**WORLD METEOROLOGICAL ORGANIZATION**

**INTER-COMMISSION COORDINATION GROUP ON WIGOS**

**(ICG-WIGOS)**

**Task Team on WIGOS Data and Partnerships (TT-WDP)**

**SECOND SESSION**

***Geneva, Switzerland, 20-22 September 2017***

**FINAL REPORT**



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| **CONTENTS** |
| [AGENDA](#AGENDA) |
| [Executive Summary](#EX_SUMMARY) |
| [General Summary](#GENERAL_SUMMARY) |
| [List of participants](#Appendix_I) (Appendix I)  [Terms of Reference for the Task Team on Data and Partnerships (TT-WDP)](#Appendix_II) (Appendix II)  [Guidance on WIGOS Data Partnerships](#Appendix_III) (Appendix III)  [Draft timeline for Phase 2 - WIGOS Data Guidance](#Appendix_IV) (Appendix IV) |

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**Agenda**

1. [ORGANIZATION OF THE SESSION](#Item_1)

2. [REPORT FROM THE CHAIR](#Item_2)

3. [REVIEW OF OUTCOMES FROM ICG-WIGOS-6 and EC-69](#Item_3)

4. [REVIEW OF TERMS OF REFERENCE](#Item_4)

5. [PHASE 1 - WIGOS DATA PARTNERSHIPS](#Item_5)

6. [PHASE 2 – WIGOS DATA GUIDANCE](#Item_6)

7. [ANY OTHER BUSINESS](#Item_7)

8. [CLOSURE OF THE SESSION](#Item_8)

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**Executive Summary**

The Second session of the ICG-WIGOS Task Team on WIGOS Data and Partnerships (TT-WDP-2) was held at the WMO Secretariat in Geneva, Switzerland, from 20 to 22 September 2017. The session was chaired by Mr Mike Manore and Matteo Dell’Aqua, co-chairs, TT-WDP.

The session reviewed the Terms of Reference for the Team ([Appendix II](#Appendix_II)), further elaborated the Draft Guidance on WIGOS Data Partnerships ([Appendix III](#Appendix_III)) and developed Timeline for the Phase 2 ([Appendix IV](#Appendix_IV)).

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**General summary**

**1.** **ORGANIZATION OF THE SESSION**

**1.1 Opening of the session**

1.1.1 The Second session of the ICG-WIGOS Task Team on WIGOS Data and Partnerships (TT-WDP-2) was held at the WMO Secretariat in Geneva, Switzerland, from 20 to 22 September 2017. The session was co-chaired by Mr Mike Manore (Phase 1) and Matteo Dell’Aqua (Phase 2) who welcomed the participants to Geneva.

1.1.2 Dr L. P. Riishojgaard, PM/WIGOS and Dr Sue Barrell, co-chair, ICG-WIGOS, also welcomed the participants to Geneva.

1.1.3 The list of participants is given in [Appendix I](#Appendix_I).

**1.2 Adoption of the agenda**

The session adopted the [AGENDA](#AGENDA)[[1]](#footnote-1) for the meeting, which is reproduced at the beginning of this report.

**1.3 Working arrangements**

1.3.1 The session agreed on its working hours and adopted a tentative work plan for consideration of the individual Agenda Items.

1. **REPORT FROM THE CHAIR**
   1. M. Manore briefed the session on the activities of the Team since TT-WDP-1, August 2016.
   2. It further highlighted the objectives of the session, i.e. the further review of the Guidance on WIGOS Data Partnerships, identification of supplementary material and case studies, next steps for its development; and scope and timeline for the Phase 2.
2. **REVIEW OF OUTCOMES FROM ICG-WIGOS-6 GUIDANCE FROM EC-69**
   1. M. Manore briefed the session on outcomes from ICG-WIGOS-6 and guidance from EC-69 relevant to the work of Task Team, mainly on the missing sections of the Guidance, access to NMHS data by external partners, and compliance with the WIGOS Metadata Standard (WMDS).
   2. Compliance with WMDS and completeness of metadata provided to OSCAR/Surface were recognized as a potential barrier to the contribution of observations by external partners The importance of two-way communications with partners, such as JCOMM, GCW and the research community was underlined; there are clear benefits of having complete and consistent WMD records in the OSCAR/Surface as they are used for assessment of national observing capabilities. Connection to WIGOS and WMO is also important for some partners for their better international recognition.
   3. S. Barrell briefed on the outcomes from the Second meeting of the CBS-led Review of Emerging Data Issues (CBSLR-EDI-2)[[2]](#footnote-2) due to their relevance to Phase 1 and Phase 2. The main issues were identified, such as sharing observations at a global level, partnerships and national infrastructure, opportunities.
   4. The importance of partnerships beyond data was stressed. Two-way guidance is needed, i.e. for NMHSs on how to work with partners and for partners on how to work with NMHSs in an observation related area (see also [5.2](#Item_5_2)).
3. **REVIEW OF TERMS OF REFERENCE**
   1. Terms of Reference were reviewed; no changes were proposed ([Appendix II](#Appendix_II)).
4. **PHASE 1 - WIGOS DATA PARTNERSHIPS guidance**
   1. The session reviewed the Guidance as a whole. The summary of the discussion is as follows:
5. Executive Summary to be included;
6. the length to be reduced with a less cautious tone; motivation for PRs to be strengthened;
7. links to training resources, such as OSCAR/Surface, WIGOS station identifier (WIGOS IDs), to be included;
8. Members and Partners to be encouraged to use WIGOS IDs more actively;
9. transition arrangements from the current practices and procedures to the WIGOS IDs to be understood better;
10. benefits of compliance with WMDS to be better explained– to encourage PRs and partners; it is highly relevant to WMO credibility and it also strengthens relevance of NMHSs;
11. section 5.7 Archive should be reviewed to be consistent with the rest of the Guidance;
12. duplication on OSCAR/Surface to be reduced;
13. more references to hydrology to be provided;
14. agreement template examples to be in the Guidance;
    1. The requirements/recommendations expressed during the discussion can be summarized:
15. there is a basic need to complete the migration from traditional alphanumerical codes to the Table Driven Code Forms (TDCF) in order to support the WMDS; ICG-WIGOS-7 should recommend to EC-70 how to address this issue;
16. there is a risk associated with strict compliance with the WMDS that could limit international exchange of observations. This should also be considered by ICG-WIGOS-7;
17. the need for more training activities on technical aspects (OSCAR/Surface, WIGOS metadata standard, IDs) to be considered by ICG-WIGOS-7;
18. practical guidance on the transition to WIGOS IDs is desirable;
19. once the Guidance is approved by EC-70, all WMO Programmes should be requested to provide their feedback and provide data partnerships-related case studies and lessons learned;
20. more guidance and communications material is needed for:
    1. donors (e.g. World Bank, UNDP, etc.) about the role of NMHSs, on benefits of engagement in WIGOS implementation, and collaboration with NMHSs on a sustainable and reliable national observing system/network;
    2. NMHSs, on how to build/enhance their observing capabilities, and how to work and negotiate with donors in this respect;
    3. partners, on why (benefits) and how (steps) to assign WIGOS IDs is needed;
    4. partners, on why (benefits) and how to approach NMHSs and to provide their data to NMHSs. It was agreed that it may be premature to aggressively reach out to potential data contributors until there is an established ‘WIGOS-Open’ infrastructure ready to accept external data.
    5. The sections on Commercial Arrangements (4.5) and WIGOS Metadata (5.2) were reviewed and the corresponding text was updated.
    6. Specific discussion was dedicated to solicitation of new material related to partnerships for the WIGOS web site, under a new “Case studies” page. Examples could be provided by Côte d'Ivoire (integration of the partner observing networks); Australia (lighting detection network; Australian Ocean Observing Partnership); Brazil (La Plata project); UK (raingauge network); Italy (Sava River Data Policy). The WIGOS-PO was requested to check availability of related material in the Office for Resource Mobilization and Development Partnerships (RMDP). It was recommended that the Case studies web page should be advertised in the WIGOS newsletter with a request to volunteers to provide more examples.
    7. The future steps toward finalizing this version of the guidance were discussed. In this regard, the Secretariat briefed on the internal publication process after approval by EC-70. It was agreed that the Guidance should be submitted to EC-70 for approval and published subsequently in all WMO languages. In the future, the Guidance should be expanded to reach GAW, GCW, hydrological and marine communities. The relevant Secretariat staff should provide feedback on what is missing in the current version from this perspective and how to best make additional guidance available.
    8. The reviewed draft Guidance is accessible through [Appendix III](#Appendix_III). The draft timeline for the further development of the Guidance is presented in [Appendix IV](#Appendix_IV_Ph1).
21. **PHASE 2 – WIGOS DATA GUIDANCE**
    1. Mr M. Dell’Aqua recalled the Terms of reference (TOR) of the Team for Phase 2. In this connection, he briefed on TOR of the Task Team on Information Management (TT-IM) and the relevant task of the Inter-programme Expert Team on the Climate Data Modernization Programme (IPET-CDMP). He highlighted the similarity of the TOR of the different teams.
    2. The session was briefed on the forthcoming WMO Workshop on Information Management (WWIM), 2-4 October, and the first meeting of the TT-IM, 5-6 October. The connection between these two events and relationships with TT-WDP was explained. The main objective is to adopt a WMO global approach to data/information management; how to define common practices and procedures meeting requirements of many WMO Programmes and application areas; and then verify if applications have some specifics in the area of data management.
    3. Mr M. Dell’Aqua also presented the status of WIS, trends, opportunities, and evolution of WIS towards WIS 2.0 with new technologies, platforms and how data lifecycle management will be addressed within WIS 2.0.
    4. Two broad topics were discussed from several aspects:

a) Best practices in WMO global data management (DM):

- main issues and limitations regarding: data backup, security, database interoperability, data exchange, best use of new technologies, data management tasks, archival and retention policies,

- needs and requirements for data management to support observation “services”, including data archival and retention (policies and practices); how to deal with observations of different quality;

b) WIGOS observations and data/information management:

- WIGOS data/observations and WIGOS “services”,

- NMHSs needs, how to meet them in the best way, how to enhance NMHS data management capacities,

- responsibilities of data centres relevant to WIGOS data management.

* 1. The summary of the discussion is as follows:
* Long-term data preservation, especially big data will be a challenge, e.g., what and how long should data be archived; what is the technology to be used; what kind of data policy would be needed, etc.;
* The WMO IM system must be able to deal with the WIGOS metadata standard and its constraints;
* Real-time access to WMO observations by non-NMHSs agencies to be considered;
* Diversity of DM practices and procedures implemented by many NMHSs to be reflected;
* Diversity of technologies used and diversity of NMHSs DM capabilities to be taken into account;
* IM should be able to deal with a very different quality of observations, and in some cases with unknown quality;
* IM should be able to deal with different data licenses and data policies;
* Interoperability with other forms of data to be addressed;
* the IM requirements to support the WIGOS Data Quality Monitoring System and OSCAR/Surface to be considered in the WMO IM architecture;
* the WMO IM architecture needs to consider the diversity of technological capabilities of Members, e.g. LDCs having no or very limited IM infrastructure and Internet connectivity;
* Guide to IM should cover a whole end-to-end system and include change management process and traceability of the IM system.
  1. The provisional timeline was discussed and the final draft is presented in [Appendix IV](#Appendix_IV_Ph2).

1. **ANY OTHER BUSINESS**
   1. There was no other business considered
2. **CLOSURE OF THE SESSION** 
   1. The session closed on Friday, 22 September 2017, at 13:00 hours.

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**Appendix I**

**LIST OF PARTICIPANTS**

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**Appendix II**

**Terms of Reference for Task Team on Data and Partnerships (TT-WDP)**

Terms of Reference for theTask Team on Data and Partnerships (TT-WDP) are as follows:

***Phase 1:***

1. Maintain awareness of the evolving operational and policy context of integrating data contributed to WIGOS from non-NMHS sources, and
2. Develop guidance material on WIGOS Data Partnerships on:

* establishing and maintaining data partnerships
* integration of data from non-NMHS data providers
* data quality and data quality monitoring
* data sharing and data exchange
* commercial considerations
* other related matters

***Phase 2:***

1. Consider current and emerging information and communications technologies (ICT), best practices for strategic data management and emerging trends in data and its use, and
2. Develop guidance material on WIGOS Data Management and Data Stewardship on:

* the role of WIS, NMHS and partner systems in the data lifecycle
* best practices for data integrity and data preservation
* the challenge and opportunities of ‘Big Data’ and associated emerging trends in relation to data and its use
* models and best practices in data stewardship (roles, responsibilities for data governance)
* matters of compatibility among the legacy and emerging data management practices of the various WMO Programmes and Commissions (e.g. CBS, CIMO, CCl, CHy)

1. On emerging data issues (e.g., ‘Big’ data, crowdsourcing, commercial data, etc.), maintain awareness of the activities and align guidance material with the direction of the Executive Council Task Team on Data Policy and Emerging Issues (EC/TT-DPEI), the perspectives of Technical Commissions, and subsequent actions by CBS.

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**Appendix III**

**Guidance on WIGOS Data Partnerships**

The updated version is available at:

<http://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/TT-WDP-2/TT-WDP-2.html>

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Appendix IV

* 1. **Draft timeline for Phase 1 – Guidance on WIGOS Data Partnerships**

31 Oct 17: a new version for a review by TT-WDP

27 Nov 17: a WebEx session (to review this draft)

15 Dec 17: a final draft submitted to ICG-WIGOS (to be available on the ICG-WIGOS-7 webpage)

15 Dec 17: case studies provided by TT-WDP volunteers to WIGOS-PO

15 Feb 18: feedback from ICG-WIGOS-7

28 Feb 18: a final version to be submitted to EC-70 (Annex to draft Resolution requesting approval, publishing in all WMO languages, and feedback from Members with a goal to publish the Guidance by 30 Sep)

31 May 18: the Secretariat related to the GAW, GCW, WHOS, marine observations provide feedback on the Guidance

* 1. **Draft timeline for Phase 2 - WIGOS Data Guidance**
* 2-4 Oct 17: WMO Workshop on Information Management (WWIM)
* 5-6 Oct 17: TT-IM-1: an input from TT-WDP-2 provided
* Nov 8: a WebEx session on the outcomes from WWIM and TT-IM-1
* 15-19 Jan 18, ICT-ISS meeting: draft structure of the Manual on IM and preparation for CBS-TECO
* Jan 2018, ICG-WIGOS-7: briefing on the progress
* 26-30 March 18, CBS-TECO: high-level structure of the Manual on IM; inputs from CBS
* April 18: comments from CBS and CBS-MG incorporated; the draft submitted to EC-70
* June 18 (EC-70): a high-level structure of the Manual on IM considered by EC
* July-Dec 18, TT-IM activities:
  + comments from EC integrated
  + 2nd meeting of TT-IM (joined meeting with TT-WDP and maybe also IPET-CDMP: tentatively early July (or early September): a consolidated version of the Manual on IM with key items in each chapter/section. High level structure of the Guide.
  + From July/Sept 18: if necessary development of a WIGOS specific guidance on IM by TT-WDP
  + Draft Manual with a high-level structure of the Guide provided to CBS MG, TT-WDP and IPET-CDMP for comments
  + Development of the final draft Manual and Guide for Congress-18

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1. For more details, see <https://www.wmo.int/pages/prog/www/WIGOS-WIS/meetings/TT-WDP-2/TT-WDP-2.html> (Doc.1.2) [↑](#footnote-ref-1)
2. Details are available at <https://wiswiki.wmo.int/tiki-index.php?page=CBSLR-EDI-2> [↑](#footnote-ref-2)