



World Meteorological Organization

Weather • Climate • Water

CBS Inter Programme Expert Team on WIGOS Framework  
Implementation (IPET-WIFI)

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Item 4.2

WIGOS Operational Information Resource (WIR)

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# WIGOS operational Information Resource (WIR)

[www.wmo.int/wigos/wir](http://www.wmo.int/wigos/wir)

- Goal: Provide single access point for WIGOS stakeholders (*Network decision makers, Implementation Coordinators, Data users etc.*)
- Shall contain all relevant information on the status and evolution of WIGOS and its components
- Launched during EC-65
- To be fully operational from 2015



# The WIR web portal - [www.wmo.int/wigos/wir](http://www.wmo.int/wigos/wir)

## WIGOS Operational Information Resource

### The WIGOS Operational Information Resource (WIR)

**Note:** The WIR is currently under construction, and tools and some of the information meant to be delivered here may not be available at this point. These are added gradually, and the plan is to have WIR completed by Cg-17 (2015).

The WMO Integrated Global Observing System (WIGOS) is an integrated, comprehensive, and coordinated system which is comprised of the present WMO global observing systems, in particular of the in situ and space-based components of the Global Observing System (GOS), the Global Atmosphere Watch (GAW), the Global Cryosphere Watch (GCW), and the WMO Hydrological Observing System (incl. WHYCOS). WIGOS also provides a framework for the contributions of WMO to the co-sponsored observing systems.

The WIGOS Operational Information Resource (WIR) is a network platform and tool designed to provide WIGOS stakeholders with all relevant information on the operational status and evolution of WIGOS and its component observing systems, the operational requirements of WIGOS, including standard and recommended practices and procedures used in the WIGOS framework, and their capabilities to meet observational user requirements of all WMO Application Areas.

### The WIR provides information on the following WIGOS topics:

1. WIGOS concept, rationale and benefits
2. Management, and coordination mechanism
3. Design, planning and optimized evolution of WIGOS component observing systems
4. Observing System Operation and Maintenance, and Quality Management
5. Standardization, System Interoperability and Data Compatibility
6. Data Discovery, Delivery and Archival
7. Capacity Development, Communication and Outreach
8. WIGOS component observing systems

### WIGOS Tools:

- SORT: "Standardization of Observations" Reference Tool
- OSCAR: Observing System Capability Analysis and Review tool
  - OSCAR/Requirements: Observational User Requirements
  - OSCAR/Space: Space-based capabilities
  - OSCAR/Surface: Surface-based capabilities

The functional requirements of the WIR are available [here](#).

The diagram below summarises the key WIGOS Framework Activity Areas ([click on each activity below for more information](#)).



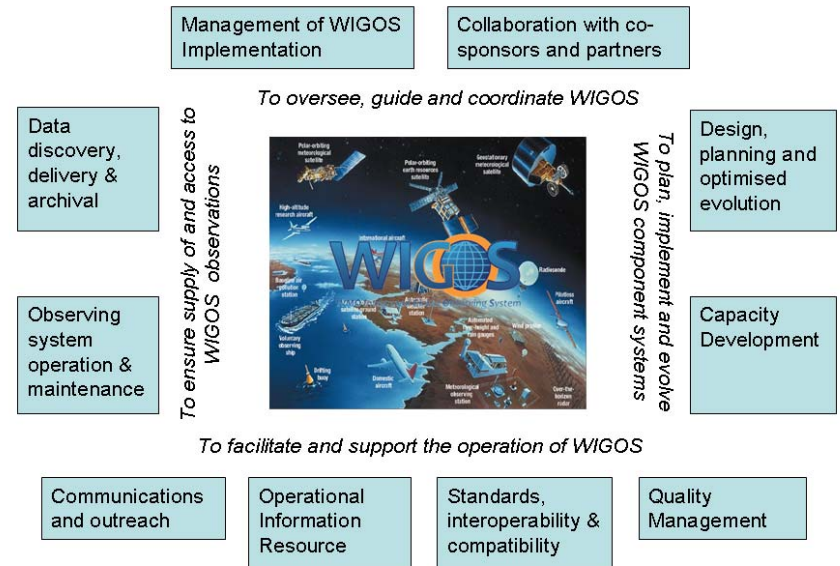
### Related items

- Project Office
- Implementation
- RRR
- EGOS-IP
- GOS
- GAW
- GCW
- WHYCOS
- Co-sponsored

### Tools:

- WIR
- SORT
- OSCAR
- OSCAR/Requirements
- OSCAR/Space
- OSCAR/Surface

## WIGOS Framework: Key activity areas



# WIR purposes

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- General info. on WIGOS
  - Benefits
  - Impact
- Overall description of existing component observing systems (metadata)
- Monitor evolution of observing systems capabilities, compare with plans, and look at progress
- Access to existing national & regional plans



- Assistance to Members
  - Understanding observational user requirements
  - Provide information on the required standards (incl. search tools)
  - Identifying gaps & potential synergies to realize synergies
  - For data users: Identifying lists of stations & metadata
  - For developing countries: Impl. guidance & tools
  - Mechanism for matching needs with resources
  - WIGOS component observing systems to better comply with WMO observational user requirements and technical regulations, while remaining cost-effective



# Users of the WIR (audience)

- Members
  - Regional Associations
  - Technical Commissions & experts
  - Data users (internal & external to WMO)
  - Obs. network managers & implementers
  - Partners
- ⇒ All use information from the WIR
- ⇒ All contribute information to the WIR



# Role of Members, RAs, TCs

- Members & RAs
  - Compilation of national & regional requirements
  - Assist for the collection of information on national & regional capabilities
  - Use the WIR tools for national & regional network design & planning
- Technical Commissions
  - Technical advise (e.g. IPET-OSDE on OSCAR requirements)
  - Compilation and validation of global requirements (application area focal points)
  - Assist for the collection of information on specific observing systems capabilities (e.g. GAWSIS, WHYCOS, JCOMMOPS)



- “Standardization of Observations” Reference Tool (SORT)
  - Allows network supervisors, managers, operators, and data users to easily access information on relevant WIGOS Regulatory Materials, incl. standards
  - Experts to better apprehend standards, identify inconsistencies, and propose solutions
  - Goals are to
    - Optimize operational & development costs
    - Support production of coherent, traceable, documented data-sets
    - Improve data quality, and measurement uncertainty
    - Enhance data usability
    - Harmonize standards & enhance interoperability





- Observing System Analysis and Review Tool (OSCAR)
- <http://www.wmo.int/oscar>
  - Used by the Rolling Review of Requirements (RRR) for the **analysis, design and planning** of WIGOS, allowing comparison of observational user requirements with actual or planned capabilities (critical review)
  - One-stop shop access to satellite, instrument, and ground-based network metadata
  - A tool for developing countries (avoiding having to develop their own database nationally)
- Components of OSCAR
  - [OSCAR/Requirements](#) (observational user requirements)
    - 12 Application Areas
    - > 200 variables
  - [OSCAR/Space](#) (space capabilities and tools)
  - [OSCAR/Surface](#) (basic/core metadata of surface-based obs. systems)
  - [OSCAR/Distributed](#) (complete metadata sets made accessible by Members & partners)



## IPET-WIFI – points to be noted

- ICG-WIGOS has overall responsibility of WIR
  - ICG-WIGOS looking at the Portal
  - TT-WRM looking at SORT
- IPET-OSDE has responsibility of OSCAR
- IPET-WIFI invited to provide feedback on current content of WIR

