

**GAIN** practical experience on commercial efficiency measures

**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

### Commercial Efficiency in Water Supply and Sanitation Utilities

**Understanding the Commercial** Principles: "Commercial Efficiency" can be defined as an optimal model of operating the commercial functions

within a water utility

Efficiency in the organization of the commercial processes

**Technical** proficiency

Smart use of technology and data

Linking commercial, operations and financial functions

Understanding the water utility commercial cycle, which consists of four sub-processes, and in which the failure in one of these sub-processes results in poor overall performance

Meter Installation and Testing

Meter Reading

Revenue

assurance

Billing

Collection

### KEY PROCESSES IN EACH PHASE

Sizing and selection of meters

Installation of meters

Maintenance and repairs Calibration/testing

Routes and schedules of meter readers

Control mechanisms

AMR/AMI

Data entry and quality controls

Actual invoicing

Transaction reporting

Integration with other information systems

Payment methods

Periodic control

Soft collection Door-to-door collection

Outsourced collection

### TOOLS, TECHNIQUES AND TECHNOLOGIES TO BE CONSIDERED

Customer demand profiling

High accuracy water meters

Flow control devices

New-generation AMR

PDA-based reading

Cloud-based systems Customized reports GIS - billing integration

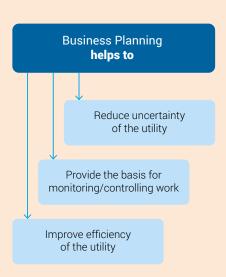
Aged-debt reporting Remotely-controlled stop valves

### Learn how to use a **Business Planning Model**

to quantify the impact of improvements in commercial efficiency

Business planning helps water utilities to plan technical operations, determine their operational financing needs, and quantify and schedule the capital investments for the utility in a sustainable and affordable way





Explaining the Business Planning Cycle helps water utilities to understand every element of it and plan the measurements which should be taken to improve Commercial Efficiency Staffing analysis and forecast Staffing level by classification Staffing level forecast by classification **Debt service on loans** Staffing wages Annual principal repayment Annual adjustment by classification Annual interest payment Staffing efficiency ratio Operations and maintenance Operating expenses Revenue needs budget forecast Line item expenses Annual O&M budget Collection efficiency Annual item rate Unit cost of water produced Linked power/Chemicals to produced water Unit cost of water sold Tariff structure Water demand analysis Capital reserve from cash flow Population projection Metered connections New capital investment reserve Per capita demand and forecast Unmetered connections Capital repair and replacement reserve Unit price Water discount Capital renewal reserve Water sales % Non-revenue water

Input all the data

#### Practical exercises:

Populate and develop your individual Business Planning Model

The increase of the population in the service area required in the yellow for each of the five years in the Business Plan will cells for the Base Year be calculated from the % growth per year Base Year Year 1 Year 2 Year 3 Year 4 Year 5 89.195 Population in the service area registered 88,309 88.751 89.641 90.089 Population served by registered connections 73,050 75,063 78,101 80,275 85,159 90,089 10,650 Unserved population 14,820 13,246 8,919 4,482 % of population provided water service 83% 88% 95% 16,000 Registered household water connections 16,461 17,127 17,604 18,675 19,756 14,000 2,000 15, 44 1,3 7 Metered HH connections 16,100 16,900 18,302 9,756 Non-metered HH connections 1,028 704 374 % metered HH connections Number of new metered HH connections per year 955 1,402 1,455 1.144 800

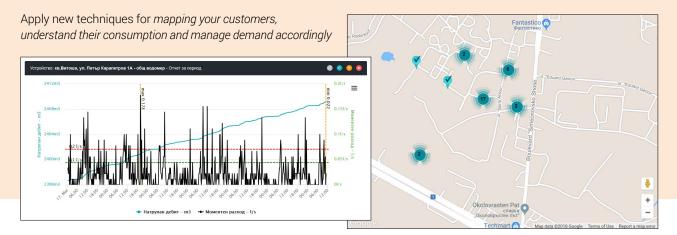
> The worksheet will multiply the no. of registered HH connections with the no. of persons per HH to give the population served by registered connections

The population in the service area multipled by the % service coverage ratio

These entries will be decided by the company in order to achieve their strategic goal

Learn how to develop a water balance

Own source	Total system input	Exported water	Authorized consumption	Billed authorized consumption	Billed water exported	Revenue water
					Billed metered consumption	
					Billed unmetered consumption	
		Supplied water		Unbilled authorized consumption	Unbilled metered consumption	Non-revenue water
					Unbilled unmetered consumption	
					Unauthorized consumption	
			Water losses	Apparent losses	Customer metering inaccuracies	
Imported water					Data handling error	
				Real losses	Leakage on mains	
					Leakage on service lines	
					Leakage on overflows at storage	



## Commercial Efficiency in Water Supply and Sanitation Utilities

# Program description and covered topics

The successful management of high cost water infrastructure is essential to operate and deliver the required service as cost effectively as possible. The management of commercial activities is an integral part of achieving this goal.

This Program supports participating utility companies in collecting, auditing and analyzing data related to commercial efficiency and developing actions based on that data to support reduction of costs, increase revenue collection and overall commercial efficiency. It offers a standardized and detailed approach for business planning and provides tools and actions to improve commercial efficiency.

The Program has been developed in cooperation with the Technical Partner Valu Add and is delivered by national or regional Hubs in local language. The duration of the Program is one year and it consists of workshops as well as hands-on exercises at the utilities themselves with support of the trainers. Participating utilities pay a registration fee, which is communicated by the Hub.

### **Set-up of Program**

The Program is designed on learning-by-doing principles. It includes a mix of face-to-face training workshops providing tools and techniques to address the challenges faced and see them applied in practice, followed by on the job training, in which participating utilities apply the tools and techniques to their particular situation and develop concrete products (diagnostics, action plans etc.). The principles of blended learning are applied, i.e. face-to-face training is accompanied by e-learning material provided within the D-LeaP Academy.

For more information on the Program concept and design please visit www.d-leap.org!

### **Learning goals**

How to develop a business plan?

How to establish adequate commercial procedures?

How to design performance improvement plans?

### **Hubs**



Water Supply and Sewerage Association of Albania (SHUKALB)/ Wastewater Works Association of Kosovo (SHUKOS)



Association of Utility Service Providers of Macedonia (ADKOM)



APA Brasov, Romania

### **Technical Partner**



### **Contact**

**D-LeaP Secretariat** office@iawd.at



Danube Learning Partnership Secretariat c/o IAWD Technical Secretariat

office@d-leap.org

www.d-leap.org

