GP-STAR
WMO Perspectives

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

Alasdair Hainsworth,
Chief Disaster Risk Reduction
Services
and
Stephan Bojinsji

Please provide input to the following question:
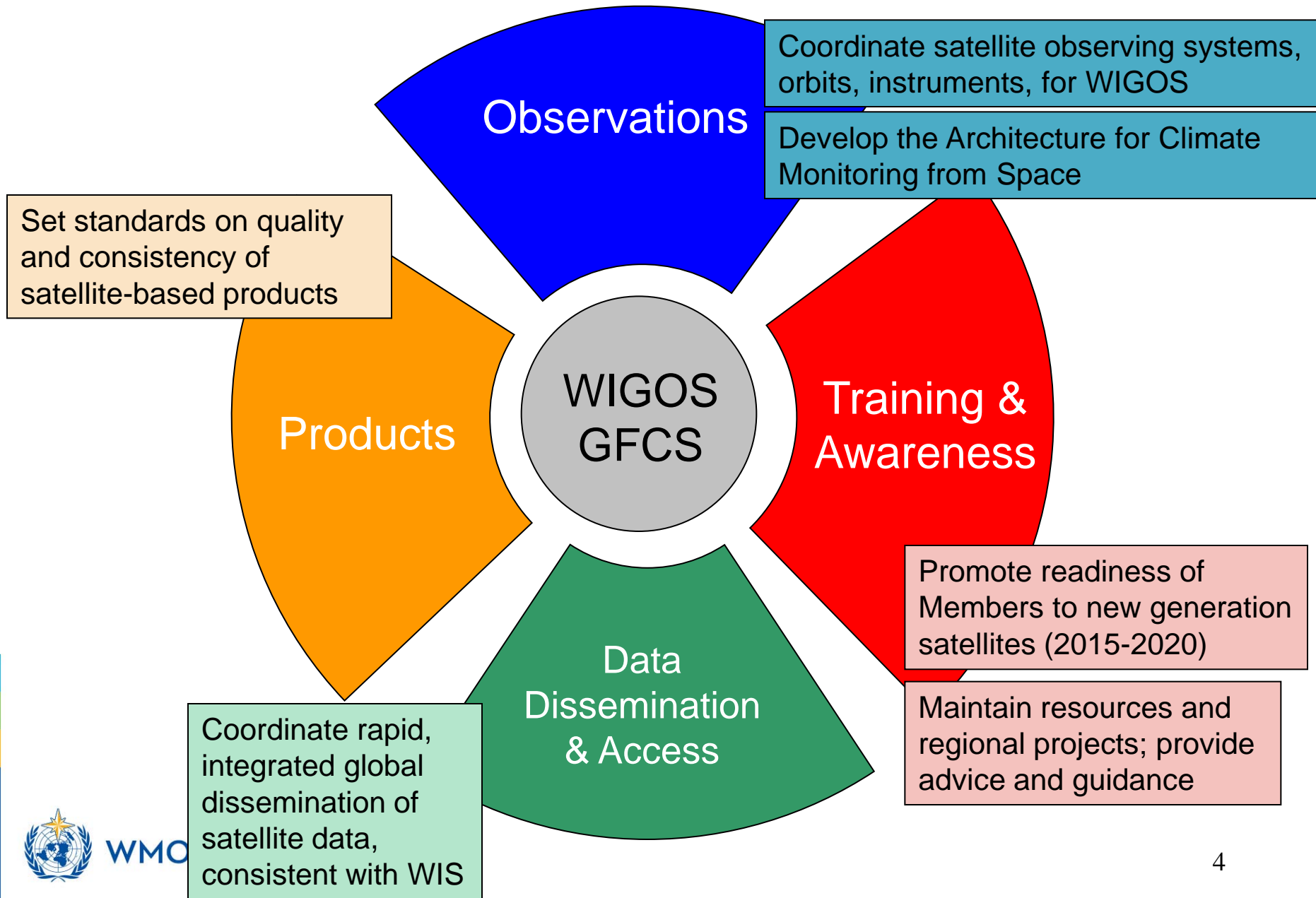
What is the mission of GP-STAR in your view?

- Assist in the EO processes required for DRR and particularly, contribute to the risk analysis, hazard monitoring and recovery phases of MHEWS.

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Please provide input to the following question:

- What activities, projects, programmes can you affiliate/contribute to GP-STAR?

- What outcomes (procedures, products, information, knowledge, know-how) can you contribute

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WMO Space Programme: 4 Activity Areas
supporting weather, water, climate, and space weather

Observations
- Coordinate satellite observing systems, orbits, instruments, for WIGOS
- Develop the Architecture for Climate Monitoring from Space

Products
- Set standards on quality and consistency of satellite-based products

Data Dissemination & Access
- Coordinate rapid, integrated global dissemination of satellite data, consistent with WIS

Training & Awareness
- Promote readiness of Members to new generation satellites (2015-2020)
- Maintain resources and regional projects; provide advice and guidance
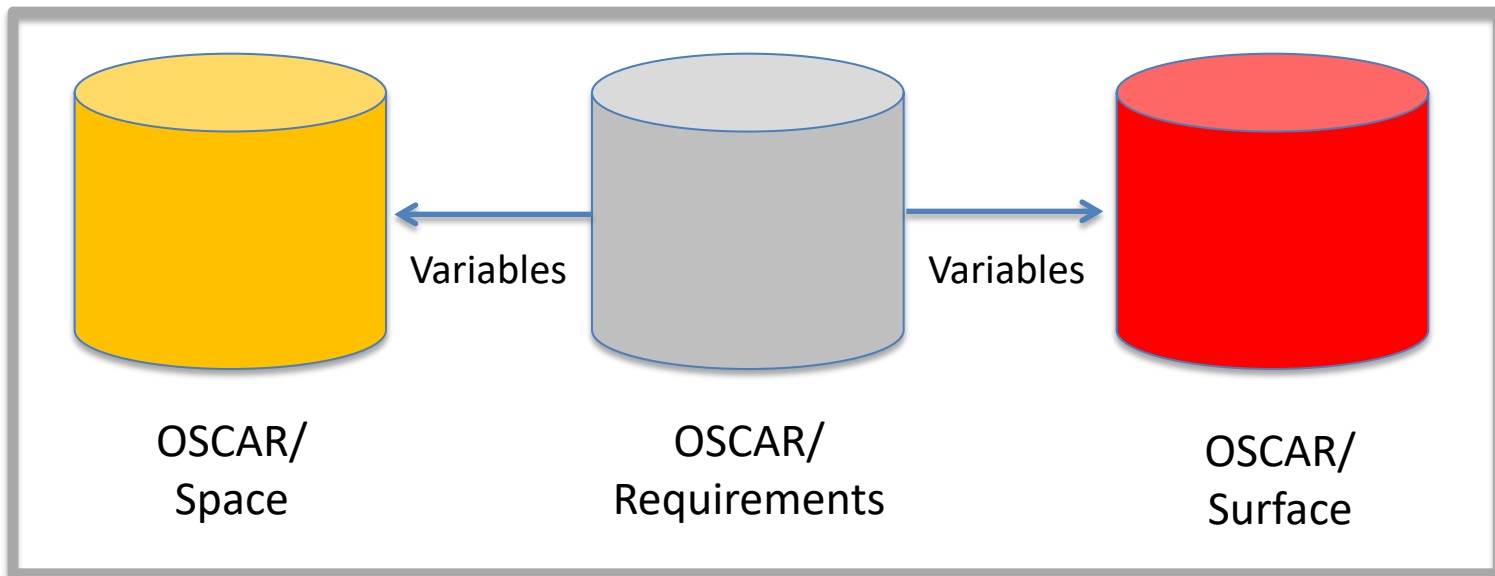
WIGOS GFCS

4

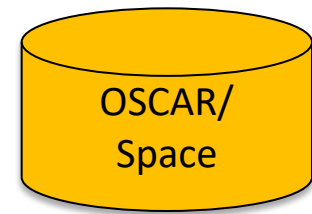# WMO Space Programme:

- Identifies <u>observation requirements </u>of users in WMO Application Areas
- Performs <u>gap analyses</u> and maintains a dialogue with space agencies on these

- Partners with space agencies in
    - Coordination Group for Meteorological Satellites (CGMS)
    - Committee on Earth Observation Satellites (CEOS)

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WMO Observing System Capability Analysis and Review tool (OSCAR)

- WMO-maintained online resource with 3 components:
  - satellite programmes, instruments, and the variables they can observe (OSCAR/Space)
  - surface-based stations/platforms under WIGOS (OSCAR/Surface)
  - observation requirements for 14 "application areas" and for all relevant variables (OSCAR/Requirements)

OSCAR/Space ← Variables — OSCAR/Requirements — Variables → OSCAR/Surface

- WIGOS Information Resource
- Basis for WMO Rolling Review of Requirements

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Space-based Capabilities: OSCAR/Space Database

OSCAR/ Space

1. **Factual information on satellites and instruments** ("*capabilities*")
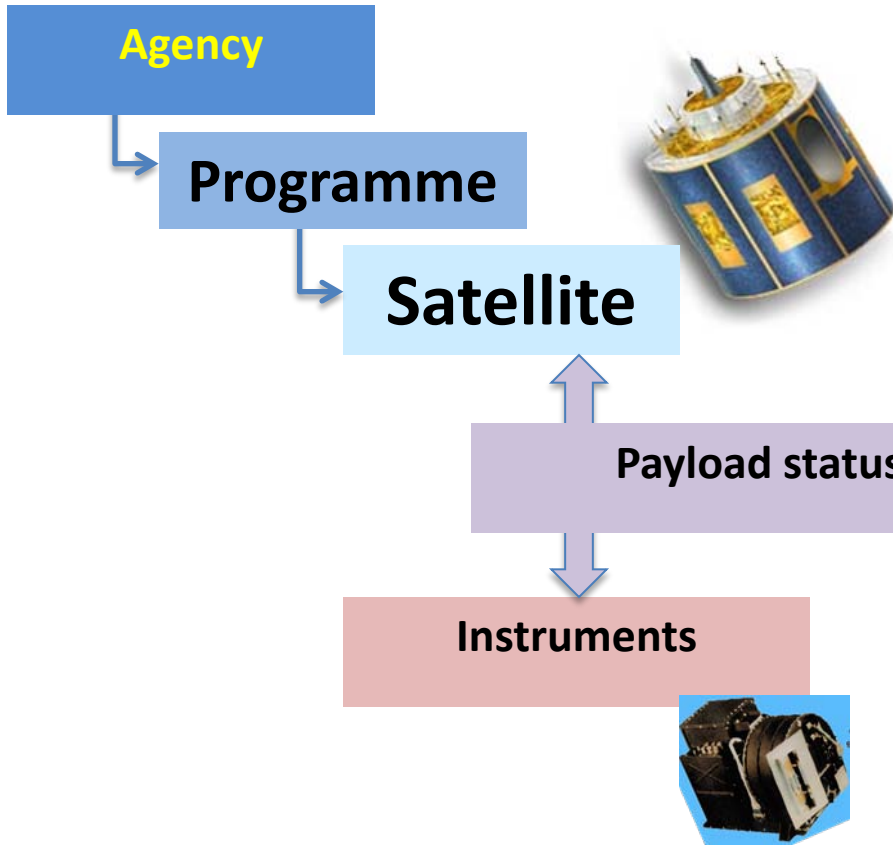
    – 81 agencies
    – 673 satellites
    – 927 instruments

    – Weather and climate
    – Environmental monitoring
    – Space weather

2. **Assessment of instruments, and gap analyses** ("*analysis and review*")

    - Mapping instruments to measured variables
    - "Gap analysis" by measured variable, or by type of mission

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# OSCAR/Space Part 1: Factual information content

Agency

Programme

Satellite

- Name, purpose
- Mass, power
- Orbit (type, alt, ECT, longitude)
- Launch date, end date, status
- Data access, telecom frequencies

Payload status

- Instrument status, dates
- Link to calibration events

Instruments

- Name, purpose
- Mass, power
- Type, description, scan mode
- Resolution, FOV, coverage
- Status
- Spectral characteristics

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WMO Operational Networks – end to end

Observations

Data Transmission

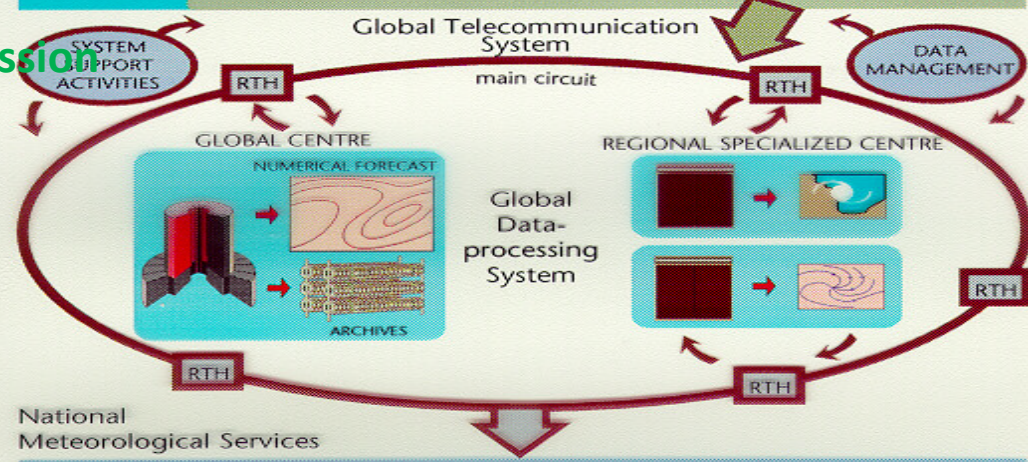**Data Processing and Forecasting systems**

Service delivery
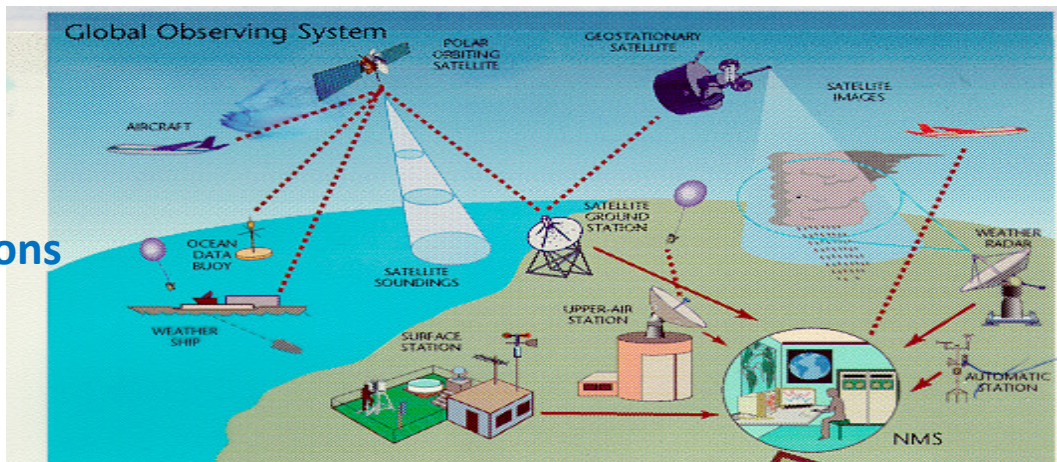
191 NMHSs: satellites, land, ships, buoys, and aircraft contribute to <u>Global Observing</u> every day

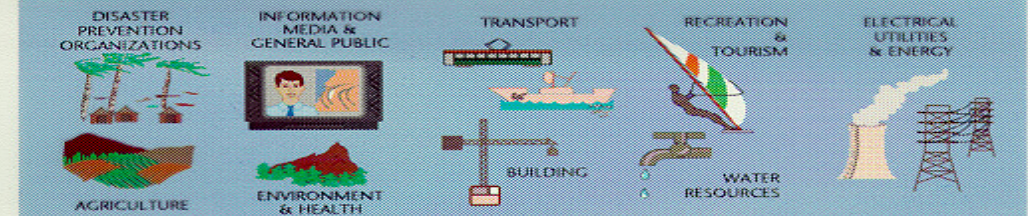**<u>Global Telecom</u> with Regional Hubs – becoming the WMO Information System**

The GDPFS: <u>Global</u>, <u>Regional</u> Specialized Met. Centres (RSMC, RCC), and <u>National</u> Centres

NMHSs deliver analyses, forecast and early warning <u>services</u>

What role and working field in GP-STAR do you foresee for your organisation

- Leveraging off our current roles within the DRR community, provide GP-STAR with operational knowledge and expertise to provide an understanding of **a** user requirement for spaced based observations for DRR purposes

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Please mark (x) your contribution/interest according to below matrix,
see: Input_partners_GP-STAR_Expert_meeting.xls

						HAZARD												
SCOPE-PURPOSE	TARGETS - INDICATORS	PRIORITIES FOR ACTION	COUNTRY / REGION	Earthquake	Tsunami	Mass movement	Volcanic eruption	Storm	Flood	Extreme temperatures	Drought	Fire	locust swarms	Non-Earth Objects	Space weather			
	a b c d f g	1 4																
	x	x x	Global				x											
	x	x x	Global					x										
	x	x x	Global						x									
	x	x x	Global							x								
	x	x x	Global								x							
	x	x x	Global									x						
	x	x x	Global										x					
	x	x x	Global											x				

The present framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters, caused by natural or manmade hazards as well as related environmental, technological and biological hazards and risks. It aims to guide the multi-hazard management of disaster risk in development at all levels as well as within and across all sectors

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Thank you for your attention

Alasdair Hainsworth (ahainsworth@wmo.int)

and

Stephan Bojinski (sbojinski@wmo.int)

Weather • Climate • Water

References

- OSCAR/Space: http://oscar.wmo.int/space
- OSCAR/Surface: http://oscar.wmo.int/surface
- OSCAR/Requirements: https://www.wmo-sat.info/oscar/observingrequirements
- WMO Space Programme: http://www.wmo.int/sat
- WMO Vision for the Global Observing System in 2025

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