

5th International Conference

on Water Economics Statistics and Finance

22-24SEPTEMBER**2021** PORTO · PORTUGAL



ORGANIZERS











INVITATION



We are pleased to invite you to participate in the IWA 5th International Conference on WATER ECONOMICS, STATISTICS and FINANCE. The conference will be held in parallel with the International Conference on Rethinking Treatment with Asset Management. The focus of this edition is mainly on the balance between Economics, Engineering and Statistics towards the enhancement of urban water cycle management. The event is jointly organized by the IWA Specialist Group on Statistics and Economics and by the IWA Specialist Group on Strategic Asset Management and will take place in the attractive city of Porto, where old-fashion houses merge with modern look spots and life-style, leaning between the shorelines of Douro's River mouth and the sea, in the north of Portugal.

The Conference integrates the series of conferences organized by the IWA Specialist Group on Statistics & Economics, and therefore follows the need for discussion on the major challenges of sustainable water management, water security, growing water scarcity, decreasing water quality, and increasing frequency of extreme events. These challenges require a sustainable water management where water, ecosystems and livelihoods are secured.

Developing a better understanding of the economic value of water security is a priority. A major source of water management problems is the fact that water resources have a high value which has not been fully considered by all water users and explicitly accounted for in water policies, hindering development of effective strategies for solving water crisis. There are contradictory calls on data and monitoring. Some stakeholders believe there is too much monitoring already, while others believe that there is a lack of adequate data in the water sector for efficient and transparent decision making. Such contradictions complicate efforts to improve water management and secure funding and investment.

While in some places water infrastructures are degrading and public and private utilities face major replacement and rehabilitation costs, due to a lack of asset management practices, the way professionals used to assess and design water facilities is changing. This is often a result of new approaches caused by external stress on water systems (e.g. increasing energy costs, public health concerns on emerging pollutants, climate changes, etc.), but also of imposed limitations to expenditures. Optimizing infrastructures in order to meet capital availability is surely a task for water professionals to embrace and interiorize as part of their job. But, the risk is there that society overly values this as a required effort only to get water services at adequate fair prices. Accordingly, the sector should evaluate whether its activity is being correctly communicated to all stakeholders.

Also, as highlighted by IWA, "Digital water is already here"! From big data solutions to advanced management of the distribution network to digital customer engagement programs, lots of utilities have begun the digital transformation journey. This transformation is not always easy - aging infrastructure, inadequate investment, changing climate and demographics - and so "digital water" is now seen not as an 'option' but as an 'imperative.'

During the conference, water policy-makers and regulators, utility managers, planners and operators, scientists and academics, investing institutions, professionals, engineering developers and contractors, consultants and other water professionals are invited to debate water resource management, water governance and regulation, water statistics and data collection methods, water economics and efficiency, urban and rural water supply sanitation, and agricultural and industrial water management, in a global context of increasing risks and complexity.

CONFERENCE VENUE



Congress Centre ISEP Rua Dr. António Bernardino de Almeida, 431 4200-072 Porto

ORGANISING COMMITTEE

Jaime Gabriel Silva (Chair) · Águas Douro e Paiva / Engineering School, Polytechnic Institute of Porto (ISEP), Portugal Ana Camanho · Engineering Faculty, University of Porto (FEUP), Portugal Lledo Castellet · IWA SG Statistics & Economics / University of Valencia, Spain Cristina Delerue-Matos · Engineering School, Polytechnic Institute of Porto (ISEP), Portugal Teresa Neto · Engineering School, Polytechnic Institute of Porto (ISEP), Portugal Rosário Oliveira · Engineering School, Polytechnic Institute of Porto (ISEP), Portugal Teodor Popa · IWA SG Statistics & Economics / Compania Apa Brasov, Romania Paulo Ramísio · University of Minho / Port. Ass. Environment & Sanitation Engineering (APESB), Portugal Rita Salgado Brito · Chair of IWA SG Strategic Asset Management / National Civil Engineering Laboratory (LNEC), Portugal Masao Shibuya · IWA SG Statistics & Economics / Japanese Water Works Ass. (JWWA), Japan Ed Smeets · Chair of IWA SG Statistics & Economics / Democritus University of Thrace, Greece Isabel Teles (Secretariat) · Engineering School, Polytechnic Institute of Porto (ISEP), Portugal

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Ligia Costa Pinto (Chair) · NIPE, University of Minho (UM) / Port. Ass. Environment & Sanitation Engineering (APESB), Portugal Rita Amaral · National Civil Engineering Laboratory (LNEC), Lisbon, Portugal Filippo Baldaro · IWA SG Statistics & Economics / CETAQUA - Suez Group, Barcelona, Spain Joana Boaventura · Águas do Douro e Paiva, Porto, Portugal Ana Camanho · Engineering Faculty, University of Porto (FEUP), Portugal Laura Carosi · University of Pisa, Italy Lledo Castellet · IWA SG Statistics & Economics / University of Valencia, Spain Conceição Castro · Accounting and Business School, Polytechnic Institute of Porto (ISCAP), Portugal Leonardo Costa · Catholic Porto Business School, Portugal Alexandra Cunha · IWA SG Statistics & Economics / Portuguese Regulator (ERSAR), Lisbon, Portugal Rui Cunha Margues · Technical Superior Institute (IST), University of Lisbon, Portugal Matthias Freiburghaus · IWA SG Statistics & Economics / SVGW. Zürich. Switzerland Andrea Guerrini · University of Verona. Italy Francesc Hernandez-Sancho · IWA SG Statistics & Economics / University of Valencia, Spain Ioannis Kostakis · Harokopio University, Greece Renato Parena · IWA SG Statistics & Economics / Societa Canavesana Acque Sri, italy Pedro Perdigão · Indagua, Matosinhos / Faculty of Economics, University of Porto (FEP), Portugal Reinhard Perfler · IWA SG Statistics & Economics / Univ. of Natural Resources and Applied Life Sciences, Vienna, Austria João Pires · Portuguese Water Partnership (PWP) / Catholic Lisbon School, Portugal Teodor Popa · IWA SG Statistics & Economics / Compania Apa Brasov, Romania Stanislas Pouradier-Duteil · IWA SG Stat.& Econ. / Veolia Eau France - Direction Opérations. France Paulo Ramísio · University of Minho / Port. Ass. Environment & Sanitation Engineering (APESB), Portugal Giulia Romano · University of Pisa, Italy Masao Shibuya · IWA SG Statistics & Economics / Japanese Water Works Ass. (JWWA), Tokyo, Japan Ed Smeets · Chair of IWA SG Statistics & Economics / EDMADI BV, The Netherlands David Tipping · IWA SG Statistics & Economics / AIMS, Sidney, Australia Ana Tomás · Águas do Douro e Paiva, Porto, Portugal Konstantinos Tsagarakis · IWA SG Statistics & Economics / Democritus University of Thrace, Greece Eduardo Vivas · H2OPT, Porto, Portugal Stefanos Xenarios · IWA SG Statistics & Economics / Graduate School of Public Policy, Nazabayev University, Kazakhistan

SUBJECT AND TOPICS

Water policy-makers, water users of all sectors, scientists and academics, top managers, consultants and other professionals from all over the world, as well as young water professionals, are invited to present state-of-the-art communications on leading challenges in water management, supply and sanitation, finance and policy, focusing mainly the balance of Economics, Engineering and Statistics, the vertices of a desirable triangle (E²S) oriented to an enhanced urban water cycle management. The main subject and target-topics are as follows.

MAIN SUBJECT

Is E²S* the virtuous triangle for urban water cycle integrated management?

(*) E²S - Economics, Engineering, Statistics

TOPICS

Water resources management

- · Sustainable management of water resources
- · Decision-making frameworks to meet increasing uncertainties due to climate change
- · Disaster risk management (droughts and flooding)
- \cdot Circular Economy in the water cycle
- \cdot "Digital water" approaches and implementations

Water governance, regulation, and institutional frameworks

- \cdot Tools for good governance
- · Indicators for good water governance
- Water statistics and data collection methods
- \cdot Data-collection strategy, sources and methods
- Metadata and data quality

Urban and rural water supply and sanitation

- \cdot Water economics and efficiency
- Financing urban water cycle
- · Efficient water tariff structures and affordability
- \cdot Assessing utilities and systems dealing with the urban water cycle
- Agricultural / Industrial water management
- Improving water productivity
- · Adaptation strategies for water management under climate change
- · Environmental impacts of agricultural / industrial water demand

PAPER PUBLICATION

The approved oral and poster presentations can be downloaded via the Conference website, exclusively for registered participants. Publication in this website will require at least one registered author for the Conference. Based on papers' merit, the conference Scientific and Program Committee will recommend papers to be submitted to peer-reviewed IWA Journals.

PROCEDURE FOR SUBMISSION



Authors should submit online an extended abstract in a standard format. For guidelines on formatting and to find out other information about the conference, visit **www.isep.ipp.pt/IWA_Porto2021**.

On the basis of the proposals submitted, a review will be undertaken to select papers for presentation (oral or poster). Submissions should demonstrate special contribution to the advance in knowledge regarding the conference topics.

At least one author for each selected paper must register and attend the conference to present the paper. Authors must meet their own expenses to attend the conference.

TECHNICAL EXHIBITION

A Technical Exhibition will be offered as a complement of the oral and poster presentation sessions. Service providers and organizations of the water sector are invited to participate. Information on this Technical Exhibition will be delivered on the Conference website.

DEADLINES TO REMEMBER

Extended Abstract's submission: 15 May 2021 Extended DeadLine DUE TO SEVERAL REQUESTS 31 MAY 2021 Authors' notification: 21 June 2021 Early bird registration: 15 August 2021 Final submission: 20 July 2021

CONTACTS

For more information about the Conference, visit: www.isep.ipp.pt/iwa_Porto2021 or send a message to: IWA_Porto2021@isep.ipp.pt

STRUCTURE OF THE SESSIONS

The Joint Conference will be organised in thematic sessions, combining invited speakers and open platform presentations, with some plenary sessions common to both IWA Specialist Groups Conferences and with parallel sessions covering the own topics' list of each IWA Specialist Group. Invited speakers will deliver state-of-the-art presentations on key topics of the Conference.

SUPPORTING ORGANIZATIONS



LANGUAGE

The working language of the conference is English.



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