **Full, free and open access to data**
- **Successful launch of Sentinel 1A**
- **Programme Regulation adopted**
- **First images presented**
- **Funds delegated to ESA**

Copernicus current status



**Next
Milestones?**

- **Launch of Sentinel 2A in June**
- **First images shortly thereafter**



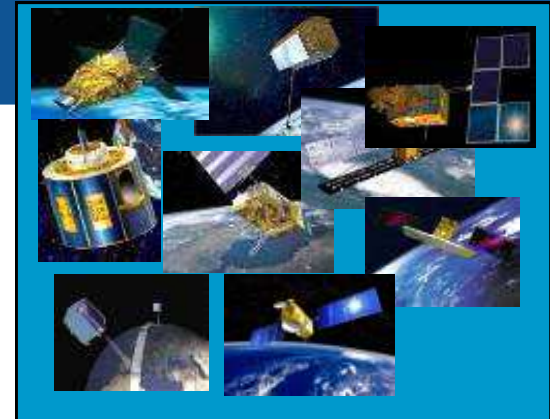


Sentinels



European Commission

6 Copernicus Services need Earth Observation data ...



Contributing Missions



in-situ Data

... to make value-added products



Outline

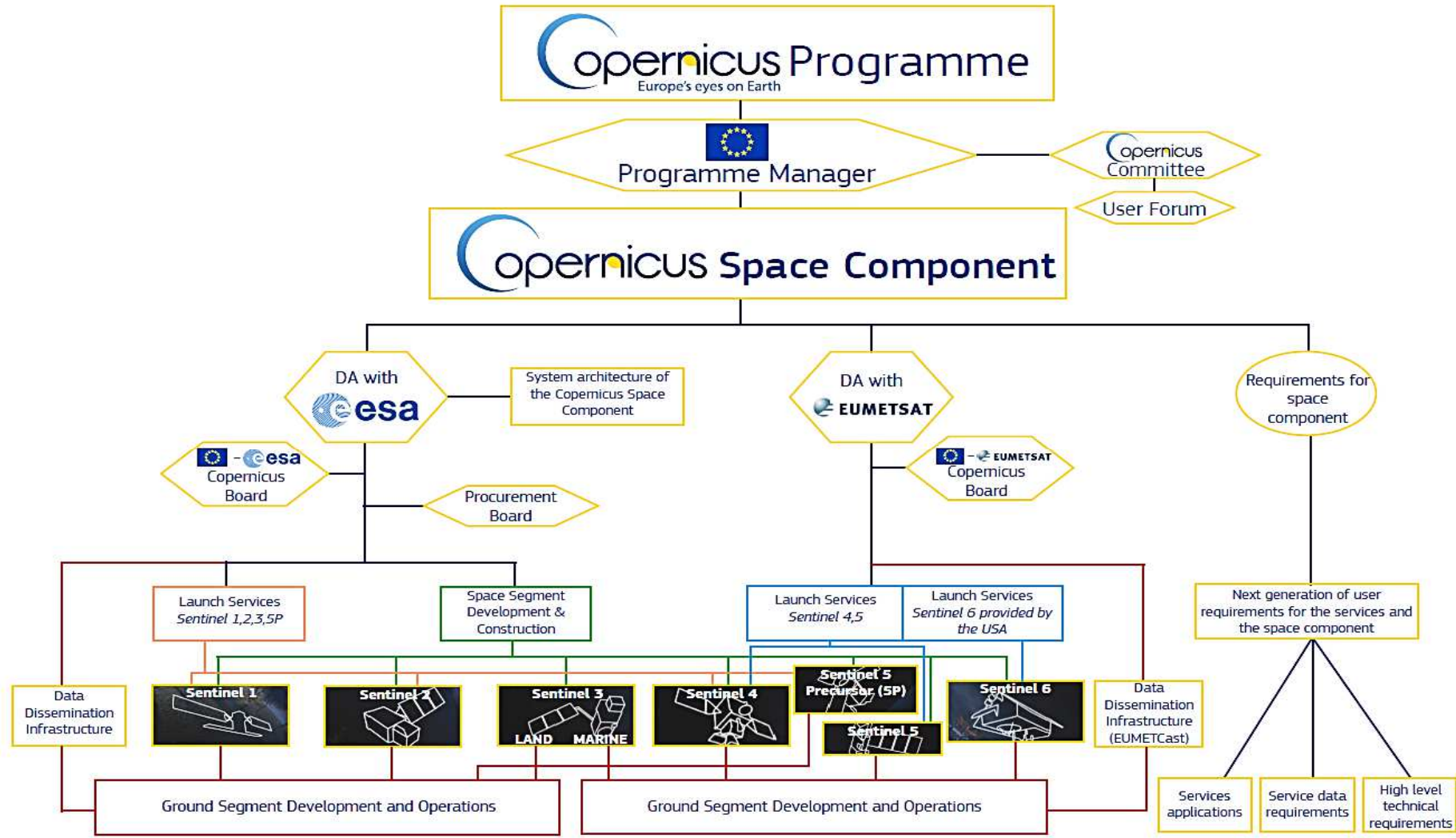


- *Copernicus – an introduction*
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Entrusted Entities



Space



Legend:
 Implementation made according to the...
 - - - Commercial contracts
 Grants
 [] Copernicus component
 [] Copernicus Board
 [] System architecture of the Copernicus Space Component
 [] Procurement Board
 [] Launch Services Sentinel 1,2,3,5P
 [] Space Segment Development & Construction
 [] Launch Services Sentinel 4,5
 [] Launch Services Sentinel 6 provided by the USA
 [] Data Dissemination Infrastructure
 [] Data Dissemination Infrastructure (EUMETCast)
 [] Ground Segment Development and Operations
 [] Ground Segment Development and Operations
 [] Next generation of user requirements for the services and the space component
 [] Services applications
 [] Service data requirements
 [] High level technical requirements

Deployment Schedule

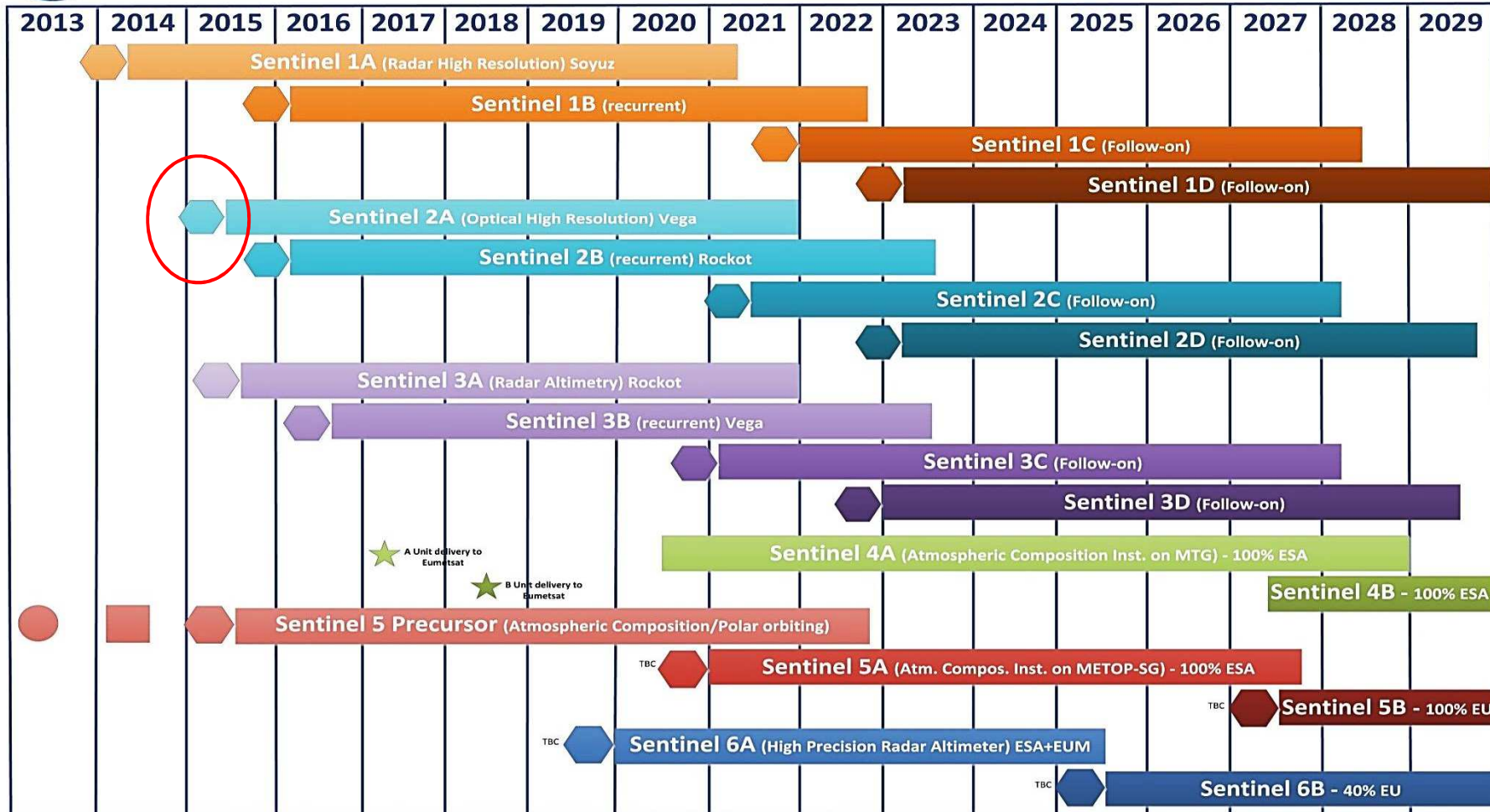


European

Status 23rd January 2014



Copernicus Constellations Deployment Schedule



Legend: ○ Preliminary Design Review □ Critical Design Review ◻ Flight Acceptance Review

Six Copernicus services are necessary to meet user needs

Earth monitoring



Land Monitoring



Marine Environment
Monitoring



Atmosphere Monitoring

Transversal services



Emergency Management



Security

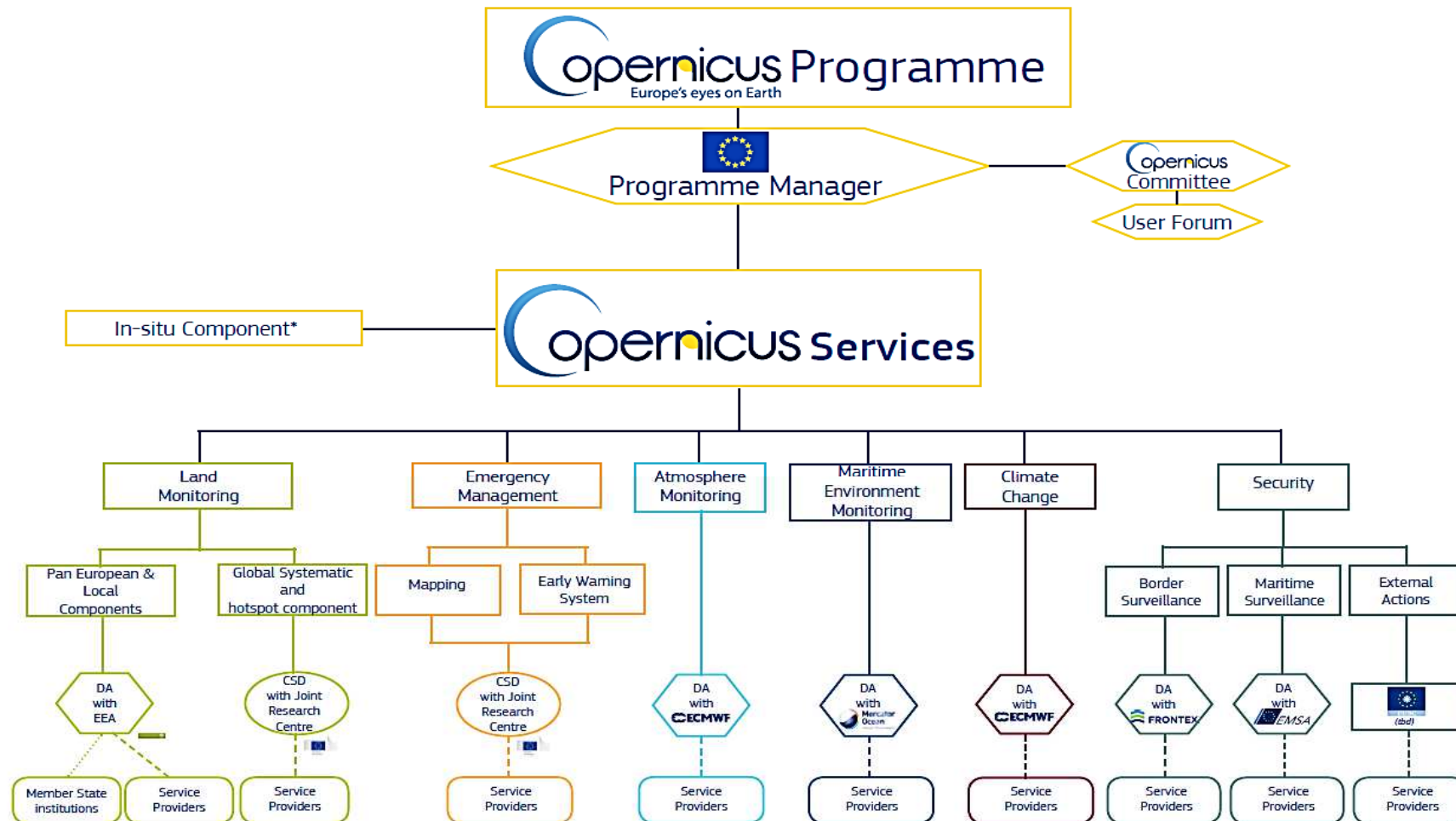


Climate Change

Entrusted Entities



Services



Legend:
 Implementation mode still to be defined
 --- Commercial contracts
 State
 [] Operational component
 [] Service Providers
 [] Direct Management
 [] Indirect Management
 [] Shared Management
 * Transition to PM
 [] - European agencies
 [] - Other stakeholders
 [] - Research Team Agency
 [] - Joint Undertaking - business to generate for the beneficiaries of Member States in the EU
 [] - EEA - European Environment Agency
 [] - ELSC - European Union Satellite Centre
 [] - FRONTEX - The European Agency for the Management of Operational Cooperation at the External Borders of the Member States of the European Union
 [] - Copernicus - The European Centre for Medium-Range Weather Forecasts

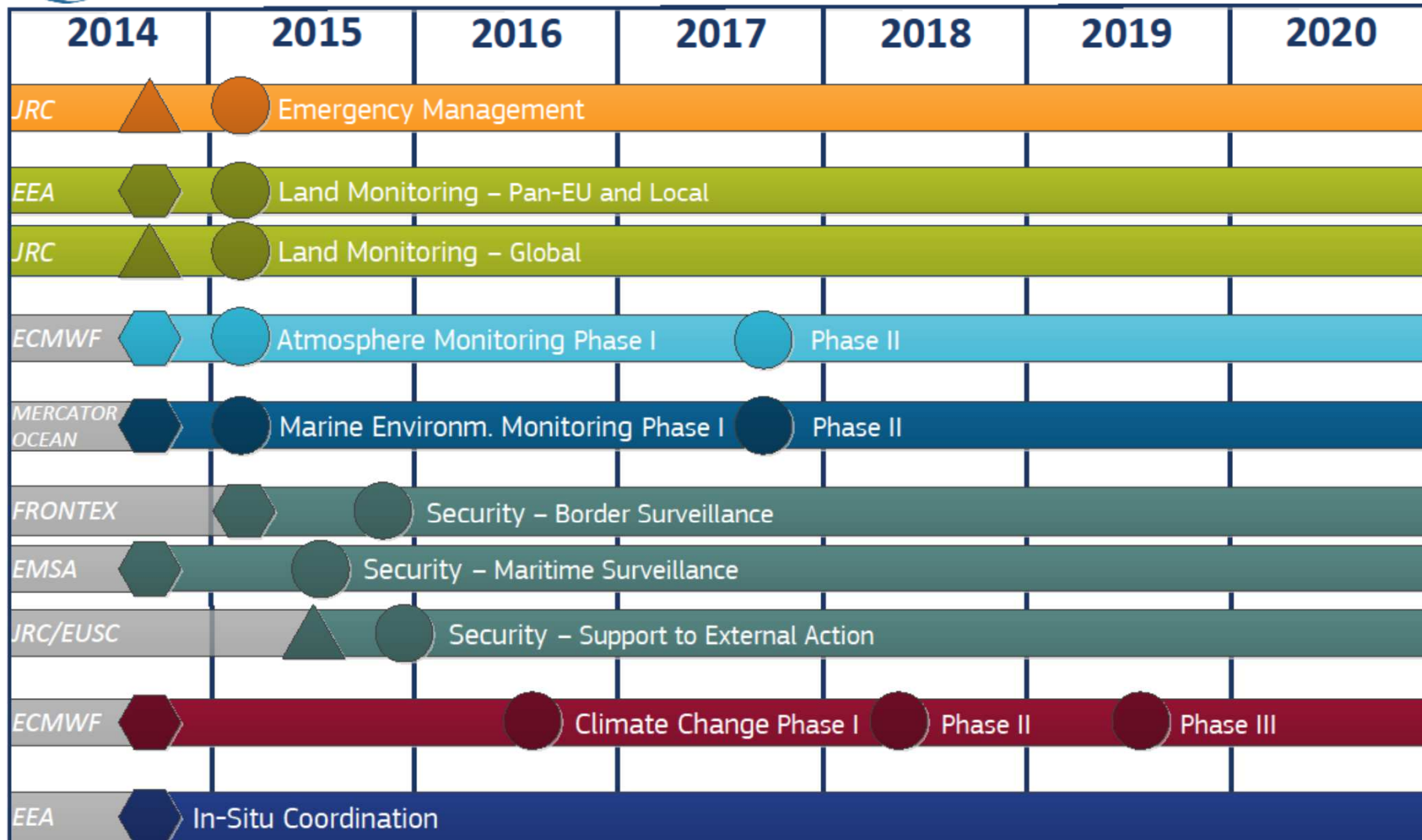
Services Deployment



Status 1st September 2014



Copernicus Services Implementation Schedule



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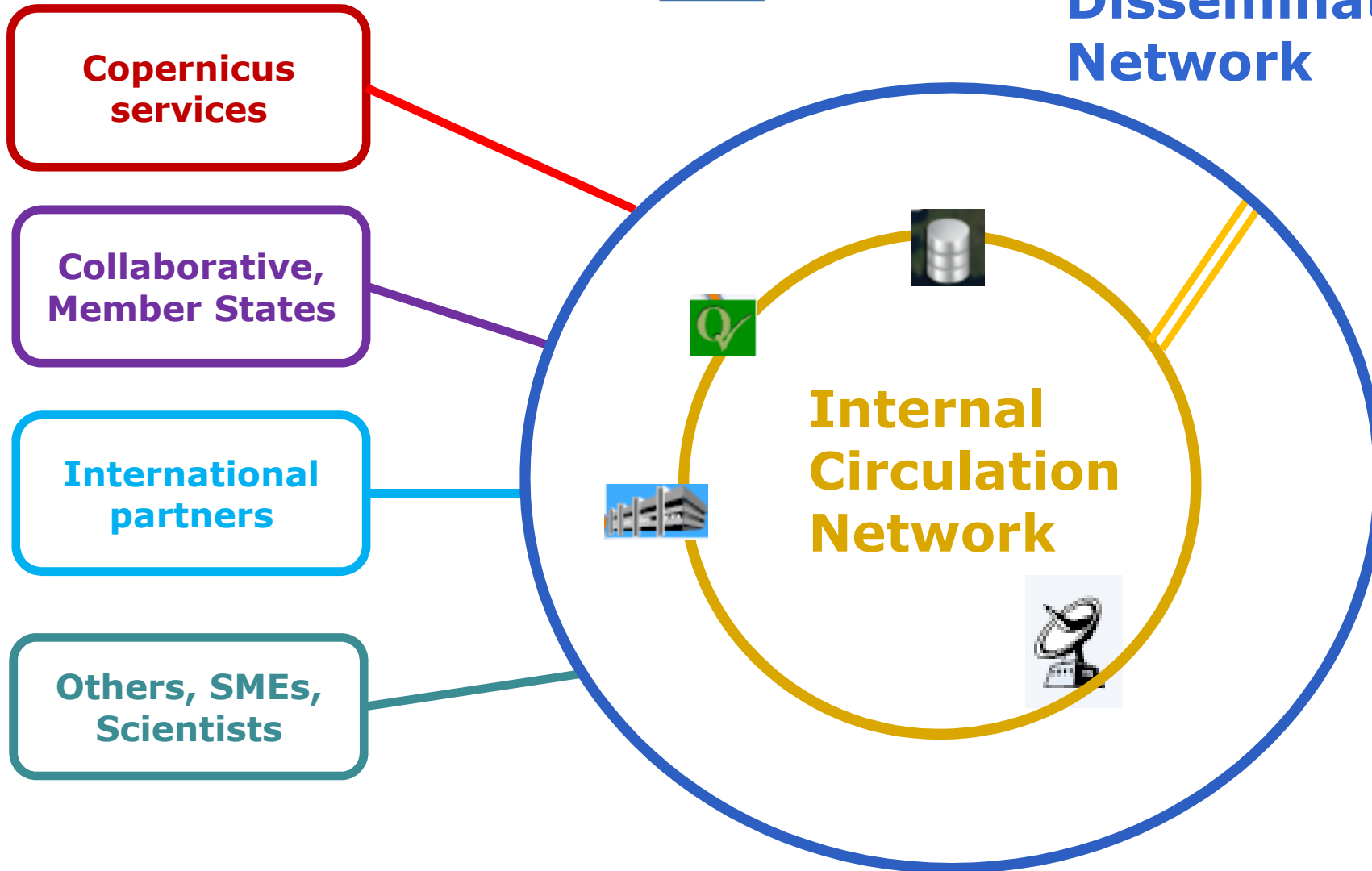
Two complementary approaches:

- ***Bringing the data to the user:*** web portal, mirroring of the data – high bandwidth connection needed (e.g. Géant)
- ***Bringing the user to the data:*** cloud computing ('hosted computing') – upgrade of the Copernicus core ground segment needed

Data Dissemination



Dissemination Network



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- **Future User Requirements for next generation of the Sentinels**
 - **Service** specifications update in response to future user requirements
 - **Service data** requirements in response to updated service specifications
 - **Technical requirements** for the space component – together with ESA
- **Should include all 6 thematic domains, i.e. the 6 Copernicus Services**

Framework Service Contract has been awarded to:

- **GMV Aerospace and Defence S.A.U. (Coordinator)**
 - **SpaceTecPartners**
 - **FDC (France Développement Conseil)**
- **Contract was concluded on 5/12/2014**



- **Definition of 3 specific contracts to implement the Framework Contract**
- **Signature of the 1st specific contract by March 2015.**
- **Title of 1st specific contract:**
"User requirements & service specifications to be fulfilled by the next generation Copernicus Space Component"

A satellite view of Earth from space, showing a curved horizon and swirling cloud patterns over a blue ocean. The text is overlaid on the left side of the image.

**Thank you for your
attention**

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Twitter: [@Copernicus EU](https://twitter.com/CopernicusEU)**

