The Pure Eco

We Respect Water

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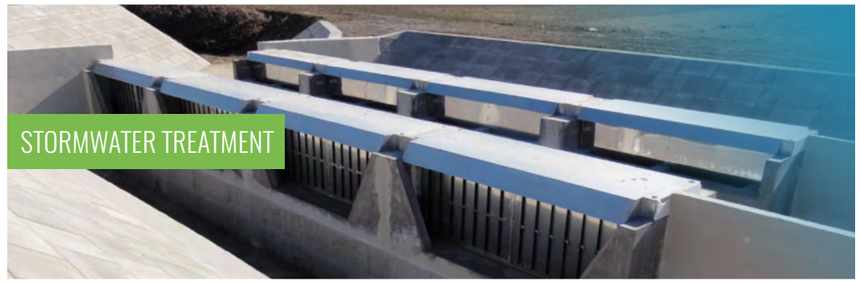
DRINKING WATER TREATMENT

DRINKING WATER PURIFICATION UNIT


STORMWATER TREATMENT


SEPTOPURE® FAECAL SLUDGE MANAGEMENT

PURAID® DRINKING WATER TREATMENT

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Chairman / Hungarian Water Partnership

Past-President, European Water Association (EWA)

Strategic Council Member / African Water and Wastewater Association

WE RESPECT WATER

The Pureco Group of Companies is a Central European Water Engineering Company headquartered in Budapest, Hungary. Together with our subsidiaries and partners we develop, design-build, operate and maintain complex water management and environmental related projects serving millions of people in more than twenty countries on four continents.

IFAT 2022, Hungarian Water Partnership booth

We are

- partner in the Outstanding Exporter Partnership Program (OEPP) of the Hungarian Government
- founding members of the Hungarian Water Partnership
- reporting on the environmental, social and governance (ESG) impacts of our activities
- in partnership with: International Water Association, European Water Association, African Water and Wastewater Association, ASEM Water, Vietnamese Water Association, EXIM Bank, World Bank, African Bank, Water Aid

PURECO – A GROUP OF COMPANIES

Beyond our subsidiaries in Slovakia, the Czech Republic, Romania, Bulgaria, and Ghana, the following entities are also integral parts of our corporate group.

Pureco-Tradeland

Tradeland Ltd. has been an excellent business partner for decades, together we achieved success in close cooperation, which is confirmed by numerous references. To strengthen our market efficiency, we founded a joint company, Pureco-Tradeland Ltd. We are determined to improve its economic performance in international water-related development projects outside the EU. We recently joined the Outstanding Exporter Partnership Programme established by the Hungarian Government. Our aim is to identify and realise joint investment opportunities between markets outside Europe and Hungary in the fields of environmental protection, water management and construction works. We are constantly looking for sustainable and environmentally friendly solutions that facilitate access to healthy drinking water for small communities, water technology companies and water utilities. We find the best products to build, operate and maintain your systems. In developing our portfolio, our primary goal is to provide practical application of value-creating technologies and solutions that can actively contribute to a sustainable future.

Puraset Ltd.

Specializing in regenerable adsorbent technologies, Puraset focuses on providing pure drinking water and efficiently addresses current water-related issues with urgency.

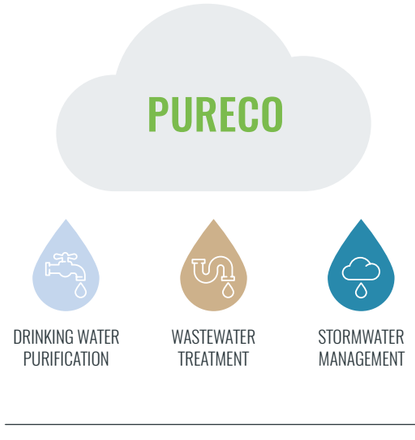
BDL Ltd.

With extensive experience in civil engineering and economic calculation based on LCC and DCC, BDL offers comprehensive water management solutions.

Pureco IDEA Ltd.

Our R&D division, a hub of dedicated specialists, employs research, design, and engineering to lead innovations in water management technology.

PURECO SOLUTIONS

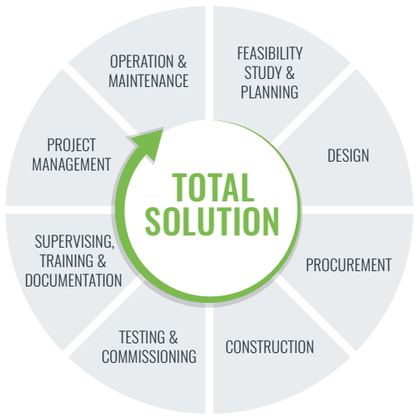


We believe in people and with our highly qualified and experienced colleagues, we provide customized solutions, bringing you the added value in several fields of water management.

SDG ACCELERATION ACTIONS

Our drinking water purification and faecal sludge management technologies are listed by the UN.

Pureco offers a variety of tailored service levels taking into consideration the importance of project integration. We work with you, focusing to keep your system running at maximum performance and at the lowest cost of ownership from the raise of your idea, through design, implementation, operation and maintenance.



Dive into our high-tech solutions.

LARGE SCALE MUNICIPAL DRINKING WATER TREATMENT PLANTS

Clean drinking water for everyone! This is our goal when we develop our engineering services in providing potable water for our partners. Our solutions are based on the best available technologies and take the sustainable, efficient, and environmentally friendly water management principles into account.

We build large-scale water treatment plant for even a whole community providing full range of engineering, construction, and investment preparatory tasks. Our water purification works (extraction of iron, manganese, heavy metals, arsenic, etc.) are conducted in accordance with international standards. We pay special attention to the expansion, the conversion and reconstruction of existing facilities, we carry out our activities in a sustainable and cost-effective manner.

WATER-PURIFICATION AND SERVICE SYSTEM CONSTRUCTION IN VIETNAM

Quang Binh province, Vietnam, 2016

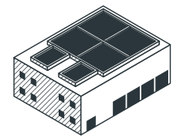
Vietnam Hydroproject Ltd.

drinking water treatment plant

drinking water purification

coagulation, flocculation, clarification, sand filtration, water storage

10,000 m³/d



In Central Vietnam, Quang Binh province the Pureco team gave healthy drinking water to more than 100,000 inhabitants. The project brought better quality of life and the development of basic infrastructure. The 22,000 m³/day capacity water intake structure serves a 10,000 m³/day capacity water treatment plant, constructed in the first phase and a 12,000 m³/day capacity water treatment plant that is currently developed in the second phase of the project. Beside the engineering work our experts trained the local staff to operate and maintain the plant. The project was financed by the Tied Aid Loan from the Hungarian Government.

- **100,000 inhabitants**
- **22,000 m³/day capacity water intake**
- **treatment plant**
- **training program**
- **sustainable operation**

Visit this link for complete information on our Vietnamese reference.

PURAID® – CLOSE TO CUSTOMER DRINKING WATER SUPPLY SYSTEM

The PurAID® is a sustainable and cost-effective, pallet sized, mobile and modular water purification system, ideal for supplying water to rural and isolated areas. The unit is suitable for removing arsenic, iron, manganese, ammonia, fluoride, bacteria, and viruses from groundwater, well water and existing but contaminated mains water.

Technology features

- pallet-sized, mobile, and modular water purification system
- iron, manganese, arsenic, ammonia removal with regenerable adsorbents
- disinfection (viruses)
- chemical free solution
- sustainable, cost effective solution
- easy to install and operate
- small footprint
- online monitoring
- energy efficient, with external energy management unit (can operate from solar, network or other energy source)

Additional benefits

- prompt solution for rural communities, settlements without network water, public institutions schools, hospitals
- flow through design
- low operation cost
- no plastic waste is generated
- no water loss
- treatment with renewable adsorbents, reducing waste
- without high infrastructure investment cost
- local jobs are created

SDG ACCELERATION ACTIONS

PurAID® is listed by the UN as an SDG Acceleration Action.

DRINKING WATER FOR RURAL COMMUNITY IN GHANA WITH PURAID® TECHNOLOGY

Ghana, Eastern Region, Akim Wenchi village, 2021

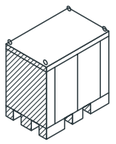
Community Water and Sanitation Agency (CWSA)

small size drinking water treatment unit

drinking water purification

iron, manganese and bacteria removal

10m³/day serving 12,000 ppl

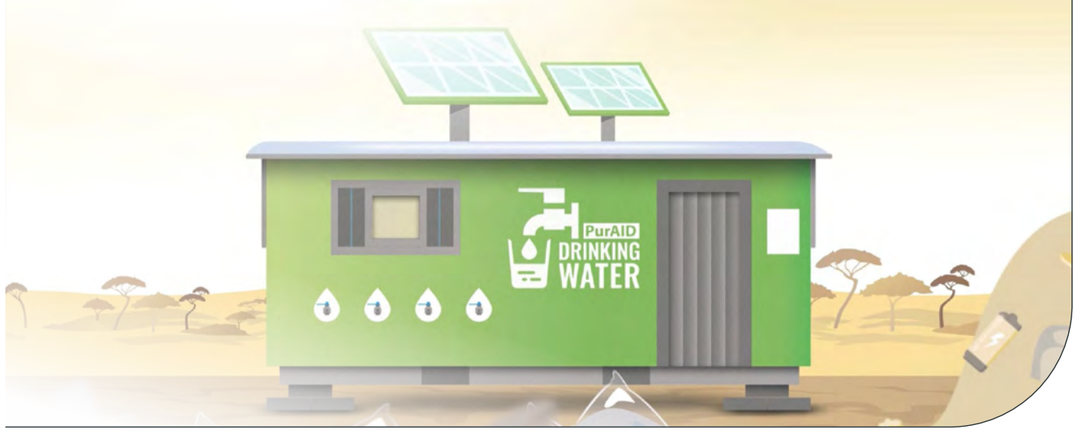


A modular, small size drinking water treatment unit, PurAID® has been installed in Akim Wenchi, Ghana. PurAID® is supplying 10m³/day drinking water for local people. The treatment unit was installed at a borehole next to the local Community Water Sanitation Agency (CWSA) office enabling the easy mastering of the operation. PurAID® supplying WHO compliant drinking water after removal of iron, manganese, and bacteria. The removal of contaminants is carried out by our own adsorbents and filter materials, this technology does not require the use of harmful chemicals, so the environmentally friendly backwash water is discharged into the rainwater ditch/sewer. The key element of the simple running is the developed monitoring system which allows remote supervision of PurAID® unit. Our first test plant in Africa took place in cooperation with the organization responsible for rural water supply in Ghana, the Community Water Sanitation Agency (CWSA), and the operation is also carried out with the active participation of local colleagues. After the successful trial operation, the device, working with a capacity of 10,000 litres/day, provides 12,000 local residents with healthy, clean, high-quality drinking water instead of the previous water with a metallic smell and cloudy colour.

- **modular drinking water treatment unit**
- **providing 10,000 litre treated water per day**
- **serving 12,000 people**

Visit this link for the video we prepared from our first Ghanaian PurAID® project!

WASTEWATER TREATMENT PLANT, KUMASI, GHANA



WATER KIOSK WITH PURAID® TECHNOLOGY

In partnership with the local authorities, we developed a PurAID®-based independent kiosk system. We offer an immediate solution for municipalities and institutions where investment-heavy centralised water treatment plants with distribution networks may take 3–5 years to achieve in a world economy struggling with scarce resources.

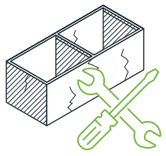
Packaging-free, sustainable, safe drinking water supply technology: giving instant solution for the water-challenges with an investment value of less than €25 / person and less than €5 / person / year supply cost.

- provide clean potable water
- modular solution to build up a network with 5–10 single units
- plug and play, easy to put into operation
- transportable, compact, easy to install solutions
- can be operated either from a solar panel
- removal of iron, manganese, ammonia, arsenic, boron & iodine
- small footprint
- less construction work required
- can be used even in the less accessible rural areas
- chemical-free solution
- completely automatic system with remote supervision
- regenerable adsorbents inside

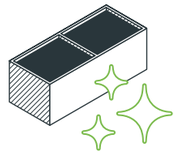
Visit the link to discover the benefits of the PurAID® drinking water kiosk system.

COMMUNAL WASTEWATER TREATMENT WITH BIOCOS® TECHNOLOGY

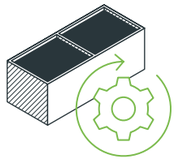
Based on our expert knowledge and our products, we offer:



reconstruction of outdated sewerage treatment plants



construction of new systems – treating sewerage wastewater or septic waters



supporting services for companies doing the operation and maintenance of the systems

BIOCOS® is generally an advantageous combination of continuous-flow technologies and the SBR system, represents an advancement compared to them, which makes the technology unique.

Advantages

- continuous feed, continuous purified water discharge
- compact: no need for multiple pump lifting among treatment steps (no separate anoxic tank, no separate secondary clarifier)
- flexible: it can adapt to changing load conditions and can handle high hydraulic peek-loads without additional equalization tank

Benefits of the technology

- high treatment efficiency: low effluent concentrations
- less mechanical equipment: air-driven RAS-recycle and reactor mixing (motoric valve provided to switch and regulate the air supply) resulting lower investment costs
- unique but simple operation
- lower maintenance and electric energy cost compared to other activated sludge technologies

70+
WASTE WATER TREATMENT PLAN BUILT WORLDWIDE

5M+
PEOPLE SERVED WORLDWIDE

Read QR for more technical details.

WASTEWATER TREATMENT PLANT WITH BIOCOS® IN BONYHÁD, HUNGARY

Bonyhad, Hungary, 2021

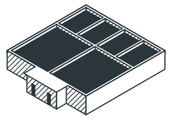
Municipality of Bonyhad

wastewater treatment plant

wastewater treatment

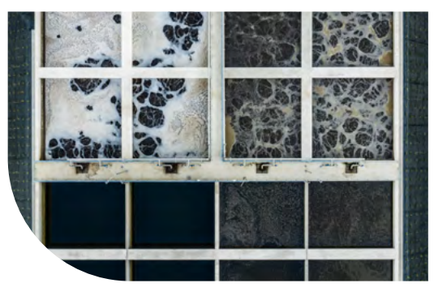
BIOCOS® technology

2,300 m³/d



The biological treatment technology of the former wastewater treatment plant of the town of Bonyhád was not able to meet the quality parameters of the treated wastewater discharged. The new treatment plant was built with BIOCOS® technology. BIOCOS® is a hybrid process that combines both continuous and cyclic activated sludge processes featuring a constant water level and continuous influent and effluent flows. This advanced technology provides high treatment efficiency, flexible and easy operation with lower OPEX compared to conventional activated sludge processes. Main advantages of BIOCOS® wastewater treatment technology:

- **high treatment efficiency**
- **low effluent concentration**
- **less mechanical equipment**
- **unique but simple operation**
- **low maintenance and electricity cost**
- **controlled by a fully automatised control system**
- **innovative but proven technology**



Read QR for the video about this project.

SEPTOPURE® – FAECAL SLUDGE TREATMENT

Affordable wastewater treatment technology to treat 100% faecal sludge for a value of less than €45 per capita and less than €10 per capita/year supply cost

The Septopure® technology was developed to treat 100% liquid waste (faecal sludge). We offer a unique treatment solution to solve environmental and health problems in settlements without sewerage networks. The main objective of Septopure® is to reduce environmental impact and treat sewage sludge in a safe, but affordable and sustainable way. Liquid waste contains very high concentrations of pollutants, which can vary widely. Septopure® is a flexible, continuous-flow, suspended growth process with alternating anaerobic/aerobic/anaerobic/aerobic stages (both for nitrogen removal and enhanced phosphorus removal) that can be adapted to changing loading conditions.

Septopure® technology can be constructed from an investment value of less than €45 per capita instead of €1,000–4,500 per capita for the EU standard "nearly full scale" sanitation utility infrastructure. The technology can offer a return on investment and operating costs of less than €10 per person per year instead of the €50–100 per person per year operating costs in the case of "nearly full scale" solutions.

SDG ACCELERATION ACTIONS

Septopure® is listed by the UN as an SDG acceleration action.

FAECAL SLUDGE TREATMENT PLANTS IN GHANA WITH SEPTOPURE® TECHNOLOGY

Kumasi, Takoradi, Tamale, Ghana, 2021–2023

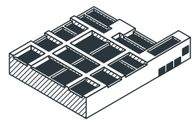
Jospong Group of Companies

wastewater treatment plant

wastewater treatment

Septopure® technology

3 × 1,000 m³/d



Kumasi, Takoradi and Tamale are Ghana's biggest cities after the capital city of Accra. From an environmental and public health point of view, it was essential to urgently develop new wastewater treatment facilities in these cities, which together are home to more than three million people.

The Faecal Sludge Management (FSM) plants of Kumasi, Takoradi and Tamale, which each have a 1,000 m³/d capacity, were designed and constructed in accordance with EU standards and according to WHO limits on the requirements for discharging treated water into the surface. The projects represent major milestones in Ghana's management of faecal sludge.

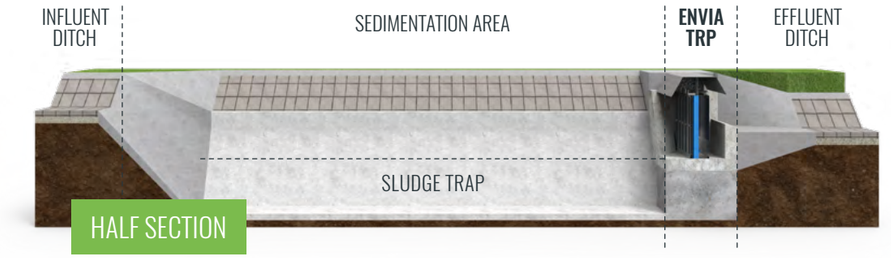
Read QR to see the video about the FSM plant of Kumasi, Ghana.

Stormwater Treatment

STORMWATER TREATMENT

Special patented product to treat contaminated rainwater

ENVIA TRP is a sustainable and efficient solution developed by PURECO for filtering and retaining the contaminants washed away by stormwater, flowing down from linear engineering structures and paved surface such as roads, motorways, parking lots.



Advantages of the product

- wide-scale hydraulic capacities (0-400 l/s)
- heavy metal and microplastic removal
- made of corrosion proof materials

Fields of application

- installable in open-surface ditches made for the drainage of stormwater coming from linear traffic facilities

Read QR for additional technical information of ENVIA TRP.


ZOOMKIDS
CATCH THEM
GHANA

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THE PURE ECO

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Believing in

the strong cooperation we provide fully customized solutions in all aspects of water management.

Contact us

if you are looking for an innovative, solution-oriented company with excellent references on national and international levels.