



**BUDAPEST
WATERWORKS**



Gold Standard for
Utility Performance

Worldwide Water Solutions

WE TAKE PART IN DEVELOPING THE WORLD



Operations and
Maintenance



Business
Consulting



Mobile Water
Purification



Engineering
Services



Planning, Design
and Construction

01 About

Budapest Waterworks, with its one and a half century history, is one of the leading water utility service providers in Central Eastern Europe. During the Company's long history tens of thousands of people have worked here and have created tremendous value.

Among the most innovative suppliers in the world



**BUDAPEST
WATERWORKS**

FOUNDED IN 1868

150 YEARS – TRADITION AND INNOVATION

150

Our Company pays particular attention to conducting its operations using the most sophisticated technologies and devices.

During our history of 150 years, we have built and commissioned several water towers, pump houses and wells. Our plants, once filled with the noise of steam machines, have been replaced by automated facilities as clean as laboratories.

Company Milestones

- 1868** – Foundation of the first water utility in Budapest
- 1904** – Building the ultimate waterworks supplying Pest
- 1911** – Construction of Margaret island water tower with the most innovative reinforced concrete structure
- 1945** – Continuous water supply during World War II in Budapest
- 1980** – Hungary's largest water reservoir with 80 000 m³ total capacity
- 2004** – Start of international activities
- 2006** – Largest and most modern UV disinfection system in Central Europe
- 2008** – Construction of the first asymmetrical water tower in the world
- 2013** – Operations take over of the largest wastewater treatment plant in Central Europe

As a modern utility service provider that respects traditions, we feel obliged to exploit our specialist knowledge not only in Budapest but throughout the world.

Professional enquiries from various countries around the world indicate the desire of our partners to cooperate. Negotiations are underway in several European and Asian countries, and we have already signed consultation, technological development and prime contractor agreements.

It is of special value to the region's decision makers that in the past thirty years Budapest Waterworks has already experienced the phases of the market, the technological, operational and economic development that the cities concerned have still yet to face.

Regional cooperation also helps us realise our shareholders objectives to increase revenues not directly from water sales, to create value as well as to acquire professional experience and expand our know-how.

→ Drinking water

- 5 380 km water network
- 1 million m³ daily capacity
- 766 wells
- 2 water treatment plants

→ Sewage

- 550 km sewer network
- 94 million m³/year treatment
- 370 000 m³ daily capacity
- 7 wastewater treatment plants

→ Clients

- 2 360 000 people served

→ Revenue

- 140 million USD total revenue*
- 82 million USD – potable water
- 27 million USD – wastewater
- 31 million USD – export / other

*2016

Key Indicators



02 Our International Solutions

Our philosophy is that the best solutions always come from those aligned with and tailored to the particular location.

In the course of our assignments, we select the technology most suitable for local circumstances at all times.



**BUDAPEST
WATERWORKS**

1868–2018

150 years of professional experience

We aim to improve our partner's operations and security of supply.

We are ready to assist our clients upgrading their financial management, revenue collection as well as the number of satisfied customers through the most sophisticated technological and company management solutions.

We have gained extensive experience in

- restructuring operations;
- implementation, integration and development of state-of-the-art technologies;
- transformation of financial, accounting systems;
- efficiency improvement;
- development of customer service processes;

which we are ready to share with our partners so that they could respond to modern market expectations in the most efficient way.

03 Key Competencies

Built on the experience and knowledge gathered while performing our core tasks, our solutions never lack an “operator’s edge”. Our clients can always expect more than receiving merely a technology.





Planning, Design and Construction

Our Company surveys the requirements of the task and the partner's capability. Based on the collected information we plan and construct the technologically, operationally and commercially optimal waterworks facility or equipment.

Water facilities

- Surface intake works
- Water treatment plants
- Reservoirs
- Water towers
- Industrial and communal water distribution networks (establishment, upgrading or downsizing)
- Reconstruction of utility pipes (open trench / trenchless – No-Dig)
- Shaft wells, horizontal wells drilled wells, monitoring wells
- Grouting of wells, drilling holes

Mobile Water Purification Systems

- 20/40 feet shipping container, or multiple palette size
- Both as emergency or permanent solution (e.g. refugee camps)

Sewage facilities

- Sewage treatment plants (industrial and communal)
- Sewage disposal networks

Rainwater services

- Disposal
- Storage
- Desiccation
- Treatment

Firewater systems

- Networks
- Storage facilities
- Pressure management

Flood protection facilities

- Dams
- Flood structures (sluice-gates, spillways, etc.)



Operations and Maintenance Services

Through 150 years of operation, we are in possession of all general and technical knowledge required to operate a modern waterworks. Our Company uses the industry's most advanced technologies, integrated and further developed by our experienced and highly trained engineers.

OPERATIONAL EFFICIENCY IMPROVEMENT PROGRAMMES



- Optimizing organizational structure
- Efficiency enhancing
- Reducing technological or business originated water loss
- Various pipe cleaning technologies
- Operation and maintenance of sewage systems
- Water quality control
- Call Centre and telemarketing services
- Energy efficient operations



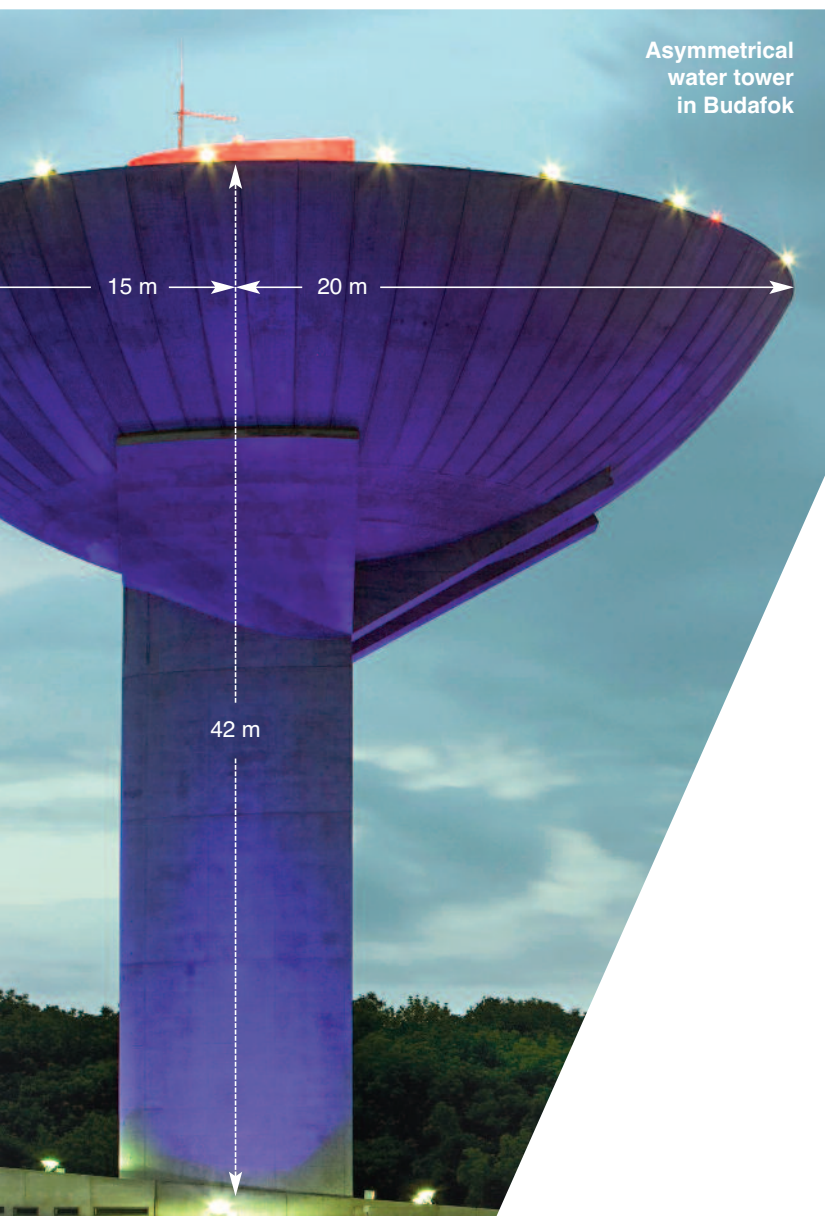
Business Consulting Services

Budapest Waterworks has gone through a significant transformation over the last decades – from an urban drinking water provider we became a large regional company with international references. We are ready to share the wide range of experience gained during this process with our partners facing similar challenges.

- Technical and financial company audit
- Water utility evaluation
- Corporate restructuring
- Development of water pricing policy
- Development of efficient customer service systems
- Introducing reporting systems, identification of performance indicators (IWA – International Water Association indicator system),
- Project management
- Development of corporate strategies
- Financial and controlling system



Central
Wastewater
Treatment
Plant in
Budapest



Asymmetrical
water tower
in Budafok



Engineering Services

Our Company has introduced, developed and applied a number of leading technologies during its day-to-day operation.

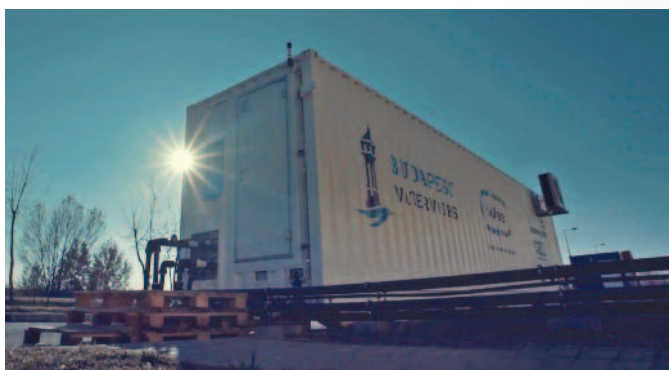
- Loss management (reduction of non-revenue water, leakage detection, water loss analysis, development of metering vehicles, instrument-aided measuring, commercial loss reduction)
- Pressure management
- Water measuring strategy and water balance
- Implementation of automated and uniform business management and decision support systems (SCADA)
- Workforce management
- Network reconstruction planning
- Reading, remote reading and billing systems
- Geographic information systems and digitized network maps development
- Irrigation (aeroponics technology)
- IT consulting and implementation (development of IT company strategies, ERP (SAP), ethical hacking, BPR)
- Energy efficiency improvement
- Flood and disaster management
- R&D

04 Mobile Water Purification Systems

We are able to supply the population with healthy potable water:

- **in emergency situations (floods, tsunamis)**
 - **in remote areas**
 - **during operational failures**
- from any water or wastewater source.

Our Company has been developing and manufacturing mobile purification systems for several years.



← Water packaging equipment

←← Containerised water treatment plant

They can produce and package potable water from any water source of any contamination level, thanks to the engineering expertise and technology incorporated into them, which is unique in world comparison.



← Mobile water purification, Philippines



**Our mobile water purification
systems have been used
in missions around the world**

2005 Sri Lanka
2010 Romania
2013 Philippines
2014 Serbia
2014 Bosnia and Herzegovina
2015 Albania
2017 Turkey



↑ ReWater –
drinking water
from wastewater



Kalatuwawa water treatment plant in Sri Lanka with the reservoir

Major References

Albania

- Completed technical audit
- Mid-term development programme

Client: Tirana Water Supply and Sewerage Utility (UKT)

Azerbaijan

- Electronic workforce management system implementation
- IT strategy, Implementation and quality assurance of an IT development (MISZ)

Client: Azersu OJSC

China

Efficiency improving audit (water production, network operation, customer service activities and water quality)

Client: Fengxian Waterworks, Shanghai

Indonesia

Water treatment units in 34 locations on Sumatra, Java and Sulawesi

Client: Indonesian Ministry of Public Utilities and Housing

Serbia

Capacity development

Client: Subotica Waterworks, UN Habitat, GWOPA

Sri Lanka

Reconstruction works and capacity enlargement of two water treatment plants in Labugama and Kalatuwawa

Client: National Water Supply and Drainage Board (NWSDB)

South-East Europe

Consulting services, capacity building and targeted interventions to achieve commercial efficiency

Client: IAWD – World Bank

Turkey

Fully automated, remote-controlled mobile water purification equipment for the Yayladagi refugee camp

Client: Disaster and Emergency Management Authority of Turkey



Our International Partners

- Albania – **Tirana Water Utility Company (UKT)**
- Austria – **Aqua Engineering**
- Cuba – **National Water Resources Institute**
- Ecuador – **EPMAPS, Aqua De Quito**
- Hungary – **MOL**
- India – **Tecton Engineering and Construction**
- Indonesia, Jakarta – **Regional Drinking Water Supply Company**
- Indonesia, Jakarta – **Regional Waste Water Management Company**
- Indonesia, Jakarta – **The Pt Jakarta Utilitas Propertindo (Jakpro)**
- Israel – **Booky Oren Global Water Technologies**
- Israel, Tel Aviv – **Mekorot Water Company Group Ltd**
- Jordan – **Taff Contracting Establishment**
- Laos, Vientiane – **Vientiane Water Authority, Dept. of Public Works and Transportation**
- Mexico, Tabasco – **ANEAS, Dasur S.A. De C.V.**
- Serbia – **Belgrade Waterworks and Sewerage**
- Serbia – **Subotica Waterworks**
- Sri Lanka – **National Water Supply and Drainage Board**
- Turkey, Ankara – **Disaster and Emergency Management Authority**
- Turkey – **Ankara Water and Sewerage Administration**
- Turkey – **Istanbul Water and Sewerage Administration**
- Vietnam, Hanoi – **Hawaco**
- **The Global Water Operators' Partnerships Alliance**
- **The United Nations Human Settlements Programme**
- **World Bank – IAWD**

Social engagement

Budapest Waterworks as a responsibly operating large company aims to create consistency between achieving its business goals, its social responsibility especially environmental protection, sustainable development and supporting those in need. In addition to the high-level service activity we also pay special attention to acting in the best interest of the public.





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Utility Performance

Budapest Waterworks

Private Company Limited by Shares

International Business Development

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