



MFI WIS2 Solution

Presentation for SOFF peers advisors

PLAN

1. Meteo France International (MFI)
2. MFI approach and solution, focus on WIS2
3. WIS2 offer (solution, services)
4. Ongoing projects



Presenter : Loïc Le Gallou, Technical Director

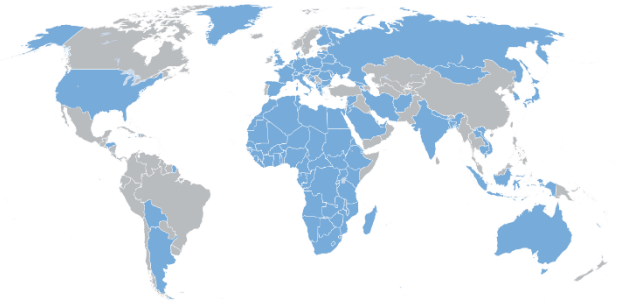


MFI, Expert in Meteorological Projects

- Founded in 2002 as a subsidiary of Météo-France.
- Mission:
 - Export Météo-France's expertise and technical solutions worldwide
 - Assist National Hydrometeorological Services strengthening their capacities through global modernization projects
- Two core businesses:

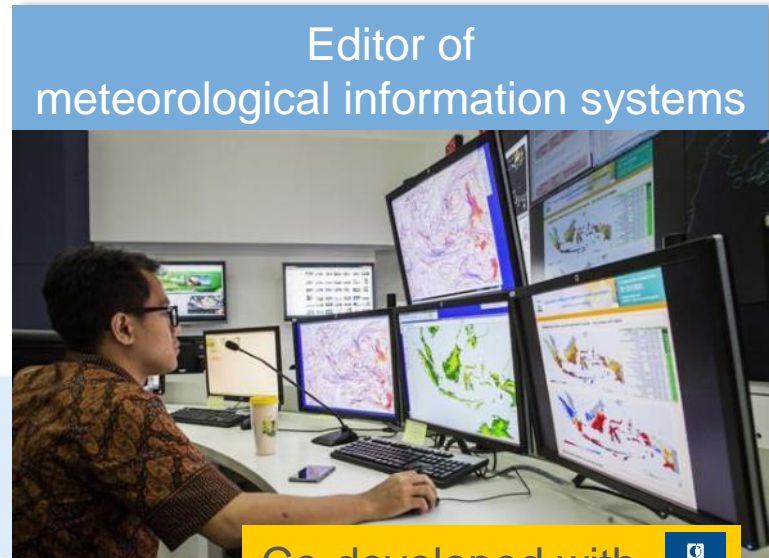


References in 116 countries



Integrator of meteorological projects

Turnkey Approach

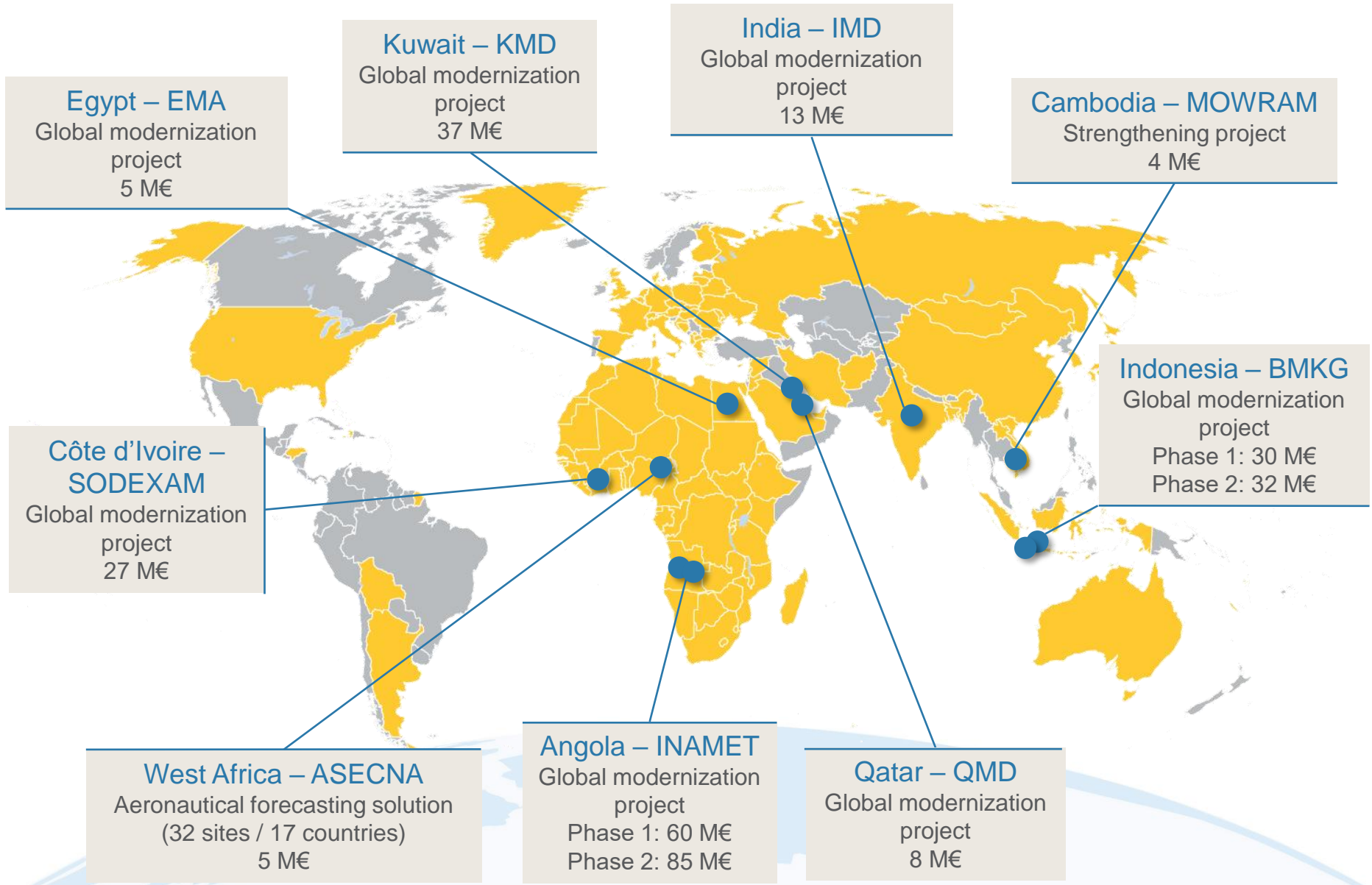


Editor of meteorological information systems

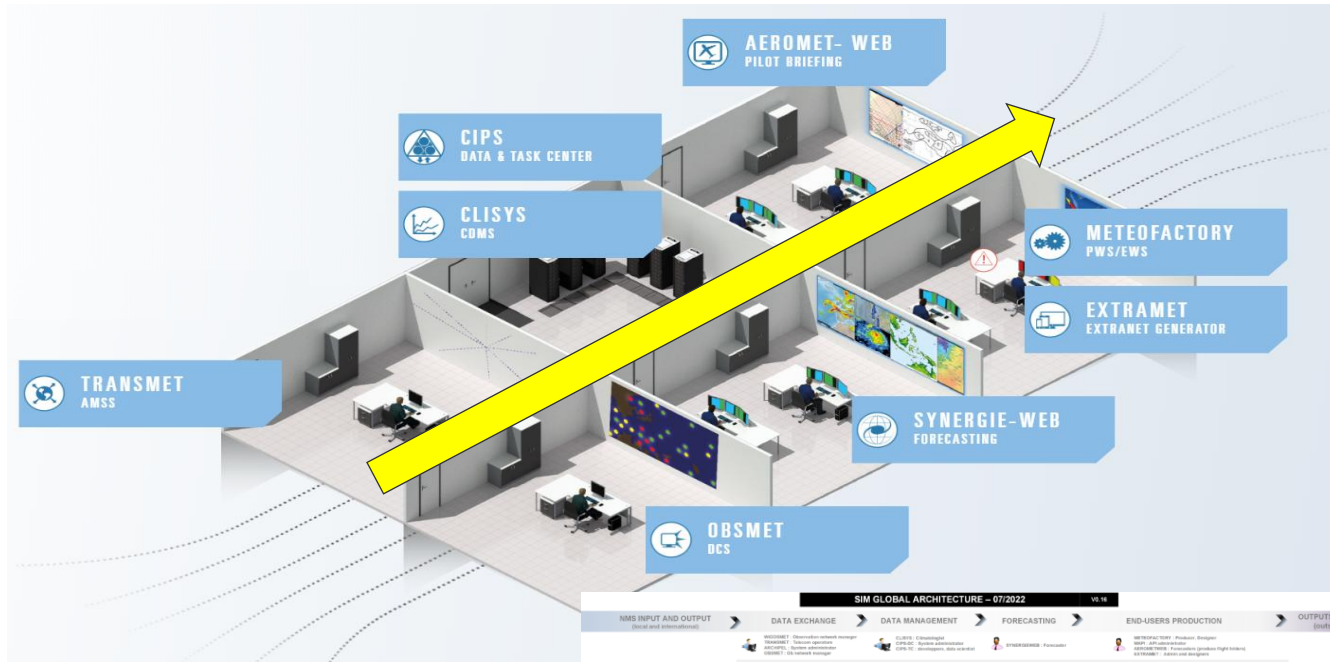
Co-developed with 



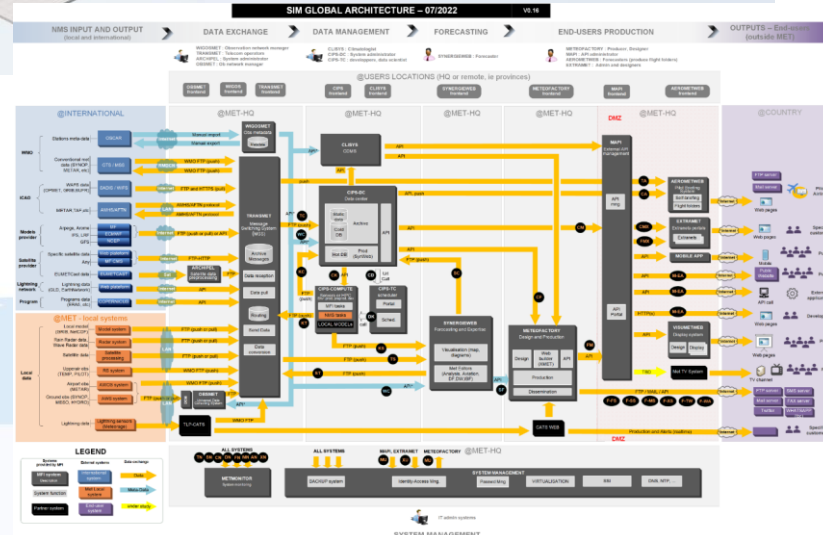
Unique references in the field of global strengthening projects for National Hydromet Services



- From data collection... to service delivery !

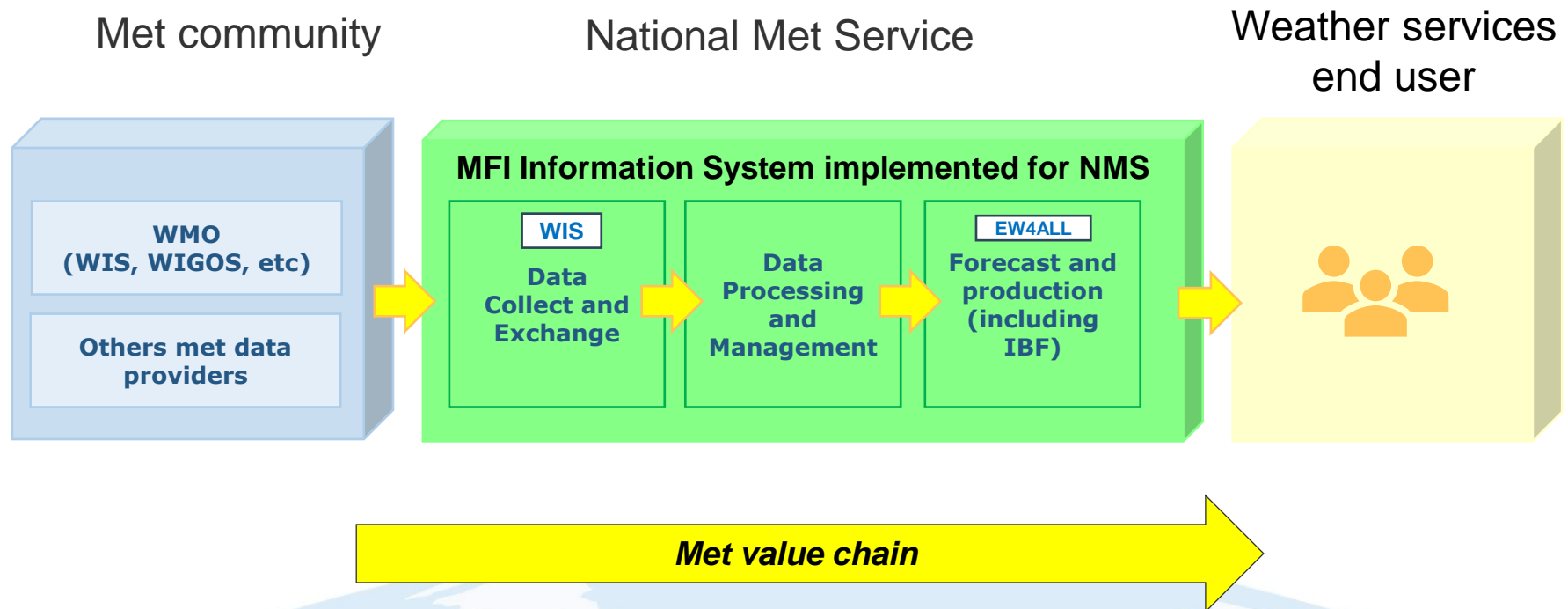


- A complex Met Information System behind the scenes



MFI approach and solution

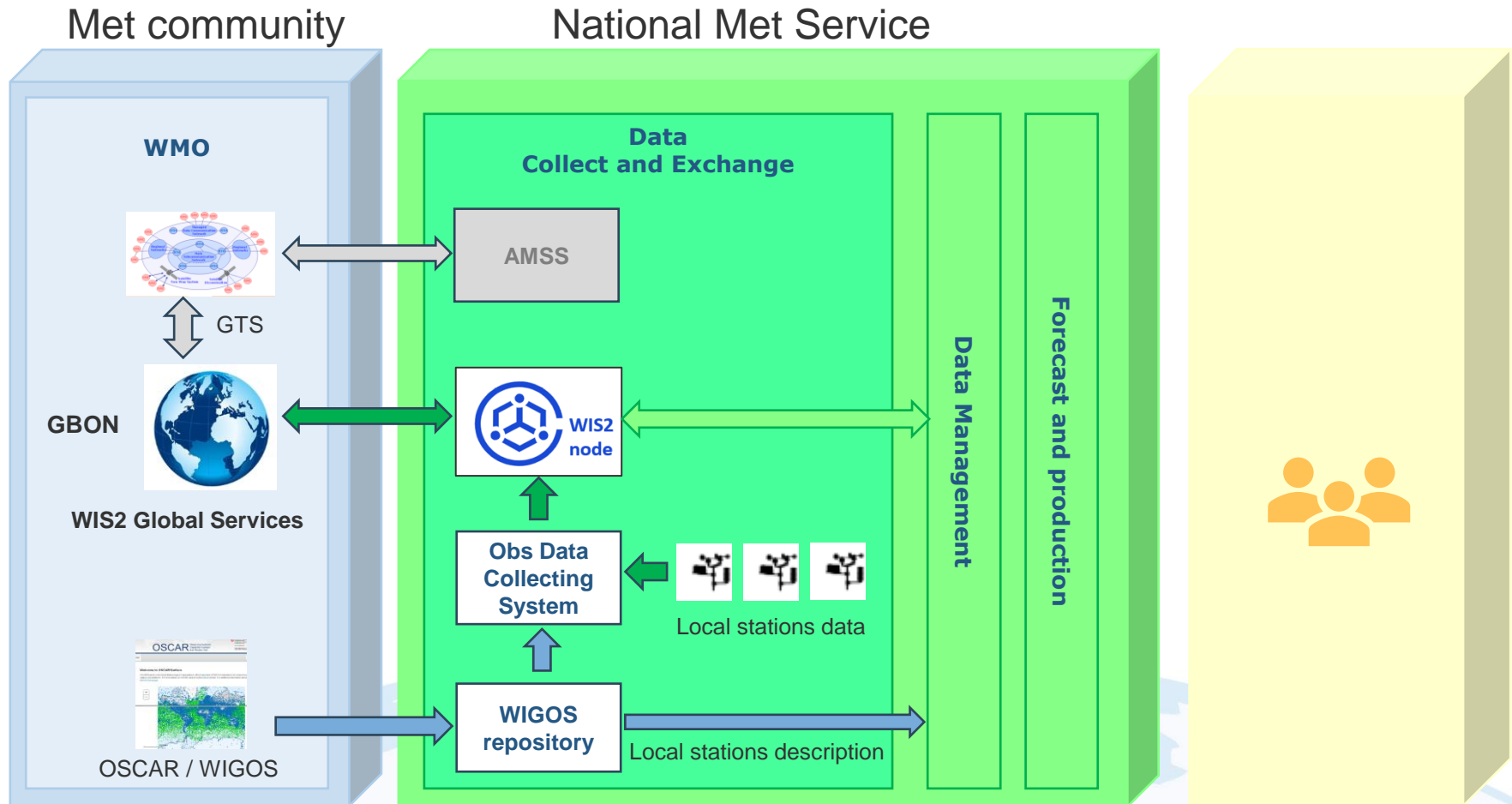
- MFI provides a user-oriented Info System, WIS2 compliant
 - The added value is at the national level through socio-economic benefits.
 - MFI information system is composed of three parts (see below)
 - WMO-compliance is ensured by MFI



MFI approach and solution, focus on WIS2

- MFI approach

➔ Progressive transition from GTS-based system to WIS2 system



MFI WIS2-Node Solution : **WIS2MET**

- MFI prepare a new Data Exchange solution based on WIS2
 - For a smooth transition from GTS-based system to a full WIS2-based system
 - The solution will evolve and expand with the WMO WIS2 roadmap and community adoption
 - Steps
 - ➔ 1. Basic solution with WIS2 capability (GTS still operational with AMSS systems)
 - ➔ 2. Hybrid GTS/WIS2 operational solution (AMSS still active)
 - ➔ 3. Full WIS2 operational solution (no more AMSS)

- MFI Solution for WIS2 Node implementation : **WIS2MET**
 - The solution is a set of integrated components (COTS or developed by MFI)
 - Regular new developments and update of the solution (~1 or 2 per year)

- WIS2 in a BOX Inside  WMO
 - MFI has selected WMO **wis2box** component for it's WIS2 node solution
 - The solution is regularly updated with new wis2box versions

MFI WIS2-Node Solution : **WIS2MET**

○ Solution Key points

● WIS2 Global services interface.

➔ Based on wis2box and wis2downloader components, with custom dataset configuration

● Data storage and API access

➔ based on S3 technology, with custom data retention period

● Local data exchange

➔ MFI module which collect files from WIS2 and distribute files to third-party systems

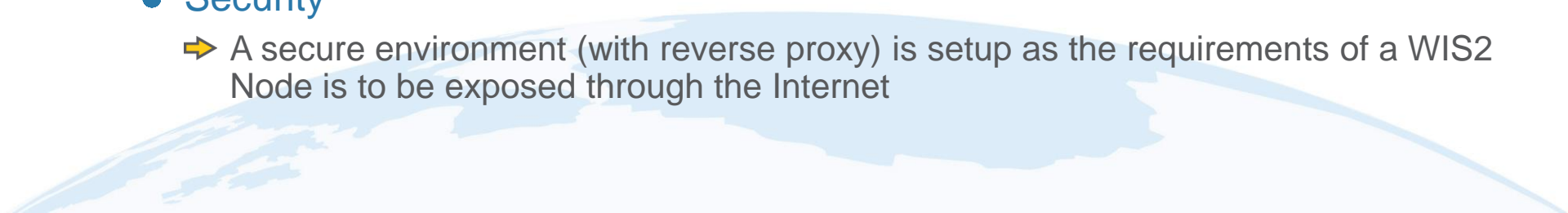
● Interface with existing local AMSS (if needed)

➔ Get data from AMSS to push it on WIS2

➔ Send WIS2 data to AMSS for further local usage

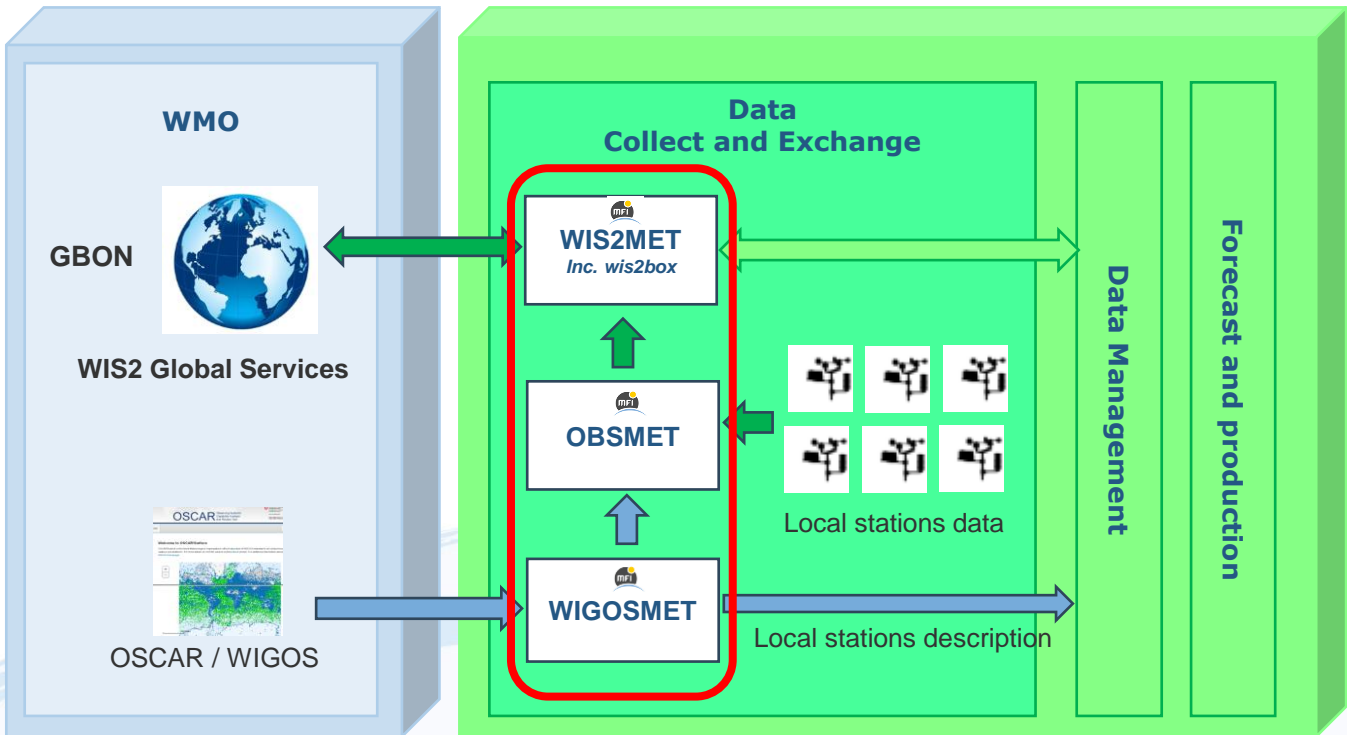
● Security

➔ A secure environment (with reverse proxy) is setup as the requirements of a WIS2 Node is to be exposed through the Internet



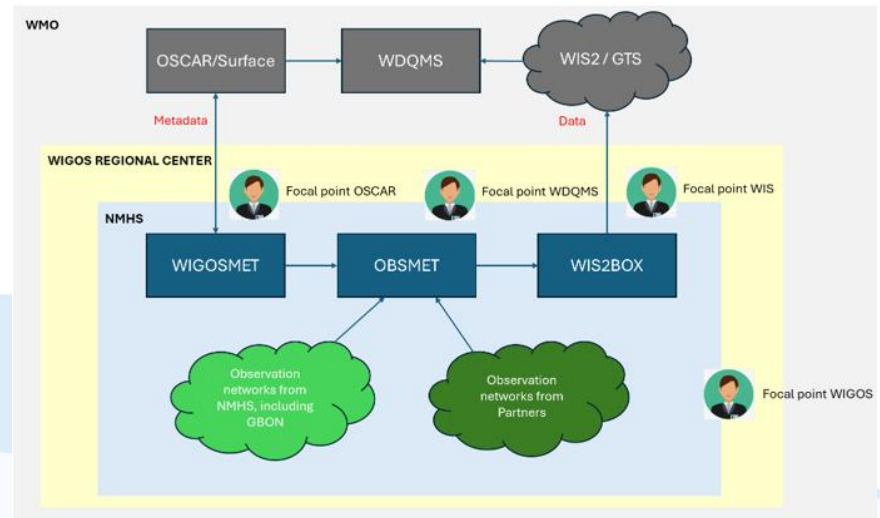
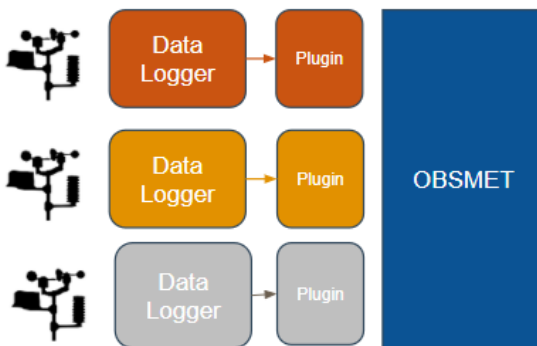
MFI Solution for full GBON Compliance

- Systems
 - WIS2MET : WIS2 Node management
 - OBSMET : Universal Obs Data Collection System
 - WIGOSMET : local WIGOS metadata repository and synchronizer
- Services
 - GTS integration trough AMSS (as long as needed)
 - Integration to NMS Information system



MFI Solution for full GBON Compliance

- OBSMET (UDCS)
 - Universal collection of surface observation data with plugin system (AWS, AWOS, existing DCS)
 - Advanced monitoring features, Data controls (quality control, BUFR encoding GBON compliance)
 - Messages entry form, Automatic message production
 - And many more (automatic data recovery, remote maintenance, realtime data dashboard, etc)
- WIGOSMET
 - National metadata repository compliant with WIGOS
 - Exchange metadata with OSCAR/Surface and synchronize local systems
- WIGOS Regional Center
 - **WIGOSMET-OBSMET-WIS2MET** facilitate the exchange of station metadata and observation data
 - As part of the Regional Wigos Center, WMO focal points at the NMS can rely on these MFI systems to address issues raised by the WRC.

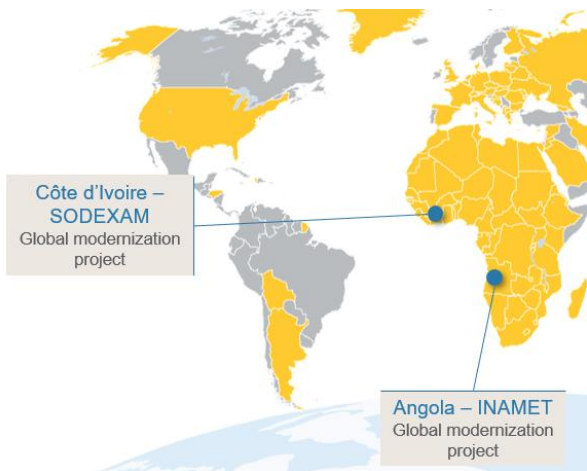


- Deployment
 - Automated setup on any node (physical or virtual) compliant to hardware and software requirements
 - Automated network setup for the Public WIS2 Node with a dedicated qualified domains name and secured reverse proxy configuration
 - Customer support for registering the center as a WIS2 node
- Training
 - MFI provides training and support materials for the NHMS to get skills on the WIS2
 - Subscription and reception of data from WIS2
 - Publication of data on WIS2
- Support and update
 - MFI helpdesk
 - Annual update





Ongoing projects



Current projects including
Obs Collecting, WIGOS and WIS2

(OBSMET, WIGOSMET, WIS2MET systems)

OBSMET 2.0.0 SUPERVISION CONFIGURATION OBSERVATION

Supervision Réseau / Réception des observations

Indicateurs sur carte
Indicateurs dans un tableau
Réception des observations
Complétude des observations

Alarms de supervision
Données techniques

Sélection des critères

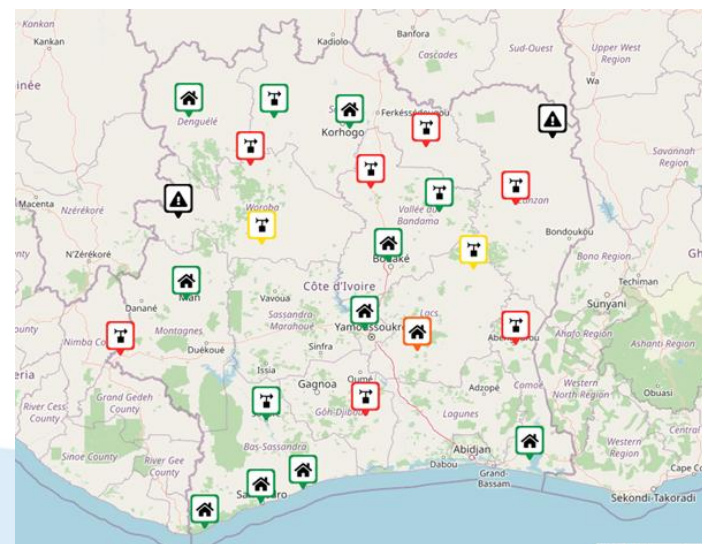
Sélectionner une date: 2023-03-02

Sous-station: Tous les sous-stations Modèles de station: Tous les modèles de station Type de télécom: Tous les types de télécom

Légende

- Nb messages reçus + Nb messages attendus
- Nb messages reçus > Nb messages attendus
- Nb messages reçus < Nb messages attendus
- Aucun message reçu
- Aucun message tout attendu
- En attente de réception

Stn--	Identifiant WIGOS--	Données--	Type de télécom--	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Score
BOGOUA-VIGILM	0-3841-026	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
BOUNALI	0-3841-236	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
DABAKALA	0-3841-237	AVIS SYNOP - STERELA - M.200	35	227	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	100%
DIVO-VIGILM	0-3841-238	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
MONG-VIGILM	0-3841-239	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
MORONDO-VIGILM	0-3841-240	AVIS SYNOP - STERELA - M.200	35	1	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	48%
MARIBAN-VIGILM	0-3841-241	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
MANOUA-VIGILM	0-3841-242	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
PREROU-VIGILM	0-3841-243	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
BEQUEL-VIGILM	0-3841-244	AVIS SYNOP - STERELA - M.200	35	60	58	60	60	60	58	57	58	58	58	57	57	57	57	57	57	57	57	57	57	57	57	57	57	99%
SOLBRE-VIGILM	0-3841-245	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
TOLLEPEU-VIGILM	0-3841-247	AVIS SYNOP - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
ADIAKE	0-20000-0-65585	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
BOUARE	0-20000-0-65555	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
DMORHO	0-20000-0-65562	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
KORHOGO	0-20000-0-65556	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
MAHÉ	0-20000-0-65558	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
ODIANE	0-20000-0-65528	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
SAN PEDRO (38594-0)	0-20000-0-65594	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
SASSANDRA	0-20000-0-65599	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
TALOU	0-20000-0-65562	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
YAMOUSOUKRO	0-20000-0-65563	AVIS SYNOP avec observateur - STERELA - M.200	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
BOUHA	0-3841-235	EN ATTENTE D'INSTALLATION	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%
TOUBA-VIGILM	0-3841-246	EN ATTENTE D'INSTALLATION	35	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	99%



OBSMET monitoring of SODEXAM stations (Ivory Coast)



METEO FRANCE
INTERNATIONAL



Thanks for your attention

Contact sales@mfi.fr

<https://www.linkedin.com/company/meteo-france-international/>

Meteo France International, *With you for Weather*

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