

Getting Bulgaria's water sector on the European track

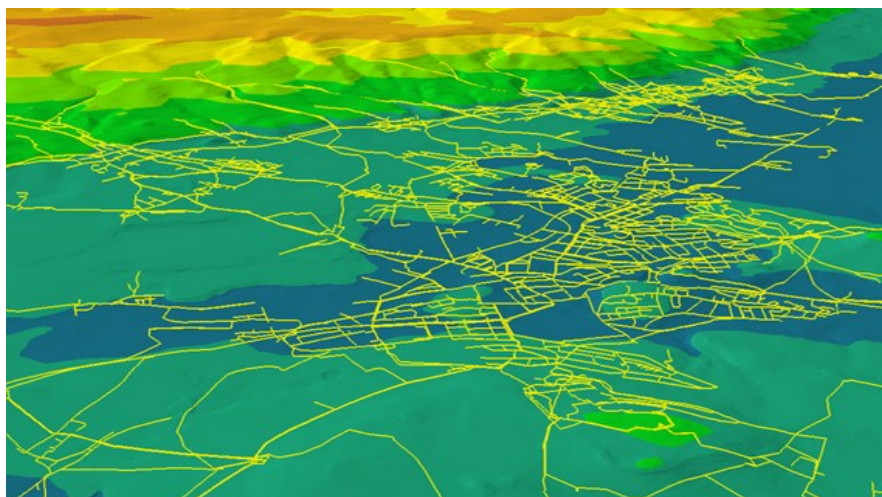
We help Bulgarian cities to apply for EU cohesion funds



Bulgaria's water system isn't quite state-of-the-art. With the help of EU funding, that should soon be changed. DHI helps Bulgaria to develop a well-engineered plan to reform the system, which the EU surely can't resist.

Things are not always easy in Bulgaria when it comes to the public water sector. Even the Minister of Environment and Water stated lately that it remains one of the least reformed systems in the country. Estimates show that the Bulgarian water sector needs between 7.5 and 9.5 billion Euro to solve all existing problems. It is impossible for Bulgaria to shoulder this alone. Funding from the European Union (EU) is essential for a successful reform.

However, EU funding doesn't come without a good plan on how to spend the money and what measures to implement. DHI is a perfect partner to set up such a plan, owing to its advanced modelling techniques and experience from other projects around the world.



SUMMARY

Client

Ministry of Environment and Water,
Republic of Bulgaria

Challenge

Bulgaria's water system is in bad shape. Successful water management is further hampered by unclear conditions concerning coordination and competences.

Solution

A long-term concept for urban water cycle development, including an urban drainage and water supply master plan and a long-term investment plan.

Value

- Better understanding of the system and its bottlenecks
- EU funding for urban water systems: Application for Cohesion funds for measures implementation
- Better operation of water utilities

Location/Country

Bulgaria, EU

In the water supply sector, DHI helps to...

- supply the population with sufficient amounts of high-quality drinking water,
- get the water supply system and structures into good shape,
- build water sources and purification stations for drinking water as well as to
- reduce water losses and
- increase the number of people using water supply services by constructing new pipelines.

In the waste water sector, DHI helps to...

- reduce the inflow of waste water to receiving waters by building Wastewater Treatment Plants (WWTP),
- optimize the operation of the existing WWTP
- increase of number of people using wastewater collection services and to
- increase the number of people whose waste water gets full treatment.

Water supply and waste water

Consequently, DHI investigated the state of the water sector in six large Bulgarian cities, that are overall providing water services to more than 1.35 million (approximately 20%) inhabitants. Using MIKE URBAN modelling software and being supported by qualified partners, they set up six different urban drainage and water supply master plans as well as long-term investment plans. These address two major sectors - water supply and waste water - and aim to understand their current problems and bottlenecks and design future extensions.

Set-back and solutions

As already stated, things are not always easy in the Bulgarian water sector. "There were some set-backs along the way, conflicts owing to different views and motivation and quite some pressure to set up six parallel master plans in very short time", says DHI project director Tomas Metelka. "However, thanks to our skills and experience in communication and coordination as well as good project logistics we managed to overcome these set-backs. And for our side, we surely learned a lot about the local market behavior."

With the information inferred from DHI's modelling results, the country is now almost ready to apply for EU Cohesion Funds to implement the recommended measures and get Bulgaria's water utilities on the European track.



DHI's simulations and analysis in the current project cover the urban drainage and water supply master plan for six large regional cities, comprising more than 1.35 million

people. Six skeletal sewerage models and six full scale water supply MIKE urban models were build up, calibrated and used to diagnose the current performance bottlenecks and future potential extensions.



The city of Gabrovo, one of the towns included, stretches over many kilometres along the Yantra River. It is home to more than 60,000 inhabitants and the administrative centre of the Gabrovo province.

The EU Cohesion Fund

The European Union (EU) comprises 27 Member States forming a community and single market of 493 million citizens. However, great economic and social disparities still remain among these countries and their 271 regions. The Cohesion Fund aims to strengthen the economic and social cohesion of the European Community. It does so through the balanced financing of projects, project stages and groups of projects in the fields of the environment and trans-European transport infrastructure networks. The fund prioritises projects related to

- drinking water supply,
- waste water treatment and
- solid waste disposal.

The Cohesion Fund is aimed at member states whose gross national income (GNI) per inhabitant is less than 90 percent of the Community average. It serves to reduce their economic and social shortfall, as well as to stabilise their economy.

(Source: <http://europa.eu>, <http://ec.europa.eu>)