CE

IAWD International Association of Water Supply Companies in the Danube River Catchment Area

Danube Learning Partnership

Commercial Efficiency in Water Supply and Sanitation Utilities

GAIN practical experience on commercial efficiency measures

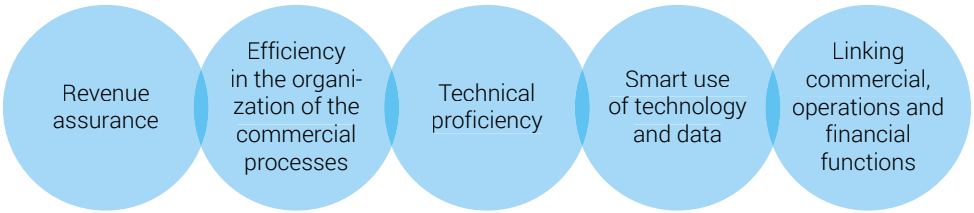
LEARN from other practitioners in the sector

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

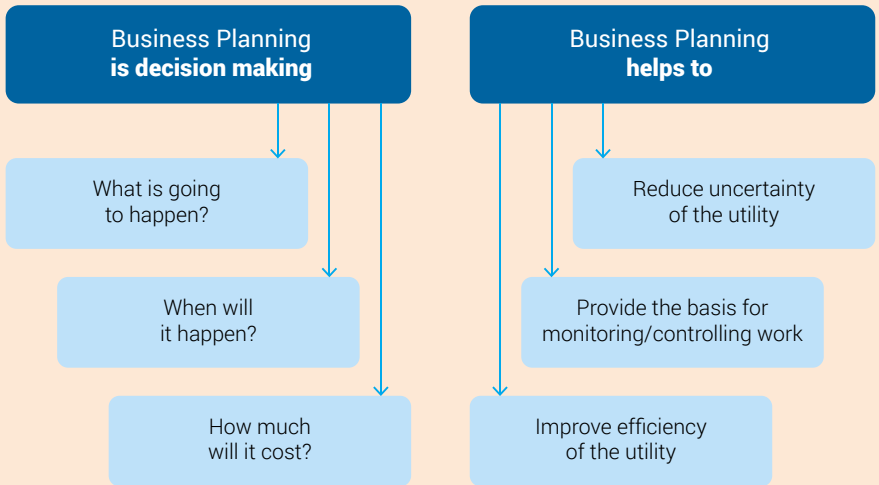


Understanding the water utility commercial cycle, which consists of four sub-processes, and in which the failure in one of these sub-processes results in poor overall performance

1 Meter Installation and Testing	2 Meter Reading	3 Billing	4 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
Staffing wages
Annual adjustment by classification
Staffing efficiency ratio

Operating expenses
Line item expenses
Annual item rate
Linked power/Chemicals to produced water

Water demand analysis
Population projection
Per capita demand and forecast
Water discount
Water sales
% Non-revenue water

Debt service on loans
Annual principal repayment
Annual interest payment

Operations and maintenance budget forecast
Annual O&M budget
Unit cost of water produced
Unit cost of water sold

Capital reserve from cash flow
New capital investment reserve
Capital repair and replacement reserve
Capital renewal reserve

Revenue needs
Collection efficiency

Tariff structure
Metered connections
Unmetered connections
Unit price

Practical exercises:

Populate and develop your *individual Business Planning Model*

Input all the data required in the yellow cells for the Base Year

The increase of the population in the service area for each of the five years in the Business Plan will be calculated from the % growth per year

	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5
Population in the service area registered	87,870	88,309	88,751	89,195	89,641	90,089
Population served by registered connections	73,050	75,063	78,101	80,275	85,159	90,089
Unserved population	14,820	13,246	10,650	8,919	4,482	0
% of population provided water service	83%	85%	88%	90%	95%	100%
Registered household water connections	16,000	16,461	17,127	17,604	18,675	19,756
Metered HH connections	14,000	15,344	16,100	16,900	18,302	19,756
Non-metered HH connections	2,000	1,317	1,028	704	374	0
% metered HH connections	88%	92%	94%	96%	98%	100%
Number of new metered HH connections per year		1,144	955	800	1,402	1,455

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

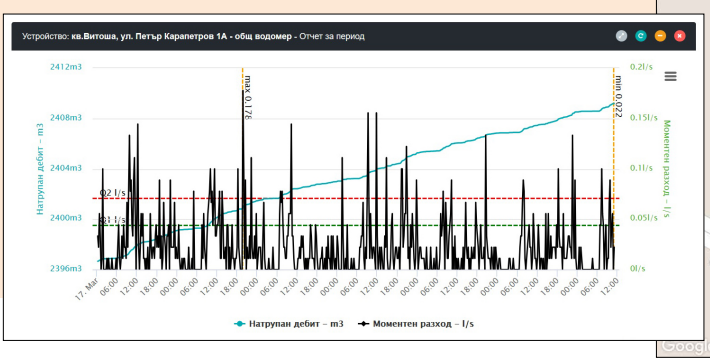
The population in the service area multipled by the % service coverage ratio

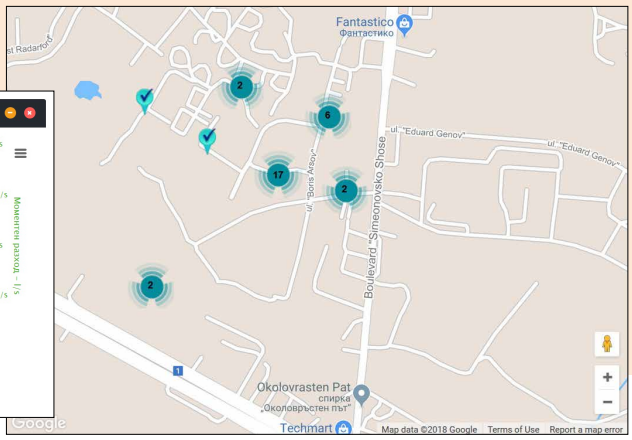
These entries will be decided by the company in order to achieve their strategic goal

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	
Imported water			Water losses	Apparent losses	Customer metering inaccuracies	
					Data handling error	
				Real losses	Leakage on mains	
					Leakage on service lines	
					Leakage on overflows at storage	

Apply new techniques for *mapping your customers, understand their consumption and manage demand accordingly*





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

SHUKALB, Water Supply and Sewerage Association of Albania/**SHUKOS**, Water and Wastewater Works Association of Kosovo

ADKOM, Association of Utility Service Providers of Macedonia

APA Brasov, Romania

Technical Partner

VALU ADD MANAGEMENT SERVICES
"Your Partner in Reinventing Environmental Infrastructure Management"

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IAWD DANUBE WATER PROGRAM
Smart policies, strong utilities, sustainable services