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WMO & SOFF

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introduction to

WMO & SOFF

1. Early Warnings For All (EW4All)
2. Global Basic Observing Network (GBON)
3. GBON compliance
4. WMO Information System 2.0 (WIS 2.0)
5. WMO as SOFF Technical Authority

Early Warnings for All

“Today I announce the United Nations will spearhead new action to ensure every person on Earth is protected by early warning systems within five years.”

António Guterres, Secretary-General of the United Nations, 23rd March 2022



Initial Roll-Out Countries



WMO`s EW4All efforts are on two parallel complementing tracks:

- Enhancing the global infrastructure: **Improvement of international data exchange; more and better products available world wide; better guidance and training to the members – the main theme of the WMO`s technical commissions**
- Technical Support to Regional and/or National interventions: **Establishing regional support systems; targeted investments for closing national gaps – the main themes of WMO`s extrabudgetary projects, such as SOFF, CREWS etc.**

Global Basic Observing Network (GBON)




A global public good for improved weather prediction and climate reanalysis

- Worsening gaps in the basic surface-based observations that keep weather predictions on track - full implementation estimated to bring USD 5 billion in annual benefits
- Members in 2021 accepted **obligation to take and share GBON observations at minimum horizontal and time resolution**
 - Surface land at 200 km, hourly
 - Upper air over land at 500 km, 2x daily
 - Surface marine in EEZ at 500 km, hourly
- WMO co-created the **Systematic Observations Financing Facility (SOFF)** to help Members meet that GBON obligation, with priority on support to LDCs and SIDS



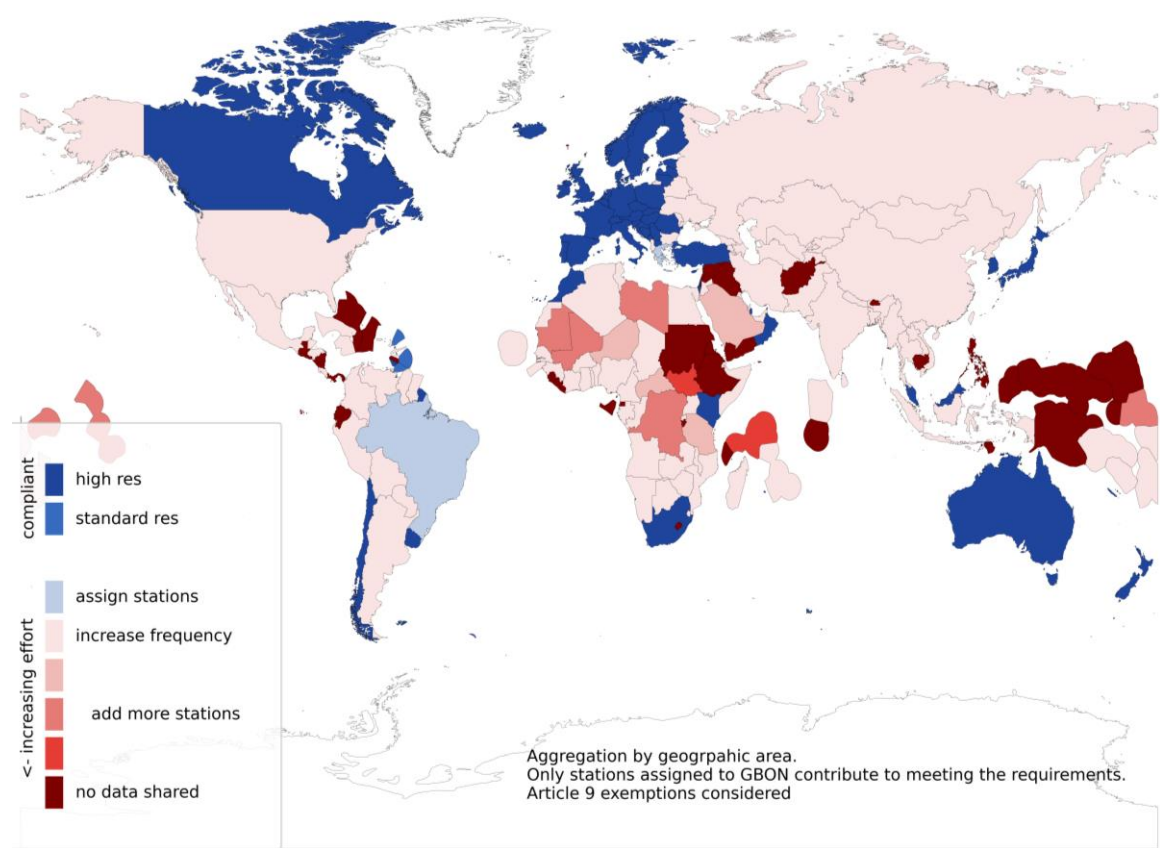
GBON requirements and SOFF scope

Securing an adequate supply of observational data to the global NWP centres that serve all countries with forecast and analysis products

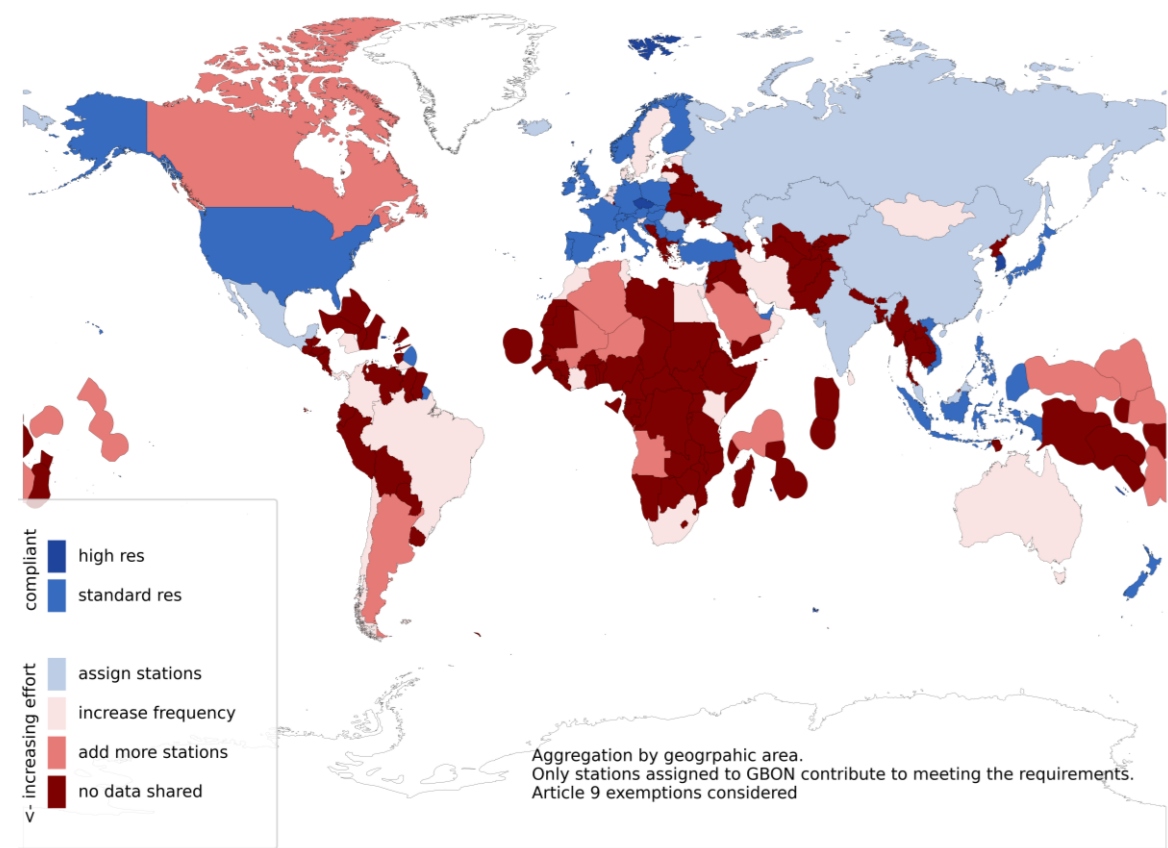
GBON requirements - per station type		GBON Variables					
		Pressure	Temp	Hum	Wind	Precip	Snow Depth
	Surface land stations <ul style="list-style-type: none"> Horizontal resolution: 200 km (500 km for small island states) Observing cycle: 1h Real-time data exchange to WMO Information System (WIS) 	X	X	X	X	X	X
	Upper-air stations operated from land <ul style="list-style-type: none"> Horizontal resolution: 500 km (1000 km for small island states) Vertical resolution: 100m, up to 30 hPa Observing cycle: twice a day Real-time data exchange to WMO Information System (WIS) 		X	X	X		
<i>Open to SOFF investment today</i>							
	Marine surface stations in EEZs <ul style="list-style-type: none"> Horizontal resolution: 500 km Observing cycle: 1h Coastal stations not included, all contributions in EEZ, including foreign, count to country compliance Gap analysis to be performed 	X	X				
<i>INFCOM-3 adopted WIGOS Guide</i>							

Global GBON compliance by Member/place

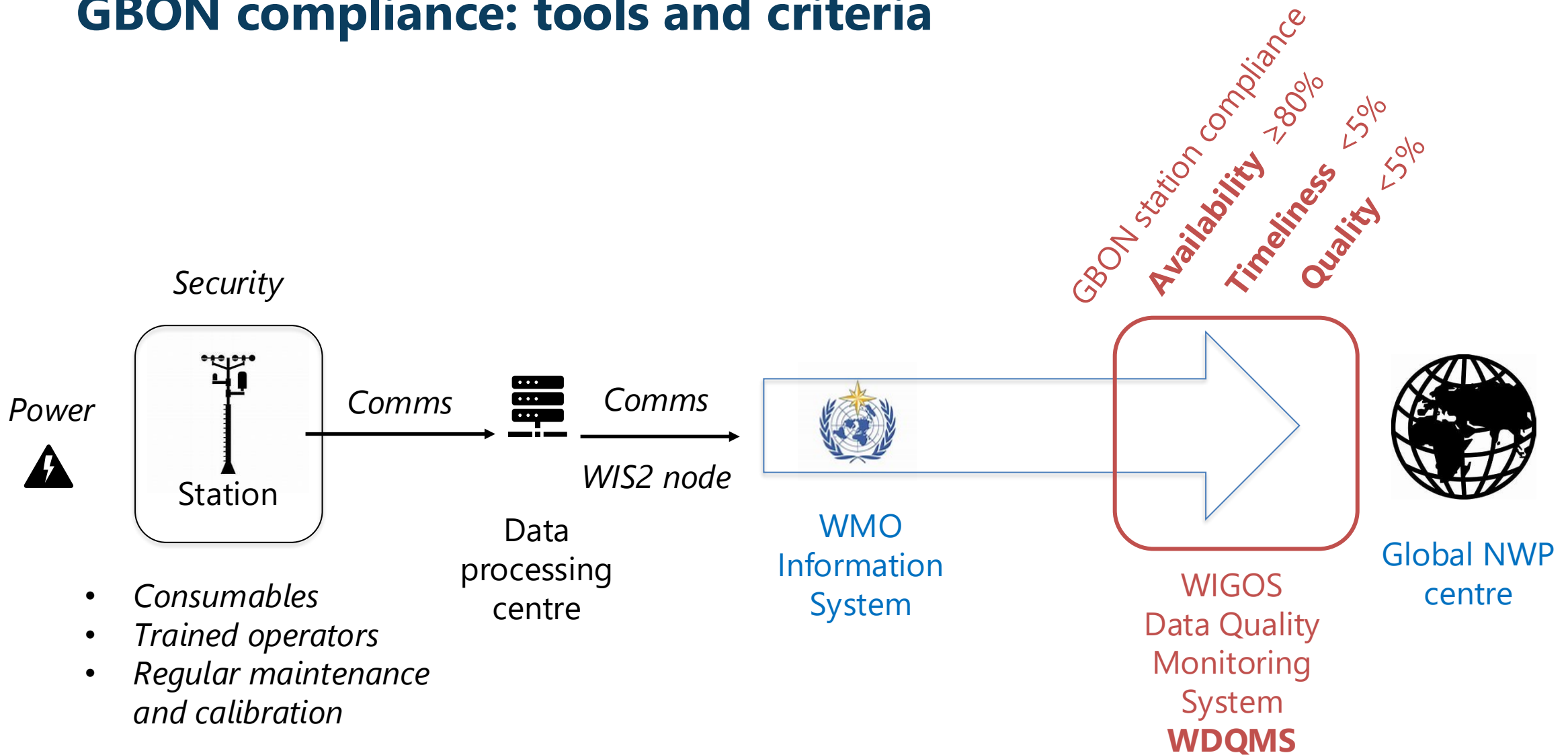
GBON surface station compliance Q4 2023



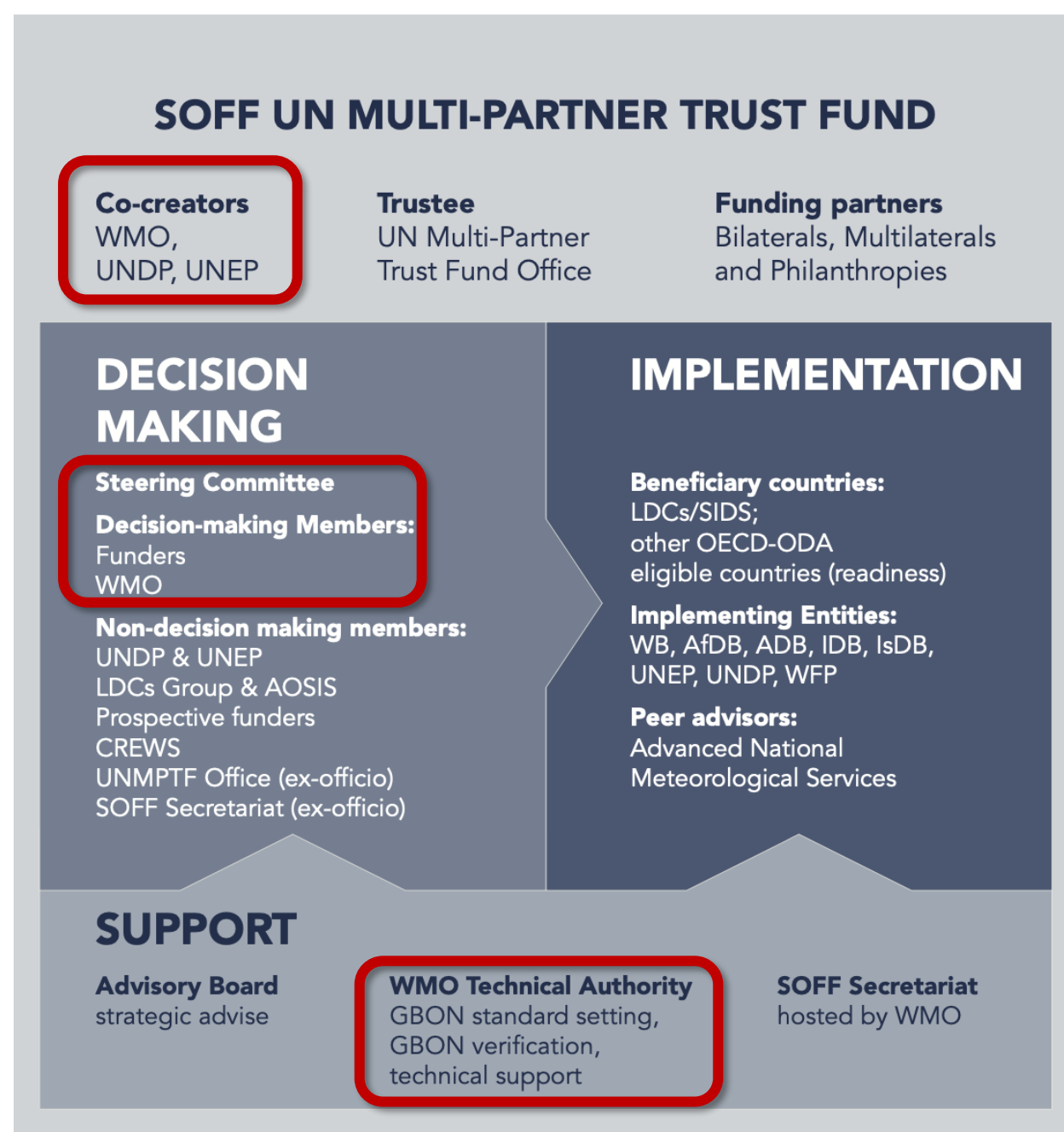
GBON upper-air station compliance Q4 2023



GBON compliance: tools and criteria



Actors in SOFF



Thank you



WORLD
METEOROLOGICAL
ORGANIZATION



S  **FF**
Systematic Observations Financing Facility

Weather
and climate
data for
resilience