



**BLUE PLANET**

Berlin Water Dialogues

*Cyber-Physical Water Systems · A future perspective for sustainable smart cities · Challenges in the implementation process · Nature-based solutions for urban areas*

# Innovative Solutions for Sustainable Smart Cities

**22 October 2018, 09:30-17:00**

Humboldt-Box Berlin, Schlossplatz 5  
10178 Berlin

**The participation is free of charge.**  
[www.blueplanetberlin.de](http://www.blueplanetberlin.de)

## Funding authorities

Supported by:



Federal Ministry for the Environment, Nature Conservation and Nuclear Safety



Senate Department for Economics, Energy and Public Enterprises



Project leader



Project office



German Water Partnership

based on a decision of the German Bundestag

# PROGRAMME

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Registration and Networking Snack start at 9:30

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Moderation

**Katie Gallus**, Geographer and Moderator

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## 10:00 Opening

Welcoming Words

**Dr. Felix Groba**, Head of Unit for Energy, Senate Department for Economics, Energy and Public Enterprises, Berlin, Germany

Keynote “The Added Values between Technology and Design to our Blue Planet”

**Prof. Herbert Dreiseitl**, Founder of Atelier Dreiseitl, Architect and Interdisciplinary Urban Planner, Head of Dreiseitl Consulting, Dreiseitl Consulting, Ueberlingen, Germany

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## 10:30 Impulse Lectures\*

- 1 Smart Water Networks: New technologies for intelligent urban water infrastructure  
**Berry Drijzen**, Director of Marketing Water and Thermal Energy, Sensus GmbH (Xylem Inc.), Ludwigshafen, Germany
  - 2 Improving city resilience through a Design with Water approach  
**Justin Abbott**, Director and Global Water Skills Leader, ARUP, Leeds, United Kingdom
  - 3 Challenges and options for a successful digitisation of water infrastructures  
**Dr.-Ing. Frank Obenaus**, Head of Business Unit Operations, Emschergenossenschaft/Lippeverband, Essen, Germany
  - 4 Nature-based water management solutions for African cities  
**Sylvain Usher**, Executive Director, African Water Association, Abidjan, Côte d'Ivoire
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## 12:00 Coffee Break & Networking

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## 12:15 Pitch Sessions\*

- 1 Water management 4.0 – Best practice examples of urban 4.0 approaches (Aarhus and Zurich)  
**Dominic Spinnreker-Czichon**, Business Area Manager Solution Software, DHI WASY GmbH, Berlin, Germany  
  
Bathing in urban rivers – Predicting water quality for early warning at bathing sides  
**Dr.-Ing. Pascale Rouault**, Head of Urban Systems, Kompetenzzentrum Wasser Berlin gGmbH, Berlin, Germany  
  
First things first or leapfrogging? Smart Water in Developing Countries  
**Mario Roidt**, Project Engineer, Dorsch International Consultants, Pristina, Kosovo
  - 2 Nabta town as smart and sustainable town in MENA region  
**Michael Nashaat**, Head of MEP, Infrastructure and Sustainability, Upscale Egypt, Cairo, Egypt  
  
SEMIZENTRAL: An integrated infrastructure concept for fast growing urban areas  
**Prof. Dr.-Ing. Martin Wagner**, Managing Director of the Department of Wastewater Technology, Technical University of Darmstadt, Darmstadt, Germany  
  
Developing Smart Cities in India  
**Dr.-Ing. Marius Mohr**, Group Manager Bioprocess Engineering in the Water Sector and Circular Economy, Fraunhofer Institute for Interfacial Engineering and Biotechnology, Stuttgart, Germany
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**12:15**      **Pitch Sessions\***

3 The WATERLOO Story – How smart solutions go hand in hand with increased efficiency, citizen participation and knowledge building  
**Rudolf Ball**, CEO, SYMVARO GmbH, Klagenfurt, Austria

4 Sustainable Stormwater Management in Berlin – The Sponge City Concept  
**Prof. Dr.-Ing. Heiko Sieker**, Managing Director, IPS Consultants mbH, Berlin, Germany

Nature-based solutions for water smart and climate resilient cities

**Dr. Robbert Snep**, Senior Researcher in Urban Ecosystems and Practice, Wageningen University & Research, Wageningen, The Netherlands

Urban Waters for Urban Agriculture

**Dr.-Ing. Grit Bürgow**, Project Leader ROOF WATER FARM, Technical University of Berlin, Chair of Urban Design and Development, Berlin, Germany

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**13:15**      Networking Lunch

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**14:00**      **Worldcafé\***

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**15:15**      Coffee Break & Networking

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**15:30**      **Summary of Results**

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**16:30**      **Closing Speech**

Blue Future – How to Protect Water for People and the Planet Forever

**Dr. h.c. Maude Barlow**, Honorary Chairperson, Council of Canadians, Ottawa, Canada

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**16:45**      **Closing Remarks**

**Thomas Stratenwerth**, Head of Division General, Fundamental, International and European Aspects of Water Management, Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU), Bonn, Germany

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**17:00**      End of Blue Planet Berlin Water Dialogues 2018

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The conference will be held in English.

\* The Impulse Lectures, Pitch Sessions and the Worldcafé are based on the following four thematic areas:

- 1 **Cyber Physical Water Systems**    2 **A future perspective for sustainable smart cities**  
3 **Challenges in the implementation process**    4 **Nature-based solutions for urban areas.**

Each area includes an Impulse Lecture as well as 1–3 additional pitches, all of which highlight different aspects of the thematic area. Further details can be found on page 6.



## KEYNOTE SPEAKER

1 **Herbert Dreiseitl**

*Landscape Architect, Urban Designer, Interdisciplinary Planner with a hallmark on Water, and Professor in Praxis – He has projects in the field of climate resiliency, rainwater management, regenerative water systems in urban structures and landscapes like Singapore's ABC Waters Program including Bishan Ang Mo Kio Park, the Cloudburst Concept in Copenhagen and NYC and others. With "DREISEITL Consulting" he is giving advice to many cities and initiatives around the world.*

2 **Maude Barlow**

She is the Honorary Chairperson of the Council of Canadians and chairs the board of Washington-based Food and Water Watch. She serves on the executive of the Global Alliance for the Rights of Nature and is a Councillor with the Hamburg-based World Future Council. She is the recipient of fourteen honorary doctorates as well as many awards, including the 2005 Right Livelihood Award.

## SPEAKER

3 **Justin Abbott**

He has over 30 years consulting experience covering a range of water and environmental projects undertaken in both the UK and overseas. He is also managing Arup research looking at city resilience and the benefits and integration of green/blue infrastructure.

5 **Grit Bürgow**

Expert in water-sensitive design – She works at the Technical University of Berlin, at the Chair of Urban Design and Development and initiated and coordinated the collaborative research project ROOF WATER-FARM funded by the BMBF.

4 **Rudolf Ball**

As an entrepreneur, he recognised the power of digitisation at an early stage. To realise his ideas, he decided to digitise water utilities and created the company SYMVARO and the WATERLOO ecosystem.

6 **Berry Drijzen**

He held various positions in Sales and Marketing in automotive and industrial industries around the world, before joining the utility industry in 1998 with Itron Europe. In April 2015, he joined Sensus GmbH.



**7 Marius Mohr**  
 He works as a researcher at Fraunhofer IGB since 2004. Since October 2017, he coordinates the BMU-funded project “Smart water future India”, where the water sector of the city Coimbatore is analyzed and a strategy for future development is developed.

**8 Michael Nashaat**  
 In 2015 he joined Upscale Egypt for real estate development as a head of MEP, infrastructure and sustainability. During this period he cooperated with international partners to develop the infrastructure design for the first smart town in Egypt.

**9 Frank Obenaus**  
 After studying Civil Engineering at the University of Hanover, he joined the Emschergenossenschaft/Lippeverband in the year 2000 in the department for technical controlling. Since 2015, he is the Head of the division “Plant Operation”.

**10 Mario Roidt**  
 Young water professional in the fields of water supply and water resources – Since 2018 he is working for Dorsch as Project Engineer in a rural water supply project in Kosovo, where he aims to reduce non-revenue water and increase energy efficiency.

**11 Pascale Rouault**  
 She has over 10 years experience at the Kompetenzzentrum Wasser Berlin, where she is responsible for urban systems. She works at the interface of urban drainage and water protection and is increasingly using digital solutions for this purpose.

**12 Heiko Sieker**  
 Stormwater expert – Managing Director of IPS consultants in Berlin and honorary professor for urban hydrology at the Technical University of Berlin.

**13 Robbert Snep**  
 Together with Deltares he developed the Adaptation Support Tool, that enables stakeholders to apply nature-based solutions effectively in the planning and design process. He worked on climate-proofing cities like San Francisco, Amsterdam and others.

**14 Dominic Spinnreker-Czichon**  
 As Business Area Manager Solution Software he is responsible for the digital solution within DHI WASY GmbH for the DACH region. His main focus is on business development in the area of digital solutions such as forecasting systems and web applications.

**15 Sylvain Usher**  
 Since 1999 he is the Executive Director of the African Water Association (AfWA), the unique lead-representation of the professional organizations in the water and sanitation sector in Africa.

**16 Martin Wagner**  
 Since 1996 he is manager of Institute IWAR at TU Darmstadt. His research focus is among others on wastewater treatment, energy in wastewater treatment plants as well as semicentralized supply and disposal systems in fast-growing urban areas.

# INNOVATIVE SOLUTIONS FOR SUSTAINABLE SMART CITIES

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This year's conference will focus on change processes and sustainable adaptation concepts for urban spaces worldwide on their way to become "water smart". How can water management become part of urban change processes and what opportunities are offered for achieving the UN sustainability goals of Agenda 2030 (SDG 6 and SDG 11 in particular)? Proven experts from business, research, politics and non-governmental organisations will present their concepts in the morning and discuss these concepts and other approaches with the audience in the afternoon during a "Worldcafé". The developed suggestions and results will form the thematic basis for the next BLUE PLANET conference in April 2019.

## OUR THEMATIC AREAS

1

### CYBER PHYSICAL WATER SYSTEMS

New technologies for intelligent water infrastructure in cities will be necessary to make future processes more efficient and sustainable. Cyber Physical Water Systems, a network of physical and digital water infrastructures, can improve the nationwide supply of clean drinking water, the reduction of water losses or the monitoring of surface water quality. The central question of this thematic area will be, which successfully implemented technologies and concepts can support us to design our cities "water smart"?

3

### CHALLENGES IN THE IMPLEMENTATION PROCESS

The digitisation of water infrastructures poses various challenges. Data security, financing and necessary staff training are examples that can hinder smart infrastructure implementation. Therefore, the central question of this thematic area will be, how the international water sector can meet those challenges and what are benefits of water management 4.0?

2

### A FUTURE PERSPECTIVE FOR SUSTAINABLE SMART CITIES

Future projects and concepts enable the further development of water management in urban areas. To react flexibly to challenges such as the rapid growth of the world's population and increasing urbanization, adaptable solutions are needed to create an overall system which can react quickly to new changes and meet the increasing water needs of the urban population. But what are current solutions and what can we learn from them?

4

### NATURE-BASED SOLUTIONS FOR URBAN AREAS

Challenges to the management of water resources (e.g. climate change, rainwater management, water protection, energy efficiency) have mainly been dealt with by using technical solutions, although these can be very energy- and cost-intensive. A combination of classic technical and nature-based solutions can provide completely new perspectives in water management. The aim of this thematic area is to answer: What are the opportunities and benefits of such nature-based systems?

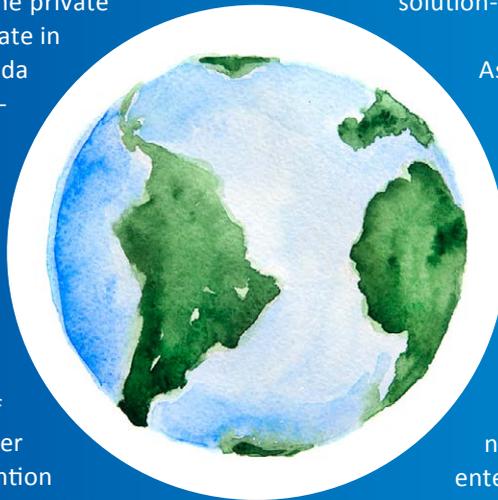
# ABOUT BLUE PLANET

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Using water in an environmentally compatible and innovative way is one of the key geopolitical tasks of the 21st century and simultaneously a significant economic challenge. In 2015 the United Nations called on governments, the private sector and civil society to participate in the implementation of the Agenda 2030 for Sustainable Development. Given the importance of water for successfully implementing the objectives of other policy areas, such as health, agricultural or energy policy, there are several respects in which the sustainability goal for water plays an important role in this round of tasks. As a result, the issue of water is rightly gaining worldwide attention and is increasingly present on the global agendas of the World Economic Forum and the World Business Council for Sustainable Development. A growing market that is charged with solving the complex challenges has developed around the whole task field of water. The investment required globally is estimated at EUR 400 to 500 billion a year. The German water industry has the expertise, qualifications and skills for the technologies and services that are needed to solve these tasks. It wants to contribute its share and, by making a commitment on the global markets, it also wants to take advantage of the opportunity to generate new jobs and strengthen the competitiveness and growth of the industry in Germany.

The BLUE PLANET Berlin Water Dialogues platform serves the goal of bringing together the demand that exists worldwide with the solutions and

implementation skills of the German water industry. Based on analysis of the water industry's political framework at home and abroad, it presents specific technological approaches and provides a forum for solution-oriented discussion.



As an internationally acknowledged location of expertise in the water sector, the capital Berlin is ideal, within the framework of the BLUE PLANET Berlin Water Dialogues, for the exchange of knowledge, ideas, concepts and experience between politicians, the private sector, scientists and non-governmental organisations. Germany's largest water supplier, a significant number of small and medium-sized enterprises (SMEs) in the industry, some also operating globally, universities and research establishments and networks are at home here. As a result, the water industry is among the top performers within the German economy.

With the "Export initiative environmental technologies" of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, the Berlin Senate Department for Economics, Energy and Public Enterprises, and the Kompetenzzentrum Wasser Berlin as supporters and partners, the BLUE PLANET Berlin Water Dialogues offer an international "marketplace" where global water management issues are analysed and, based on best practice examples, are brought together with the expertise and problem-solving skills of the German water industry and international experts in the context of keynotes, impulse lectures, pitch sessions and discussions.

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**Further information about the  
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Project office



German Water  
Partnership