Water Technologies

More than EUR 110 billion of investment since 1990, an annual export volume of EUR 977 million (2015 & 2016) and a world market share of 11% (2016) – the prospects for German water technologies are bright. Climate change, demographic effects, exploitation of natural resources, digitization, and changing requirements in water-intensive industries are directly impacting the sustainability of water systems, creating demand for new solutions that improve efficiency and water quality standards.

Latest Publication

Fact Sheet - Environmental Technologies in Germany

A long tradition in environmental technologies aligned to pioneering environmental policy and a supportive legal framework have helped establish Germany as a leading green economy player and home to one of the most advanced environmental technologies markets worldwide.

KA International Special Edition 2018/19 [pdf]

The Fight Against Climate Change as an Opportunity in Germany? Current Developments and Further Needs where Water is in Excess

by Flérida Regueira Cortizo, Annika Förster, Michael Schnabel and Daniela Vaziri (GTAI - Berlin/Germany)
The German Water Industry

Market Development

Germany is the top location for the development of sustainable water innovations and Europe’s largest exporter of water and wastewater technologies with an export volume of EUR 1.1 billion in 2018 (VDMA, 2019). The German market for sustainable water management is the largest in Europe, with water supply and waste water treatment alone worth approximately EUR 17.2 billion annually, which is 15.2 % of the global market volume (VDMA, 2019). Research and development opportunities can be found throughout the country.

Legal Framework

German water protection policy makes legal provisions for the maintenance of good-quality water bodies, the adequate supply of both drinking and supply water in terms of quality and quantity, and the long-term securing of water for public use. The Federal Water Act and corresponding regulations such as the Wastewater Charges Act (AbwAG), the Drinking Water Ordinance (TrinkwV), and the Waste Water Ordinance (AbwV), as well as a number of local federal state provisions, create the legal basis for transboundary and sustainable water management.

A Selection of Business Opportunities

A selection of business opportunities at a glance: sewage sludge treatment

In 2014, 38 percent of the sewage sludge generated in Germany was used in agriculture. (Federal Statistical Office, 2017). Germany’s sewage sludge ordinance (AbfKlärV) regulates the application of sewage sludge on agriculturally or horticulturally used soils. It lays down conditions for its use, maximum pollutant contents, and monitoring standards. According to the ordinance, the application of sewage sludge for fertilization will be terminated and the recovery of phosphorus and other nutrients will become compulsory.

Key points in the ordinance include:

- Further significant reduction of pollutants in soil
- Phosphorus recovery
- Comprehensive requirements for phosphorus recovery: Duty to recover phosphorus as of 2029 for wastewater treatment plants covering more than 100,000 inhabitants; Duty to recover phosphorus as of 2032 for wastewater treatment plants covering more than 50,000 inhabitants
- Exception from the duty to recover: Sewage with a low phosphorus content (< 20 g phosphorus per kg sewage; dry weight)
- No specific recovery technologies are defined. This leaves scope for the application and development of innovative recovery procedures.

The new provisions of the amended ordinance have led to high demand for new sewage treatment solutions. This is the right time to approach this market in Germany.
A selection of business opportunities at a glance: fishing for litter

Numerous resolutions and action programs have been adopted on several political levels to tackle marine litter. Under German leadership, action programs were set up in 2016 and 2017. Those included several research activities such as PLAWES, a new project jointly coordinated by the University of Bayreuth and the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research (AWI), which investigates microplastics contamination across ecosystems. For the first time, all scientific data published on marine litter was compiled in a single, comprehensive database called Litterbase (www.litterbase.org). Furthermore, Germany established a national action plan called “Oceans Without Polluting Waste”.

The plan includes:

- The reduction of existing waste via the “Fishing for Litter” initiative. To date 14 harbors in the German North and Baltic seas have joined the initiative (UBA, 2017).

- Reduction of emissions and discharges of microplastics particles. The plan aims to abolish the use of microplastics in cosmetics by 2020 at the latest (UBA, 2017).

Lastly, the federal government and the federal states have set up a round table with government representatives and specialists, scientific organizations, and fishery and environmental associations with the aim of combatting marine litter. There is therefore no better time to approach the German market along the entire water value chain.