

Pi 2025 – 10th IWA Conference Benchmarking, Performance Assessment and Regulation of Water Services



**BENCHMARKING
AND
PERFORMANCE
ASSESSMENT**

Programm

08 – 11 JUNE, 2025

POZNAN, POLAND



<https://iwapi2025.org/>

CO-ORGANIZED BY:

AQUANET



POZNAN UNIVERSITY OF TECHNOLOGY



Peter Dane MSc. CE, managing director EBC Foundation, PI2025 conference chair

Dear colleagues,

I am pleased to announce that the IWA Specialist Group on Benchmarking and Performance Assessment, in collaboration with the Polish IWA Chapter and Poznan University of Technology, is organising the 10th edition of its series of PI-conferences in the beautiful city of Poznan, Poland.

Benchmarking and Performance Assessment is of growing interest in the sector because of emerging challenges like climate impact, water scarcity, energy efficiency and many more. Additionally, there is a need for more transparency on the performance of public services.

Since the first edition back in 2009, the PI-conferences have been a place to meet with water professionals and stakeholders to discuss - in a scientific setting - the use of performance indicators, performance assessment and benchmarking as a tool to improve drinking water - and wastewater services globally.

We therefore welcome colleagues from the water industry, consultants, scientists, representatives from ministries, regulators and anyone else interested in the topic of benchmarking and performance assessment to join us in June 2025 in Poznan!



dr hab. Paweł Chudziński, CEO of Aquanet S.A., Local Committee Chair

Dear Sirs and Madams,

I warmly invite you to visit my hometown, Poznan. Here, you can explore one of Europe's most beautiful old market squares, taste the unique flavor of St. Martin's croissants, and learn about the city's rich history, including the 160-year-old water supply company, now known as Aquanet S.A. Poznan also boasts the highest number of restaurants and students per capita in Poland. The city offers both vibrant urban life and natural beauty, with a central lake and nearby forests. Poznan is not just a place to work, but also a perfect destination for leisure and sightseeing. I look forward to the opportunity to host you.



dr inż. Jędrzej Bylka, Poznan University of Technology, Organising Committee Chair

Dear All,

I am more than happy that the IWA PI Conference will be coming to Poznan in 2025. This 10th-anniversary event will be an excellent opportunity to connect scientists and practitioners from around the world. It will also be a chance to promote IWA values in Poland. The importance of this conference lies primarily in the fact that benchmarking and performance assessment are crucial in developing evidence-based methods for the management and regulation of water and wastewater companies. I am confident that our meeting in June will provide a valuable opportunity to gain new knowledge and network with professionals from around the world. I look forward to welcoming you to Poznan in 2025!

ORGANIZER:



POZNAN UNIVERSITY OF TECHNOLOGY

Poznań University of Technology is an important link in the ecosystem of the academic city of Poznań, as well as of our region and country. It plays an important role in educating future generations of engineers. The reputation and prestige of our University of Technology are priority issues.

For a technical university with high potential, such as Poznań University of Technology, the level of scientific research with global impact and close cooperation with the socio-economic environment are extremely important. Scientific discoveries, catalysts of technological and civilisational progress are all examples of the uncompromising discovery of the truth about nature, phenomena and processes. The responsibility for this important area rests with all of us and it is crucial to initiate and stimulate the directions of strategic development.



Aquanet S.A. is one of the leading companies in the water and sewage industry in Poland. It is the largest water company in Greater Poland (Wielkopolska) involved in the abstraction, treatment, and distribution of water, as well as the collection and treatment of wastewater. The company also provides services in water management, wastewater treatment, and stormwater management. The company applies the highest water quality standards, serving nearly 900,000 residents in Poznań and the surrounding municipalities, while continuously improving the quality of its services.

LOCAL CO-ORGANISER:



WYDZIAŁ INŻYNIERII
LĄDOWEJ I ŚRODOWISKA

CONFERENCE PATRONAGE:



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prof. dr hab. inż. Krzysztof Wilde, czł. koresp. PAN

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For 100 years, we have been providing comprehensive solutions in the fields of water and heat, enabling consumption measurement, data reading, and customer billing. We develop products, services, and systems used by millions of consumers around the world.

We produce water meters, heat meters, and heat cost allocators, and offer remote reading services, utility billing, and management of water and heat distribution systems.

We create modern remote utility reading systems that can be operated on both stationary and mobile devices. Our measurement devices and systems eliminate reading errors, reduce data collection time, and ensure greater measurement accuracy. As a result, water resources can be managed more rationally and consciously, which is essential for environmental protection.

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MARCOR is a provider of solutions for water treatment in food, heating and energy industry plants since 1990. It offers equipment and cleaning chemicals with patented technologies, including recovery of process water (COW waters) in dairies. Company's clients are leaders of Polish food market: Mlekovita, MlekoPol, Piątnica, Żywiec, Carlsberg. Company's showcase are water treatment installations in American dairies.

Industrial water treatment plants. Recovery of process water in food processing plants: dairies (the so-called COW waters), meat plants, breweries. Water conditioning and chemical cleaning of installations. The company owns several dozen patents for water treatment technologies with food industry applications.

Conference Program

8 June 2025 (Venue: Campus of Poznan University of Technology)		
16:00	Pre-conference workshop: "Benchmarking and KPI's in Rewaise Project"	Organised by Rewaise UE https://rewaise.eu/
18:00	Wellcome Reception	
9 June, 2025 (Venue: Andersia Conference Center)		
8:30 - 9:30	Registration	
9:30 - 10:30	Opening Speech <ul style="list-style-type: none"> - Peter Dane (EBC, Netherland) - Jacek Jaśkowiak - Joanna Kidzińska Keynote presentation: Benchmarking - the way to increase efficiency Smart solutions to increase your efficiency Sponsor presentation	Chairman of Program Committee, European Benchmarking Co-operation, Netherlands Mayor of Poznan, Poland Director of Department of Water and Sewage Management, State Water Holding Polish Water, Poland Paweł Chudziński, President of Aquanet, Poland Damian Bruderek, Apator Powogaz, Poland Jan Marjanowski/Jan Hupka, Marcor Company Ltd.
10:30 - 10:50	Morning tea / coffee break	
10:50 - 12:20	Ecological, Hydrological, and Technical Indicators for Rainwater Management – The Basis for Dialogue on Better Infrastructure Management The Benchmarking of SUNASS in the Face of Environmental Challenges Towards a watershed-scale benchmark simulation model: Application to regulatory frameworks assessment Expansion of the Polish benchmarking with questions on the circular economy Eco-Efficiency: A New Challenge for Operational Sustainability Indicators at the Metropolitan Waterworks Authority, Thailand	Anna Januchta-Szostak & Jędrzej Bylka, Poznań University of Technology, Poland Ronald Jáuregui, Superintendencia Nacional de Servicios de Saneamiento - SUNASS, Peru Daniel Andres Mendoza Grubert, modelEAU - Université Laval, Canada Klara Ramm, Warsaw University of Technology, Poland Widchuda Liamsanguan, Metropolitan Waterworks Authority of Thailand, Thailand
12:20 - 13:20	LUNCH	

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Conference Program

<p>13:20 - 14:35</p> <p>SESSION 2</p> <p>Performance assessment in the context of new EU-requirements: DWD, UWWTD, CSRD</p> <p>chair: Peter Dane (EBC, Netherland)</p>	<p>The impact of differences in defining indicators on data comparability</p> <p>Strategic plan tool and assessment framework for urban wastewater treatment plants' adaptation to the new EU directive</p> <p>Performance Assessment of Irish Wastewater Treatment Plants: Identifying the gap to UWWTD and Recast UWWTD Compliance</p> <p>Energy and carbon balances in wastewater treatment plants in Portugal</p> <p>How can benchmarking support the achievement of energy neutrality targets in wastewater treatment plants?</p>	<p>Klara Ramm & Tomasz Cichoń, Warsaw University of Technology & Kraków Water, Poland</p> <p>Catarina Silva, LNEC, Portugal</p> <p>Edelle Doherty, University of Galway, Ireland</p> <p>Catarina Silva, LNEC, Portugal</p> <p>Maria Salvetti, Florence School of Regulation, Italy & Poznań University of Technology, Poland</p>
<p>14:35 - 14:55</p>	Tea / coffee break	
<p>14:55 - 16:25</p> <p>SESSION 3</p> <p>Benchmarking and regulation</p> <p>chair: Jędrzej Bylka (Poznań University of Technology, Poland)</p>	<p>Evolving Supervision and Regulation</p> <p>Advancing Urban Water Governance through Data-Driven Institutional Reforms</p> <p>Women in Leadership Positions: Progress Towards Equity in Water and Sanitation Service Providers in Peru</p> <p>Regulation of urban water services in Portugal. Alignment between the quality-of-service assessment system and recent developments in the legal framework</p> <p>Benchmarking Water Services in Tanzania: A Decade of Progress and Lessons</p> <p>Proposed Methodologies for Integrating Quality of the Service into Economic Regulation</p>	<p>João Gallas, ARES-PCJ, Brazil</p> <p>Valentina Bourgue, GFA Consulting Group GmbH, Germany</p> <p>Gretelina Castañeda Sanchez, Superintendencia Nacional de Servicios de Saneamiento - SUNASS, Peru</p> <p>Ana Rita Catarino, Water and Waste Services Regulation Authority, Entidade Reguladora dos Serviços de Águas e Resíduos, ERSAR, Portugal</p> <p>Titus Safari, Energy and Water Utilities Regulatory Authority (EWURA), Tanzania</p> <p>Elvira Estruch Juan, ITA, Universitat Politècnica de València, Spain</p>
<p>16:30 - 17:30</p>	IWA SG BPA open meeting	
<p>19:30</p>	Conference Dinner	

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Conference Program

10 June, 2025 (Venue: Andersia Conference Center)		
8:30 - 9:00	Registration	
9:00 - 10:30	<p>Benchmarking Efficiency to Support a Transition to Financial Sustainability in the South African Municipal Water Sector</p> <p>Benchmarking Risks in Public Irrigation Projects: Implications for Public-Private Partnerships in Brazil</p> <p>Social Tariff for Water and Sanitation Services in Brazil, Portugal, Argentina and Chile</p> <p>Potential Tariff Income and Need for Operational Subsidy Support: Affordability Considerations at 21 Large Municipalities in South Africa</p> <p>Benchmarking of Water and Wastewater Tariffs: Standardization of reporting and analysis</p> <p>Disaggregating Efficiency in Water Utilities: A Framework for Balancing Economic Performance and Service Quality</p>	<p>Nonjabulo Mbhele, University of Cape Town, South Africa</p>
SESSION 4		<p>Gabriela Reis, Strategic Center of Excellence in Water and Drought Policies (CEPAS), Brazil</p>
Benchmarking as a tool for financial evaluation		<p>Lucca Lopes Monteiro da Fonseca, University of São Paulo and Lawyer specialized in Basic Sanitation, Brazil</p>
chair: Elvira Estruch Juan (ITA, Universitat Politècnica de València, Spain)		<p>Francesca Raglione Mariutti, Lawyer specialized in Basic Sanitation, Brazil</p>
		<p>James (Jim) Gibson, Independent Consultant, South Africa</p>
		<p>Alexander Danilenko, University of Massachusetts, Amherst, USA</p>
		<p>Maria Molinos-Senante, University of Valladolid, Spain</p>
10:30 - 10:50	Tea / coffee break	
10:50 - 12:20	<p>Risk assessment for sewer systems to improve service efficiency</p> <p>Benefits from benchmarking – Optimising the operation of wastewater treatment plants for 25 years–</p> <p>Comparison of Capacity and Length of Distribution Pipe as Performance Indicators: A Case Study at Stationary Business Environment Utilities in Japan for Past 20 Years</p> <p>Redrawing Pump Characteristic Curves Under Real Operating Conditions in Water Supply Networks</p> <p>Results of research on unit water consumption in households conducted in Poland from 2001 to 2024</p>	<p>Paulina Napieraj, Miejskie Wodociągi i Kanalizacja w Bydgoszczy Sp. z o.o., Poland</p>
SESSION 5		<p>Pamela Raehmel, aquabench, Germany</p>
Decision-making support tools based on performance indicators		<p>Hiroshi Sakai, Tokyo Metropolitan University, Japan</p>
chair: Alan Wyatt (Independent Consultant, USA)		<p>Anastasia Papadopoulou, University of Thessaly/IANIC S.A., Greece</p>
		<p>Marian Kwietniewski, Warsaw University of Technology, Poland</p>
12:20- 13:20	Lunch	

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Conference Program

13:20 - 14:20	Analysis of ILI Value Variance Based on Data from a AMI Water Meter Reading System	Ewelina Kilian-Błażejewska , AIUT Sp. z o. o., Poland
SESSION 6	Preliminary Assessment of the Effectiveness of Water Loss Regulations in California, USA	Alan Wyatt , Independent Consultant, USA
Water loss assessment	Exploring the Combined Real Loss Index: An Innovative Metric for Assessing Water Losses in Water Supply Systems	Daniel Zipperer , aquabench, Germany
chair: Aleksandar Krstic (EUTOPIA PRO, Serbia)	International assessment of leakage levels from service pipes	Joseph Butterfield , Mueller Water Products, United Kingdom
14:20 - 14:40	Tea / coffee break	
14:40 - 15:40	Comprehensive risk assessment for smart water management using composite indexes	Álvaro Fernández Braña , Fundación, CETIM, Spain
SESSION 7	A comprehensive set of PI for the management of an utility control centre: the case of Canal de Isabel II	César Martín Megías , Canal de Isabel II, Spain
Performance assessment and digital transformation	Digital support for the management of sewer networks	Paweł Pęczek & Robert Sämman , ITWH GmbH, Poland
Chair: Klara Ramm (Warsaw University of Technology, Poland)	GIS-Based Solutions for Water Utilities Online	Panyawat Sirithum , Metropolitan Waterworks Authority of Thailand, Thailand
15:40 - 16:00	Tea / coffee break	
16:00 - 17:30	Index-based performance improvement planning and benchmarking: examples of application in the danube region	Aleksandar Krstic , EUTOPIA PRO, Serbia
SESSION 8	Does management matter? Early insights from NewIBNET performance benchmarking data	Luca Stanus Ghib , World Bank, US
Experiences with performance assessment and -improvement in the water industry	Rethinking Water Utility Performance Frameworks: An O&M-Centric Analysis in Conflict-Affected Contexts	Yulia Titova , GFA Consulting Group GmbH, Germany
chair: Paweł Chudziński (Aquanet, Poland)	Performance assessment systems as a strategic tool for public policies to strengthen efficiency in water distribution services: the Portuguese experience in Algarve region	Dalia Loureiro , LNEC, Brazil
	Benchmarking – yesterday, today and tomorrow	Kay Möller , aquabench, Germany
	Closing remarks	
11 June 2025 (Venue: Central Sewage Treatment Plant for Poznań in Koźiegłowy)		
09:30	Transportation by shuttle bus to and from the hotel reception will be provided.	

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Poster

Women in Leadership Positions: Progress Towards Equity in Water and Sanitation Service Providers in Peru

Social Tariff for Water and Sanitation Services in Brazil, Portugal, Argentina and Chile

Eco-efficiency: A New Challenge for Operational Sustainability Indicator at the Metropolitan Waterworks Authority, Thailand

Constructed Wetlands for Irish Municipal Wastewater: Performance Assessment Tool for Operational Decision Making

Polyurea-based composite with aseptic properties for the renovation of water supply networks - preliminary research

The Transitioning Processes of WWTPs towards Circular Economy Advancement by Silica Sand Recovery for GRP pipe production

Pharmaceutical environmental pollution: presence of antibiotics, effects and regulation

IWA Global Water Loss KPI Initiative

Challenges and opportunities to improve the balance of groundwater resources in Poland: a case study of second life for water reuse at the dairy industry by using advanced technology of WWTP

Gretelina Castañeda Sanchez, Ronald Jauregui Chipana; Supervision Directorate, National Superintendency of Sanitation Services -SUNASS, Peru

Lucca Lopes Monteiro da Fonseca, Francesca Raglione Mariutti; University of São Paulo and Manesco Lawyers Society, Brazil

Widchuda Liamsanguan, Apiradee Kuntreerattanarom, Metropolitan Waterworks Authority, Thailand

E. Doherty*, ** S. Boyle*, **, E. Clifford *, **; *University of Galway, **University Road, Ireland

A. Przybecki*, I. Kruszelnicka*, D. Ginter-Kramarczyk*, M. Motylski;** *Poznan University of Technology, **Terlan, Poland

A. Czaplą*, I. Kruszelnicka, J. Drewnowski*;** *Poznan University of Technology, **Terlan, Poland

J. Antos*, M. Piosik*, J. Zembrzuska*, D. Ginter-Kramarczyk*, I. Kruszelnicka*; *Poznan University of Technology, Poland

Alan Wyatt*, Joerg Koelbl, David Pearson***, Stuart Trow****;** *Independent Consultant, USA, **Blue Networks e.U., Austria, David Pearson UK, ****Stuart Trow, Invenio Systems Ltd, UK

J. Marjanowski*, J. Hupka, J. Drewnowski**;** *Marcor, **Gdansk University of Technology, Poland

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