

Sustainable wastewater management for municipalities and agriculture in Saudi-Arabia

German Business Delegation
07 - 10 November 2022 | Riad, Hofuf, Dammam

Facilitator

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Background

As part of the German Federal Ministry of Economics and Energy (BMWK) Market Development Programme for SMEs 2022, German Water Partnership e.V. (GWP) is organising a business delegation visit on "Sustainable wastewater management for municipalities and agriculture in Saudi-Arabia" in cooperation with the German-Saudi Arabian Liaison Office for Economic Affairs (GESALO).

The business delegation visit will take place from 07-10 November 2022 and is aimed at representatives of the public and private water sector in Saudi-Arabia. During this event, representatives will have the opportunity to learn about current and innovative German water- and wastewater treatment technologies and establish connections with potential business partners and suppliers. Within the framework of individual B2B meetings as well as visits to Saudi market-leading companies and institutions in Riyadh, Hofuf and Dammam, the participants have the opportunity to make contacts and exchange cooperation opportunities with potential partners. The participating companies gain a technical insight into current dynamics as well as into current reference projects in this sector. The aim of the business delegation trip is to promote German-Saudi economic cooperation in these areas.

German participants:

- Aerzener Maschinenfabrik GmbH
- Barthauer Software GmbH
- bauku extrusion technology UG
- BEULCO GmbH & Co. KG
- BINDER GmbH
- FUCHS Enprotec GmbH
- KLARO GmbH
- PPU Umwelttechnik GmbH
- WILO SE



The business delegation trip is a project within the Export Initiative for Environmental Technologies of the German Federal Ministry for Economic Affairs and Energy (BMWi) and is carried out within the framework of the Small to Medium Enterprises (SME) market development programme funded by the BMWi. More projects of the SME market development programme are described in detail at <https://www.ixpos.de/> (website in German).

Implementing Partners



**German Water
Partnership**

Solutions you can trust.

German Water Partnership e.V. (GWP)

German Water Partnership e.V., founded in April 2008, is a national network with the declared goal of sustainably strengthening the competitive position of the German water industry and research institutions on international target markets and making a contribution to solving global water management problems. The cooperation between partners from business, science and politics ensures that German know-how and experience are used in the best possible way.

The network also serves as a platform for exchanging information, developing strategies, making it easier for export-oriented companies to enter foreign markets and developing and maintaining innovation partnerships between business, science and politics. The network now unites more than 350 members from the most diverse areas of water industry and related research. Private and public companies and research institutions as well as professional associations and non-governmental organizations are involved.

The German initiative covers a wide range of topics and not only addresses technical issues in relation to water treatment and processing, but also integrates socio-economic aspects from the water sector as well as the experiences of the water operators. This integrated approach can be found in the dissemination of German standards (e.g. regulations) as well as in trainings and further education measures in water management and research, which are supported by GWP.

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German-Saudi Arabian Liaison Office for Economic Affairs (GESALO)

The German-Saudi Arabian Liaison Office for Economic Affairs (GESALO) is part of the worldwide network of German Chambers of Commerce Abroad (AHK) with 140 locations in 92 countries. GESALO is the official representation of the German Industry in Saudi Arabia, Bahrain and Yemen, and thus the key player of German foreign trade promotion on behalf of the Federal Republic of Germany. GESALO was founded in 1978 in Riyadh (Kingdom of Saudi Arabia) and has a large network of business and institutional relations. GESALO offers a range of services to assist German companies in the creation of business opportunities in Saudi Arabia and Bahrain.

The key strength of GESALO is its network which allows creating synergies and providing valuable information for businesses. Within Germany, GESALO is closely connected to all 79 Chambers of Industry and Commerce (IHKs), which have a long tradition in supporting German companies locally and serving as their partner when extending their business relations to foreign countries. Thanks to the good cooperation of both structures at home and abroad, GESALO can help to lay the foundation for successful and sustainable bilateral business relations.

In Saudi Arabia, GESALO works closely with many stakeholders from the public as well as private sector and has close relations to its Saudi Arabian counterparts, namely the Council of Saudi Chambers, the Riyadh Chamber of Commerce and Industry, and the Asharqia Chamber of Commerce & Industry just to name a few.

Under the brand “DEinternational” GESALO provides services to German and Saudi Arabian companies to support their foreign business activities. This includes market information, contacts to local businesses, organization of business trips, trade fair marketing and participation, business mediation, legal expert support through its GESALaw Network, visa and translation services, as well as local support for companies that are already established in Saudi Arabia.

Due to its extensive network in the public and private sectors and based on more than 40 years of market experience, GESALO is a reliable partner for German and Saudi Arabian companies.

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The German Water and Wastewater Sector

The management of natural resources, especially water resources, has a long tradition in Germany. The growing world population and the constant increase in agricultural and industrial production clearly require a sustainable and resource-saving use of water.

The efficiency of the German water industry

The German water industry is shaped by long-term experience in this sector. Drinking water of excellent quality and sufficient quantities is available to German citizens. Despite being a water-rich country Germany has a number of voluntary water management measures that contribute to the protection of natural resources.

Wastewater treatment is also at a very high level in Germany. In contrast to many EU countries, almost 100 percent of the wastewater is treated according to the highest EU effluent discharge standards. Drinking water suppliers and wastewater disposal companies thus make a significant contribution to prevent or to minimise the pollution of water sources.

Essential performance indicators of water supply and wastewater disposal in Germany are long-term security of supply and disposal, high drinking water quality, high wastewater disposal standards, high customer satisfaction and careful use of water resources with economic efficiency.

Water supply and sewage disposal: responsibility of local municipalities

Local municipalities are responsible for water supply and wastewater disposal in Germany. Municipalities are free to choose the appropriate organisational structures and type of water and wastewater treatment technology. Its democratically legitimised bodies take the strategic decisions on forms of organisation, participation, and cooperation. Germany's water supply and wastewater disposal sector constitutes of privately owned and public facilities. The specific regional and local political, environmental, and economic conditions provide the framework for water provision and wastewater disposal, resulting in locally relevant solutions.

In order to remain current and resilient in future, water management must be efficient, financially stable and transparent. A holistic, integrated and sustainable approach to water management is critical as societies are experiencing the consequences of climate change and urbanisation. Challenges for the water sector are diverse. A transition to sustainable energy sources is necessary and treatment facilities must be able to stand up against extreme weather events. Wastewater treatment must be improved to significantly reduce harmful trace metals and other harmful compounds.

Urban aquatic ecosystems and water resources must be better protected to make urban societies more resilient to climate change. Germany have a plethora of small to medium sized businesses who are competing to find solutions to the wide variety of challenges of effective water management.

The German water sector is highly specialized with innovative, flexible and value-oriented companies and institutions along the entire value chain. German entrepreneurs, engineers, developers and researchers are used to working in multidisciplinary consortia and always strive to provide lasting solutions to local challenges.

Data and facts about Germany's water sector

- Serves 83 million people
- 188 billion cubic meters of fresh water are available every year, but only 10-15 % (25 billion cubic meters) is used
- 127 litres are consumed per person per day
- 550,000 km of sewer network (97% degree of connection to the sewer network)
- 10,500 sewage treatment plants
- 530,000 km of potable water network (100% connection to the drinking water network)

List and profiles of German participants

Date: 01.11.2022

No.	Company	Homepage	Name of the participant	Position	Phone number and e-mail
1	Aerzener Maschinenfabrik GmbH	www.aerzen.com	Mohamed Ibrahim Abdelazim Ellahouny Kurijakkattil Abdul Rahiman Noufal Siert Wiersema Martin Gräsl	Sales engineer After sales engineer	+49 175 9335602 markus.leidinger@aerzen.com siert.wiersema@aerzen.com mg@rmu.de
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3	bauku extrusion technology UG	www.bauku.eu	Michael Schenker	Director Business Development	+49-(0)160-7130024 schenker@bauku.com
4	BEULCO GmbH & Co. KG	www.beulco.de	Martin Lange Alexander Gegner	Director Business Development Innovation Manager	+491608237415 LangeMa@BEULCO.DE +49 151 8303172 gegneral@beulco.de
5	BINDER GmbH	www.bindergroup.info	Maher AlHammoud	Business Development Manager	+49 (731) 96826 23 maher.alhammoud@bindergroup.info
6	FUCHS Enprotec GmbH	www.fuchswater.com	Mohammed Jad Rachid	Area Sales Manager	+49 2651 8004 32 Mohammed.Rachid@fuchswater.com
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9	WILO SE	www.wilo.com	Monica Hermes Khaled Al Salama	Group Vice President & Public Affairs Representation Office Saudi Arabia	+49 152 089 695 85 monica.hermes@wilo.com



AERZEN



Aerzener Maschinenfabrik GmbH

EFFICIENT AND RESOURCE-SAVING SOLUTIONS FOR WASTEWATER TREATMENT.

How efficient is a wastewater treatment plant really? Are there untapped savings potentials? Many wastewater treatment plants consume a lot of energy and bind unnecessary resources due to outdated or oversized machine technologies for aeration of the aeration tanks. With a coherent overall concept, called AERwater, AERZEN customers can save considerably.

Urbanisation and climate change are central and hot topics, which also bring industrial and municipal wastewater treatment plants into the focus of public attention due to their high energy consumption. Operators of wastewater treatment plants are therefore faced with a number of challenges. Environmental regulations are becoming stricter and energy costs are rising. This is no coincidence, as global electricity consumption has tripled since 1980. Water resources are also dwindling worldwide. Resourceefficient treatment is therefore becoming increasingly important. Reason enough to increase the efficiency of wastewater treatment plants and thus save energy and resources in the long term.

In the search for savings potential, the first glance is always focused on process air generation. This is because the biological treatment stage alone accounts for 60 to 80% of the total energy requirement of the wastewater treatment plant. But AERZEN looks at the plant holistically and finds further optimisation opportunities. For example, machine room optimisations, intelligent control of the individual system components or the optimum use of waste heat.

Fields of activity: Blowers, compressors and vacuum solutions

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Website: www.aerzen.com

BARTHAUER

S O F T W A R E

Barthauer Software GmbH

Barthauer Software has been developing innovative IT-solutions for infrastructure and water management for over 30 years. The company's main products is the database-driven infrastructure information system, BaSYS. BARTHAUER operates a support and development center in Braunschweig where highly motivated and competent employees are committed to bringing together the best of engineering and software technology for the benefit of users and to ensuring that the software is constantly updated. Further offices are located in Hannover, Munich and Würzburg and a subsidiary in Sousse. Proximity to the customer is realised nationally and internationally through the BARTHAUER partner concept with qualified distribution partners and authorised trainers. More than 1,000 customers are successfully using BARTHAUER software. Barthauer Software GmbH is part of the BARTHAUER GROUP.

Infrastructure management system BaSYS

BaSYS is a modular, scalable network information system (NIS) for wastewater, water, gas, streets, district heating, cable and data feeds. It is based on an integrated database structure which is a model derived from the real subterranean and aboveground infrastructure. As a specialised asset management solution, the system supports the entire network management workflow and supports all work steps from network design and the recording of existing network plans and technical data to the technical inspection, plausibility assessment and their review and dynamic network calculation through to optimisation, inspection and redevelopment of the network. BaSYS provides solutions for management and maintenance of systems using integrated mobile workforce management and systems and assets evaluation. Desktop, web-based and mobile applications are available in parallel.

Fields of activity:

software development
 data management
 infrastructure management
 sewage management
 consulting
 BIM
 smart city

Company:

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bauku extrusion technology

We are a machinery producer for extrusion lines for polyethylene pipe systems, including fittings and manholes. Our core business is the spiral winding process with the ability to manufacture pipe systems in the diameter range from DN 300 mm up to DN 4000 mm. We are the inventor of plastic profile pipes, with an experience in production and application since the year 1956. Besides the delivery of complete extrusion lines on key turn basis, we also offer our support in training, design, static calculation and project work, to enable our customers to have a smooth start in their home market.

The tubes of our customers can be used to transport water, sewage and seawater. Application as sea outtake or sea intake pipelines for desalination plants or power plant cooling or also quite normal as application for the construction of channels (water, waste water).

As a member of the Boyke Group this portfolio is extended to axial extrusion, press systems and wear technology

Fields of activity:

Machines to produce pipes from polyethylene for big diameters which can stand seawater, sewage water etc.

Company:

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BEULCO GmbH & Co. KG – iQ water solutions

BEULCO is one of Europe's top suppliers of high-quality products for water supply. The company offers solutions for efficient, safe and transparent water supply, especially in the field of house connection technology and mobile water distribution.

With intelligent systems from iQ water solutions, a sub-brand of BEULCO, the company is focusing on securing the water network, the IoT infrastructure, and the monitoring of end points (water meters), opening up new opportunities to make networks more transparent.

Holistic, cloud-based solutions and services are the core of this business unit.

We are also designing customer specific IoT and cloud-solutions based on our experience in drinking water supply and energy management

Fields of activity: Products and solutions for drinking water suppliers. Pipe-Fittings, IoT devices, Sensors, Cloud platforms, disinfection liquids for drinking water.

Company:

BEULCO GmbH & Co. KG
iQ water solutions
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BINDER GmbH

The **BINDERGROUP** manufactures measuring and control equipment specialized for gas flow and pressure, aeration air, biogas analysis as well as pressure and temperature monitors. Our corporate slogan „**BETTER CONTROL. BETTER ENVIRONMENT.**“ underlines our products’ contribution to process safety and efficiency, environmental protection and the highest economic customer value.

VACOMASS® systems for aeration tanks, consisting of precise control valves, air flow meter and a control system using flexalgorithm, for the control and distribution of aeration air as well as further functions for stable nitrogen removal at low energy consumption. Various types of **VACOMASS®** control valves can be supplied with outstanding control characteristics over a wide operation range, poor maintenance and high control precision.

COMBIMASS® gas flow meter and analyzer can be used for digester gas monitoring and control in agricultural biogas plants, biogas from sewage treatment plants, landfills, and solid waste treatment plants. The products are crucial for the improvement of process stability and operational safety in biogas and sewage treatment plants.

COMBIMASS® and **VACOMASS®** - high-quality products – MADE IN GERMANY.

Fields of activity: segment is wastewater treatment, gas flow metering and control#

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FUCHS
A Metawater Company

FUCHS Enprotec GmbH

We, the FUCHS Enprotec GmbH are a German mechanical engineering Company active worldwide in the treatment of wastewater and sewage sludge. We develop and produce innovative products for aeration and mixing and provide high-quality solutions for municipal as well as industrial applications. The use of our own proven technologies is one of the reasons for our success.

With projects realized in about 60 countries and more than 4,000 installed plants we are nowadays a recognized partner in the field of environmental technology. In close cooperation with our sales partners, we make sure that the comprehensive support of our customers is always guaranteed.

FUCHS Aerators are self-aspirating aerators, combining fine-bubble deep aeration with a strong horizontal flow pattern. They ensure optimal aeration and mixing of municipal as well as industrial wastewater. Thus, they are ideal for use in activated sludge basins, aerated lagoons and equalization tanks. FUCHS Aerators are first choice for retrofit. They can be easily used as supplementary aeration or replace existing old aeration systems.

Field(s) of activity: Treatment of wastewater and sewage sludge – Aeration and Mixing

Company:

FUCHS Enprotec GmbH
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KLARO GmbH

Biological wastewater treatment plants MADE in GERMANY

The treatment of domestic and industrial wastewater is a core task in the sustainable use of water as a resource, and indispensable in ensuring the ongoing prosperity and good health of mankind. With 120,000 treatment plants delivered in more than 80 countries, KLARO GmbH from Bayreuth, Germany, has solidified its position as the European market leader in the field of decentralized SBR treatment systems with air-lift pumps.

The company has been supplying successful on-site solutions for waste-water treatment and separators for residential, commercial, and industrial use worldwide for 20 years. KLARO treatment plants use the fully biological SBR process and according to the proven principle: no mechanical parts in the wastewater, no pumps in the wastewater, no electrical parts in the wastewater. The functional components of KLARO treatment plants are designed for 0,6 up to 750m³/day as retrofit kits, making them particularly flexible in use.

The special developed systems for reuse of the treated wastewater are an attractive and intelligent solution, especially for countries with low water resources.

This principle allows them to be used in tanks of any geometry, made of materials such as plastic, concrete, or fibreglass.

Field of application: Private houses, residences, apartment blocks, office buildings, company buildings, municipality developments, hotels, restaurants, schools, weekend houses, lodges, construction sites (also for mobil use), labourer camps, seasonal tourism, event or mass rallies, farmer, small dairies, cheese production etc.

Fields of activity:

Wastewater treatment WWTP / STP

Greywater treatment

SBR (Sequence batch reactor)

Retrofitting concrete tanks

Retrofitting plastic tanks

Retrofitting GRP tanks

Containerized wastewater treatment

Reuse of treated water

Disinfection of treated water

Grease and fat separator / trap

Light fluid and oil separator / trap

Company:

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PPU Umwelttechnik GmbH

We are a German manufacturer company providing industrial wastewater treatment solutions and municipal wastewater treatment systems in mobile containers and modules, based in Bavaria, Germany. We offer sewage treatment plants, non-electric wastewater treatment plants, wastewater treatment equipment kits, dissolved air flotation, electrical advanced oxidation process modules and specialist FBR biological treatment for industry. All manufactured by ClearFox® / PPU Umwelttechnik GmbH and distributed by partners worldwide.

Products we provide are all developed and made in Germany, with our expert engineers and with our partners, guaranteeing the best quality products for your needs. Our service employees do an installation and control the wastewater process during the whole usage of our treatment installations. We deliver our products all over the world, also we have local partners almost in all regions. That is why our products have a short time delivery. We also provide compact sewage treatment plants for rent.

Fields of activity: Containerized systems, dissolved air flotation, FBBR, clarifiers, DiOx EO Modules, domestic systems, SBR kits, sludge treatment

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Wilo Group

The Wilo Group is one of the world's leading premium providers of pumps and pump systems for the building services, water management and industrial sectors. In the past decade, we have developed from a hidden champion into a visible and connected champion. Today, Wilo has around 8,200 employees worldwide.

Our innovative solutions, smart products and individual services move water in an intelligent, efficient and climate-friendly manner. We are also making an important contribution to climate protection with our sustainability strategy and in conjunction with our partners. We are systematically pressing ahead with the digital transformation of the Group. We are already the digital pioneer in the industry with our products and solutions, processes and business models.

Wilo has been present in Saudi Arabia over 25 years through its local distributors. In 2005, Wilo has signed a contract with Al Rajhi / AlWatania for Factory Study in Saudi Arabia. In 2010, Wilo Started a 100% owned company Under Name of Wilo Saudi Arabia Ltd. Based in Riyadh City. Wilo Saudi Arabia acting as representative of WILO SE in KSA providing Sales Support, Services & After Market Activities.

Fields of activity:

We make complex technologies user-friendly, simple to operate, energy-efficient and powerful for our customers. In the end, the main focus of everything we do is people. We offer them outstanding products, system solutions and services. Our brand promise stands for this: Pioneering for You. For maximum quality of life.

The Wilo Group operates in five market segments: Building Services Residential, Building Services Commercial, OEM (Original Equipment Manufacturers), Water Management and Industry.

Company:

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