



## Capacity Building Workshop on Hydrological Data Exchange, Standardization, and Interoperability in Region VI

Online on 25 January 2024 from 13:00 to 16:00 CET and 26 January 2024 from 09:00 to 11:30 CET

Face-to-Face 29-30 January 2024, Zagreb, Croatia

## **Programme**

Time (CET)	Topic	Facilitator/Presenter
Online Session One: 25 January 2024 from 13:00 to 16:00		
13:00–13:20	Introduction and welcome	Dragan Zeljko, ISRBC Executive Secretary Sari Lappi, WMO Secretariat Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON
13:20–13:50	SAVA HIS	Mirza Sarač, ISRBC
13:50–14:15	WHOS and SAVA HIS (data protocols and tools, data, metadata)	Mirza Sarač, ISRBC Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON
14:15–14:30	Questions and answers	Johanna Korhonen, WMO Secretariat
14:30-14:45	Break	
14:45–15:00	Danube HIS	Zoran Major and Alex Hoebart, ICPDR
15:00–15:30	WaterML2.0 part 1-5	Sylvain Grellet, BRGM
15:30–16:00	Questions and answers, Closing	Johanna Korhonen, WMO Secretariat

Online Session Two: 26 January 2024 from 09:00 to 11:30				
09:00-09:05	Recap of day 1	Mirza Sarač, ISRBC		
09:05-09:20	SensorThings API and WaterML2.0	Hylke van der Schaaf, SensorThings API SWG co-chair and implementer of FROST Sylvain Grellet, BRGM		
09:20-09:35	WHOS DAB, Ontology, and other technologies	Enrico Boldrini, ESSI-lab of the CNR-IIA Washington Otieno, WMO Secretariat		
09:35–09:50	Questions and answers	Enrico Boldrini, ESSI-lab of the CNR-IIA Washington Otieno, WMO Secretariat		
09:50–10:00	Break			
10:00–10:15	WHOS Integration with other Systems (including WIS, OSCAR)	Enrico Boldrini, ESSI-lab of the CNR-IIA Washington Otieno, WMO Secretariat		
10:15–10:35	HydroSOS	Katie Facer-Childs, UKCEH Sulagna Mishra, WMO Secretariat		
10:35–10:50	Questions and answers	Sulagna Mishra, WMO Secretariat		
10:50–11:10	OSCAR/Surface and WSI	Lucia Cappelletti, MeteoSwiss Washington Otieno, WMO Secretariat		
11:10–11:20	Recap and conclusion	Johanna Korhonen, WMO Secretariat		
11:20–11:30	Closing remarks	Sari Lappi, WMO Secretariat Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON		
End of online session				
	Physical Session (ISRBC, Zag	reb Croatia) 29th January 2024		
09:00-09:30	Introduction and Welcome	Dragan Zeljko, ISRBC Executive Secretary Sari Lappi, WMO Secretariat Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON		
9:30–10:40	SAVA HIS (data interoperability and Tools)	Mirza Sarač, ISRBC		
10:40–11:30	Questions and answers	Johanna Korhonen, WMO Secretariat		
10:45–11:00	Coffee Break			

11:00–11:30	Demonstration of Danube HIS	Zoran Major and Alex Hoebart, ICPDR	
11:30–11:40	Open discussions: Learning exchange on SAVA HIS and Danube HIS	Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON	
11:40–12:30	Application of WIGOS Metadata Standard	Jörg Klausen, chair TT-WIGOS Metadata	
	KPIs for WIGOS metadata	Jörg Klausen, chair TT-WIGOS Metadata Anna Milan, WMO Secretariat	
12:30–12:40	Questions: Application of WIGOS Metadata Standard	Jörg Klausen, chair TT-WIGOS Metadata  Lucia Cappelletti, MeteoSwiss	
12:40–13:00	WSI and OSCAR demonstration	Lucia Cappelletti, MeteoSwiss Washington Otieno, WMO Secretariat	
13:00–14:00		Lunch	
14:00–14:30	WHOS DAB and OSCAR API XML template demonstration	Roberto Roncella, ESSI-lab of the CNR-IIA Lucia Cappelletti, MeteoSwiss	
14:30–15:40	Pilot registration of Stations in OSCAR	Roberto Roncella, ESSI-lab of the CNR-IIA Lucia Cappelletti, MeteoSwiss Washington Otieno, WMO Secretariat	
15:40–16:50	Water Quality Interoperability experiment: Implementation of WaterML2.0 part 5 in SAVA HIS (use sample data)	Sylvain Grellet, BRGM Hylke van der Schaaf, SensorThings API SWG co-chair and implementer of FROST Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON	
16:50–17:00	Recap	Sari Lappi, WMO Secretariat Johanna Korhonen, WMO Secretariat	
Physical Session (ISRBC, Zagreb Croatia) 30th January 2024			
9:00–9:15	Overview of WHOS DAB, Ontology, and technologies	Washington Otieno, WMO Secretariat	
9:15–10:45	Demonstrations: Implementation of WHOS Ontology; Metadata mappings, profiles, discovery and WaterML2.0 standards	Enrico Boldrini, ESSI-lab of the CNR-IIA Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON	
10:45–11:00	Break		
11:00-11:30	Integration of new OGC Standards e.g SensorThings API,	Hylke van der Schaaf, SensorThings API SWG co-chair and implementer of FROST Sylvain Grellet, BRGM	

11:30-12:00	Integration of CUAHSI Technologies, and HydroServer into WHOS	Enrico Boldrini, ESSI-lab of the CNR-IIA		
12:00–12:30	WHOS and WIS2.0 interoperability (global catalogue, and MQTT, topic hierarchy)	Enrico Boldrini, ESSI-lab of the CNR-IIA Washington Otieno, WMO Secretariat		
12:30–13:00	Questions and Answers	Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON Enrico Boldrini, ESSI-lab of the CNR-IIA		
13:00-14:00	Lunch			
14:00 –14:30	WHOS metadata quality	Juan F. Bianchi, Instituto Nacional del Agua, Argentina		
14:40–15:00	WHOS monitoring and WIS Monitoring	Enrico Boldrini, ESSI-lab of the CNR-IIA Washington Otieno, WMO Secretariat		
15:00–15:30	Open Discussion: Improvement of SAVA HIS	Mirza Sarač, ISRBC		
15:30–15:45		Break		
15:45–16:15	Open discussion: Optimization of performance of WHOS DAB and User Interface tools	Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON Washington Otieno, WMO Secretariat		
16:15–16:30	Conclusion, Next Steps for WHOS and HydroSOS in Sava, Danube and Rhine	Johanna Korhonen, WMO Secretariat		
16:30–16:45	Closing and final remarks	Sari Lappi, WMO Secretariat Zoran Major, International Commission for the Protection of the Danube River Silvano Pecora, WMO INFCOM Vice-President and Chair JET-HYDMON Dragan Zeljko, ISRBC Executive Secretary		
End of Training				