



Utility Management Training: A Master Class for Holistic Management in the Water Service Sector

Institutional Partners



GAIN practical experience on all aspects of utility 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

UTILITY ECONOMICS, FINANCE AND REGULATION

UEFR

Aim of the module: to introduce the features of regulatory economics and tariffs and to familiarize with core management practices of utility finance and management accounting. It serves as a gateway to follow-up modules on rather technical, operations and commercial aspects of utility management.

Specific topics:

- Features of natural monopolies – economic concepts and contractual models
- Regulatory principles, tariff design and modelling
- Interpretation of financial statements of water utilities and implementation of management-accounting practices – budgets, cost centres and controls

ASSET MANAGEMENT AND INVESTMENT PLANNING

AMIP

Aim of the module: to provide a wide grasp of asset-management concepts and tools such as creating asset registers, assessing the condition of critical facilities, design of maintenance manuals, etc. The module is a prerequisite for investment planning activities that will be used in some of the follow-up modules.

Specific topics:

- Asset registers including structure and data requirements, field data-capture campaigns
- Asset management practices including asset condition assessment, elaboration of maintenance plans, utilization of software tools such as GIS, CAMMS, hydraulic modelling, etc.
- Investment planning including structuring of investment programs based on various investment drivers, financial, accounting and regulatory aspects

COMMERCIAL MANAGEMENT AND CUSTOMER SERVICE

CMCS

Aim of the module: to introduce the commercial cycle of water utilities as a chain of processes, from meter installation and reading to billing and collection. The module also reflects on customer service functions with focus on digitalization.

Specific topics:

- Meter management and meter reading including sector-specific issues such as meter under-registration, automated meter infrastructure (AMR), etc.
- Billing and collection with focus on management tools such as transaction reporting, aged-debt profiling, outsourced commercial activities and structuring customer information systems
- Customer service including call centers and online servicing of customers, the role of all utility functions in creating a service environment

NETWORK OPERATIONS AND ENERGY EFFICIENCY

NOEE

Aim of the module: to highlight the various disciplines within network operations, both water and sewer ones – from purely technical and operations functions to financials, IT solutions and service levels. In parallel – to create a wide understanding of energy management and energy efficiency.

Specific topics:

- Fundamentals of water (and sewer) networks including capacity planning, hydraulics, key assets and their condition
- Proactive network operations: control rooms, SCADA systems, NRW-reduction tools and others
- Energy balance of a water utility, design and implementation of energy audits and follow-up efficiency projects

EFFICIENT PLANT OPERATIONS



Aim of the module: to develop an overall view of how both potable water and wastewater treatment plants are managed including operations principles, financial and investment planning, evolution of regulations and new technologies. Provides a holistic view on network management from various perspectives – asset planning and investments, design, water-loss reduction, cost control. The key focus of the module is on operations techniques and structuring of proactive network functions.

Specific topics:

- Potable water treatment plants: types of facilities, operations principles, design and operations criteria for small vs. large plants
- Wastewater treatment plants including tertiary treatment and sludge management
- Evolution of regulations with specific focus on UWWTD. CAPEX and OPEX planning of treatment facilities.

WATER SAFETY PLANNING



Aim of the module: to make the point that risks and hazards for drinking water suppliers and wastewater systems are gradually on the rise, especially when it comes to climate-change-related risks. It provides a framework for utility wide safety planning by introducing both strategic organizational tools (business continuity plans, crisis response, etc.) and business processes with high impact on safety, e.g. water-quality laboratories, control rooms, etc.

Specific topics:

- Business continuity in the water sector: identifying, classifying and managing operations risk, emergency response plans and crisis management (including pandemics)
- Water quality aspects: EU regulations, water quality parameters, setting up and managing laboratory activities
- Other aspects of safety planning in water utilities, e.g. critical assets, health & safety

“UMT equips participants with hands-on methods.”



Frosela Filo
Korca utility
(Participant)

“Exchange of experiences and confidence build-up.”



Alexandra Garagushkova
Sofia Water
(Participant)

“The UMT pays in the long term as participants bring skills back to the utility.”



Jörg Karlhuber
Energie AG Bohemia
(Utility Partner)

Utility Management Training: A Master Class for Holistic Management in the Water Service Sector

Program description and covered topics

The need to support and enhance the management culture in the water service sector is undisputed. The State of the Sector reports and the opinions of various stakeholders in the industry repeatedly prove this necessity. Utilizing the already developed D-LeaP programs and in partnership with leading utilities in Central and Eastern Europe, the Utility Management Training aims to "equip" current and future water sector managers with tools and techniques to support their decision making. The academic partner, Sofia University, further brings academic structure and rigor to the program.

Set-up of Program

The program spans over six modules that, collectively, cover most of the major processes and functions in a water utility. These are:

- Utility Economics, Finance and Regulation
- Commercial Management and Customer Service
- Asset Management and Investment Planning
- Network Operations and Energy Efficiency
- Efficient Plant Operations
- Water Safety Planning and Business Continuity Management

Spread over two years the modules combine theory and practice, classroom trainings and field demonstrations. Each module is organized within a four-month period with an introductory webinar, a one-week "residential" activity and some follow-up work typically based around cases that the UMT participants bring from their own work environments.

Learning goals

Finance: What is the logical structure of cost centers in a water operator? What are the elements of an OPEX budget? What about a CAPEX one?

Asset Management: Which assets can be defined as "critical"? What is the preferred data model for each asset class? How can we structure optimal maintenance based on condition assessment?

Network Operations: What is included in Network Operations? How can we move towards "proactive" maintenance as opposed to "reactive" one? The need of control rooms and gradual implementation of monitoring solutions.

Similar questions are being raised in all six modules in order to bridge management and operations level which is the ultimate goal of the UMT program.

Competence Partners



Utility Partners



Hub



Regional Danube Hub
(hosted by IAWD)

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