Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2	**COORDINATION OF SATELLITE SYSTEMS AND OPERATIONS**	**WG-I**		
2.1	**Coordination/Optimisation of data collection systems**	**WG-I**		
2.1.1	Build on the work of the SWOT analysis on the DCS from geostationary meteorological satellites, and particularly progress on the five proposals for further work (covering RFI mitigation including creation of an RFI DCS register, joint DCS PR materials, DCS introduction video, manufacturer workshop, discoverable information);		The SWOT analysis has been completed. Further work building on the SWOT analysis outcomes is to be carried out, specifically work on the five proposals for DCS improvements based on the SWOT analysis, including work with RFI Task Group and DCS RFI register, DCS promotional materials presenting global view of DCS, improved DCS outreach via DCS introduction video, further work on EDCP standard, improvements to DCS user information across agencies. Progress on improvements identified on SWOT is tracked in the DCS Task Group reports.	

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.1.2	Establish an enhanced DCP standard, taking into account requirements of tsunami alert systems and in-situ ocean observations (e.g. buoys) and lessons learned from the development of high-rate DCP. This would give agencies a common standard and would once again allow international use of DCPs. It is foreseen that this would be covered under a project with engineering work spanning 2024-2027, which would include the production and testing of a prototype transmitter;		An EDCP standard proposal ~~has been prepared for presentation to~~ was approved by CGMS-52 ~~WGI and~~ Plenary. This includes a proposed implementation plan 2024 – 2027 and funding requirements. ~~If endorsed by CGMS-52 WGI and Plenary, the group will proceed~~The group is continuing work as per the implementation plan.	

Commented [KN1]: Under DCS, a point should be added on developing the use case for Smallsat.

Commented [KN2]: @Mikael, this has been completed. I have added a new target on the EDCP Standard implementation.

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.1.3	Progress and complete EDCP implementation based on the approved EDCP Standard proposal			
2.2	**Radio Frequency (RF) Protection**	**WG-I**		

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.2.1	Facilitate an effective preparation of national and ITU-R regional groups' positions for the World Radiocommunication Conference (WRC) 2027 favourable for CGMS-related issues, in particular but not exclusively with regard to the: - Establishment of protection for passive microwave sensors in the bands 50.2-50.4 GHz, 52.6-54.25 GHz and in bands above 86 GHz from unwanted emissions from active services in neighbouring frequency bands (WRC-27 agenda items 1.1, 1.3, 1.8 and 1.18). - Possible new primary frequency allocations to EESS (passive) in the bands 4200-4400 MHZ		This topic needs to be kept in the HLPP for securing adequate information flow inside CGMS on national and regional level preparatory activities (as well as the dedicated report from SFCG activities provided by CGMS Liaison representative in SFCG)	Reworded

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
	and 8400-8500 MHz for Sea Surface Temperature (SST) measurements to complement the SST measurements in the 6/7 GHz range (WRC-27 agenda item 1.19). - Protection of the frequency bands 7450-7550 MHz, 7750-7900 MHz and 8025-8400 MHz, used for the downlink from MetSat and EO satellites, from possible future frequency usage by International Mobile Telecommunications (IMT) (WRC-27 agenda item 1.7).			

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.2.2	Within the general ITU framework, triggered by ITU-R Resolution 731, regarding the establishment of sharing conditions between active and passive services in bands above 71 GHz, to ensure protection of passive sensing bands, in particular in bands in which all emissions are prohibited (Radio Regulations Footnote 5.340).		WRC-23 corrected the inconsistencies in Resolution 731, by eliminating the possibility to study bands subject to RR footnote 5.340 (all emissions are prohibited) for sharing with active services. Subject to contributions to the relevant groups in ITU-R, responsible for the active and passive radiocommunication services involved, studies can now be put forward under this corrected Resolution 731 for any bands above 71 GHz, either for sharing in bands not subject to RR FN 5.340, or to determine the unwanted emissions to neighbouring 5.340 bands, that are not already covered by WRC-27 agenda items 1.1, 1.3, 1.8 or 1.18, see 2.2.1 above.	Reworded
2.2.3	Pursue the establishment of a set of best practices for the RFI detection, monitoring, and mapping based on the common aspects of the approaches already adopted by CGMS members;		The recently formed Task Group on RFI has proposed a set of draft Best Practices on RFI detection, monitoring, and mapping for review by CGMS-52 WGI. Further work on the Best Practices ~~is planned~~has taken place in the lead up to CGMS-53.	
2.3	**Data acquisition and data processing, including low latency data access**	**WG-I**		

Commented [KN3]: May be closed by CGMS-53 Plenary

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.3.1	Ensure the ease of use of satellite-derived data and products, disseminate in one of the standard formats, as specified in the CGMS LRIT/HRIT Global Specification and the WMO Manual on Codes. Once the use of netCDF with the CF convention are captured in the WMO Manual on Codes, ensure compliance with this for satellite-derived data and products disseminated in netCDF.		Work has progressed, see the status report provided by EUMETSAT on dedicated paper for CGMS-48, containing also the outcome of specific work achieved by the WG-I participants through dedicated Inter-Sessional meetings. A dedicated CGMS "liaison officer" agreed at CGMS-47. The role is to coordinate with the CF community to concentrate efforts and views of the different CGMS members aiming at contributing to the evolution of these standards by actively participating in the related CF meetings. Topic is proposed to be further developed through the Task Group of Satellite Data and Codes (TGSDC), which will interact with the CF Conventions Committee, the CF Standard Names Committee, and the CF Governance Panel	
2.3.2	To address technical and operational aspects of direct low latency data access (present and future) of mutual or global interest for the CGMS agencies, including facilitating transition to new LEO systems.		The LLDA Task Group has performed and distributed a "Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis of Low Latency Data Access from LEO Meteorological Satellites. This SWOT analysis also contains an analysis on the potential role of satellite platform as a service (SPaaS). Specific actions need to be proposed based on the SWOT. The~~is~~ SWOT analysis ~~is planned to~~needs to be maintained on a yearly basis by the LLDA task group to keep up to date with the space sector context.	

Commented [KN4]: Sent to Simon for review

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.3.3	Merge the LEO (global) and DB (regional) best practices into a consolidated "Low latency best practices" containing common best practices for both regional and global missions, as well as specific best practices for direct broadcast and global missions.		A "Merge of LEO Direct Broadcast and Coordination of LEO Orbits Best Practices proposal" [CGMS-52-CGMS-WP-03] was produced for review by CGMS-52 WGI. The document would benefit from one further round of iteration inside the LLDA Task Group. Proposal is to publish the document by CGMS-53.	
2.3.4	Develop efficient standardized data handling for high-resolution imaging and hyperspectral instruments		The Task Group has worked with the WMO Secretariat and the WMO Expert Team on Data Standards (ET-Data) and its Task Team on Table Driven Code Forms (TTTDCF) on the development of a number of new BUFR encoding sequences and Common Code Table entries. In each case, the Task Group acts as a reference group of experts who are invited to consider and endorse relevant proposals going through WMO's approval process. Between CGMS 52 and CGMS 53, the Task Group on Satellite Data and Codes will continue work on coordinating format standardisation for satellite data.	

Commented [KN5]: There is a proposal to not merge the BPs. If this is approved, then this can be removed.

Commented [KN6]: Sent to Simon for review

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.4	**Coordination with WMO Information Systems (WIS)**	**WG-I**		
2.4.1	Actively ensure the WIS 2.0 usage for satellite data provision and discovery.		Ongoing.	
2.4.2	Support WIS and WIGOS in the definition of harmonised product metadata for satellite data and implement these for CGMS missions.			

Commented [KN8]: This should be moved to WGIV

Commented [KN7]: This should be moved to WGIV

Commented [KN9]: This should be moved to WGIV

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.4.3	Provide coordinated CGMS inputs to WMO on satellite and instrument identifiers for data representation and metadata within the WIS		The Group continues to encourage WMO to ensure that OSCAR/Space includes references to the Common Code Table entries used for satellite identifiers (table C-5) and instruments (C-8). At the last OSCAR/Space workshop it was confirmed that these changes would be included in the forthcoming update to OSCAR/Space. Between CGMS 52 and CGMS 53, the Task Group on Satellite Data and Codes will continue work on implementation of WIGOS station identifiers for satellite platforms, and providing subject matter expertise to WMO Expert Teams.	
2.5	**Operational issues related to Space Weather**			

Commented [KN10]: Sent to Simon for review

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.5.1	Evaluate existing operational space weather products and services in support of CGMS members' spacecraft operations and recommend additional services as appropriate	WG-I, SWCG	The WGI Space Environment Sustainability Task Group (with support from SWCG) has initiated steps to identify best practices in usage of space weather data by spacecraft operators and their goals for improvement. Outreach activities are being supported at space weather and operations workshops and specific user engagement / test-bed activities are on-going at ESA and NOAA. The TG has identified the requirements in the areas of space weather impacts on drag and on impacts on system health (radiation). On-going.	
2.6	**Space Traffic Coordination**	**SSA Champion**		
2.6.1	Review of CGMS member agencies' satellite operations for collision avoidance and re-entry prediction.		The WGI Space Environment Sustainability Task Group has collected debris mitigation practices from several members and is organising the analysis	
2.6.2	Perform a gap analysis between the needs and the available/used space traffic coordination (STC) services, carry out an assessment of service development prospects and prepare a proposal for best practises to support improvement.		This activity will start once the data in 2.6.1 has been analysed.	

Commented [KN11]: Updated with inputs from Andy Monham

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.6.3	Engage with UN-COPUOS to achieve a global standardised approach for STC based on a CGMS proposal;		This activity will start following the analysis in 2.6.2	
2.7	**Space sustainability**	**SSA Champion**		
2.7.1	Share space sustainability rating methodologies and carry out a pilot project where some operational mission plannings are evaluated.		The WGI Space Environment Sustainability Task Group has no specific action on this. To be discussed.	
2.7.2	Follow efforts to establish an international agency policy on "zero debris" and based on the outcome, carry out an assessment of impacts of such policy on operational missions of CGMS members and the private sector.		The WGI Space Environment Sustainability Task Group ToR considers this, but at lower priority than the STC aspects in 2.6	
2.7.3	Prepare a CGMS best practises document for long term space sustainability;		The WGI Space Environment Sustainability Task Group foresees this, with priority on the STC best practices (2.6.2)	
2.8	**CGMS satellite missions in hybrid space infrastructures**	**Hybrid Space Infrastructure Champion**		

Commented [KN12]: Updated with inputs from Andy Monham

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.8.1	Taking passive µwave sensing as an initial case, identify all current constellations, and those planned for the next few years (CGMS baseline, complementary systems, and potential data buys) and demonstrate the impact of CGMS contributions, as part of the integrated system.			
2.8.2	Address such aspects as orbit coordination and harmonised data access to ensure the different components of the hybrid space infrastructures provide a seamless operational service to the users.			
2.8.3	Conduct a critical review of WIGOS 2040 with respect to hybrid systems;			
2.9	**New technologies for satellite systems**	**IOT Champion**		

Commented [KN13]: This is not a WGI target. To be covered elsewhere - WGIII? Mikael / Anne to discuss.

Commented [KN14]: A new Champion needs to be identified instead of Antoine Jeanjean

Ref	Target	Primary responsible for target in CGMS	Summary/highlights of progress (as reported at last CGMS)	Overall Status
2.9.1	Assess the internet-of-things (IOT) technology for inter- and intra-connections between satellite and ground network.	..	The internet-of-things (IOT) technology study found that IoT applications for LEO services and ground-based systems provide opportunities for CGMS agencies: • GEO IoT can open new mode of operations for LEO meteorological satellites, such as TTMC • LEO relay IoT can complement DCS in polar locations • Direct broadcast remains a better value for money solution to GEO IoT for instrument payload downlink	
2.9.2	Explore improvements to LEO satellite systems low latency data access from both a global and regional perspective, harnessing common emerging technologies and taking account of the evolution of the commercial and agency space systems;	..		