

WIS 2.0 strategy

How to meet WMO members needs in responding to technical and societal changes

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WMO OMM

World Meteorological Organization
Organisation météorologique mondiale

WMO Information System

- Network infrastructure, process and procedure to discover, access and exchange data
- WIS intended to support all WMO Programmes
 - Reality is that only World Weather Watch is well represented
- WIS is a network for expert (centres from WWW)
 - Difficult to put new data on WIS
 - Difficult to find data
 - Difficult to know that WIS exist
- In its current form, the WIS, and mainly the GTS, is a niche infrastructure that supports the expert meteorological community



Trends

- Constant increase in the flow of data to exchange and information to be disseminated to our various users mean that it is necessary to re-think how data is process, managed and shared
 - Data volumes created by earth observing and numerical prediction systems continue to grow considerably faster than the performance of telecommunications networks
 - Other sources of information are becoming available that may have data volumes that exceed those of traditional data sources, such as indirect information and crowd sourcing
- Users expect to access weather, water and climate information and services through the same mechanisms that they use for other types of information, using familiar interfaces and applications
- Users wish to combine mobile, cloud and social technologies to access a wider range of information sources and to collaborate in new and different ways



Trends

- Common data sharing platforms and technology are a prerequisite
 - Risk reduction and emergency response requires collaboration with multiple agencies
 - Assessing the impact of environmental hazards requires meteorological data to be combined with other socio-economic data
- Changes in data supply patterns and user expectations present new challenges that the current WIS struggles to meet
 - FTP protocol is no longer an appropriate method of delivering information on time
- At the same time, changes in technology present new opportunities

Opportunities

- Increasing use of the Web as a data sharing platform
- Commercial infrastructure providers offer
 - stable, secure and cost-effective ‘cloud’ hosting of virtualized computing resources
- Search engines (Google, Bing, Yahoo etc.) remain the common entry point for discovery of information
- Application Programming Interfaces (APIs) and Web Services are now very common solutions for process and exchange of data
- Messaging services and protocols offer new opportunities for sharing meteorological data in real-time based on common industry practices
- Applications such as Dropbox indicate that file distribution services have become commoditized and are no longer the domain of specialized applications such as GTS message switching

WIS 2.0

- Information System operated by Members built on commercially available services and industry standards
 - To exchange at the right moment the relevant information and avoid moving unnecessary large volumes of data between centres
 - To broaden the range of information available and improve data producers and data consumers experience
 - To simplify access to the information and make its use easier in order to develop new products, applications and services
 - Providing applications/services infrastructure alongside the data, and a catalogue of information and services
 - Avoiding duplication through use of shared components built on infrastructure
 - Allowing to use infrastructure and services to build services that meet the needs of domestic stakeholders
- A virtual one stop shop of weather, water and climate information



WIS 2.0

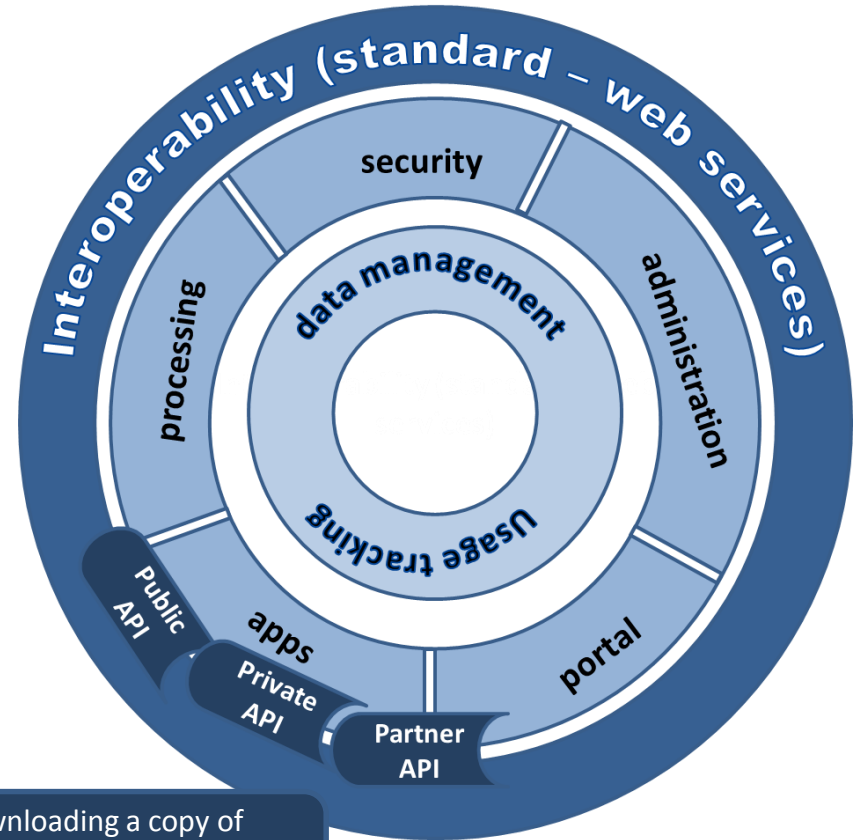
- All WIS data will be
 - Managed
 - Documented & Discoverable
 - Accessible and Easy to use
 - API to improve selection and granularity of requested data sets
 - Services to visualize or process the data and only ingest the required information

WIS 2.0 - the platform

- A global information management, processing and sharing platform

Acquisition
Dissemination

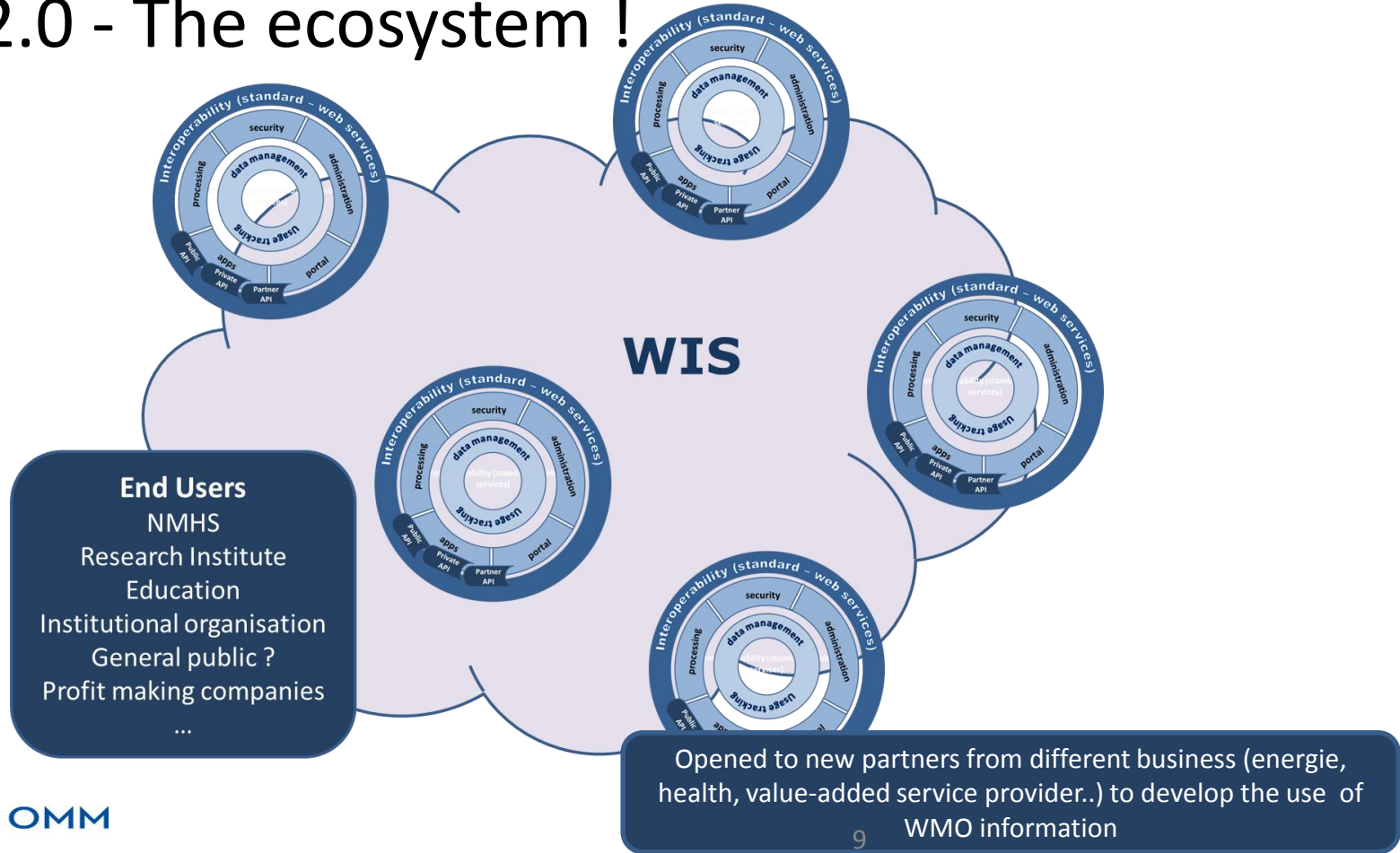
Collaboration



Change in user behaviour from downloading a copy of information for local processing to using *services* that process the information at its source



WIS 2.0 - The ecosystem !



WIS 2.0 - Data Lifecycle Management

WIS 2.0 platform will be complemented by a set of principles to encourage best-practice in data life cycle management) by the WMO community





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Thank you Merci