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DRINKADRIA project – project outputs and experience in project implementation

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Strengthening of master curricula in water resources management for the Western Balkans HEIs and stakeholders
Project number: 597888-EPP-1-2018-1-RS-EPPKA2-CBHE-JP

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Introduction

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The strategic project **Networking for Drinking Water Supply in Adriatic Region (acronym DRINKADRIA)** was co-financed by the European Union within the program Adriatic IPA Cross Border Cooperation (CBC) 2007 – 2013.

Started: November 2013 – Ended: October 2016

Total budget – 6.600.000 EUR

The Project aim was to *develop a base for strategies and procedures for **secure cross-border water supply** with specific emphasis on **water resources management** in **trans-boundary** context, **climate change** and specific **socio-economic aspects** of the Adriatic region.*

Project structure and activities (WPs)

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PARTNERS

Area Council for Eastern Integrated Water Service of Trieste (CATO)	Italy
VERITAS Joint Stock Company Multutility Water Service of Venice	Italy
Optimal Territorial Area Authority n.3 Marche Centro – Macerata	Italy
Italian National Council Water Research Institute (CNR-IRSA)	Italy
Water Utility of Nova Gorica	Slovenia
University of Ljubljana	Slovenia
Region of Istria	Croatia
Water Utility of Istria	Croatia
Faculty of Civil Engineering University of Rijeka	Croatia
Croatian Geological Survey	Croatia
The Jaroslav Černi Institute for the Development of Water Resources	Serbia
Water Supply and Sewarage Association of Albania	Albania
Hydro-Engineering Institute of Sarajevo Faculty of Civil Engineering	Bosnia and Herzegovina
P.C. Utility Neum	Bosnia and Herzegovina
Public Utility „Vodovod i kanalizacija" Nikšić	Montenegro
Region of Ionian Islands	Greece
University of Thessaly	Greece

The partnership:

- water utilities (5 partners),
- authorities (4 partners),
- research institutions (7 partners) and
- one association.

DRINKADRIA project – Work packages

- WP1 – Management and coordination
- WP2 – Communication and dissemination
- WP3 – Capitalization and sustainability
- WP4 – Cross-border water resources management
- WP5 – Cross-border water supply systems management
- WP6 – Pilot actions (investments)

http://drinkadria.fgg.uni-lj.si/

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WP1 – Management and coordination

- 3-4 days long meetings x 12
- WP leaders' meetings
- Final conference
- On-line communication
- Progress reports, financial …
- Comunication with national FLC, MA ….

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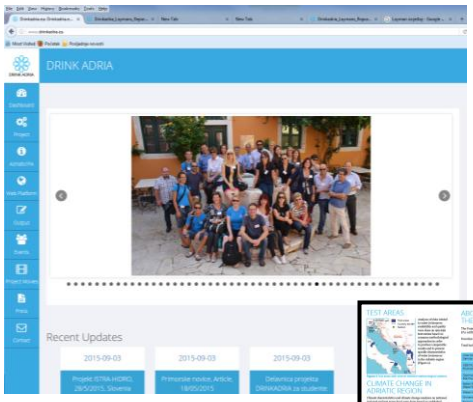
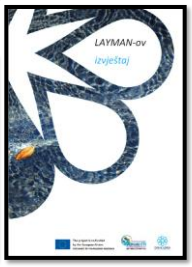
WP2 – Communication and dissemination



http://www.drinkadria.eu/

- Film
- Leaflets
- Monograph
- Layman report
- Didactic material
- Articles
- Presentations
- TV, radio, newspapers
- …



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WP3 – Capitalization and sustainability

- National workshops (3 per country)
- Exchange of knowledge and experience between stakeholders
- Platform: http://drinkadria.fgg.uni-lj.si/)

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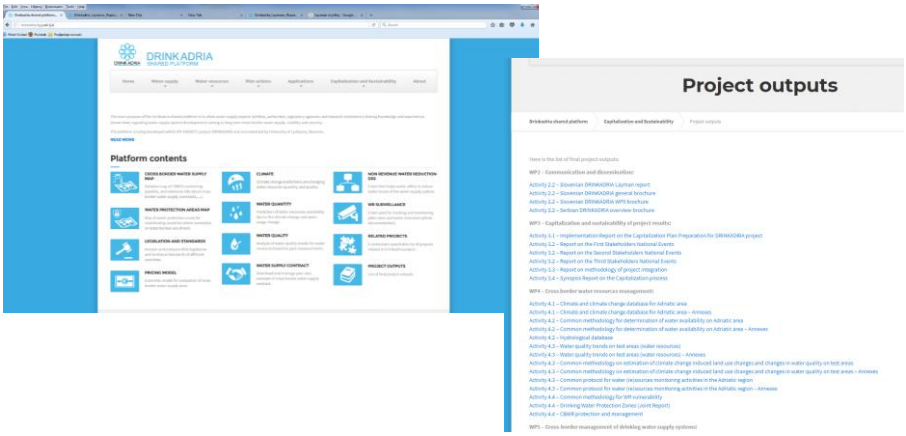
WP3 – Capitalization and sustainability

Platform: http://drinkadria.fgg.uni-lj.si/



Project outputs: http://drinkadria.fgg.uni-lj.si/capitalization_sustainability/project-outputs/

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WP4 – Cross-border WRM

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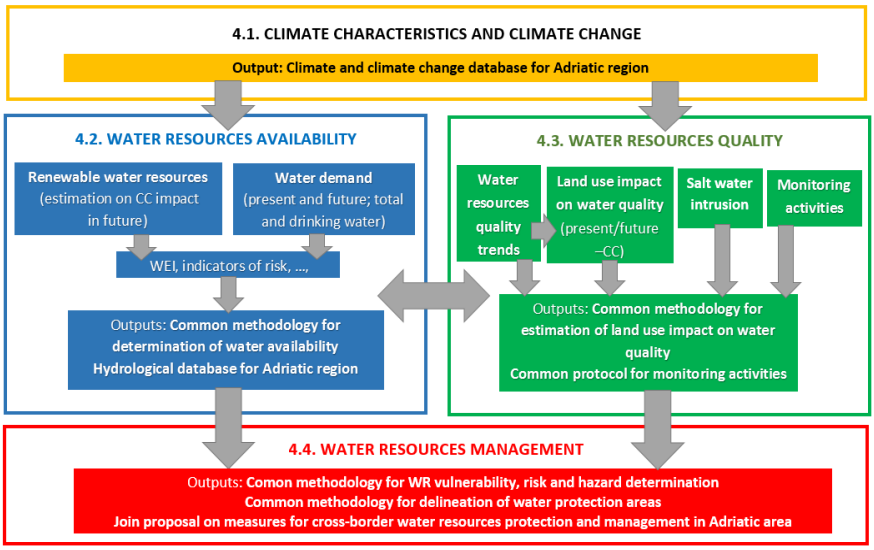
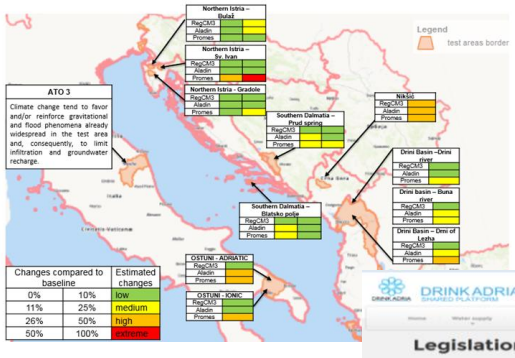
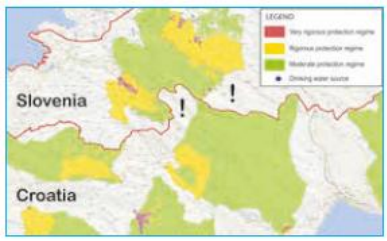


WP4 – Cross-border WRM





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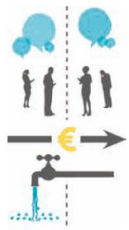
WP5 – Cross-border WSSM

1. How to avoid conflicts between countries due to inadequate legislation
2. How to determine a fair starting water price as a baseline for negotiations



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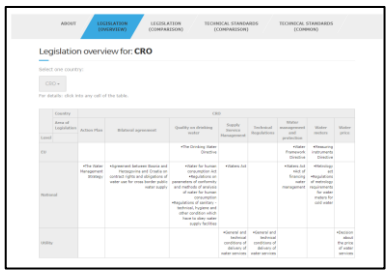
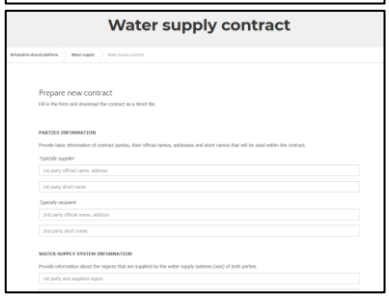
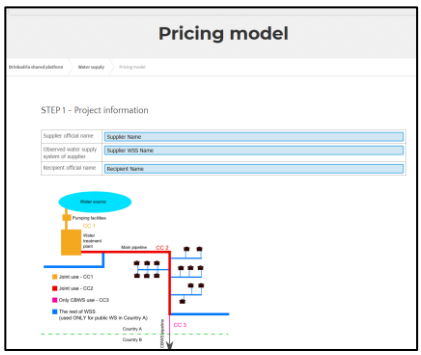
WP5 – Cross-border WSSM







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WP6 – Pilot actions (investments)

3 TYPES OF PILOT ACTIONS

WATER LOSSES

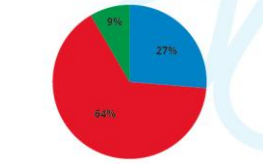
- 7 Pilot Projects
- 7 Pilot Areas
- Monitored parameters: flow, pressure
- Water balance and different kind of losses evaluation
- Hydraulic models implemented and calibrated

WATER QUALITY AND QUANTITY

- 3 Pilot Projects
- 1 Pilot Area
- Microbiological parameters: fecal contamination indicators, pathogenic microorganisms by molecular analysis (RTPCR)
- Physical and chemical parameters: Mercury and Iron concentration, groundwater treatment, natural flow rate, groundwater level, temperature, alcalinity, conductivity, nitrates

SEAWATER INTRUSION

- 1 Pilot Project
- 1 Pilot Area
- Physical and chemical: DOC, pH, temperature, specific conductance, water depth in wells
- Microbiological parameters: fecal indicators and pathogenic microorganisms
- Acquifer recharge model implementation



Percentage of quality and quality pilot actions
Percentage of water losses pilot actions
Percentage of seawater intrusion pilot actions

The pilot actions were established in a way to address both:

- water resources management, especially groundwater, its quality and quantity;
- water supply system, with the ageing assets, energy consumption and water losses.

N° of Partners involved	12
N° of Pilot Projects	11
N° of Pilot Areas	9
Service area	7 266 km²
Water supply network extension	630,10 km
Served population	1.221.725 inhabitants
Amount of water produced	1.399,60 million of m³/year
Number of involved water sources	41
Number of hydraulic models	7
Number of samples analyzed for water quality	550

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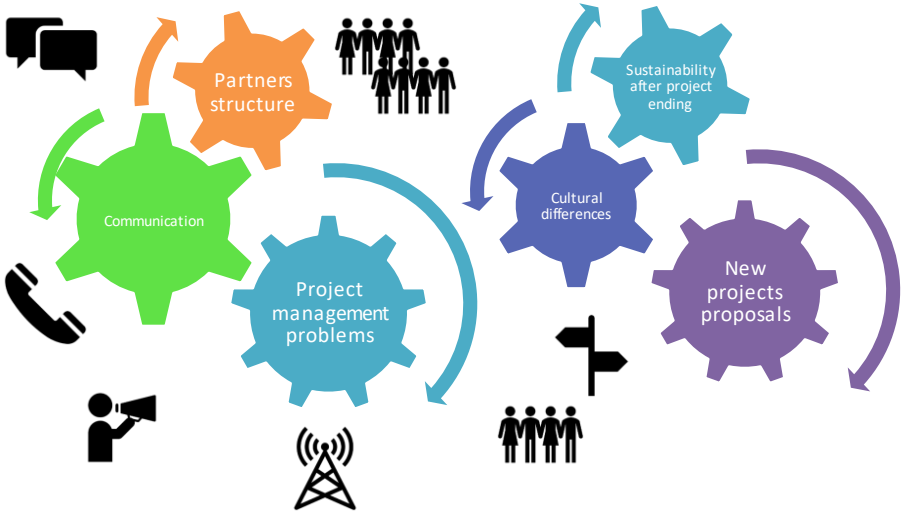
Experiences – lessons learned



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Thank you for your attention!

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