



MUNICIPAL WASTEWATER TREATMENT

Investor: XXXXXXXXXX

Project Location: Serbia

Currency: EUR

Date Activity: 21.03.2022

Description and Goal of the Investment

In order to assess the impact of the investment on the increase in the price of PUC services, the plant was viewed as a separate organizational and profit unit within the PUC "Water Supply and Sewerage". For social reasons, the price per EC resident was raised by an iterative procedure only to the amount that does not make a loss according to the income statement, and according to the financial flow provides liquidity throughout the life of the project. The assessment of the value of the investment was made by the Institute of Water Management, and other input data were assumed by students of the Faculty of Environmental Protection in Novi Sad at exercises (they assumed: sources of financing, loan conditions and annual costs of plant operation). The projections were made with a donation of EUR 40 million and a loan of EUR 20 million, and the collection per EC resident was raised by an iterative procedure to an amount that enables no losses on the income statement and dynamic parameters to be positive, ie. that the project is liquid in all years, $NPV > 0$, $IRR > 0$ and Time of return < from the lifetime of the project (19 EUR per year per EC resident, ie 1.58 EUR per month), because it was a condition for the donation. In the second scenario, the budget shows that without a donation, the price would be around 22 EUR per year, ie. EUR 1.83 per month per EC resident. Note: One ES (population equivalent = total wastewater of the population, atmospheric water and industrial wastewater with previously primarily treated wastewater). The city generates about 200 liters of wastewater per EC inhabitant per day.

The life of the project

15

Tax of profit

20

Discount Rate

3

Realization of Investment in 1st year

12

Realization of Investment in 2nd year

3

Estimation of Future Annual Inflation

3

Investment value and investment dynamics

! Items	Invested			Year 1			Year 2		
	Price	Durability	Amortization	Price	Durability	Amortization	Price	Durability	Amortization
	EUR	(Years)	Depreciation	EUR	(Years)	Depreciation	EUR	(Years)	Depreciation
Projects, permits, supervision	0	0	0	100.000	0	0	0	0	0
Infrastructure	0	0	0	1.560.000	20	78.000	0	0	0
Buildings	0	0	0	3.000.000	20	150.000	1.200.000	15	80.000
Technological equipment	0	0	0	72.000.000	15	4.800.000	0	0	0
Other equipment	0	0	0	1.200.000	8	150.000	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0
Credit processing	0	0	0	0	0	0	0	0	0
Working capital	0	0	0	0	0	0	570.000	0	0
Total	0	0	0	77.860.000	0	5.178.000	1.770.000	0	80.000
Total Investment	79.630.000	Working capital turnover ratio		12					

Sources of financing for new investments

	Sources	Year 1	Year 2	Total
Loan	Own capital	37.840.000	1.770.000	39.610.000
	Amount	20.000	0	20.000
	Repayment	14	0	0
	Grace period	2	0	0
	Interest	3	0	0
	Shareholders	0	0	0
	Donations	40.000.000	0	40.000.000
	Total	77.860.000	1.770.000	79.630.000

Loan repayment plan

[illegible]

Loan in Year 1

[illegible]

Loan in Year 2

[illegible]

Total loans

[illegible]

Operating income and expenses

At current prices (excluding inflation)

Items	Unit of	Unit	Annual volume				Annual amount			
	measure	Price	Year 1	Year 2	Year 3	Next year	Year 1	Year 2	Year 3	Next year
INCOMES		0	0	0	0	0	0	6.840.000	7.600.000	7.600.000
Billing per capita	EUR	19	0	360.000	400.000	400.000	0	6.840.000	7.600.000	7.600.000
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
EXPENSES		0	0	0	0	0	0	1.571.980	1.757.800	1.757.800
		1	0	380.000	450.000	450.000	0	380.000	450.000	450.000
		0,12	0	1.200.000	1.440.000	1.440.000	0	144.000	172.800	172.800
		1,8	0	56.100	85.000	85.000	0	100.980	153.000	153.000
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0
Gross wages of workers	Number of employees	0	0	40	40	40	0	0	0	0
Average per month	Gross wages	0	0	900	900	900	0	432.000	432.000	432.000
Gross management salaries		0	0	0	0	0	0	200.000	220.000	220.000
Maintenance		0	0	0	0	0	0	160.000	175.000	175.000
Insurance		0	0	0	0	0	0	30.000	30.000	30.000
Marketing		0	0	0	0	0	0	25.000	25.000	25.000
Other		0	0	0	0	0	0	100.000	100.000	100.000
OPERATIONAL RESULT		0	0	0	0	0	0	5.268.020	5.842.200	5.842.200

Income statement

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
INCOMES	0	6.840.000	7.828.000	8.062.840	8.304.725	8.553.867	8.810.483	9.074.797	9.347.041	9.627.453	9.916.276	10.213.764	10.520.177	10.835.783	11.160.856
Operating expenses	0	1.571.980	1.810.534	1.864.850	1.920.796	1.978.419	2.037.772	2.098.905	2.161.872	2.226.728	2.293.530	2.362.336	2.433.206	2.506.202	2.581.389
EBITDA	0	5.268.020	6.017.466	6.197.990	6.383.930	6.575.448	6.772.711	6.975.892	7.185.169	7.400.724	7.622.746	7.851.428	8.086.971	8.329.580	8.579.468
Amortization	0	5.238.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000	5.258.000
EBIT	0	30.020	759.466	939.990	1.125.930	1.317.448	1.514.711	1.717.892	1.927.169	2.142.724	2.364.746	2.593.428	2.828.971	3.071.580	3.321.468
Interest	0	0	637	598	559	518	477	434	389	344	297	248	199	147	0
EBT	0	30.020	758.829	939.392	1.125.371	1.316.930	1.514.234	1.717.458	1.926.780	2.142.380	2.364.449	2.593.180	2.828.772	3.071.433	3.321.468
Tax of profit	0	6.004	151.766	187.878	225.074	263.386	302.847	343.492	385.356	428.476	472.890	518.636	565.754	614.287	664.294
NET PROFIT	0	24.016	607.063	751.514	900.297	1.053.544	1.211.387	1.373.967	1.541.424	1.713.904	1.891.559	2.074.544	2.263.018	2.457.147	2.657.174

The years are not calendar, but are calculated from the day of providing financial resources.

Cash Flow

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1. INFLOWS	77.860.000	8.610.000	7.828.000	8.062.840	8.304.725	8.553.867	8.810.483	9.074.797	9.347.041	9.627.453	9.916.276	10.213.764	10.520.177	10.835.783	11.160.856
Equity	37.840.000	1.770.000	0	0	0	0	0	0	0	0	0	0	0	0	0
Loans	20.000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shareholders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Donations	40.000.000	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shareholders	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating income	0	6.840.000	7.828.000	8.062.840	8.304.725	8.553.867	8.810.483	9.074.797	9.347.041	9.627.453	9.916.276	10.213.764	10.520.177	10.835.783	11.160.856
2. OUTFLOWS	77.860.000	3.347.984	2.046.543	2.074.208	2.167.937	2.264.477	2.363.913	2.466.333	2.571.825	2.680.482	2.792.399	2.907.673	3.026.405	3.148.700	3.272.772
Investments	77.860.000	1.770.000	82.333	19.570	20.157	20.762	21.385	22.026	22.687	23.368	24.069	24.791	25.534	26.300	27.089
Payment of old obligations	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Replacement of fixed assets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating expenses	0	1.571.980	1.810.534	1.864.850	1.920.796	1.978.419	2.037.772	2.098.905	2.161.872	2.226.728	2.293.530	2.362.336	2.433.206	2.506.202	2.581.389
Loan annuities	0	0	1.910	1.910	1.910	1.910	1.910	1.910	1.910	1.910	1.910	1.910	1.910	1.910	0
Tax of profit	0	6.004	151.766	187.878	225.074	263.386	302.847	343.492	385.356	428.476	472.890	518.636	565.754	614.287	664.294
FINANCIAL FLOW (1-2)	0	5.262.016	5.781.457	5.988.632	6.136.788	6.289.390	6.446.570	6.608.464	6.775.216	6.946.971	7.123.877	7.306.092	7.493.772	7.687.083	7.888.085
Financial flow cumulative	0	5.262.016	11.043.473	17.032.104	23.168.893	29.458.283	35.904.852	42.513.317	49.288.533	56.235.503	63.359.381	70.665.472	78.159.245	85.846.328	93.734.412

Note

From the future accumulation, the program automatically included in the projections the replacement of fixed assets with a shorter lifespan than the project life Residual (residual value of the project) after the project life is not calculated in the last year of the project life because the market value of fixed assets after the end of the project life cannot be realistically estimated, and can significantly affect the financial effects.

Financial results of the investment

Parameter	Amount
Investment	79.630.000 EUR
Average Income	8.606.404 EUR
Average Net profit	1.368.037 EUR
Σ Net profit / Investment	0,26
Liquidity in all years	Yes
Average Net profit / Average Income	15,9 %
NPV (net present value)	31.885.070 EUR
IRR (internal rate of return)	11,23 %
Return time discounted	8 Years

SWOT Analysis

Strength

Visoka nepovratna sredstva (donacija)

Your strengths can be qualified staff, team, experience, available resources (technological equipment, raw material base), market position, innovative products, investment and creditworthiness.

Weaknesses

Poor creditworthiness, lack of team, experience, qualified staff, creditworthiness, ie. financial resources (especially for beginners in business), inflexibility (poor adaptation to market changes), poor financial analysis to prove the profitability of the idea and attract co-investors...

Opportunity

Innovative product, developed more advanced technology, profitability of the idea, favorable market situation, ie. favorable economic-socio-political environment,....

Threats

Unfavorable economic, socio-political environment, lack of state incentives and favorable loans,especially for business start-ups, strong competition in the planned activity, strong competition that quickly develops more innovative products.

Appendix

Agency	Standard and Poor's	Fitch Ratings	Moody's Service
Rating	BB+/stable appearance ↗	BB+/stable appearance ↗	Ba2/stable appearance ↗
Date Activity	6/11/2021 ↗	9/3/2021 ↗	3/12/2021 ↗
Activity	Rating confirmed ↗	Rating confirmed ↗	Increased rejting ↗

You can download the current Rating via the link https://nbs.rs/sr/finansijsko_trziste/informacije-za-investitore-i-analiticare/rejting_RS/. Attached is the latest rating rating from STANDARD & POOR'S, MOODY'S INVESTORS SERVICE and RATING FITCH. It is important if foreign investments or foreign investors are planned. More in the blog <https://investasistent.com/investiciona-i-kreditna-sposobnost-investitora/>

Note

An investment is eligible for realization if all indicators in the Financial Result have recommended values, if the SWOT analysis is realistic (more in the blog [SWOT Analysis](#)) and if the investment and creditworthiness is realistically assessed and accepted by a potential lender or co-investor (more in the blog [Investment and Investor Creditworthiness](#)). The key parameters on the basis of which it is concluded whether the investment is financially justified are: NPV (Net present value), which must be positive, and shows how much the investor will earn in the project life at current prices, IRR (internal rate of return) which is an indicator of interest invested capital, which in the basic variant must be at least 2 times higher than the discount rate, Discounted return on investment, which must be shorter than the life of the project, Average annual Net profit min 15-20% of average income. If the budget shows a loss on the Income Statement and / or illiquidity in the Financial Flow (often occurs in the first years of the project life if production is gradually established and / or due to the need to conquer the market, due to employee salaries, depreciation and due loan installments), and other above parameters are good, does not mean that you should give up the investment, but indicate that in those years it is necessary to invest additional external funds to maintain liquidity.

Disclaimer

We did not check the reliability of the input data (investment value, income and expenses, SWOT analysis), as well as investment and creditworthiness. Therefore, before starting the investment, all entered data should be checked again, especially the procurement and sales market.

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If you want our opinion on the investment in question, contact our consultants by [e-mail](#) with specific questions.