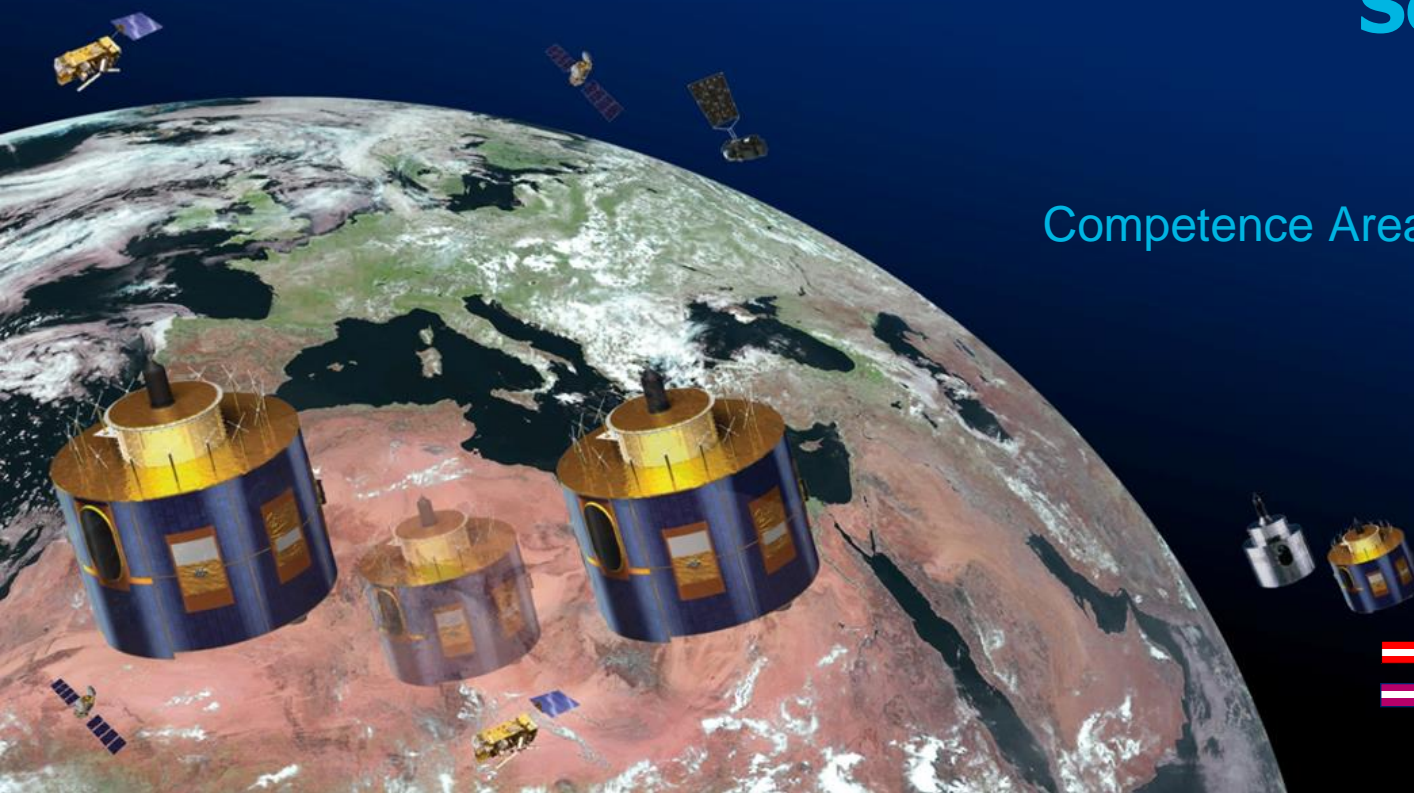


Evolution of the EUMETSAT Data Services Strategy

Lothar Wolf

Competence Area Manager for Data Services



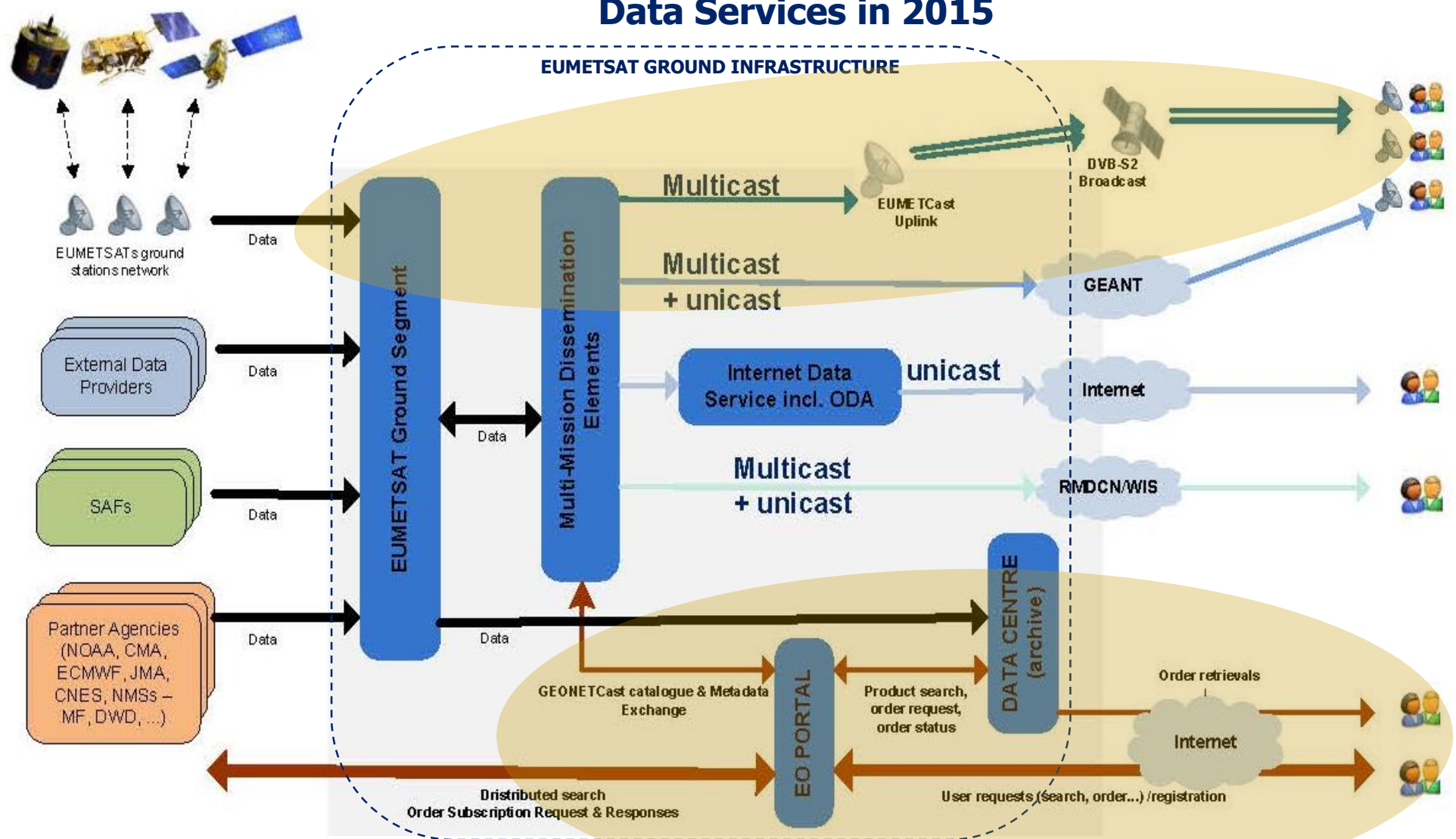
Drivers for an evolution of the Data Services Strategy

The high level key drivers for initiating this strategic evolution of the data services are:

1. **Fast evolution of the user's needs and expectations**: faster, more direct, more flexible data services are expected. In addition, new communities are identified (Marine, Copernicus Users) with different expectations;
2. **Member States needs**: EUMETSAT has to support its Member States that are also subject to changing user requirements;
3. **Efficient usage of data is key**: allowing increased and efficient usage of our data is a must (more users, much more data being produced and used, while remaining cost-efficient);
4. **Flexibility**: Diversity of needs calls for added flexibility / new / improved services also within our well established solutions;
5. **Future-proof solution**: the evolving needs cannot be addressed by simply adding many smaller corrections onto our current architecture. A cost-efficient maintenance and evolution scheme must be part of the overall approach as well as scalability to new missions;
6. **Continuity**: Although our established „comfort zone“ (NRT Dissemination and Archive Retrieval) will not be sufficient in long term, it will remain a key asset → Pathfinders also to improve / reinforce these existing, efficient services.

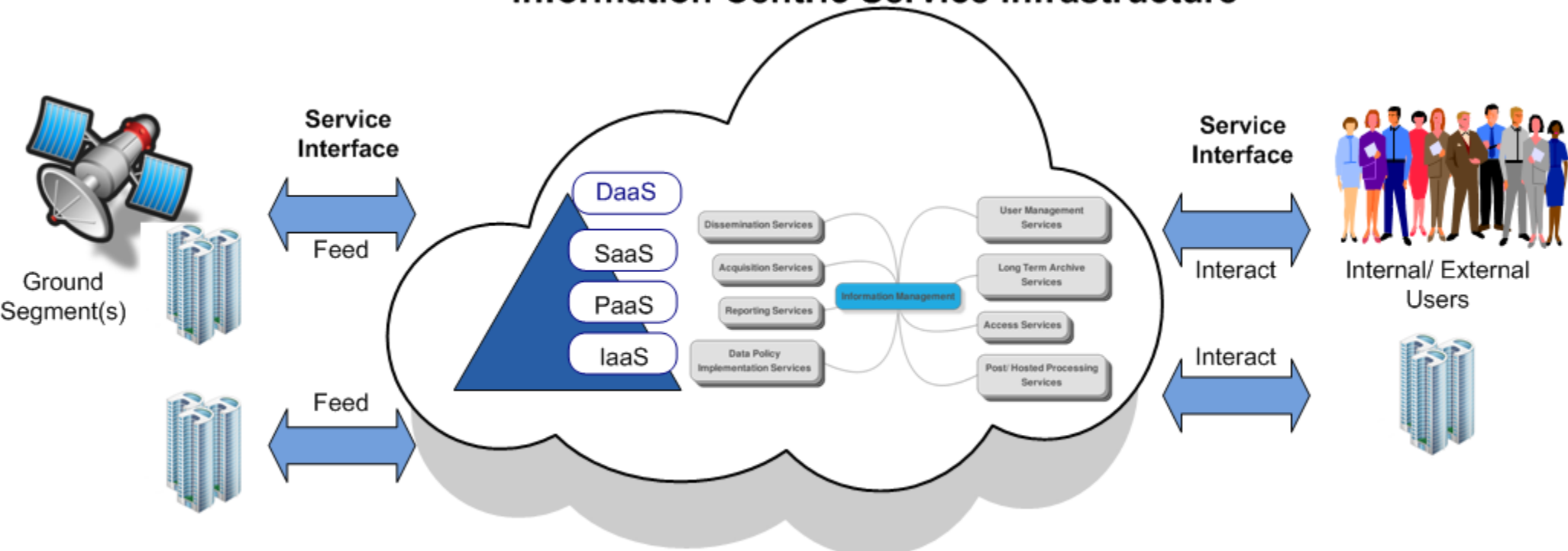
Situation "TODAY" ...

Data Services in 2015



Conceptual Vision

Information Centric Service Infrastructure



DaaS – Data as a Service, SaaS – Software as a Service, Paas – Platform as a Service, IaaS – Infrastructure as a Service

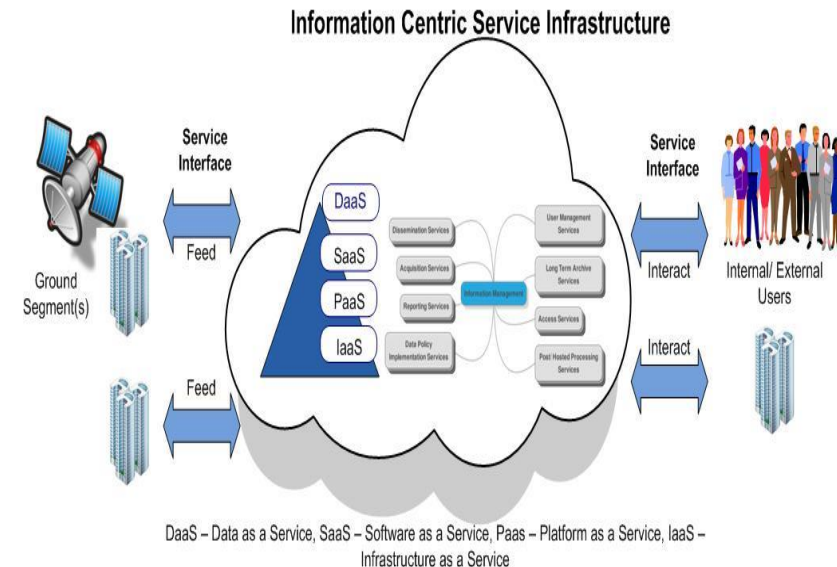
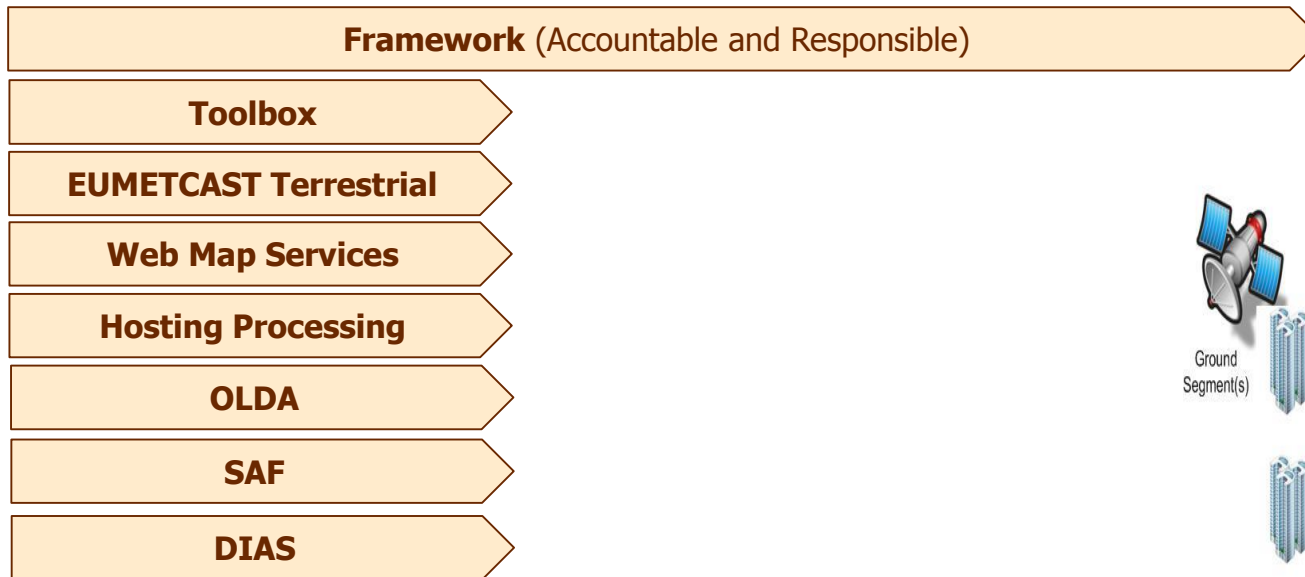
Data Service Portfolio addressing the new user needs and big-data concepts:

- Advanced near-real-time services (push services, data to the users)
- Online Data Access Services (pull services, data to the users, users to the data)
- “Processing where the data is” concept
- Hosted Processing Services (users to the data)
- Toolbox Services i.e. Format conversions, sub-sectioning (users to the data)
- User management services
- Hosted on a generic Ground Segment computing infrastructure (cloud principles based infrastructure services)

Approach

1. Definition of an Organisational Objective
2. Involvement of EUMETSAT Member States
3. Definition of a phased logic
 - Orientation & Setup Phase
 - Pathfinder Phase
 - Operational Implementation Phase
4. Setup of an internal appropriate management structure

Goal Implementation via Pathfinder Projects

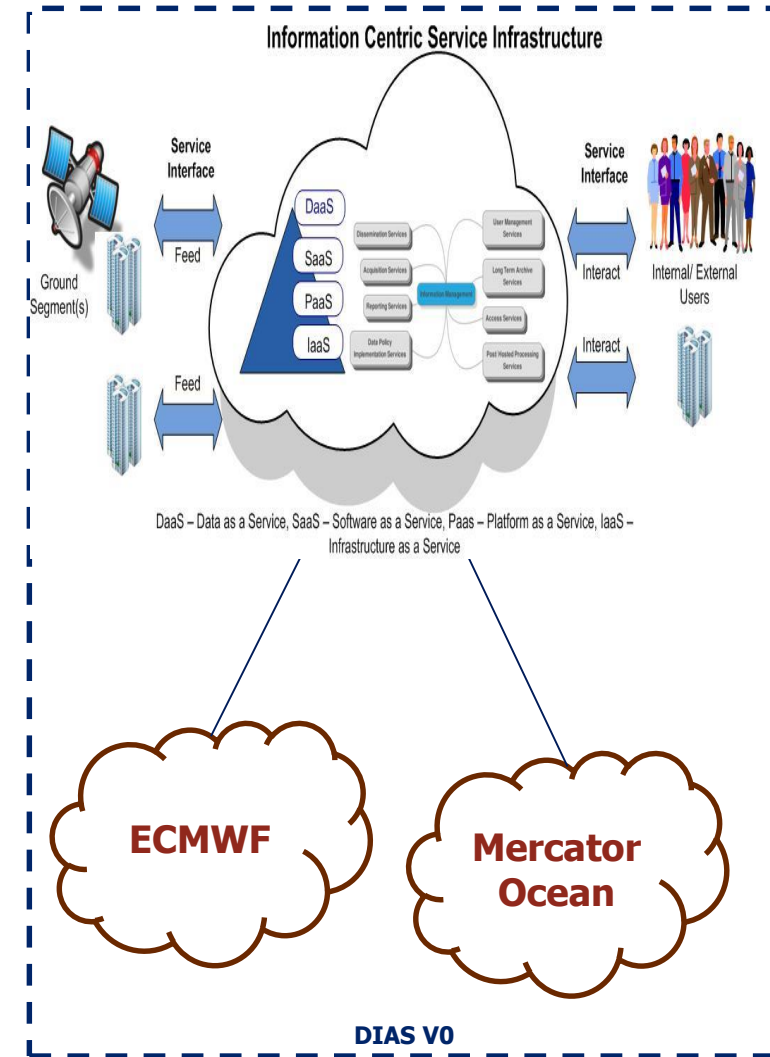
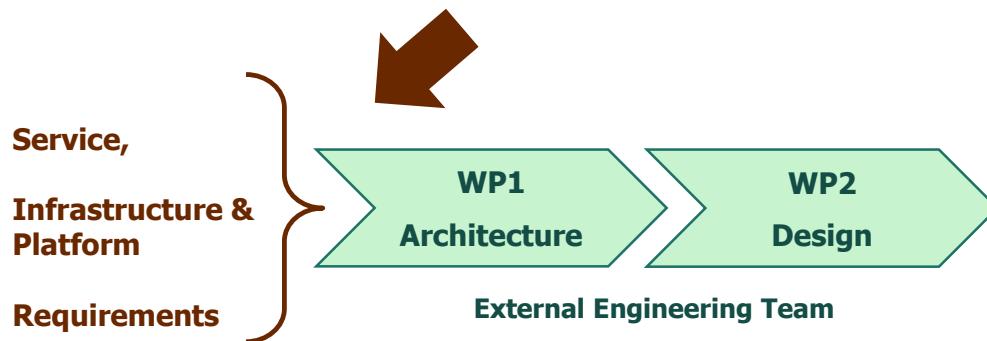
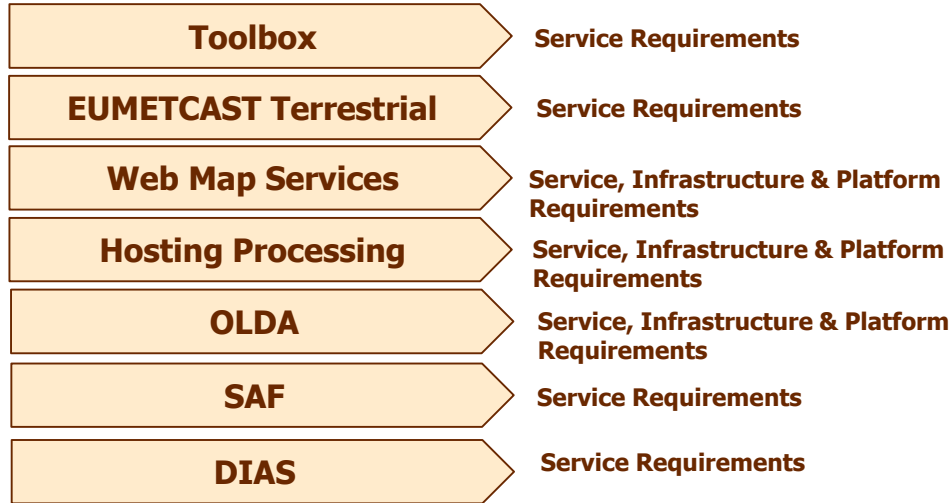


Framework: Management team responsible for the implementation of the Roadmap, including legal and policy aspects

Pathfinders:

- **Toolbox:** To allow format conversion and sub-sectioning functions on data (online, web based, at user end)
- **EUMETCast Terrestrial:** Further evolution of the concept to address more large volume near-real-time data dissemination
- **Web Map Services:** Interactive image services, overlays, combination of data
- **Hosting Processing:** Self provisioned hosted processing platform, portfolio of platform types and associated services and integrated tools i.e. above mentioned toolbox
- **OLDA:** Online Data Access to all of EUMETSAT data, allowing central data holding on which all processing is applied (processing where the data is), the hosted processing platforms will utilise the OLDA interfaces
- **SAF:** Interoperable access to SAF data, utilising above services
- **DIAS:** Data Information Access Services, EC initiative, will provide an interoperable three party based end-to-end service on Copernicus data based on a distributed hybrid cloud concept

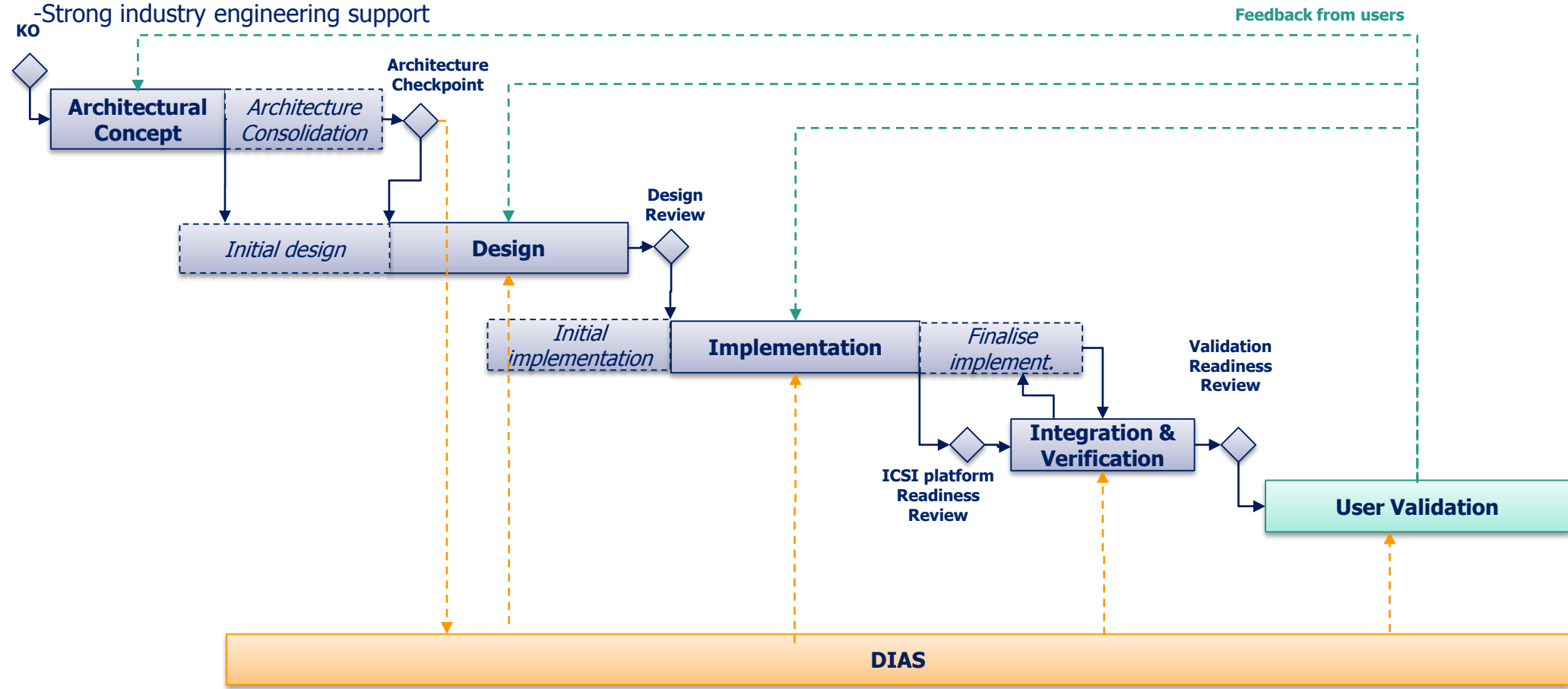
Requirements, Implementation, Industrial Support



Framework development logic including DIAS

New type of innovation development process:

- Highly Iterative
- User feedback oriented
- Rapid development with a versioning approach (V0, V1, Vn)
- Strong industry engineering support



Roadmap Schedule

- Roadmap definition and approval phase Q2 2015 – Q3 2016
- Pathfinder phase start Q4 2016
- Industry support tenders Q1 2017
- Pathfinder phase project execution start Q1 2017
 - Architecture Checkpoint (May)
 - Design Review (June)
 - Platform readiness Review (October)
 - User Validation Readiness Review (December)
- User Validation Phase Q1 – Q2 2018
- Final Service Specification and System level requirements for approval by Member States Q4 2018
- Q1 2019 Start of Operational Implementation Project with ramp-up of GCI infrastructure to allow hosting of operational scale services
- Q1 2020 Operational Readiness

Questions?