Water Loss 2022

June 19-22, 2022 Praha • Prague

PRELIMINARY PROGRAMME

Version 03, 1st October 2021

This programme is subject to change. Some presentations might have to be removed and others added.

Date and time of presentations may change.

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MONDAY 20 JUNE 2022

	Hall A	Hall B	Hall C
08:30 - 10:00	**Opening Ceremony**		
	Performance **Opening of Session** *to be decided* **Official Opening of Conference** *to be decided* **Welcome to Prague** *to be decided* **Welcome from the IWA Water Loss Specialist Group** *Stuart Hamilton*		
10:00 - 10:30	**Coffee Break**		
10:30 - 12:00	**Plenary Session** *Chair: Stuart Hamilton*		
10:30 - 10:50	**Three decades of systematic decline of water losses in the Czech Republic** Michaela Vojtechovska Sramkova — Czech Republic		
10:50 - 11:10	**Partnership to Save Water – A New Program of Excellence in the Province of Quebec, Canada to Support Utilities Reduce NRW** Mathieu Laneuville — Canada		
11:10 - 11:30	**The water loss control program of Vitens in the Netherlands aiming to almost eliminate NRW in 2030 at the latest** Cor Merks — Netherlands		
11:30 - 11:50	**To boldly go.....** Jo Parker — United Kingdom		
12:00-13:30	**Lunch**		
13:30-15:00	**Customer Metering**	**Asset Management (1)**	**Leak Detection technologies, strategies, equipment (1)**
13:30-13:50	A.1.1 **Francisco** **Arregui** Spain Analysis of the metrological performance in the field of residential solid-state water meters.	B.1.1 **Franz** **Tscheikner-Gratl** Norway The magnificent seven – challenges for the uptake of integrated multi-infrastructure asset management	C.1.1 **Anibal** **Colher** Mozambique Application of Mobile Surveyors in the Management of Physical Losses in DMAs of Maputo, Mozambique
13:50-14:10	A.1.2 **Ghada** **Alqatarneh** Jordan Accuracy Comparison Between Mechanical and Ultrasonic Meters in Hai Al-Nasser in Amman, Jordan	B.1.2 **Philippe** **Mappa** France Water losses management in trunk mains: A Management Approach	C.1.2 **Jan** **Kobr** Czech Republic Leaks in Prague City and Satellite detection
14:10-14:30	A.1.3 **Pieter** **Crous** South Africa A theoretical assessment of smart meters in the monitoring of water distribution networks for Non-Revenue Water reduction programm	B.1.3 **Mark** **Nicol** United Kingdom Failure risk analysis for pipeline renewal prioritisation using non-invasive condition driven tools and technologies	C.1.3 **Sune Hoveroust** **Dupont** Denmark Leak detection using acoustics in intelligent water meters
14:30-14:50	A.1.4 **Mthokozisi** **Ncube** South Africa Development of a Water Meter Performance Database for South Africa	B.1.4 **Cor** **Merks** Netherlands Preparation of an intelligent Asset Management Plan for better water management	C.1.4 **Stephen** **Tooms** United Kingdom Temperature-based leak detection: a new way of finding leaks
14:50-15:00	**Q&A**	**Q&A**	**Q&A**
15:00-15:30	**Coffee Break**		
15:30-17:00	**Pressure Management (1)**	**Making your distribution system SMARTER!**	**Leak Detection technologies, strategies, equipment (2)**
15:30-15:50	A.1.5 **Milna** **Mandusic** Norway Dynamic Pressure Reduction in Oslo – hydraulic and economic benefits	B.1.5 **Bambos** **Charalambous** Cyprus Self-Assessment Matrix for Water Systems Technical and Operational Performance	C.1.5 **Edmund** **Riehle** Germany Large pipeline monitoring through inline Distributed Acoustic Sensing (DAS)
15:50-16:10	A.1.6 **Ladislav** **Tuhovčák** Czech Republic Influence of changes in operating pressure on water consumption and water losses	B.1.6 **Flavio** **Oliveira** Portugal "PORTO 100% TELEMETRY" – An integrated approach to an efficient management of the water supply system	C.1.6 **Oded** **Fruchtman** Israel Pipe Condition Assessment Methodology through Acoustic Monitoring at SUEZ NJ by Aquarius-Spectrum
16:10-16:30	A.1.7 **Kosei** **Nishida** Japan Continuous multi-point pressure monitoring using an innovative pressure monitoring device	B.1.7 **Elio** **Arniella** USA Integration of Databases, Analytics, and Smart Water Balance of DMAs	C.1.7 **Jurica** **Kovac** Croatia Satellite-based leak detection and cost benefit
16:30-16:50	A.1.8 **Camille** **Chambon** France A new slow transient pressure-dependent model to simulate background leakages and inertia	B.1.8 **Grzegorz** **Karlik** Poland SmartFlow as a system for intelligent water supply network management.	C.1.8 **Alan** **Cunningham** United Kingdom Remote correlating acoustic logger trials in Southern Water (UK)
16:50-17:00	**Q&A**	**Q&A**	**Q&A**

TUESDAY 21 JUNE 2022

	Hall A				Hall B				Hall C			
08:30-10:00	**Innovative AI and Modeling Solutions**				**International Case Studies (1)**				**Leak Detection technologies, strategies, equipment (3)**			
08:30-08:50	Semantic Pipe Leakage Detection with FIWARE Smart City Platform				Hydraulic reformation of Nagpur water supply network				Identifying the suitability of DMAs for leak localisation			
	A.2.1	**Michaela**	**Leštáková**	Germany	B.2.10	**Sanjoy**	**Roy**	India	C.2.1	**Martijn**	**Bakker**	Netherlands
08:50-09:10	Trialling artificial intelligence to find leaks in Melbourne CBD				Implementation of an advanced NRW and leakage management system in SmVaK Ostrava				Pro-active leak management based on DMA fingerprints			
	A.2.1	**Stuart**	**Stapely**	Australia	B.2.10	**Zdeněk**	**Sviták**	Czech Republic	C.2.1	**Guido**	**Vaes**	Belgium
09:10-09:30	Reaching 8 % NRW through a smart infrastructure that meets the demands of the future				Larnaka Water Board – Challenges and opportunities 2021-2026				WONE App – Active leak control in your hands; a digital tool for Asset Management			
	A.2.2	**V. Pelin and**	**S. Granath**	Sweden	B.2.2	**Katerina**	**Charalambous**	Cyprus	C.2.2	**Ricardo**	**Guimarães**	Portugal
09:30-09:50	Advance Warning From Advance Data: How to identify Pipeline Risk using Geospatial AI				Challenges in moving to 24x7 water supply in Vasto city, Italy				Achieving low level of real losses in DMAs with advanced continuous monitoring and specific UARL			
	A.2.3	**Camilla**	**Braithwaite**	United Kingdom	B.2.3	**Annalisa**	**Gaccione**	Italy	C.2.3	**Rosa**	**Esposito**	Italy
09:50-10:00	**Q&A**				**Q&A**				**Q&A**			
10:00-10:30	**Coffee Break**											
10:30-12:00	**NRW data collection and tools for better decision making**				**Water Loss Control at a Crossroads – What should be the role of regulatory authorities ?**				**Performance indicators, benchmarking, target setting (1)**			
10:30-10:50	Taking the V6 for a Test Drive: the New AWWA Free Water Audit Software is Here				**PANEL DISCUSSION** Selected panelists from different countries will discuss issues related to the regulatory issues of water losses. I you have specific experience and would like to be on the panel, please contact the conference secretariat. secretariat@waterloss2022.org				Measuring and Benchmarking NRW Performance for a Non-Technical People – A Case Study Applied on Jordan's Water Utilities			
	A.2.4	**Will**	**Jernigan**	USA					C.2.4	**Tamer**	**Al-Assa'd**	Jordan
10:50-11:10	New method for Water losses management based on AquaRating								A global SMART approach to efficiency in water utilities (from sensors to smart actions)			
	A.2.5	**Francisco**	**Cubillo**	Spain					C.2.5	**Pedro**	**Perdigão**	Portugal
11:10-11:30	A holistic approach in the analysis of and turn-around strategies for municipal water supply systems - the perspectives of a financier.								International leakage management benchmarking – a comparison of utility performance, investment, and best practices			
	A.2.6	**Konstant**	**Bruinette**	South Africa					C.2.6	**Paul**	**Harris**	Australia
11:30-11:50	Preparing for the Future of Water Loss in Southern Nevada								Building a century of historical data for water balance and water loss PIs – a critical analysis of Bucharest water supply network			
	A.2.7	**Drew**	**Blackwell**	USA					C.2.7	**Alexandru**	**Aldea**	Romania
11:50-12:00	**Q&A**								**Q&A**			
12:00-13:30	**Lunch**											
13:30-15:00	**Innovative models for leak location (1)**				**District Metered Areas**				**Performance Based NRW Management Contracts (1)**			
13:30-13:50	Generative adversarial networks for online leak detection in water distribution systems				Establishment of measuring areas (DMA) on the water network operated by Szeged Waterworks Ltd.				Outsourcing of NRW Reduction and Murphy's Law			
	A.2.8	**Michael**	**Pointl**	Austria	B.2.4	**Zoltán**	**Istókovics**	Hungary	C.2.8	**Roland**	**Lieberger**	Austria
13:50-14:10	A hybrid leak detection framework using variational autoencoder surrogates				Modelling DMA metering accuracy to improve the water balance and prioritise meter replacements.				Performance based contracts in Portugal – contractual model and first results			
	A.2.9	**Prasanna**	**Mohan Doss**	Norway	B.2.5	**Mikal**	**Willmott**	United Kingdom	C.2.9	**Eduardo**	**Barbot**	Portugal
14:10-14:30	An innovative methodology for leak prelocation in water distribution networks based on numerical modelling, Machine Learning techniq				Mobile DMA testing for leakage assessment: perspectives from Ontario, Canada				Introducing Institutional Change through the Implementation of NRW Reduction Performance Based Projects			
	A.2.10	**David J.**	**Vicente**	Spain	B.2.6	**Bradley**	**Jenks**	United Kingdom	C.2.10	**Nuno**	**Fragoso**	Portugal
14:30-14:50	Real-world application of the dual model for model-based leak localization				Virtual DMAs – are they virtually useless?				Addis Ababa – the road to the Water Loss Reduction Performance-Based Contract			
	A.2.11	**David B.**	**Steffelbauer**	Norway	B.2.7	**Dewi**	**Rogers**	Italy	C.2.11	**Ignacio M.**	**Peña**	South Africa
14:50-15:00	**Q&A**				**Q&A**				**Q&A**			
15:00-15:30	**Coffee Break**											
15:30-16:40	**Smart water metering**				**Pressure Management (2)**				**Performance Based NRW Management Contracts (2)**			
15:30-15:50	Benefits of a long-term metering strategy: case study of a middle sized water utility company				Can pressure management save Norwegian water distribution systems from excessive water losses?				A Bayesian learning methodology for leak reduction and control PBCs in cities			
	A.2.12	**Filip**	**Wanner**	Czech Republic	B.2.8	**Marius Møller**	**Rokstad**	Norway	C.2.12	**Clive**	**Harrison**	Gibraltar
15:50-16:10	Study of minimum night flow and legitimate night use using smart metering data				Intelligent pressure regulating vehicle construction and pressure management practice				Performance Based NRW Management Contracts – Turnkey or Co-Management?			
	A.2.13	**Jonas**	**Kirstein**	Denmark	B.2.9	**Jianxun**	**Chen**	China	C.2.13	**Paul**	**Fanner**	United Kingdom
16:10-16:30	Smart meter network (AMI) in medium size Polish town. Case study.				Effect of pressure on leakage at pipe joints				Evaluation of the Performance Based NRW Management Models Being Used in Jordan			
	A.2.14	**Wojciech**	**Koral**	Poland	B.2.10	**Tina**	**Lin**	New Zealand	C.2.14	**Tamer**	**Al-Assa'd**	Jordan
16:30-16:40	**Q&A**				**Q&A**				**Q&A**			
17:00 - 18:00	**Open Meeting of IWA Waterloss Specialist Group: Activities, Initiative, Discussions**											

WEDNESDAY 22 JUNE 2022

	Hall A	Hall B	Hall C
08:30-10:00	**Performance indicators, benchmarking, target setting (2)**	**Dealing with Intermittent Water Supply**	**Asset Management (2)**
08:30-08:50	A.3.1 System Correction Factor for UARL in action in Europe, North America, Australia, UK and South Africa **Kate** **Stanton-Davies** United Kingdom	B.3.1 Intermittent water supply in the City of Freetown **Najeh** **Bouguerra** Tunisia	C.3.1 A method to predict pipe renewal impact on drinking water supply systems water losses **Eddy** **Renaud** France
08:50-09:10	A.3.2 The quest for the right water loss KPIs – ultimately a misunderstanding issue **Alexandru** **Aldea** Romania	B.3.2 Intermittent supply - managing air not water **Dewi** **Rogers** Italy	C.3.2 Smart Water Main Inspection and Condition Assessment Using a Systematic Approach to Pipe Selection **Reza** **Moslemi** Canada
09:10-09:30	A.3.3 Influencing factors for water loss targets **Joerg** **Koelbl** Austria	B.3.3 Applying downstream control to simulate continuous water supply under water shortage conditions **Tamer** **Al-Assa'd** Jordan	C.3.3 Machine Learning Classification Models applied to water service connections' leakage data **Cristiano** **Gouveia** Brazil
09:30-09:50	A.3.4 To ELL and Back **T Waldron** and **D Pearson** Australia	B.3.4 Leakage assessment using equivalent minimum night flow in Intermittent water distribution network **Abhishek Kumar** **Sinha** India	C.3.4 The Role of DMA Characteristics on Pipe Assessment for Infrastructure Asset Management **Manatsawee** **Nawik** Thailand
09:50-10:00	**Q&A**	**Q&A**	**Q&A**
10:00-10:30	**Coffee Break**		
10:30-12:00	**Organizational, Institutional and Training Issues**	**NRW Strategy Design**	**Innovative models for leak location (2)**
10:30-10:50	A.3.5 The organization and regulation of the water supply sector in selected EU countries, in the context of new water loss requirements **Klara** **Ramm** Poland	B.3.5 Impacts of demography on changes in water losses from drinking water networks **Eddy** **Renaud** France	C.3.5 Cloud correlation: Is discontinuous AI built on verified data the no-regrets answer to water leakage? **Neil** **Edwards** United Kingdom
10:50-11:10	A.3.6 Achieving gold standard teams **Jo** **Parker** United Kingdom	B.3.6 As the River Flows: Catawba-Wateree's Innovative Model for Building Water Loss Control **Tory** **Wagoner** USA	C.3.6 TWINETTM: Live operational modelling of distribution water networks **Aurélie** **Chazerain** France
11:10-11:30	A.3.7 Encouraging water utilities to use a holistic step by step approach to kick start sustainable NRW reduction – The "WISE" Approach **Katerina** **Charalambous** Cyprus	B.3.7 Development of a System Management Leakage Plan **Gary** **Wyeth** Thailand	C.3.7 Simulation model of water network: better understanding the system, and more comfortable work on projects **Lubomír** **Macek** Czech Republic
11:30-11:50	A.3.8 Water losses in rural water supply systems considering different factors **Diana C.** **Callejas M.** Netherlands	B.3.8 Assessing the impact of technology - Lean strategy for minimizing Water losses at Uganda's National Water and Sewerage Corporation **Gilbert B** **Muhwezi** Uganda	C.3.8 Hydro informatic tools for water loss reduction – use cases from the Czech Republic **Cecilia** **Wennberg** Denmark
11:50-12:00	**Q&A**	**Q&A**	**Q&A**
12:00-13:30	**Lunch**		
13:30-15:00	**Leak Detection technologies, strategies, equipment (4)**	**Latest information on the NRW situation in the U.S.A.**	
13:30-13:50	A.3.9 A laboratory-based leak noise simulator for testing acoustic correlators **Mauricio Kiotsune** **Iwanaga** Brazil	B.3.9 Survey Says: Results of the 2021 AWWA TEC Survey of Governmental Water Loss Policies **Steve** **Cavanaugh** USA	C.3.9
13:50-14:10	A.3.10	B.3.10 Exploring the North American Water Audit Reference Dataset (WARD) **George** **Kunkel** USA	C.3.10
14:10-14:30	A.3.11	B.3.11 NAWL-Points-Bulletin: The North American Water Loss Report – 2021 Edition **Will** **Jernigan** USA	C.3.11
14:30-14:40	**Q&A**	**Q&A**	**Q&A**
14:40-15:10	**Coffee Break**		
15:10-17:00	**Conclusions and Conference Closing**: *Stuart Hamilton*		
15:10-16:30	**Panel Discussion** Lessons learned at Water Loss 2022 and their immediate practical application: **Water Loss assessment and reduction in the EU: Is the new EU Water directive** 1.) Useful and a real step forward? 2.) Ridiculous and impossible to be followed by the majority of water utilities? 3.) In principle okay, but needs to be modified? **The conclusions of this discussion will form the basis of the "Prague Recommendations" which will be drafted by EU members of the WLSG and forwarded to water associations of all EU countries**		
16:30-17:00	**Closing**		