EU PPF
PODRŠKA EU U PRIPREMI PROJEKATA
Perspektiva Srbije za održivi razvoj

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REPUBLIKA SRBIJA
MINISTARSTVO ZA EVROPSKE INTEGRACIJE

MINISTARSTVO FINANSIJA
Sektor za ugovaranje i finansiranje programa
iz sredstava Evropske unije

Projekat finansira
Evropska unija

Project management in praxis – Croatia’s experience in water sector

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BACKGROUND

Obligation of the Republic of Croatia

- Treaty concerning the Accession of the Republic of Croatia to the European Union

- Directive on the quality of water intended for human consumption
  (EUR 1.1 billion)

- Directive concerning urban waste water treatment
  (EUR 2.6 billion)

- **Implementation Plan for Water Utility Directives**

Implementation Plan for Water Utility (IPWUD)

Directive 91/271/EEC

UWWD

- Identified 763 agglomeration; 294 > 2000 PE,
- 43,6% sewerage connection rate,
- 27 % waste water is treated
- Transition Period 2018, 2020, 2023
- TOTAL INVESTMENT NEEDS:
  - 3,192 billion EUR

Example project – City of Osijek

Total investment: € 72,508,560.00
Implementation period: 2013 - 2018

Project activities

Construction/reconstruction of 3 main **water supply pipelines 16 km long**

Construction/reconstruction of **sewer system (62.1 km)** with **15 pumping stations**

Construction of **4.4 km** and reconstruction of **0.17 km of sewers**

Construction of a **WWTP, capacity 170,000 PE, tertiary treatment**

Extension of a drinking water treatment plant to remove arsenic

Supply of system maintenance and inspection equipment

Example project – City of Čakovec

PROJECT DATA

- 72,9 km new sewerage network,
- 34 pumping station
- WWTP uprage to III. level treatment capacity 75.000 PE.
- Reconstruction 14,15 km sewerage network
- Rehabilitation 5 km of sewerage network

Project preparation

- Projects must be in compliance with the EU regulations, national laws, strategies and programmes;
- Projects are prepared in a complex environment;
- Projects must analyse the space completely and give integral solutions;
- Projects must be organizationally, technically, financially and ecologically sustainable;
- Each project asks for a detailed preparation
- **Early secure project environment**

Project preparation

Each project requires a thorough preparation which includes:

- Alternative solutions of the whole system (concept)
- Monitoring of water quantity and quality (when needed)
- Feasibility Study
- Cost-Benefit Analysis
- Environmental Impact Assessment Study
- Application package (Application Form + Annexes)
- Preparation of Preliminary Design for WWTP or Main Design for all other objects planned under the project
- Preparation of Tender documentation
- Preparation of Project Implementation Plan
- Obtaining the location permit for WWTP, or confirmation of Main Design for all other objects
- **Solving all property-rights issues**

Feasibility Study

- Engineers context
- Financial context
- Social – economic context
- Ecological context
- Climate change and Risk analysis

- **Project shall be technically, financially, economically, organizationally and ecologically sustainable**

Project portfolio analysis

Transition period:	2018		2020		2023		TOTAL	
Size of system	Average size of project (EUR)	No of projects	Average size of project (EUR)	No of projects	Average size of project (EUR)	No of projects	Average size of project (EUR)	No of projects
Major	108.285.429	7	-	-	-	-	108.285.429	7
Large	25.618.419	31	16.533.778	18	18.143.889	18	21.169.687	67
Medium	7.743.875	8	7.250.625	8	6.969.556	63	7.076.430	79
Small	3.540.000	1	-	-	2.954.757	140	2.958.908	141
Grand Total	**34.418.298**	**47**	**13.677.423**	**26**	**5.336.371**	**221**	**10.723.167**	**294**

Size of system	year			
	2018	2020	2023	TOTAL
Major	39,20%	0,00%	0,00%	39,20%
Small	1,85%	0,00%	12,11%	13,96%
Medium	3,51%	2,04%	8,58%	14,13%
Large	24,47%	5,04%	3,20%	32,71%
Grand Total	**69,03%**	**7,08%**	**23,88%**	**100,00%**

Establishing of Financing model

- Based on development index of local self-government unit.
- EU / State budget / Hrvatske vode / local
- Average project finance structure:
- EU finance 68%, National (State budget + HV) 24% local 8%

Index	Local	State budget	Hrvatske vode
< 50%	6,67%	46,67%	46,67%
50 - 75%	13,33%	43,33%	43,33%
75 - 100%	20,00%	40,00%	40,00%
100 - 125%	26,67%	36,67%	36,67%
>125%	33,33%	33,33%	33,33%

Project preparation steps

1. Detail review of existing condition of technical documentations;
2. Analysis of missing technical documentations;
3. Project readiness analysis;
4. Defining of list of priority projects;
6. Preparation of needed technical documentations;
7. Preparation of design documentations;
8. Preparation of project applications;
9. Land ownership issues;
10. Obtaining of necessary permits and approvals;
11. Project application process;
12. Preparation of Tender documentations;
13. Capacity buildings of utility companies

Time Schedule of Major EU project

ID	Trajanje	Početak	Kraj	Koordinacija	Izrada / Provođenje	
1	1 day?	Thu 9.10.14	Thu 9.10.14			
2	464 days	Fri 10.10.14	Fri 12.2.16			
3	14 days	Fri 10.10.14	Fri 24.10.14	Sektor potpore EU;IB2	projektni tim	
4	15 days	Fri 24.10.14	Sun 9.11.14	Sektor potpore EU;IB2	projektni tim	
5	45 days	Sun 9.11.14	Sat 27.12.14	Sektor potpore EU	KP	
6	30 days	Sat 27.12.14	Tue 27.1.15		KP	
7	240 days	Wed 28.1.15	Thu 8.10.15	Sektor potpore EU	Projektant	
8	180 days	Wed 28.1.15	Thu 6.8.15	Sektor potpore EU	Projektant	6
9	360 days	Wed 28.1.15	Fri 12.2.16	Sektor potpore EU	Projektant	6
10	481 days?	Fri 10.10.14	Tue 1.3.16			
11	30 days	Fri 10.10.14	Mon 10.11.14	Sektor potpore EU;IB2	projektni tim	1
12	15 days	Mon 10.11.14	Wed 26.11.14	Sektor potpore EU;IB2	projektni tim	11
13	45 days	Wed 26.11.14	Tue 13.1.15	Sektor potpore EU	KP	12
14	30 days	Tue 13.1.15	Fri 13.2.15	Sektor potpore EU	KP	13
15	300 days	Fri 13.2.15	Sun 27.12.15	Sektor potpore EU;IB2	Konzultant	14
16	60 days	Mon 28.12.15	Mon 29.2.16	Sektor potpore EU;IB2	Konzultant	15
17	1 day?	Mon 29.2.16	Tue 1.3.16		Konzultant	16;24;31
18	405 days?	Fri 10.10.14	Fri 11.12.15			
19	30 days	Fri 10.10.14	Mon 10.11.14	Sektor potpore EU;IB2	projektni tim	1
20	15 days	Mon 10.11.14	Wed 26.11.14	Sektor potpore EU;IB2	projektni tim	19
21	45 days	Wed 26.11.14	Tue 13.1.15	Sektor potpore EU	KP	20
22	30 days	Tue 13.1.15	Fri 13.2.15	Sektor potpore EU	KP	21
23	180 days	Wed 3.6.15	Thu 10.12.15	Sektor potpore EU	Konzultant	22;8FS-60 days
24	1 day?	Thu 10.12.15	Fri 11.12.15	Sektor potpore EU	Konzultant	23
25	757 days	Sat 28.2.15	Mon 8.5.17			
26	690 days	Sat 28.2.15	Sun 26.2.17	Poverenstvo	Grad, KP	61FF;85S+30 days
27	690 days	Sun 30.5.15	Mon 8.5.17	Poverenstvo	Grad, KP	55FF;75S+30 days
28	690 days	Sun 30.5.15	Mon 8.5.17	Poverenstvo	Grad, KP	55FF
29	211 days	Thu 8.10.15	Wed 18.5.16			
30	60 days	Thu 8.10.15	Thu 10.12.15	Sektor potpore EU	KP, Grad	7
31	60 days	Fri 11.12.15	Sat 13.2.16	Sektor potpore EU	KP, Grad	8;24
32	90 days	Sat 13.2.16	Wed 18.5.16	Sektor potpore EU	KP, Grad	9;31
33	273 days?	Tue 1.3.16	Wed 14.12.16			
34	192 days?	Tue 1.3.16	Tue 20.9.16	IB1,IB2	Grad, KP	
35	1 day?	Tue 1.3.16	Wed 2.3.16	IB2	IB1, IB2	17
36	60 days	Wed 2.3.16	Wed 4.5.16	IB2	IB1, IB2	35
37	60 days	Wed 4.5.16	Thu 7.7.16	IB2	IB1, IB2	36
38	1 day?	Thu 7.7.16	Fri 8.7.16	IB2	IB1, IB2	37
39	10 days	Fri 8.7.16	Mon 18.7.16	IB2	IB1, IB2	38
40	30 days	Mon 18.7.16	Fri 19.8.16	IB2	IB1, IB2	39
41	30 days	Fri 19.8.16	Tue 20.9.16	IB2	IB1, IB2, Grad, KP	40
42	150 days	Fri 8.7.16	Tue 13.12.16	IB2	IB1, IB2	38
43	1 day?	Tue 13.12.16	Wed 14.12.16	IB2		42
44	376 days?	Wed 20.5.15	Mon 20.6.16			
45	30 days	Wed 20.5.15	Sat 20.6.15	Sektor potpore EU;IB2	projektni tim	15SS+90 days
46	30 days	Sat 20.6.15	Wed 22.7.15	Sektor potpore EU;IB2	projektni tim	45
47	45 days	Wed 22.7.15	Mon 7.9.15	Sektor potpore EU	KP	46
48	60 days	Tue 8.9.15	Tue 10.11.15	Sektor potpore EU	KP	47
49	120 days	Sat 13.2.16	Sun 19.6.16	Sektor potpore EU;IB2	Konzultant	48;32FF+30 days
50	1 day?	Sun 19.6.16	Mon 20.6.16	Sektor potpore EU,IB2	Konzultant	49
51	1561 days?	Sun 19.6.16	Thu 24.12.20			
52	1221 days?	Mon 20.6.16	Wed 1.1.20			
53	45 days	Mon 20.6.16	Sat 6.8.16	IB2	KP	50
54	90 days	Sun 7.8.16	Wed 9.11.16	IB2	KP	53
55	170 days	Wed 9.11.16	Mon 8.5.17	IB2	KP	54
56	550 days	Mon 8.5.17	Mon 10.12.18	IB2	KP	55
57	365 days	Mon 10.12.18	Tue 31.12.19	IB2	KP	56
58	1 day?	Tue 31.12.19	Wed 1.1.20	IB2	KP	57
59	1561 days?	Sun 19.6.16	Thu 24.12.20			
60	45 days	Sun 19.6.16	Fri 5.8.16	IB2	KP	49
61	90 days	Fri 5.8.16	Tue 8.11.16	IB2	KP	60
62	220 days	Tue 8.11.16	Thu 29.6.17	IB2	KP	61
63	180 days	Thu 29.6.17	Fri 5.1.18	IB2	KP	62
64	60 days	Fri 5.1.18	Fri 9.3.18	IB2	KP	63
65	420 days	Fri 9.3.18	Mon 27.5.19	IB2	KP	64
66	180 days	Mon 27.5.19	Tue 3.12.19	IB2	KP	65
67	365 days	Tue 3.12.19	Wed 23.12.20	IB2	KP	66
68	1 day?	Wed 23.12.20	Thu 24.12.20	IB2	KP	67
69	1623 days?	Sun 19.6.16	Sun 28.2.21			
70	1 day?	Sun 19.6.16	Mon 20.6.16	IB2	KP	49
71	1 day?	Mon 20.6.16	Tue 21.6.16	IB2	KP	70
72	80 days	Tue 21.6.16	Tue 13.9.16	IB2	KP	71
73	1 day?	Wed 24.2.21	Thu 25.2.21	IB2	KP	72;51FF+60 days
74	1 day?	Thu 25.2.21	Fri 26.2.21	IB2	KP	73
75	1 day?	Fri 26.2.21	Sun 28.2.21			74

Example of EU project life cycle

Schedule of large EU project – min duration

Task Name	Duration	Start
POČETAK	1 day?	24.3.07
PRIPREMA PROJEKTA	1210 days	1.1.10
STUDIJA IZVODLJIVOSTI	750 days	1.1.10
Postupak ugovaranja	90 days	1.1.10
Pripremni radovi (podloge - monitoring	180 days	28.3.10
Idejno rješenje (izrada ili novelacija; ve	120 days	18.9.10
Studija izvodljivosti	180 days	12.1.11
Aplikacija	60 days	29.10.11
Studija utjecaja na okoliš	300 days	12.1.11
PROJEKTIRANJE	545 days	12.1.11
Postupak ugovaranja	90 days	12.1.11
Idejni projekt UPOV-a	120 days	9.4.11
Idejni + glavni projekti sustava	365 days	9.4.11
ishođenje građevinskih dozvola	90 days	26.3.12
APLICIRANJE PROJEKTA	135 days	21.6.12
Postupak nacionalne aplikacije	45 days	21.6.12
Postupak EU aplikacije	90 days	4.8.12
IZRADA NATJEČAJNE DOKUMENTACIJE	140 days	30.10.12
Postupak ugovaranja	60 days	30.10.12
Izrada	80 days	27.12.12
PROVEDBA PROJEKTA	905 days	14.3.13
Postupak ugovaranja	150 days	14.3.13
Projektiranje UPOV-a	150 days	6.8.13
Ishođenje dozvola za UPOV	60 days	28.12.13
Izgradnja UPOV-a	365 days	24.2.14
Probni rad	180 days	12.2.15
Ostali radovi na sustavu	450 days	6.8.13
KRAJ	1 day?	5.8.15

IMPORTANT!! – Activities can be optimised, but the time cannot be compressed!

Establishment of PIU

Organisational structure

Workload analysis

Manual of Procedures and templates

Example 1: extension of initial size of agglomeration

According to the draft FS

Initial size according to the Plan

Example 2: Regulatory framework

Task Name	Duration	Start
POČETAK	1 day?	24.3.07
PRIPREMA PROJEKTA	1210 days	1.1.10
STUDIJA IZVODLJIVOSTI	750 days	1.1.10
Postupak ugovaranja	90 days	1.1.10
Pripremni radovi (podloge - monitoring	180 days	28.3.10
Idejno rješenje (izrada ili novelacija; va	120 days	18.9.10
Studija izvodljivosti	180 days	12.1.11
Aplikacija	60 days	29.10.11
Studija utjecaja na okoliš	300 days	12.1.11
PROJEKTIRANJE	545 days	12.1.11
Postupak ugovaranja	90 days	12.1.11
Idejni projekt UPOV-a	120 days	9.4.11
Idejni + glavni projekti sustava	365 days	9.4.11
ishođenje građevinskih dozvola	90 days	26.3.12
APLICIRANJE PROJEKTA	135 days	21.6.12
Postupak nacionalne aplikacije	45 days	21.6.12
Postupak EU aplikacije	90 days	4.8.12
IZRADA NATJEČAJNE DOKUMENTACIJE	140 days	30.10.12
Postupak ugovaranja	60 days	30.10.12
Izrada	80 days	27.12.12
PROVEDBA PROJEKTA	905 days	14.3.13

Pipeline 1 + lista 39 (4 godina)	Pipeline 2 (2 godine)
225 milijuna kuna	316 milijuna kuna
2300 km glavnih projekata mreže vodoopskrbe i odvodnje	3500 km glavnih projekata mreže vodoopskrbe i odvodnje
20 idejnih projekata UPOV-a	57 idejnih projekata UPOV-a
5,6 milijardi kuna procijenjena vrijednost izgradnje	7,9 milijardi kuna procijenjena vrijednost izgradnje
Ishođeno preko 500 lokacijskih dozvola; 350 građevinskih dozvola	

- Construction Act (NN 153/2013)
  - Validity of Building permit cease if Investor fail to start with the construction within 3 years from the days of obtaining building permit.

More than 350 building permits issued before

Example 3: Regulatory framework – cont.

- 2013 Environment protection Act
- 2015 Amendment to Environment protection Act
- 2007 Waste management plan 2007 - 2015
- 2017 Waste management plan 2017 – 2022

- From 2012 until today 4 ministers and 5 governments – frequent concept changes

Example 4 – Public procurement TD

•TD for selection of designer and consultant on one project – **8 A4 Binders** for **only one procedure** with the investment value of 680.000 EUR

Example 5 Public procurement - evaluation

- Received offers: 9
- Clarifications on TD: 1000 questions, total 184 pages
- I Decision + Evaluation report: 27 pages
- I Complains: 5, total 251 pages, total 94 complain item
- I Reponse to Complains: 5, total 55 pages
- I DECISION OF STATE COMMISION (DKOM): 80 pagesr
- II Round of Clarification: 7, 52 pages
- II Received answers: 1548 pages
- II Decision + Evaluation report: 45 pages
- II Complains: 189 pages
- II Response to Complains: 4, 23 pages
- II DECISION OF DKOM: 27 pages
- III FINAL DECISION: 51 pages

- **In TOTAL over 2600 pages, without offers!**

Time schedule of procurement process

	Aktivnost	Trajanje	Poče	Kraj
1	POČETAK PROJEKTA	1 day?	Thu	Thu 9.10.14
2	Izrađenje	286 days?	Fri	Sat 8.8.15
3	Izrada projektnog zadatka	30 days	Fri 10	Mon 10.11.14
4	Izrada natječajne dokumentacije	30 days	Mon 10.11	Fri 12.12.14
5	Provođenje postupka javne nabave	45 days	Fri 12.12.14	Sat 28.1.15
6	Ugovaranje	60 days	Thu 29.1.15	Thu 2.4.15
7	Izrada natječajne dokumentacije	120 days	Thu 2.4.15	Fri 7.8.15
8	Natječajna dokumentacija izrađena	1 day?	Fri 7.8.15	Sat 8.8.15
9	Ugovaranje radova - mreža	295 days?	Sat 8.8.15	Tue 14.6.16
10	Ex ante kontrola natječajne dokumentacije	45 days	Sat 8.8.15	Thu 24.9.15
11	Objava natječaja	1 day	Thu 24.9.15	Fri 25.9.15
12	Rok za dostavu ponuda	90 days	Fri 25.9.15	Tue 29.12.15
13	Ocjena ponuda	60 days	Wed 30.12.15	Wed 2.3.16
14	Odluka o odabiru	1 day	Wed 2.3.16	Thu 3.3.16
15	Primitak odluke o odabiru	3 days	Thu 3.3.16	Sun 6.3.16
16	Rok za Izjavljivanje žalbe	10 days	Sun 6.3.16	Thu 17.3.16
17	Odgovor na žalbu	5 days	Thu 17.3.16	Tue 22.3.16
18	1. Odluka DKOM-a	30 days	Tue 22.3.16	Fri 22.4.16
19	Nova ocjena ponuda	15 days	Sat 23.4.16	Mon 9.5.16
20	Odluka o odabiru	1 day	Mon 9.5.16	Tue 10.5.16
21	Primitak odluke o odabiru	3 days	Tue 10.5.16	Fri 13.5.16
22	Izvoditelj odabran	1 day?	Fri 13.5.16	Sat 14.5.16
23	Potpisivanje ugovora	30 days	Sat 14.5.16	Tue 14.6.16
24	Ugovaranje radova - UPOV	392 days	Sat 8.8.15	Sun 25.9.16
25	Ex ante kontrola natječajne dokumentacije	45 days	Sat 8.8.15	Thu 24.9.15
26	Objava natječaja	1 day	Thu 24.9.15	Fri 25.9.15
27	Rok za dostavu ponuda	90 days	Fri 25.9.15	Tue 29.12.15
28	Ocjena ponuda	90 days	Wed 30.12.15	Sun 3.4.16
29	Odluka o odabiru	1 day	Sun 3.4.16	Mon 4.4.16
30	Primitak odluke o odabiru	3 days	Mon 4.4.16	Thu 7.4.16
31	Rok za Izjavljivanje žalbe	10 days	Thu 7.4.16	Sun 17.4.16
32	Odgovor na žalbu	5 days	Mon 18.4.16	Fri 22.4.16
33	1. Odluka DKOM-a	30 days	Sat 23.4.16	Sun 10.7.16
34	Nova ocjena ponuda	30 days	Tue 24.5.16	Fri 15.7.16
35	Odluka o odabiru	1 day	Sat 25.6.16	Tue 16.8.16
36	Primitak odluke o odabiru	3 days	Sun 26.6.16	Wed 24.8.16
37	Rok za izjavljivanje žalbe	10 days	Wed 29.6.16	Sun 25.9.16
38	Odgovor na žalbu	5 days	Sun 10.7.16	Mon 26.9.16
39	2. Odluka DKOM-a	30 days	Fri 15.7.16	
40	Izvoditelj odabran	8 days	Tue 16.8.16	
41	Potpisivanje ugovora	30 days	Wed 24.8.16	
42	KRAJ PROJEKTA	1 day?	Sun 25.9.16	

Projects preparation

Pipeline 1 + list 39 (4 years)	Pipeline 2 (2 years)
EUR 34,6 million	EUR 45,0 million
2300 km of detailed designs for water supply and wastewater networks	3500 km of detailed designs for water supply and wastewater networks
20 preliminary designs for WWTPs	57 preliminary designs for WWTPs
Estimated value of construction: EUR 746 million	Estimated value of construction: EUR 1.053 million

Overview of projects in water sector 2007 - 2013

- In total 158 PROJECTS

Average duration of contracts

Network: 23,7 months

WWTP: 32,7 months

Preparation of offers

Criteria	Category	% of Offers
No of activities in Schedule	1-49	70%
	> 50	30%
Relationship between activities	No	71%
	Yes	29%
Scheduling tool	MS Excel	47%
	MS Project	53%
Resource attached to schedule	No	71%
	Yes	29%
Critical path defined	No	71%
	Yes	29%

Average works schedule

Planned vs. Implemented

Types of contracts

EU Financial perspective 2007 - 2013

EUR 559,821,788

Approved projects

EUR 501,259,477

Contracted activities

100%

Allocation in the amount of EUR 199,094,853

Some stats. – cont.

Some stats. – cont.

Approved projects

158

Signed contracts

517

Evaluated projects

265

Issued IPCs

1559

Conducted audits and controls

Procurement controls

On the spot check

Audits

No finding was suspendible- the system works !!

Relationship between allocation and implementation

PODRŠKA EU U PRIPREMI PROJEKATA

Sva dokumenta, informacije, materijale i fotografije možete preuzeti na zvaničnoj internet prezentaciji EU PPF projekta @www.ppf.rs /veb-stranica DOKUMENTA

Pitanja i pomoć

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Hvala Vam na pažnji!