Asset Management Advisory Services to Water Utilities in South-Eastern Europe

**GAIN** hands-on, practical experience on asset management

**LEARN** from other practitioners in the sector

**BE UP TO DATE** on the latest trends in the sector

**BENEFIT** from regional and global experiences from other utilities and experts
Asset Management Advisory Services to Water Utilities in South-Eastern Europe

**The challenge**

Water utility companies are more than ever under pressure to improve their overall performance and cost efficiency, while facing the need to preserve or modernize their assets without access to funding at the same time.

The aging system makes it increasingly difficult for the water utility companies to provide the services desired by the local government units and required by the local citizens and businesses.

As operational and servicing costs increase with the age of fixed assets, the weaker service capacity goes hand in hand with disproportionately high operating costs.

**The solution**

The best way to face this challenge is the introduction of best practices in Integrated Asset Management.

These effective and proven methods allow to monitor, maintain and upgrade the existing assets systematically and cost effectively, while improving the quality and reliability of their services and strengthening their overall business performance.

**The offer**

The Program "Asset Management Advisory Services to Water Utilities in South-Eastern Europe" is now making these best practice methodologies available – adapted to the requirements and specific conditions of public utilities in the region.

Supported by the German Development Cooperation and in direct collaboration with Hydro-Comp Enterprises Ltd., Cyprus, a world leading provider for consultancy and software solutions for public utility management, this program provides direct technical assistance, a state-of-the art software solution and extensive capacity building for Integrated Asset Management to water utilities from Bosnia and Herzegovina, Macedonia, Montenegro and Serbia.

To support the water utility companies directly and individually according to their needs and special requirements, two expert Hubs offer their expertise and experience to accompany the participating utilities with each step along the whole Program:

- **UTVSI**
  - Association for Water Technology and Sanitary Engineering of Serbia (for Macedonia, Montenegro and Serbia)

- **AQUASAN**
  - Aquasan Network in Bosnia and Herzegovina (for Bosnia and Herzegovina)
The set-up

The Program provides access to an innovative package solution called EDAMS IAM software as a state-of-the-art tool for Integrated Asset Management. It is based on best practices and a tested and proven methodology that enables utilities to perform a full range of Asset Management solutions.

These solutions are systematically introduced to the participating utilities through three stages:

<table>
<thead>
<tr>
<th>AIM</th>
<th>MODULES</th>
<th>RESULTS</th>
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</table>
| **Silver Stage:** GIS/Network Data Management | Network Data Management constitutes a comprehensive asset register for the utility networks. It provides a geographical network database with proper functionality for the capturing, structuring, maintenance and management of all existing assets. | - GIS/network data management  
- Advanced GIS/network data management (incl. network zoning)  
- Systematic mapping of all assets with factual and reliable data and geographical reference  
- Consistent, consolidated and validated data repository allows easy network assessment and applicability of all functions to business processes |
| **Gold Stage:** Maintenance Management | Maintenance Management for the improvement of productivity and efficiency of the maintenance function and the improvement of service delivery (less breakdown time) through the implementation of proper business procedures and work flows. | - Maintenance management  
- Advanced maintenance management  
- Systematic condition assessment of the whole network  
- Integrated work-flows and business procedures  
- Efficient sustainment of infrastructure  
- Cost control for maintenance as biggest cost centre |
| **Platinum Stage:** Asset Management and Distribution, Non-Revenue-Water Management | Enable advanced Integrated Asset Management functions namely: (a) Commercial Data Management, (b) Water Quality Management, (c) Distribution/NRW Management, (d) Rehabilitation/Maintenance Planning and (e) Business Planning. | - Commercial data management  
- Distribution/NRW management  
- Water quality management  
- Rehabilitation planning  
- Infrastructure planning  
- Maintenance and rehabilitation plans to minimize cost of asset ownership  
- Distribution Management and control of NRW  
- Network rehabilitation planning |

Throughout all stages, the utilities are supported individually with tailored advice and comprehensive capacity development measures through the following services:

1. **Classroom Training:** training courses will be held at the Hubs’ premises on a regular basis
2. **Data Conversion & IAM Systems Implementation:** the EDAMS IAM software will be provided; hosting and operation through the Cloud; existing data will be fully integrated
3. **Support:** daily remote support to utilities in the use of the software and procedures adopted
4. **Visits:** utilities are encouraged to visit the Hub in regular intervals to seek advice and assistance
5. **Workshops/Conferences:** will be held on a regular basis presenting various aspects of the services and IAM
6. **Access to additional IAM Services:** optional, if required, at extra cost to further assist the utilities on request
## BENEFITS FOR WATER UTILITY COMPANIES

- **Improved management**
  - One comprehensive database for all existing assets
  - From reactive to proactive planning and organization process for short-, mid- and long-term tasks
  - Data and evidence-based management decisions (job costs, budgeting, performance indicators)
  - Economic maintenance: better planning, condition and risk assessment
  - No more loss of knowledge due to staff fluctuation
  - Improved capacities of staff
  - Computer assisted and standardized workflows
  - Integrated processes: overcoming sectorial divisions and integrated collaboration

- **Better services**
  - Improved customer services
  - Better water supply (with respect to water pressure and quality)
  - Faster response to maintenance problems and more effective emergency and crisis management
  - Allowing to expand supply coverage

- **Financial benefit**
  - Reduced operating costs
  - Higher revenues
  - Reduced personnel costs due to improved personnel equipment
  - Lower annual rehabilitation and maintenance costs
  - Better planning for future investments

- **Higher creditworthiness**
  - A precise balance sheet, reports on water quality, water audit reports and more precise budgets for operating costs and necessary investment costs
  - Improved financial performance of the PUCs

- **Enhanced compliance and transparency**
  - Data captured in standard procedures: easy reporting
  - Automated assessment of regulative requirements

## BENEFITS FOR LOCAL GOVERNMENT UNITS

- **Identification and registering of the existing assets managed by PUCs**
- **Improved steering through executive assessment of status and development of public utility and its services**
- **Improved value estimation for calculation of asset depreciation**
- **Informed and improved strategic decision making**
- **Improved cooperation and coordination between PUCs and LGUs as the owners of the local government units’ assets**
- **Sustainable development of public service provider**

- **Continuity and quality of critical public services**
- **People-oriented local government units’ services**
- **Satisfied clients – happy citizens**

- **Financial asset valuation**: the local government unit knows what assets with what value it owns
- **More favorable water prices through economic and client-friendly pricing**
- **Price for water services with complete depreciation for asset maintenance and rehabilitation**

- **Attain grant and loans from international donors**
- **Improved creditworthiness based on reliable data, efficient asset management, reliable service delivery and affordable services**

- **Rules and regulations are more easily monitored and met**

### Results so far

With one stage already successfully concluded, a lot has been achieved (January 2018)
How to participate

All public water utilities from Bosnia and Herzegovina, Macedonia, Montenegro and Serbia can participate in this Program.

The trainings and capacity development for water utility companies are fully covered by the Program (including the transport and accommodation for workshops and trainings).

Participating utilities will only pay for the use of the software a reduced annual software fee.

For the support, participating utilities pay membership fee of €50 per month to the Asset Management expert Hub.

<table>
<thead>
<tr>
<th>DURATION</th>
<th>PARTICIPATION AND SOFTWARE PER MONTH</th>
<th>MEMBERSHIP TO EXPERT HUB PER MONTH</th>
<th>TOTAL CONTRIBUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver level</td>
<td>11 months</td>
<td>200.- EUR</td>
<td>50.- EUR</td>
</tr>
<tr>
<td>Gold level</td>
<td>10 months</td>
<td>300.- EUR</td>
<td>50.- EUR</td>
</tr>
<tr>
<td>Platinum level</td>
<td>10 months</td>
<td>350.- EUR</td>
<td>50.- EUR</td>
</tr>
</tbody>
</table>

Our partners

These water utility companies are already participating in the project (January 2018):

Serbia
- Aranđelovac – JKP “Bukulja” Aranđelovac
- Gornji Milanovac – JKP Gornji Milanovac
- Indija – JKP “Vodovod i kanalizacija” Indija
- Kladovo – JP “Jedinstvo” Kladovo
- Kragujevac – JKP “Vodovod i kanalizacija” Kragujevac
- Kruševac – JKP “Vodovod” Kruševac
- Loznica – JP “Vodovod i kanalizacija” Loznica
- Majdanpek – JKP Donji Milanovac
- Negotin – JP za komunalne delatnosti “Badnjevo” Negotin
- Sokobanja – JKP “Napredak” Sokobanja
- Subotica – JKP “Vodovod i kanalizacija” Subotica
- Svilajnac – KJP “Morava” Svilajnac
- Topola – JKPSP Topola
- Zaječar – JKP “Vodovod” Zaječar

Montenegro
- Berane – JP “Vodovod i kanalizacija” Berane
- Cetinje – DOO “Vodovod i kanalizacija – Cetinje”
- Kotor – “Vodovod i kanalizacija Kotor” d.o.o.
- Budva – Regionalni vodovod Crnogorsko primerje Budva
- Budva – “Vodovod i kanalizacija” d.o.o. Budva

Bosnia and Herzegovina
- Bihać – JP “Vodovod” d.o.o. Bihać
- Gračanica – JKP “Vodovod i kanalizacija” d.o.o. Gračanica
- Gradiška – KP “Vodovod” a.d. Gradiška
- Hadžići – JKP “Komunalac” d.o.o. Hadžići
- Ključ – JP “Ukus” d.o.o. Ključ
- Novi Travnik – JVP “Vilenica-Vodovod” d.o.o. Novi Travnik
- Sanski Most – JKP “Vodovod i kanalizacija” d.o.o. Sanski Most
- Srebrenik – JKP “Vodovod i kanalizacija” d.d. Srebrenik

Macedonia
- Probištip – JKP “Nikola Karev” Probištip
- Resen – JKP “Proleter” Resen
Experiences of participating utilities

“We realized, that this project offers possibilities also for detecting the illegal plugs and water losses as well as making subsequent zoning. Planning and maintenance, which are of crucial importance for the control of the usage of supplies for removal of defects of the water supply system. Simply it allows for an easier management of the water supply company.”

Mr. Vuk Todorović – General Manager
“Vodovod i Kanalizacija”, Berane, Montenegro

More: https://www.youtube.com/watch?v=5Q8fCHdURHs

“Cetinje, a small company located in Montenegro, has a huge water loss of 80%. As a part of the Asset Management Program, we aim at repairing these losses and narrowing them down to some normal limits. In the phase of data entry, we managed to locate a big part of the network, which we haven’t repaired and used so far. By this very activity we managed to reduce the losses by 10%.”

Mr. Nikola Pejaković – GIS Expert, DOO
“Vodovod i kanalizacija” Cetinje, Montenegro

More: https://www.youtube.com/watch?v=VkeRcJAc2lA

“We receive huge support for the project and its implementation by the team members, who are available at all time. In case we encounter a problem, we can freely address it with them and we have their full support. This will help us to do better planning in the future, in terms how to upgrade the system, as well as to plan for new investments.”

Ms. Sofija Poguberović – Head of Water Quality Control, JKP “Vodovod i kanalizacija” Indija, Serbia

More: https://www.youtube.com/watch?v=VkeRcJAc2lA

“We see huge benefits in terms of organization of the daily operations, in terms of the network maintenance, preparation of hydraulic models, and other favorable conveniences offered by the Program.”

Mr. Marko Paunovic – General Manager, JKP “Vodovod” Zaječar, Serbia

More: https://www.youtube.com/watch?v=5Q8fCHdURHs

More experiences at GIZ ORF MMS
YouTube channel: www.youtube.com/channel/UCa9VEZ7zu-TCjS5SJS2hUg

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Hubs

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UTVSI, Association for Water Technology and Sanitary Engineering of Serbia (for Macedonia, Montenegro and Serbia)

Technical Partner

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The Danube Learning Partnership is supported by
DANUBE WATER PROGRAM
Smart policies, strong utilities, sustainable services