Working Group II
CGMS-53 PLENARY WEEK

hosted by EUMETSAT
2-6 June 2025

Coordination Group for Meteorological Satellites

CGMS

Key actions to focus on during 2025-26

To articulate how MW missions with different frequencies should be addressed and visualized in the CGMS baseline and risk assessment

Based on rapid decline in the number of satellites equipped with CERES instruments analyse status and development of Outgoing Longwave and Shortwave flux measurements (in contact with GEWEX)

To investigate other capabilities for UV limb sounding to complement JPSS to be discussed at intersessional meetings – Requesting WCRP Programme on Stratosphere to organise an intersessional talk.

AI Applications: Significant efforts being dedicated to AI in all CGMS Science Working groups and IPWG, IROWG will submit AI use cases for presentation at the CGMS-53Plenary → follow-on action

Greenhouse Gas Monitoring: Coordinate gaps in greenhouse gas monitoring via collaboration with WGClimate, GSICS, and WMO programs

WGII leadership

New co-chair nomination to replace Dr J.V. Thomas, ISRO

After the stepdown former WGII co-chair J. V. Thomas, JMA has nominated Mr Takuya SAKASHIA for the successor.

Mr. Takuya SAKASHITA
Head, Satellite Application and Analysis Division, Meteorological Satellite Center of JMA

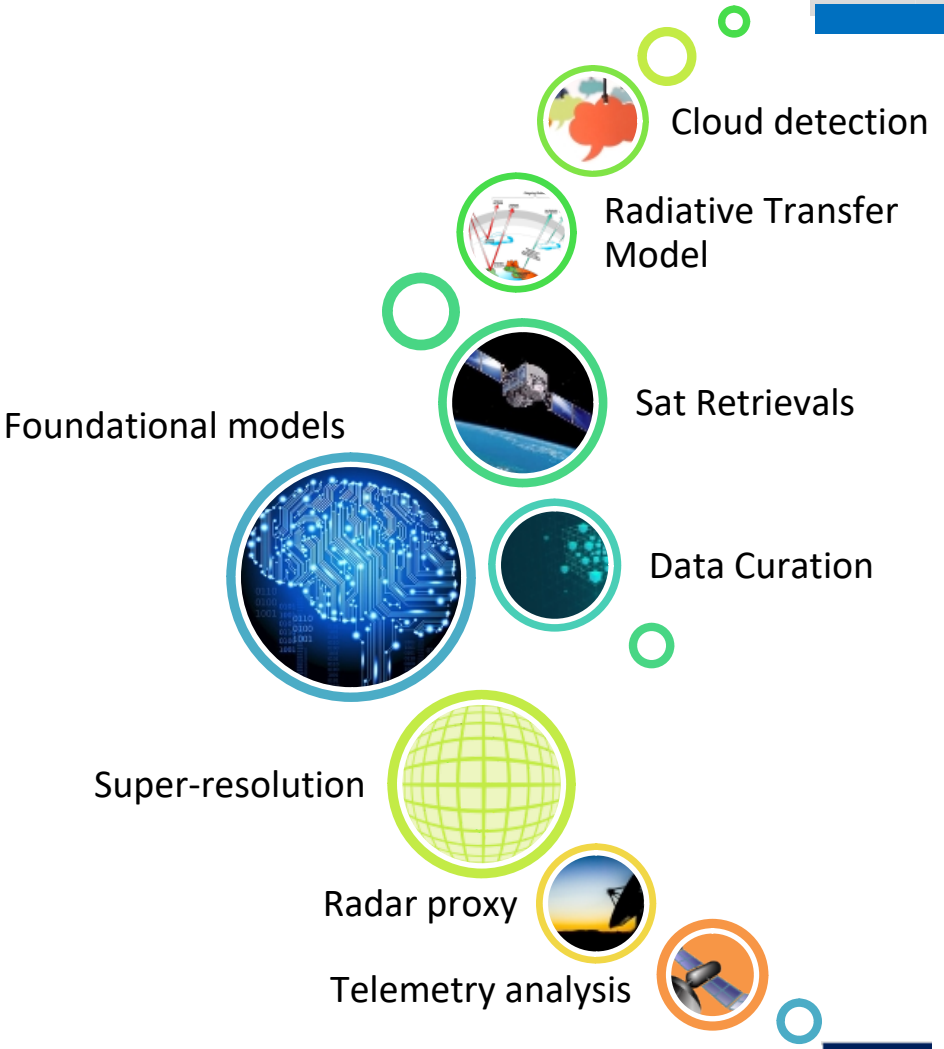
Status of WGII leadership

Name (agency)	Position
XU Na (CMA)	Co-chair
Takuya SAKASHITA (JMA)	Co-chair (nominated)
Paolo Ruti (EUMETSAT)	Rapporteur
Andrew Heidinger (NOAA)	Rapporteur

AI landscape

This cascade of use cases demonstrates ML applications across agencies.

Other key areas feature MLops and in the near future agentic AI for data access, extraction, and tailored delivery.



WGII / INTERNATIONAL SCIENCE WGs

WGII
DATA & PRODUCTS

IPWG

Shared advances in AIML, fostering global merged products making use also of new CubeSat observations. Emphasized the need for a core reference satellite (e.g., GPM) for intercalibration and validation of precipitation products, also considering challenges with microwave sensor diversity and the need for benchmarking.

IROWG + ROMEX

ROMEX findings demonstrate that while impact studies recommend a minimum of 20,000 daily occultations, real-data experiments show forecast improvements continue up to 35,000 profiles/day
→ see full presentation from ROMEX.

Need to assess the impact for NWP of combined IR, MW and RO data

WGII / INTERNATIONAL SCIENCE WGs

WGII
DATA & PRODUCTS

ITWG and IWWG

Both of these groups have their own "plenary" the weeks before the CGMS-53 plenary, hence, there will be a very late input to CGMS-53 plenary.

IESWG

This new science working group was endorsed in 2023 for an initial two-year period and is now expected to report to plenary on next steps. There are clear use cases, such as MW emissivity problem and snow treatment, that make the continuity of the group relevant.

GSICS EP

i) GSICS is now progressing on the standardised reporting of performance of sensors and developing intercalibration standard reporting procedures for microwave imagers and microwave sounders → see full presentation from GSICS

ICWG

Recommendation - Endorsement for the GEO-Ring intercomparison efforts to maximize participation from space agencies, and establish a data-sharing agreement to enable the open, free, and near-real-time distribution of GEO-Ring L1g data.

CLIMATE AND GREENHOUSE GAS OBSERVATIONS

Key Collaboration Needs:

- Continued WGClimate, GSICS, and WMO coordination is essential to address GHG observational gaps
- CGMS liaison contributed to GHG Roadmap (Issue 2); follow-up meeting scheduled for 2 June 2025 to operationalize GHG observations (HLPP 5.6)

Operationalization Efforts:

- Close CGMS-CEOS collaboration critical for developing operational GHG monitoring system
- Baseline proposal for operational GHG service (including MVS/G3W) targeting CGMS -54 endorsement (2026)

Current Work:

- "Common practices for plume-detected methane emissions" document in review (per CEOS SIT-40 timeline)