

Water Industry in Berlin Pursuing innovation throughout the hydrological cycle







Berlin companies at the 2015 WASSER BERLIN INTERNATIONAL trade fair

Companies 3s sensors systems solutions ABW oikoartec AGO Hydroair AKUT Umweltschutz Ingenieure Burkard und Partner akvola Technologies Asbrand HYDRO Consult Barnim Handelsgesellschaft Berliner Wasserbetriebe bdh-consulting Blue Biolabs Bosman Watermanagement Clean-Rohr Service confideon Unternehmensberatung Delta Umwelt-Technik DHI-WASY Döbelt Datenkommunikation Dr. Ing. Pecher und Partner Ingenieurgesellschaft E&P Anlagenbau ENTERPRISE Bau Technik Umwelt Ernst Augustin FLEXIM Frank Pogade Consultant Water & Environment fibrisTerre G.U.B. Ingenieur geotec Rohstoffe Glaubrecht Pumpen-Service GUS Geo- & Umweltservice Harbauer HeGo Biotec Henning & Quade Berlin Hyder Consulting HYDOR CONSULT Hygiene-Institut Berlin Search Care IBB Ingenieur- und Beratungsbüro für Brunnenbetriebstechnik und -instandhaltung IMAGO Umwelt Consult Industrial Water Consulting Berlin (IWC Berlin)

Ingenieurbüro Klenke
Ingenieurbüro Klutke
Ingenieurbüro Obermeyer
Ingenieurgesellschaft Prof. Dr. Sieker
ifs Ingenieurgesellschaft für Stadthydrologie
inter 3 Institut für Ressourcenmanagement
Jungk Consult
KKI – Kompetenzzentrum Kritische
Infrastrukturen
KMG Pipe Technologies
Köster Umwelttechnik
Landschaft planen + bauen

LAR Process Analysers

LURI.watersystems MARTIN Membrane Systems Berlin, with its lakes, rivers and canals, is a water-rich city. It's these special natural conditions that make it possible for this big city to supply its drinking water needs from its own regional resources and feed waste water back into the local water supply once it has been properly treated. But this sort of recycling is only feasible thanks to a complex and technically sophisticated system of water management that ensures both quality drinking water as well as very clean bodies of water.

A broad range of services

The companies associated with the Berlin water management network have extensive know-how in the areas of groundwater and drinking water management, waste water disposal, surface water and rainwater management, as well as modeling, pump technology and measuring technology.

Berlin has a sewage network consisting of 154 pumping stations, roughly 9,600 km of sewer canals and approximately 1,170 km of penstocks. Over the last 150 years, Berliner Wasserbetriebe (BWB) has been managing this highly complex supply and disposal system on behalf of more than 3.7 million people in the metropolitan Berlin area while continuously developing needed technologies.



»The Technische Universität Berlin has brought together its waterrelated expertise to focus research on issues relating to 'Water in Urban Areas.' The university serves as an outstanding scientific partner in numerous collaborative efforts

relating to water resource management in Berlin.«

Prof. Dr.-Ing. Paul-Uwe Thamsen Head of Department of Fluid System Dynamics TU Berlin



»Berlin's connection with water is unique: A water cycle that is unparalleled in Germany makes it possible to supply more than 90% of the city's drinking water needs from sources within the metropolitan area. Berliner Wasserbetriebe

supplies the city with water and disposes of wastewater. Work with other stakeholders has led to a variety of innovations to the water system in Berlin.«

Jörg Simon Chairman of the Board Berliner Wasserbetriebe

In addition to the central water system, the system provides a wide variety of decentralized and semi-centralized technical solutions. These include intermediate storage of rainwater and sewage, recycling of industrial waste water and special procedures for protecting drinking-water quality in transmission lines with significantly lower levels of consumption.

Numerous examples of best-practices are already being applied in the Berlin metropolitan area, such as »offshore« mixed water storage in the Spree River, the use of retention soil filters for rainwater treatment, or the many grey-water recycling and rainwater harvesting systems installed in homes and offices.

Interdisciplinary research

Berlin universities and research institutions are important partners for companies working in the field of water management.

More than 20 institutes in six departments are combining their diverse areas of expertise to carry out research focused on »water in urban areas« at the TU Berlin in pursuit of a forward-looking approach to urban water management. This work concentrates on technical innovation and analytics, as well as on economic assessment and international education.



The Berlin Aquatic Research Institute – IGB is using its LakeLab to explore the effects of global environmental change on lakes.

- Berliner Wasserbetriebe (BWB) is the largest water utility in Germany.
- WASSER BERLIN INTERNATIONAL is the largest domestic trade fair for water technology.
- Broad array of technologies from a variety of innovative mediumsized companies
- Multidisciplinary and internationally oriented research landscape
- Comprehensive network with excellent opportunities for collaboration

The Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) is Germany's largest research center for inland waters. It combines basic with applied research, trains young scientists and advises policy-makers as well as the general public on matters relating to sustainable water management. Research priorities include the long-term development of lakes, rivers and wetlands in the face of rapidly changing environmental conditions, the restoration of ecosystems, the biodiversity of aquatic habitats, and resource-efficient aquaculture.

The Kompetenzzentrum Wasser Berlin (KWB) is an international center for water research and knowledge transfer. As a non-profit organization, KWB links together the research activities of Berlin's universities and research institutes, the Berlinwasser Group, Berlinbased SMEs, the city administration, and Veolia, an environmental services company.

A well-functioning network

In a sector made up primarily of small and medium-sized firms, creating a close network among companies and between business and science is an important factor in achieving success.



»For us as a mid-sized company, one of Berlin's key advantages is that we have no problems finding good employees. We have a direct line to colleges and universities and are able to bring interns and students currently working on their Bachelor or Master theses on board

the company early in their careers. Besides that, Berlin is of course one of the country's most attractive cities in general and offers a great quality of life.«

Daniel Crawford Chairman of the board AQUANET



»Inventive and IT-heavy, Berlin provides a stimulating work environment and a rich breeding ground for innovation. DHI champions the »Water 4.0« vision towards digitization and automation throughout the water cycle by means

of numerical models. The city of Berlin itself seeks and drives advanced solutions and hence is attractive for highly qualified employees.«

Dr. Richard J. Vestner DHI Executive Vice President EUROPE CEO DHI-WASY GmbH

The AQUANET network currently brings together 33 small and medium enterprises and research institutions that are working in the Berlin-Brandenburg water resource sector in order to implement research and pilot projects in smart water infrastructure systems.

e.qua is a network of companies and operators in the water management sector and focuses on the issues of energy efficiency, energy recuperation and resource management. e.qua brings together private enterprises, the science community and policy-makers – with the goal of improving the energy situation for operators and helping the industry to tap into markets and customers. With more than 60 members and partners nationwide along with a large number of projects, e.qua has managed to establish itself as a catalyst and driver of innovation at the interface between water and energy.

Merkel Ingenieur-Consult MOL Katalysatortechnik Müller – Kalchreuth Planungsgesellschaft für Wasserwirtschaft in Berlin newtec Umwelttechnik Nico Andritschke – Biologische Kläranlagen und Regenwassersysteme Nolde & Partner Innovative Wasserkonzepte OWB Ingenieure P.I.E.SCH. Unterwasserarbeiten Palmetto Clean Technologies PESCHEL Ökologie und Umwelt PNT-SYSTEMS Sachverständigen Büro Dr. NERGER Schulze-Matthes-Ingenieure/Landschaftsarchitekten SLM - Speziallabor für angewandte Mikrobiologie synlab tesdelo service Technocon TBS Rinne Umweltbiotechnik-Berlin Urbanski Ingenieur Consult Veolia WESSLING WILO

Research

Beuth University of Applied Sciences Berlin Freie Universität Berlin

- Hydrogeology
- Humboldt Universität

Würdig-Pumpentechnik Zech Water Technology Züblin Wasserbau

- Urban Ecophysiology of Plants
- Water Engineering Lab

KompetenzZentrum Wasser Berlin Leibniz-Institute of Freshwater Ecology and Inland Fisheries

Technische Universität Berlin

- Research network »Water in Urban Areas«
- Chair of Water Resources Management and Modeling of Hydrosystems
- Chair of Environmental Process Engineering
- Chair of Environmental Microbiology
- Chair of Water Quality Control
- Department of Fluid System Dynamics
- Department of Urban Water Management

Networks, associations

AQUANET Berlin-Brandenburg e.qua German Water Partnership

Our aim: your success!

Today, Berlin is a business hub of international standing. The capital city is growing at a much faster rate than the rest of the country. More and more companies are seeing opportunities for themselves to become part of this success story.

We can help you.

Berlin Partner is the central point of contact for economic development in Berlin. We support you with setting up business, corporate development and technology transfer.

This one-stop service means shorter distances and faster decisions for you. So you can concentrate on what is essential: your business goals in Berlin.

We consistently focus on our clients' needs. We support companies at every stage of their growth. From business plans, founding, financing and selecting a location to innovation consulting and personnel recruitment all the way to tapping new international markets.

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