EUMETSAT

International Data Exchange and the transition to WMO's WIS 2.0

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Agenda

Justification

Justification and purpose of the GTS to WIS2 transition

Scope

Which activities are included in the scope of the project and which are not.

Resources

Overview of resources needed to implement the project.

Timeline

Timeline from WMO perspective and from EUMETSAT view.

Latest news

Data exchange transition from GTS to WIS 2.0 at EUMETSAT

❑Justification

The WMO Information System (WIS) became operational in 2012, and is evolving now towards its 2.0 version as a response to the growing requirements of its users. The Commission for Observation, Infrastructure and Information Systems (INFCOM-2) approved the technical specifications of WIS 2.0 as well as its implementation plan in October 2022. This was subsequently approved by WMO's Congress in May 2023

❑Purpose:

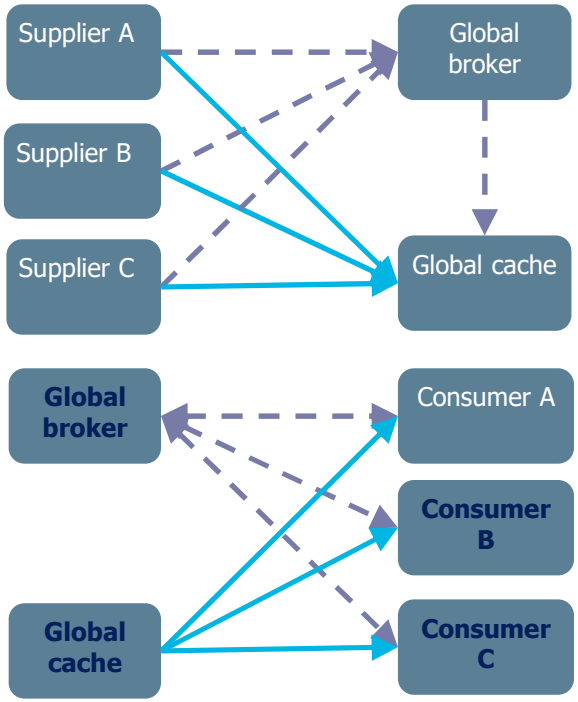
To transition EUMETSAT's current operational incoming/outgoing data flows from the current WIS/GTS architecture to the new WIS 2.0 standard.

Scope of GTS to WIS 2.0 migration project at EUMETSAT

- Establishment of a demonstration/pilot local MQTT broker for demonstrating EUMETSAT's initial capability to contribute to the WIS 2.0
- Migration of incoming traffic from GTS to a corresponding WIS 2.0 data flow
- Migration of all outgoing traffic to GTS to a WIS 2.0 compliant distribution
- Provision of an initial flow of core data not currently available via the GTS
- Provision of an initial flow of recommended data.

Architectural overview

Simple architecture: Illustrated here for core (essential) data, which will be available from a global cache. A similar mechanism will deliver recommended (additional) data directly from suppliers to consumers.



Suppliers' perspective:

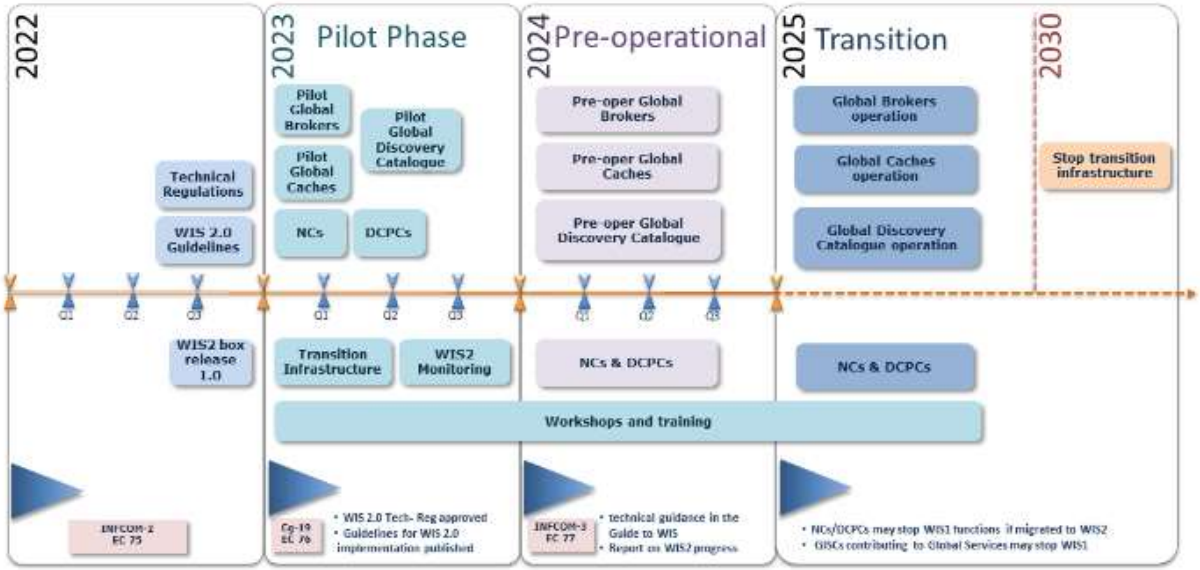
- Suppliers inform global broker of data availability
- Global broker informs global cache of data availability
- Global cache collects and caches the data from the suppliers

Consumers' perspective:

- Consumers request notification of data availability from global broker
- Global broker informs consumers of data availability
- Consumers collect data from the global cache

WMO Timeline & Project Lifecycle

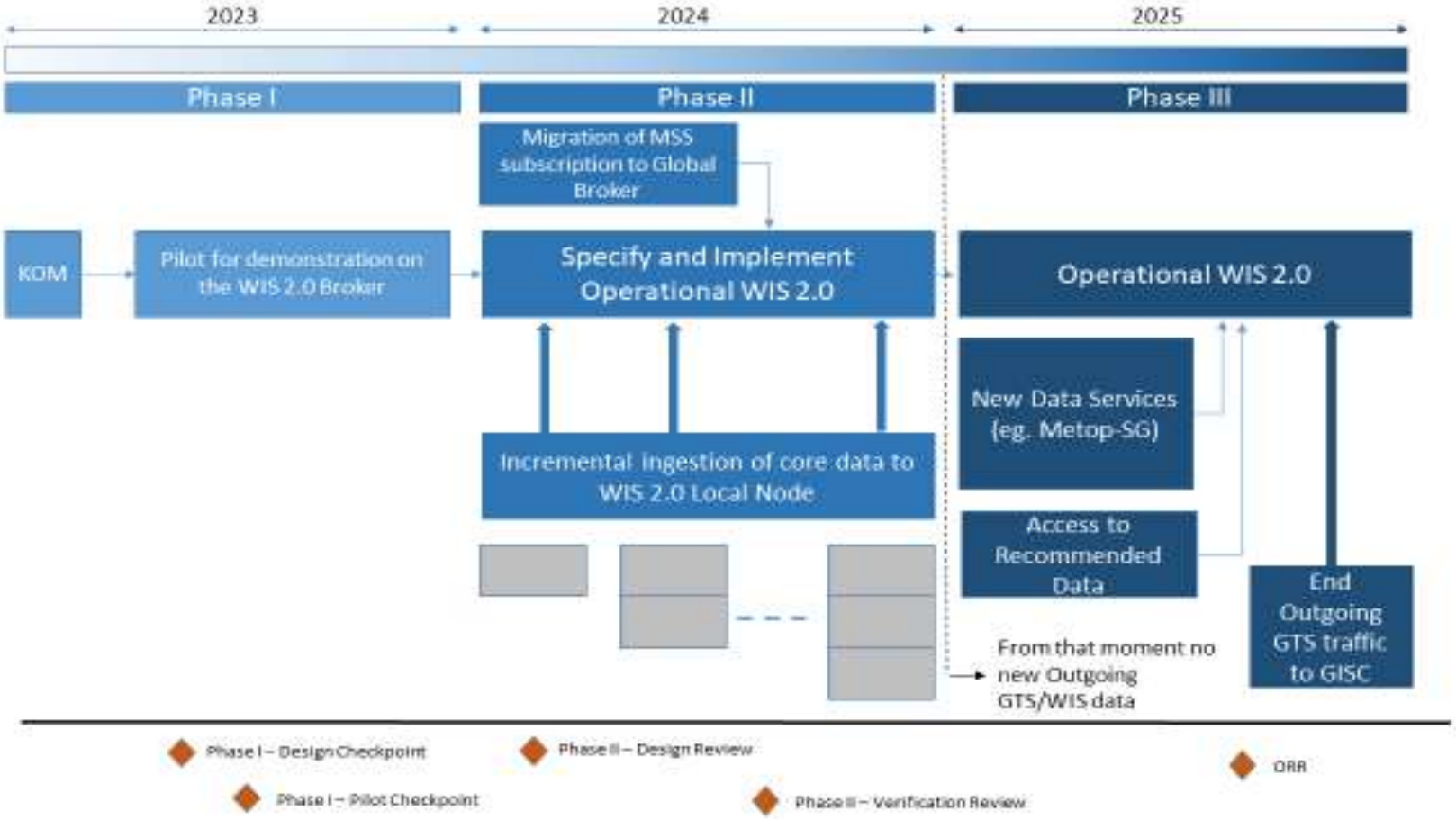
- WMO WIS 2.0 implementation timeline is as follows:



GTS to WIS2.0 Transition Project

- Global Telecommunication System (GTS) will be decommissioned by 2030.
  - NMHSs will use WIS2.0 platform for data exchange
- During Transition period
  - Mix of centres operating WIS2.0 and WIS/GTS.
  - Some centres will be running both data-sharing frameworks simultaneously

Project Lifecycle zoom-in at EUMETSAT



High level timetable for EUMETSAT activities

2023 project kick off – securing resources and visibility

prepare discovery metadata

activate pilot data provision

2024 specify and implement WIS 2.0 local node

migrate MSS subscription to global broker

incrementally add existing core data to local node

Current status

- Participation in coordination of global pilot projects – EUMETSAT's transition is one of these
- EUMETSAT WIS 2.0 pilot node running officially since **19/09/2023**
- Collaboration with ESA/ESOC about a pilot WIS 2.0 service for space weather exchange successful. Initial SWx data (SOSMAG on GEO-KOMPSAT-2A) available via ESA on EUMETSAT WIS 2.0 pilot node
- Explaining WIS 2.0 to core users at CGMS WGIV, ITSC, DBNet, CEOS, WMO ET-SSU and AOMSUC
- Already running:
  - Global Brokers, Caches, Metadata Catalogues and Monitoring Centres
  - WIS 2.0 nodes providing core data
- There are plenty of data already available on WIS 2.0

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Thank you!

Questions are welcome.