



Global satellite data exchange in the era of WIS 2.0

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Project background

Review of WIS 2.0 architecture

Current Status

Points for ITSC



WMO's next generation information system (WIS 2.0) is operational since the start of 2025. This brings with it a change of paradigm for both data providers and consumers; it also presents a number of opportunities for the meteorological satellite user community. The concepts and overall architecture of WIS 2.0 are introduced, together with a description of the successful early use of WIS 2.0 for the exchange of satellite and space weather data. We will consider what changes will happen in the coming months and years, and how the user ITWG community will be able to capitalize upon them.



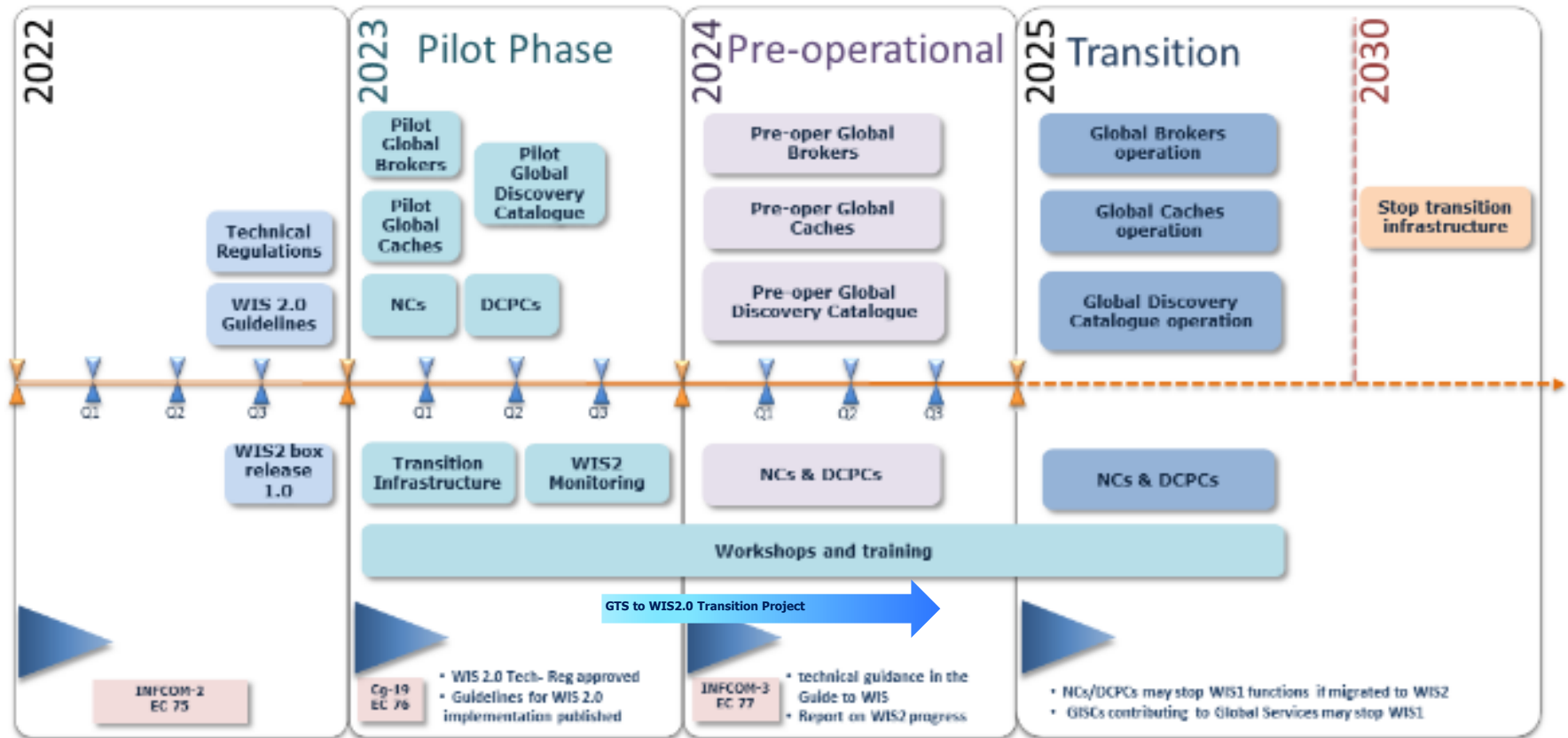
- **Pre-operational phase concluded** at the end of 2024;
- **Now in transition phase** 2025 to 2030;
- Manual on GTS is frozen, together with associated GTS catalogue:
 - No new data on the GTS**
 - No new abbreviated bulletin headers**
- Data can still be added if bulletin headers already defined



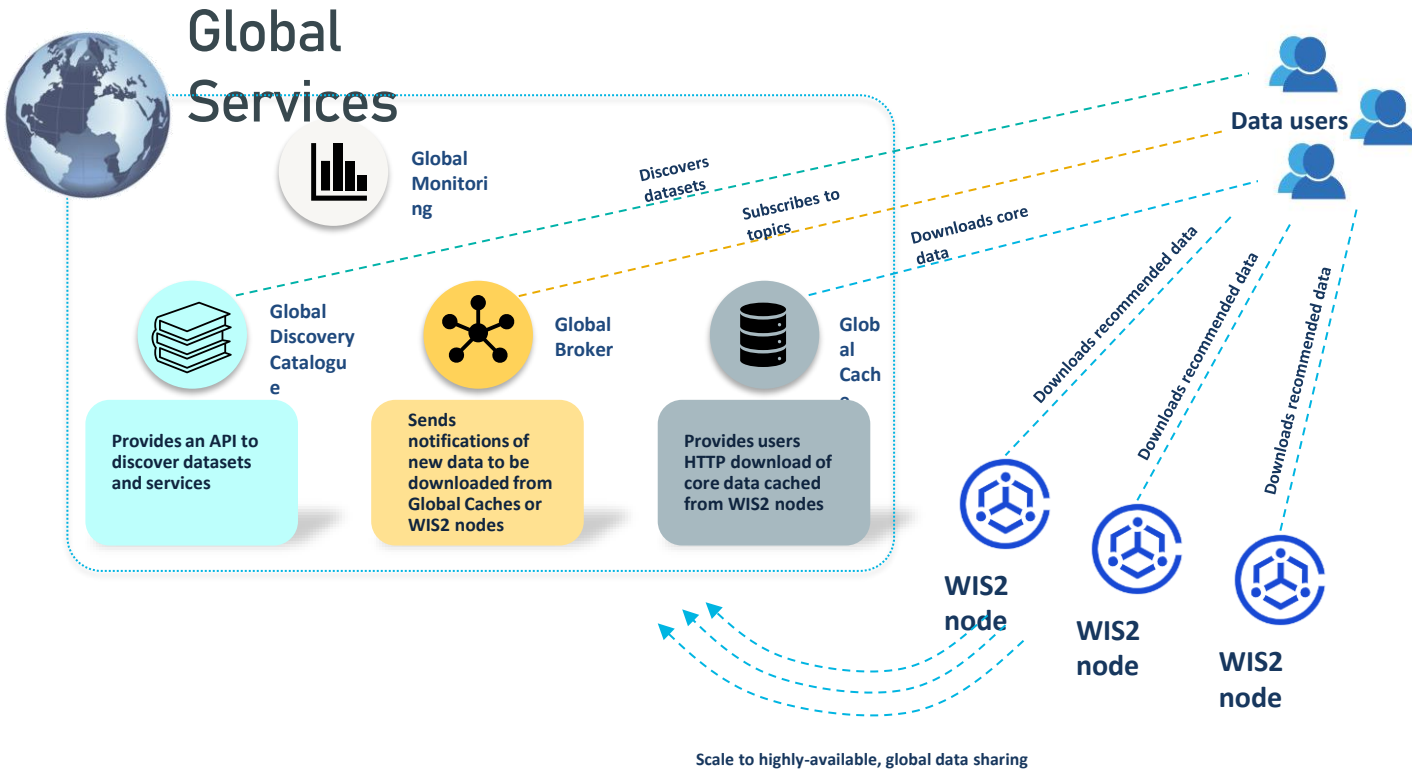
Satellite data providers are providing data via WIS 2.0
*INSAT-3DR winds from **IMD***
*FY-3E GNOS data from **CMA***
*DBNet data from **NOAA/CIMSS** and **MétéoFrance***
*SEVIRI images (and IASI 3D winds) from **EUMETSAT***



- WMO WIS 2.0 implementation timeline is as follows:



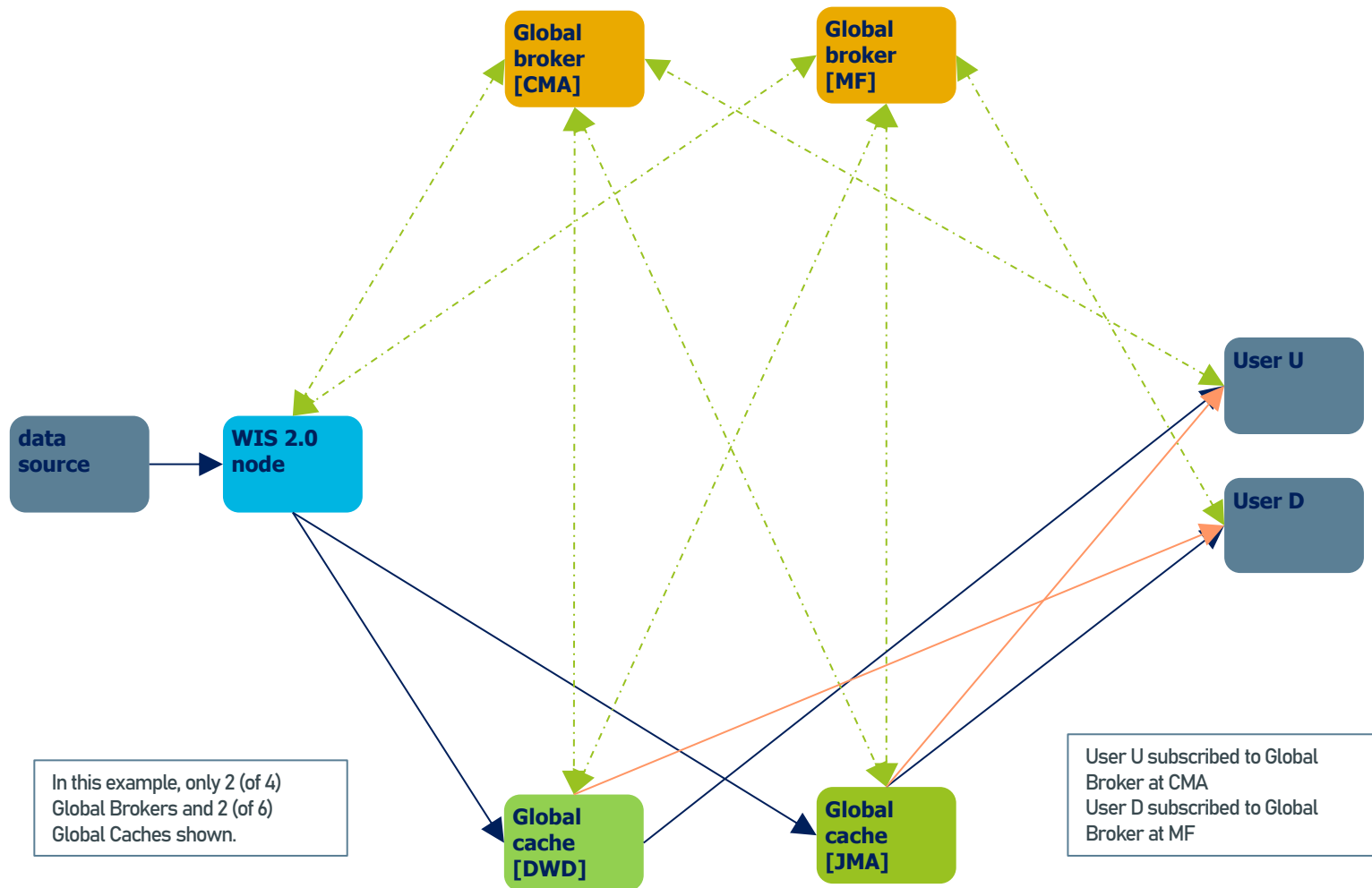
WIS2 Components: Global Services





Core data from source to WIS 2.0 users via node and cache

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- **Incoming** data flow from GTS to ground segments to be replaced with subscriptions to global brokers and ingestion scripts;
- **New outgoing** New “GTS” data flows starting after **2024** have to be made available via WIS 2.0;
- **All outgoing** GTS data flows to be made available via WIS 2.0 by **2030**.

Data via WIS 2.0 can be larger than GTS limits and is not limited to BUFR/GRIB. This will bring many users and simplify data access.

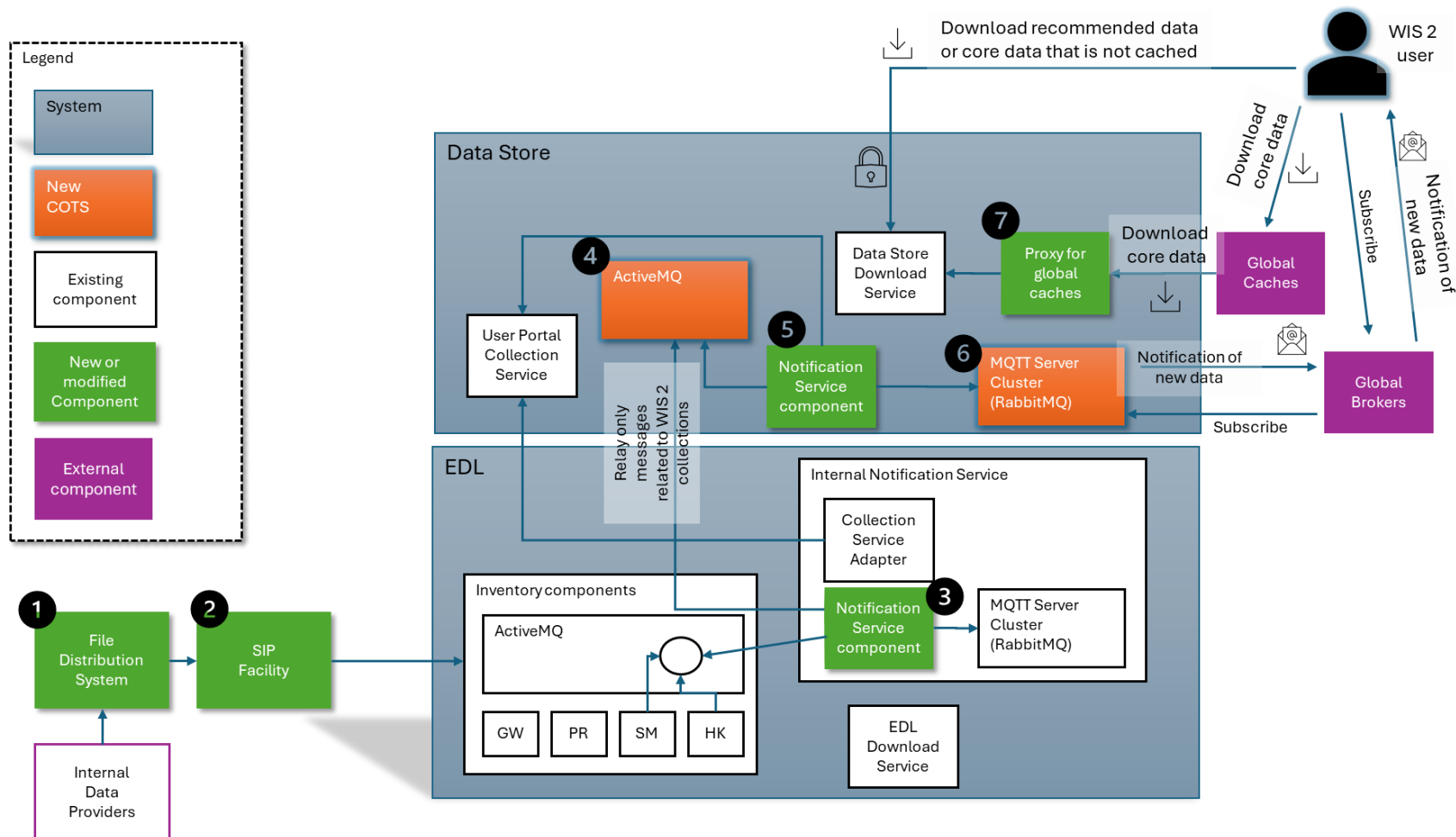


- WIS 2.0 presented to core users at CGMS, ITSC, DBNet, CEOS, ET-SSU, AOMSUC, and GODEX_{NWP}, and individually with CIMSS, FMI, MOSDAC, soon NCMRWF
- Operational WIS 2.0 centres:
 - 4 Global Brokers, 6 Global Caches, 3 Global Discovery Catalogues and 2 Monitoring Centres
 - 71 WIS 2.0 nodes providing core (and sometimes recommended) data
- There are plenty of data already available on WIS 2.0
- First EUMETSAT discovery metadata successfully published (11/03/2025)



EUMETSAT WIS 2.0 node using EDL and Data Store

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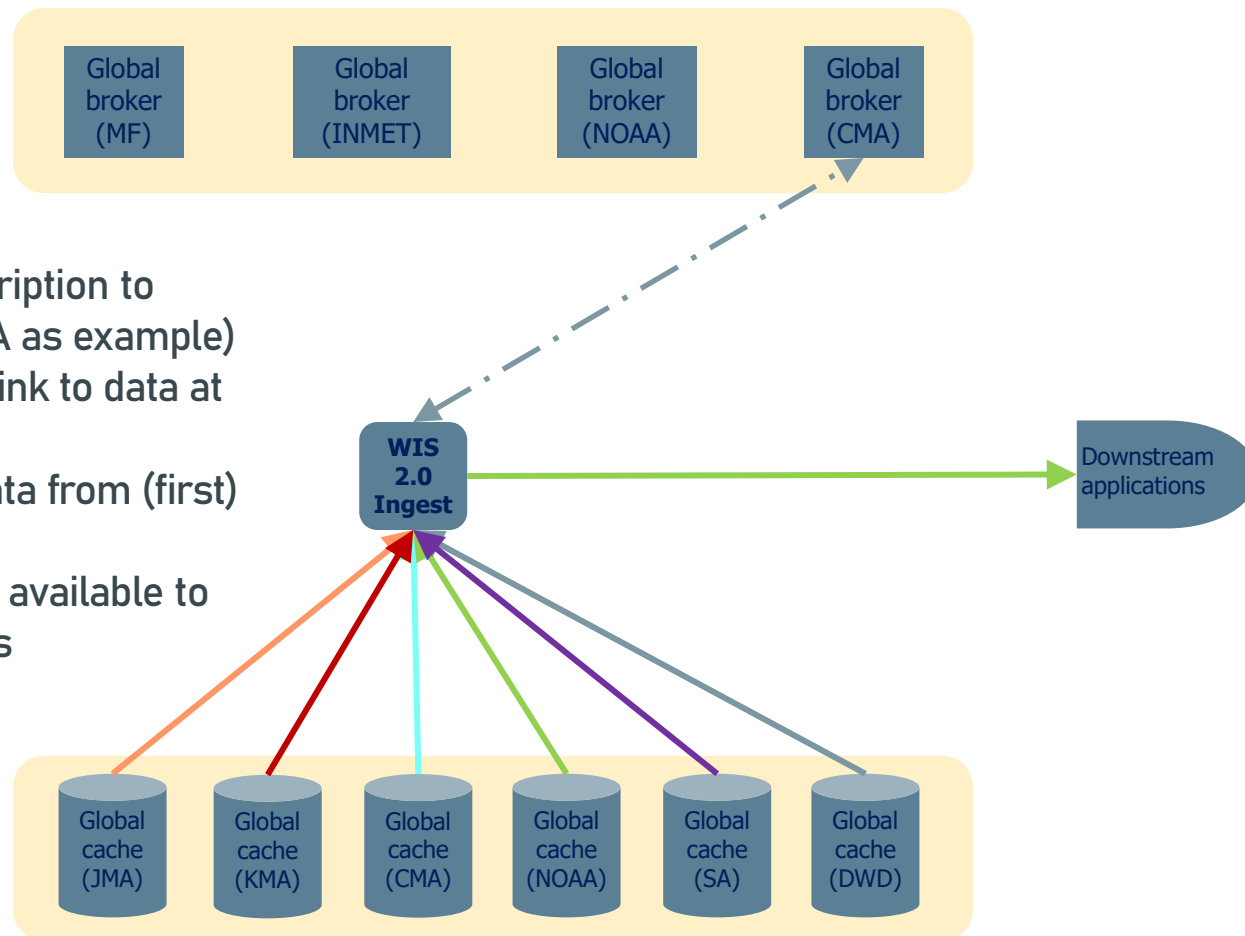




Generic WIS 2.0 incoming data flow – block view

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- Example showing subscription to Global Broker (here CMA as example)
- Global Broker provides link to data at multiple Global Caches
- Ingest client retrieves data from (first) one of these
- Ingest client makes data available to downstream applications



Example topic: `cache/a/wis2/fr-meteofrance/data/core/weather/space-based-observations/metop-b/mhs`



There are already the first satellite data on WIS 2.0
More data are coming all the time.

Q: Are providers actively using this opportunity to share their valuable data and products?

Q: Are consumers looking to WIS 2.0 as a source of data? There's nothing new coming on the GTS



Thank you!
Questions are welcome.