

# WMO Data Conference Workshop #2

## Business Models and Data Policy Issues: The changing landscape of weather and climate data



**WMO OMM**

World Meteorological Organization  
Organisation météorologique mondiale

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## CONVENTION OF THE WORLD METEOROLOGICAL ORGANIZATION

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### PART II

#### ARTICLE 2

##### Purposes

The purposes of the Organization shall be:

(a) To facilitate worldwide cooperation in the establishment of networks of stations for the making of meteorological observations as well as hydrological and other geophysical observations related to meteorology, and to promote the establishment and maintenance of centres charged with the provision of meteorological and related services;

(b) To promote the establishment and maintenance of systems for the rapid exchange of meteorological and related information;

(c) To promote standardization of meteorological and related observations and to ensure the uniform publication of observations and statistics;

(d) To further the application of meteorology to aviation, shipping, water problems, agriculture and other human activities;

(e) To promote activities in operational hydrology and to further close cooperation between Meteorological and Hydrological Services; and

(f) To encourage research and training in meteorology and, as appropriate, in related fields and to assist in coordinating the international aspects of such research and training.



## Resolution-40

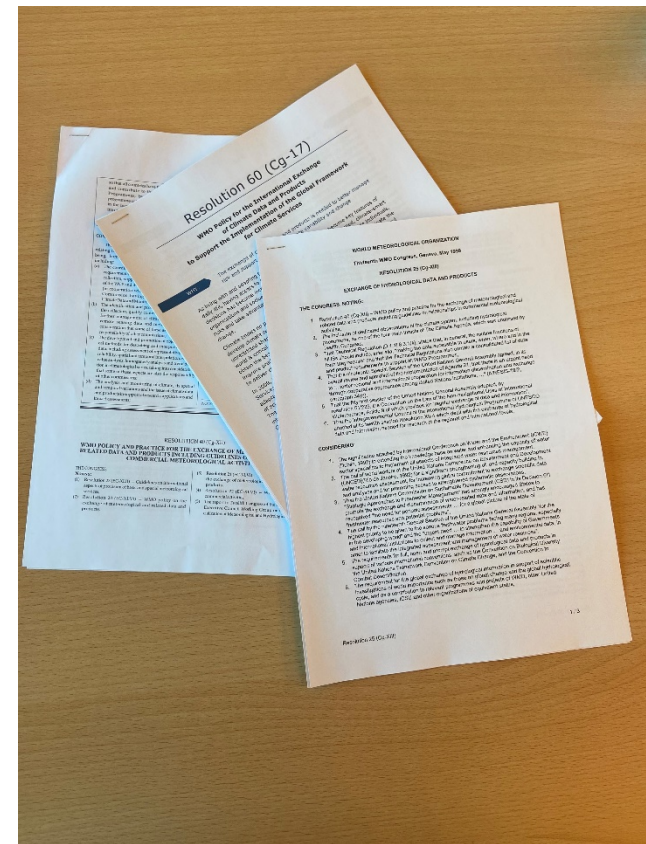
Meteorological and related data  
12<sup>th</sup> WMO Congress in 1995

## Resolution-25

Hydrological data and products  
13<sup>th</sup> WMO Congress in 1999

## Resolution-60

Climate data and products  
17<sup>th</sup> WMO Congress in 2015



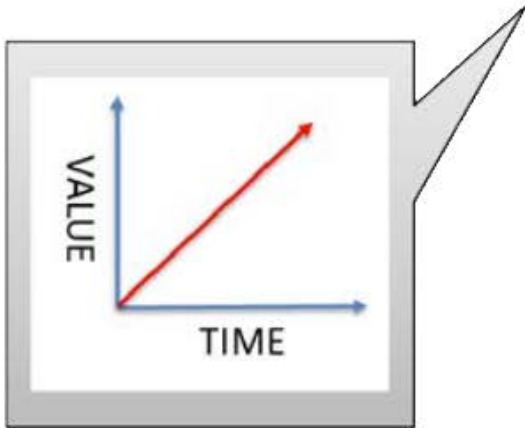


**ADOPTS** the following policy on the international exchange of meteorological and related data and products:

*As a fundamental principle of the World Meteorological Organization (WMO), and in consonance with the expanding requirements for its scientific and technical expertise, WMO commits itself to broadening and enhancing the free and unrestricted<sup>1</sup> international exchange of meteorological and related data and products;*

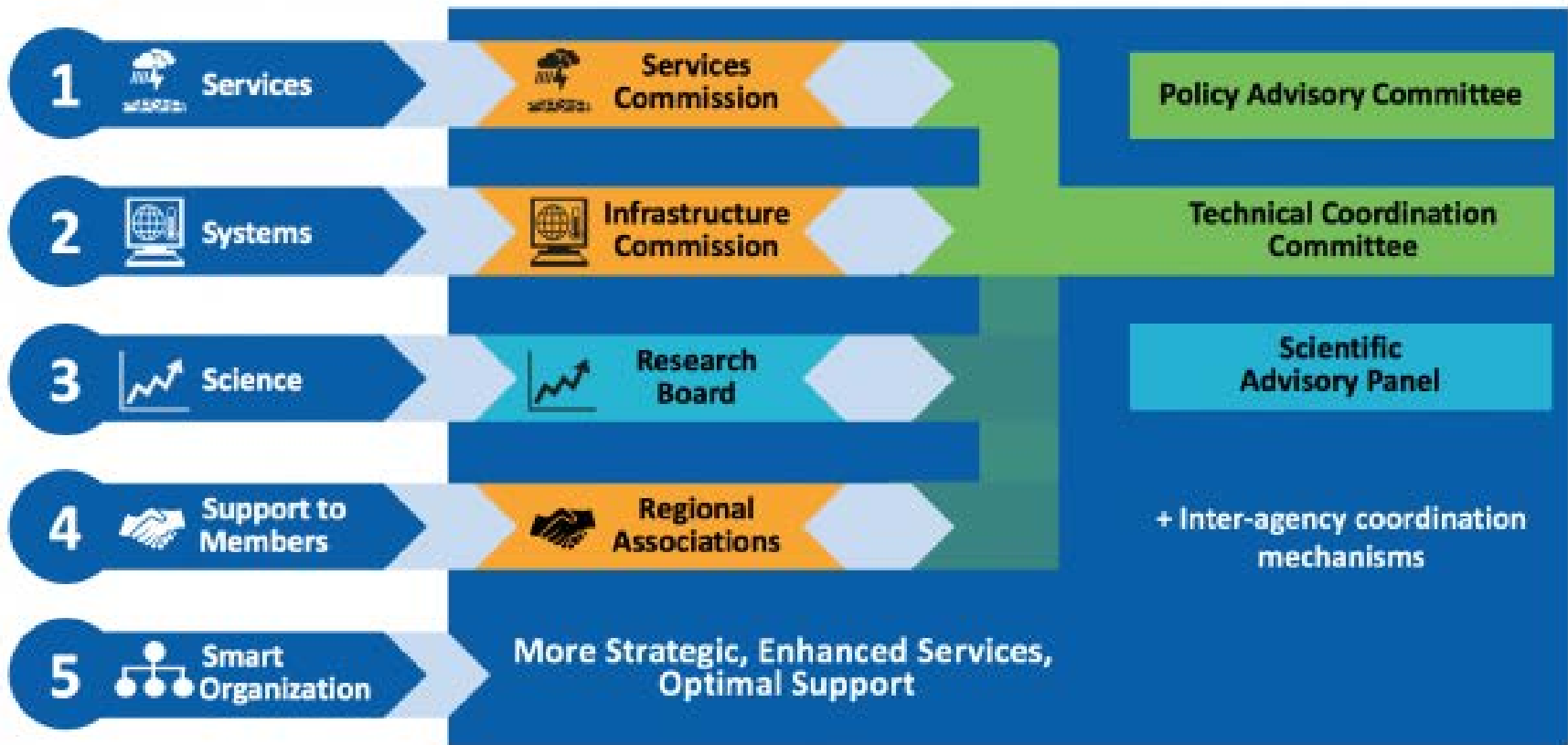
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<sup>1</sup> “Free and unrestricted” means non-discriminatory and without charge [Resolution 23 (EC-XLII) – Guidelines on international aspects of provision of basic and special meteorological services]. “Without charge”, in the context of this resolution means at no more than the cost of reproduction and delivery, without charge for the data and products themselves.



Services

Impact and Value



# Data Challenges – there are a few .....

Social media

Localised services

Meeting basic obligations

Sensor webs

Digital delivery on demand

User capabilities increasing

More data, more often

Personalised services

User expectations increasing

Commercial data

Communications costs

Environmental change

Making investment choices

More extreme weather

More diverse data providers

More agile competitors

Data for sale    Cloud vs local

Single authoritative voice

Resource pressure    Traceability

Build or buy

Populations at risk

Reliance on bespoke systems

Quality monitoring

Discoverability

Automation

Building partnerships

Infrastructure at risk

Keeping up with technology change

Internet of Things

Verification

Sourcing/Retaining skilled staff

Data/metadata management

Interoperability with user data

Business continuity

Compliance with regulations

Performance monitoring

Licence conditions

Revenue potential

Sustainability

Research vs operational data

More diverse data platforms

Enabling new science

Data ownership and rights

Emerging compute technologies



# Proposed approach to a revised WMO data policy

- Overarching approach
  - Single policy
  - Full earth systems coverage
  - Res 40 ‘strawman’
  - Modernising context
  - Consistent, unambiguous language and definitions
  - Implementation and monitoring
  - Regular review and update process, fit-for-purpose and fit-for-time



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- working title ‘Res 42’



# Proposed structure of Res 42

- Structure
  - Policy, practice and guidelines
  - Res 42 plus Annexes (currently 4)
    - Annex 1 – Practice for relevant domains/disciplines
    - Annex 2 – Public-Private engagement
    - Annex 3 – Research
    - Annex 4 – Definitions
  - Linked to regulatory material
  - Essential, additional data categories
  - Pathway for emerging data types



# Some issues (so far ...)

- Providing clarity about who the policy applies to:
  - Clearly, to WMO Members, but what message, obligation, encouragement and/or enticement is conveyed to stakeholders beyond NMHSs
- Reflecting the changing mix/dynamic of the global community and the changing landscape of wcw&e data
  - In the policy and the practices of data exchange
- Influencing national (and other) data policies to support efficient and effective implementation of the WMO data policy
  - Cannot be prescriptive at national level, but how to best encourage or incentivise





# Thank you Merci



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