



World Meteorological Organization

Weather • Climate • Water

Broadening Space Weather Stakeholders Engagement: A WMO Perspective

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WMO Space Programme

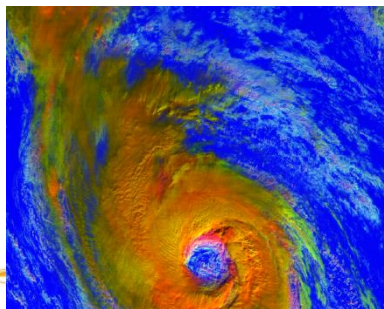
World Meteorological Organization

The specialized agency of the United Nations for weather, climate, operational hydrology (+ emerging role in Space Weather)

191 Members (States & territories)

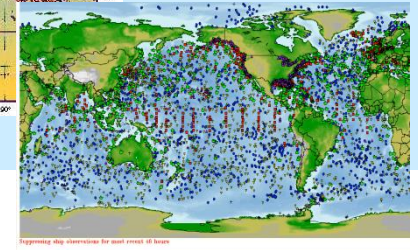
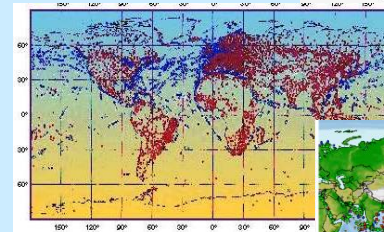
High-level goals :

- Protection of life and property
- Economic and social wellbeing
- Protection of environment and natural resources



Priorities in the 2012-2015 strategic plan

- Global Framework for Climate Services
- Integration of observing systems
- Disaster risk reduction
- Support to aviation
- Capacity building



A WMO policy towards the commercial sector?

- As an intergovernmental organization WMO mainly deals with governmental entities
- WMO implements the policies agreed by its Members (states) represented by the Head of National Weather/Hydro. Service
- The links with commercial sector are essentially a national matter: each country has its own model
- WMO Members may adopt guidelines
 - To promote best practices
 - To secure international cooperation needed for WMO programmes



Evolving roles of the commercial sector

- Historically, the commercial sector provides goods/services ordered by the governmental customer (e.g. satellites, radars, supercomputers, telecommunications)
- Commercial sector extends well beyond this initial role and overlaps with some traditional public service functions
- Should such a wider role of the commercial sector be promoted ? To what extent, in what directions ? How ?



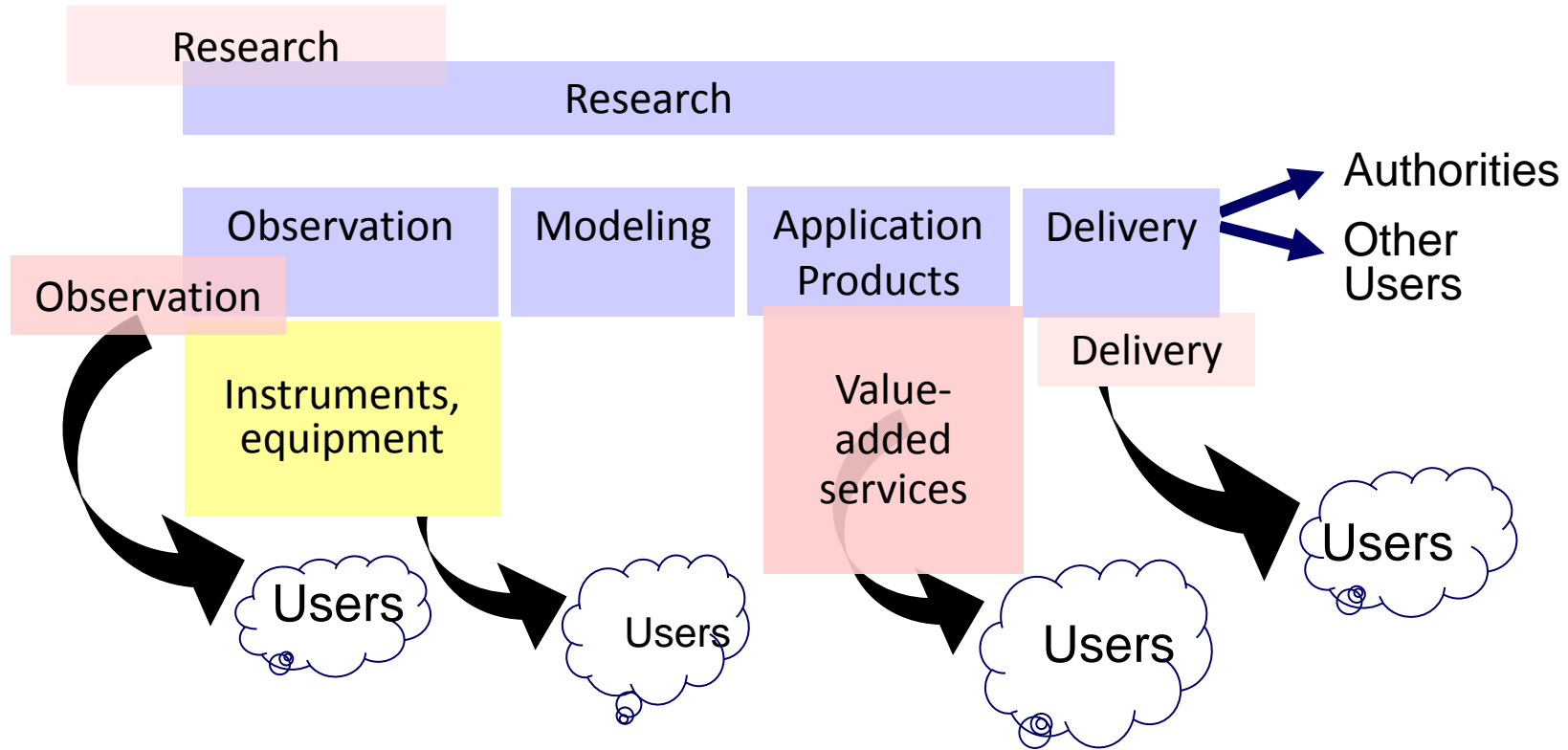
WMO Congress deliberations (2007)




Dialogue and partnership with commercial sector

- Dialogue with **service providers** helps mutual understanding
- Dialogue and partnership with **media** is very useful
- **Public-private partnerships** provide benefits to *some* Members
- Commercial sector can provide:
 - **supplementary observation data sources**
 - additional means to **deliver** products
 - **value-added services**
- Commercial sector offers opportunities for expanding the range of products & services from National Met/Hydro Services



Evolving role of the commercial sector



-  National Met Service
-  Provider-customer
-  Other commercial



Dialogue at the WMO level

- Several NGOs representing the commercial sector have consultative status with WMO
 - Association of Hydrometeorological Equipment Industry (HMEI)
 - International Association of Oil and Gas producers (OGP)
 - International Federation of Air Lines Pilots Associations (IFALPA)
 - International Association of Broadcast Meteorology (IABM)
- Exchange of information, development of standards, dissemination of best practices, innovative solutions
- Space Weather Workshop an excellent example of dialogue !



Examples of partnership in meteorological observation

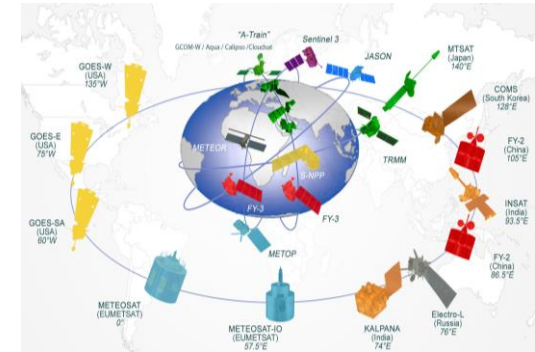
- *Meteorage* lightning detection network
 - Operationalized a new technology
 - Provided thunderstorm monitoring service in France
 - The met service (Meteo-France) finally became *Meteorage* shareholder
- Numerous partnerships with major **users** of met services: additional observations help refined forecast
 - Airlines include meteorological sensors aboard aircraft (AMDAR)
 - Highway companies performing road weather observations
 - Ski resorts performing weather/snow/avalanche observations
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Example of the space-based observing system

Global coordination

- WMO defines requirements, Vision and global planning through dialogue among its Members and their space agencies
- System is implemented by Members' agencies (e.g. NOAA/NESDIS, NASA) with industrials contractors
- Some WMO Members may engage in public/private partnership to share risk and investment (Canada with new Radarsat Constellation)
- Contribution to WMO implies international commitment (best effort)
 - Comply with globally coordinated plan
 - Agreed standards
 - Open data policy for essential data
 - User information and support



Enhancing Innovation, Initiatives, Investment (EIII)

- Investments needed to support science-based environmental services (climate impact, disasters, or space weather..)
- Pressure on public funding tends to limit public services to core activities
- Commercial sector can complement public effort and meet broader range of user needs (EIII)
- Strong role of governmental sector is essential
 - Governmental responsibility for protection of life and property
 - Secure long-term availability of core infrastructure and services
 - International commitments to contribute to the global system
 - Guarantee open exchange of essential data (Res.40)

