

# PPE-DBO integrated W4ALL approach in support to the UN EWS initiative

Patrick Bénichou, President



RA-I Regional Conference  
Addis-Abeba, Feb.14, 2023

**WMO OMM**

**World Meteorological Organization**

**Organisation météorologique mondiale**



# 1. MFI positioning and vision for PPE-DBO

The way to safe, effective and sustainable implementation of the MET value chain?



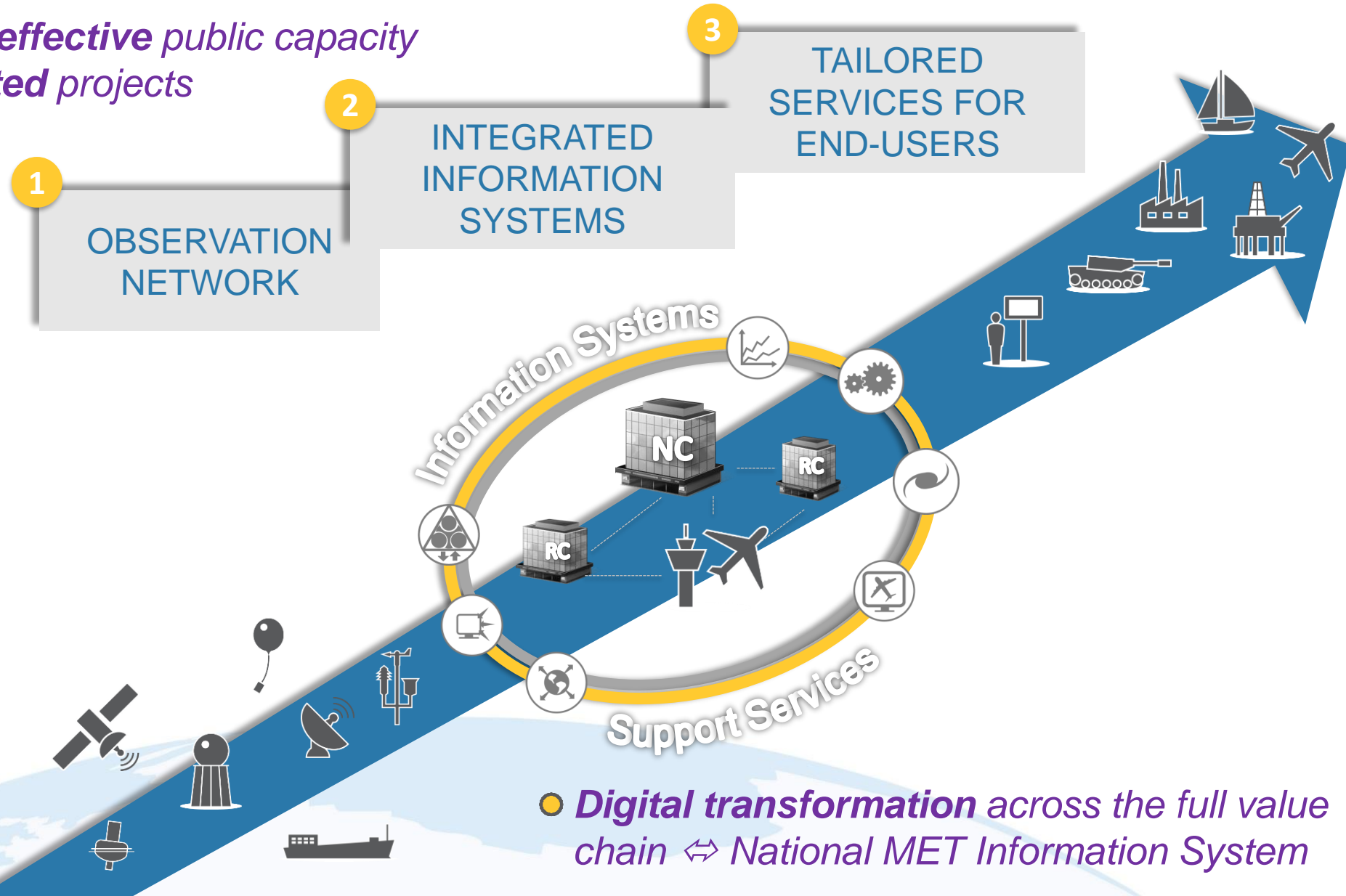
WMO OMM





# MFI strategic positioning : 20 years on the side of NMHSs

- *Build sustainable & effective public capacity through fully integrated projects*



- *Digital transformation across the full value chain ↔ National MET Information System*



# MFI pioneer in PPE-DBO (Design Build Operate) business model

for effective & sustainable implementation of NMHS value chain

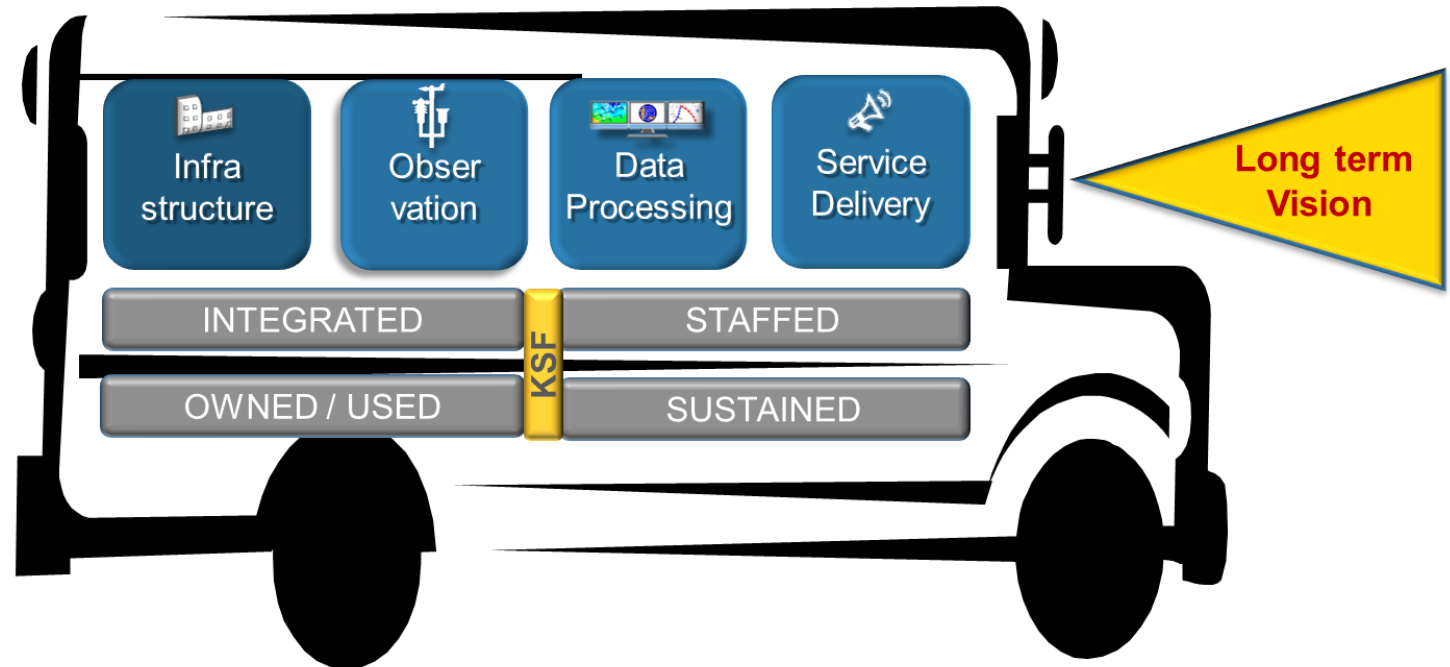
« *No one left behind* »

## Full National Value Chain implementation

+

## KSF (Key Success Factors)

- System integration
- Capacity building
- Change management
- Standard Operating Procedures
- Relation with stakeholders
- Organization



From 1st Donors Conference, Geneva, Apr. 2016



# MFI leader of **DBO** integrated projects across the value chain

## • Angola (2019-2023)

- DBO Modernization project across the Value chain
- €€ by **Export Credit Société Générale**



## • Indonesia (2020-2024)

- 2<sup>nd</sup> DBO project now focusing on **Impact Based Warning & services**
- €€ by **French Treasury** soft loan

Indonesia STR2 (24+8M€, 2020-2025)

- « Repeat order » after STR1 (30M€, 2012-2016)
- Scaling up and upgrade of successful concepts
  - Digital Forecast & collaborative work
  - PWS
  - Services to Aviation
- Implement innovative concepts
  - E.g. **Impact Based Forecast**
- Extend concept / architecture to Marine met. & Oceanography
- Train MSc students in France

IBFWS application over Indonesia

IBFWS application – potential impact

Hazard (24h rain acc. Normalized AROME – 2.5 km)

Vulnerability (specific for heavy rains InaRISK 100m aggregated 2.5 km)

Capacity (for all risk admin. level 3)

Risk theory equation

Potential impact

## • Cote d'Ivoire (2023-2026)

- DBO Modernization project across the Value chain (+ revenue sharing)
- €€ by **AFD** (**first DBO project** ever)

Abidjan, 21 octobre 2022  
Patrick Bénichou  
Président de MFI

**PRESENTATION DU PROJET VIGICLIMM**  
Modernisation de la Direction de la Météorologie Nationale de la SODEXAM

VIGICLIMM  
Vigilance, Prévisions et Alertes précoces, Services climatiques et météorologiques

Aperçu du projet VIGICLIMM...

VIGICLIMM: vers la DMN / SODEXAM 2.0

Construction d'un bâtiment

Observation

Applications thématiques

Système d'Information

Services d'accompagnement  
Conseil, Formation, Intégration, Support, etc.

Toulouse, 22 Sept. 2022 – Signature d'un accord SODEXAM / MFI  
Rayonnement de la SODEXAM sur les pays alentours pour la mise en œuvre de projets à l'international comme le **W4ALL** (Alertes pour tous)



# PPE-DBO strong points in brief

for **effective** & **sustainable** modernization of NMHSs

- “**DB**” means that **the one in charge of the design is the one implementing the solution**
- “**O**” means that **NMHS is not left alone** with modern technology and new concepts **after the project** is completed.
- **DBO main values and success factors**
  - **Design and Build** : Full commitment of the designer to deliver and implement
  - **Comprehensive**: Integrated, across the full value chain
  - **Flexible**: design can be adjusted along time
  - **Owned by NMHS**: through twinning, consultancy, change management, SOPs... and trust!
  - **Quick**: Typically, 3-4 years for Design and Implementation of a complete project incl. Capacity building and Change Management
  - **Effective & Measurable**: Through relevant KPI on internal benefit, socio-economic benefit, and WMO compliance
  - **Risk minimization**: DBO is nothing but transferring the risk to the Private sector (integrator)
  - **Sustainable**: Assistance to operations of the underlying infrastructure over the value chain + Assistance to seek yearly budget for O&M after DBO project is over

# Acknowledgements (2018, 2020, 2022)



## PUBLIC-PRIVATE ENGAGEMENT

2020

### Compendium of Good National Practices for Public-Private Engagement

#### Meteo France International (MFI): Modernizing NMHSs through public-private partnerships

Patrick Bénichou  
Meteo France International

How to best implement the Meteorological Value Chain at the national level, how to best use the public monies, in the most effective and sustainable ways are challenges of this decade for a lot of National Meteorological and Hydrological Services (NMHSs), and no NMHS can embrace the whole value chain with the same level of energy. Public-Private Engagement would address those challenges; within which the DBO (Design Build Operate) approach could bring a lot of incentives to NMHS in the field of system integration, change management, sustainability. It is also fully compliant with the spirit of the Geneva Declaration - 2019 endorsed during the 18<sup>th</sup> World Meteorological Congress.

#### The Workshop finally came along with the following recommendations

1. Request for systematic promotion of the PPE-DBO approach in the most practical way for integrated NMHS modernization projects, incl. showcasing successful experiences
2. Scale up the PPE-DBO approach by in-depth changes (i) in the project design methodology; (ii) in the implementation methodology; (iii) in the procurement plan (to systematically include joint design and long-term assistance to operation); (iv) in the capacity development at country level; (v) in the respective roles of development partners, WMO, private sector, so as to better align with the spirit of the Geneva Declaration
3. Seize the opportunity of the EWS initiative to initiate such in-depth changes and implement PPE-DBO concept in the field wherever it is relevant.

2022



April 24, 2018

Mr. Patrick Bénichou  
President  
Meteo France International

2018

Dear Mr. Bénichou,

On behalf of the Global Facility for Disaster Reduction and Recovery (GFDRR), I would like to thank you and your team for organizing and joining the knowledge sharing visit on the modernization of the Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG) for the GFDRR Hydromet and the World Bank teams on April 16-17 in Jakarta, Indonesia. The experience of the modernization of BMKG carried out by the Meteo France International (MFI) is extremely valuable, and would be applicable for many countries that are going through or planning the process of modernization of their national meteorological and hydrological services.

The team highlighted several important aspects that had been taken into account by the MFI to ensure the sustainability of the modernization results for the BMKG. Specifically, the team noted the efforts invested in building local capacity and empowering of the staff of the BMKG in order to sustain systems and services. The "turnkey" approach used by the MFI for the modernization of the BMKG presents a lot of interest and potential for large-scale NMHS modernization projects supported by the World Bank/GFDRR Hydromet program and should be studied further. The team also took note of the thorough process of change management that accompanied the project throughout implementation. Other key points discussed during the study tour as well as potential areas for future collaboration are summarized in the follow up note which was also shared with the management of the BMKG.

Once again, we appreciate the opportunity to learn from the experience of agencies such as MFI and BMKG, and look forward to continuing collaboration.

Sincerely,

Francis Ghesquiere  
Manager

Global Facility for Disaster Reduction and Recovery

## ● Context

- PPE-DBO proved **successful in all cases**, even renewed (e.g. Indonesia, others to come)
- PPE-DBO **principles are now « supported »** by WMO & major development partners
- PPE-DBO **meet strong expectations** from the field

## ● Scaling up the approach would require **in-depth changes**

- In the **project design methodology** (joint design)
- In the **implementation methodology** (DB)
- In the **procurement plan** (integrated approach, + inclusion of an « O » period)
- In the **respective roles** of development partners, WMO, private sector (integrator + local partners), for **alignment** with the spirit of the Geneva Declaration

● As of 2022, ***most multilateral agencies do not comply (yet) with the spirit of DBO...***

- ...never too late !





## 2. The UN EWS initiative & the **W4ALL** approach

A logical application of the DBO model?



WMO OMM





# The W4ALL (Warning for All) approach

An original initiative launched by MFI and supported by ~20 countries (11/2023)

## Main goal: bring high-level principles to WMO, UN agencies and Development partners

- to help secure UN EW4A **timely, effective and sustainable** implementation and set up **appropriate financing**

### • P1: Target integrated projects across the full Early Warning / Early Action value cycle

- Technical (data, systems) and non-technical (capacity building, procedures) aspects
- Incl. Vulnerability data and impact assessment for **Impact Based Warning** approach



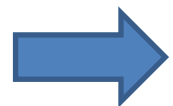
### • P2: Dare PPE-DBO (Design-Build-Operate) approach

### • P3: Qualify Public-Private Consortia

- For design, delivery, implementation, and sustainable operation of the solution over a geographical area of interest
- Consortia qualify against high level specs and principles (e.g. **sovereignty**) only

### • P4: Set up fitted financial mechanism

- compliant with PPE-DBO approach across the full EW/EA value chain, based on existing mechanisms



*MFI ready to lead a consortium involving **PREDICT Services** and other entities to guarantee seamless integration across the full EW/EA value cycle*

# The W4ALL (Warning for All) approach

How this can work in the real world: regional implementation of the **EW/EA value cycle** for the benefit of **NMHSs** and **DRMOs**

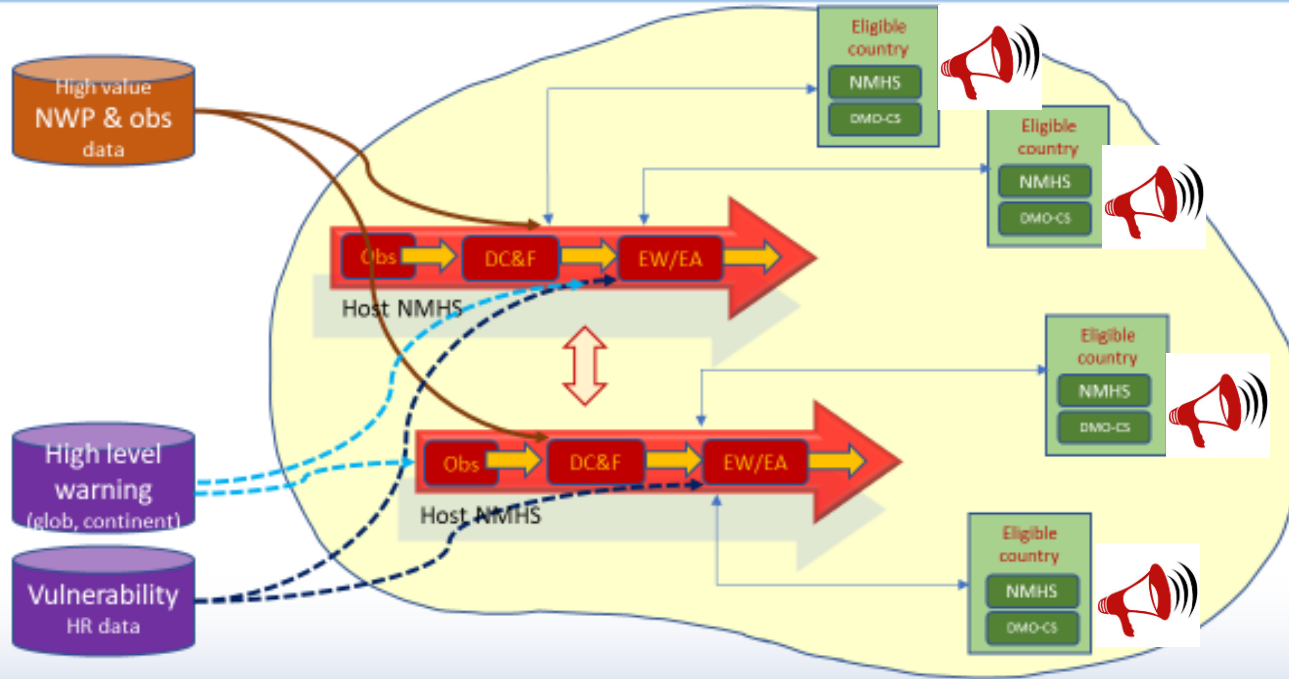


Disaster knowledge Preparedness



Observ. & Forecast Dissemination

## W4ALL typical deployment over an « area of responsibility »



1 area of responsibility (yellow) includes

- A number of « host NMHS » (incl. RSMCs when relevant) hosting the W4ALL solution
- All **eligible countries** (incl. NMHSs and stakeholders) connected to one host NMHS through the internet

## How consortia work in the W4ALL approach



Each consortium will

- comply with a list of high level requirements / criteria
- Implement UN EWS on a given area of responsibility



# Join the W4ALL (Warning for All) approach !

High-level workshop on PPE-DBO initiatives in meteorology  
Sept.21-22 2022, Toulouse, France

Joint declaration on the W4ALL initiative for UN EWS



**16 countries supporting the declaration already**  
(Africa x6, Asia x2, S.America x2, N.America x2, Europe x4)

**W4ALL approach advertized in 2022-2023**  
in WMO TECO (Oct) ; RA-VI (Europe, Nov); COP27 (Nov); RA-I (Africa, Feb)



### Statement from the WMO Early Warnings for All Conference

We appreciate and welcome:

- The significant contributions of UNDRR, REAP, CREWS, ITU, GEO, CMO, European Commission EMS, HMEI, IFRC, and many other stakeholders toward realizing the benefits of the UN Early Warnings for All Initiative;
- The willingness of and contributions from private sector organizations in supporting the activities of NMHS's including Smart Communications, F24, Google, Alibaba, Microsoft, IBM and other private sector companies delivering hydrometeorological services and multi-national initiatives such as W4ALL, toward realizing the benefits of the UN Early Warnings for All Initiative.

UN EWS initiative  
**Warning for All** approach



BE ANOTHER BRICK  
IN

THE  
W4ALL



Merci! On en discute?  
Thank you! Let's talk!



**WMO OMM**  
World Meteorological Organization  
Organisation météorologique mondiale