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Sharing innovative practices from the EU water sector to the Western Balkans

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International Symposium "Water Resources Management: New Perspectives and Innovative Practices,
Novi Sad, 23-24 September 2021

Outline



1. SWARM objectives
2. Sharing innovative practices
3. Identification of needs
4. Online SWOT analysis
5. Results and discussion
6. Conclusions

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SWARM Objectives



Wider objective

Education of experts for water resources management in the Western Balkans (WB) in line with the national and EU policies.

Specific objectives

- Improve the level of competencies and skills in HEIs by developing new and innovative master programmes in the field of water resources management in line with the Bologna requirements and national accreditation standards
- Design and implement seven new and up-to-date laboratories in WB partner HEIs in cooperation with EU project partners
- Develop and implement LLL courses for the water sector in line with the WFD



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Sharing innovative practices



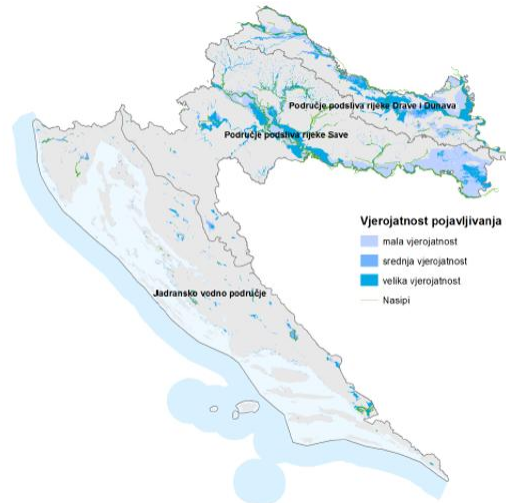
- Three-day workshop in Vienna
- Presentations by colleagues from Bulgaria, Croatia, Greece, Norway, Portugal and Austria
- Innovative practices aligned with EU WFD in all fields of WRM
- Some examples...

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Example: Croatia



**Flood hazard map
for high, medium
and low probability
of occurrence**



**Flood protection
planning in line
with EU WFD**

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Example: Croatia



**Flood protection
planning in line
with EU WFD**

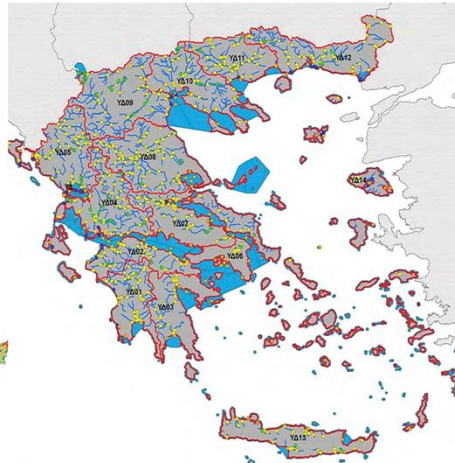
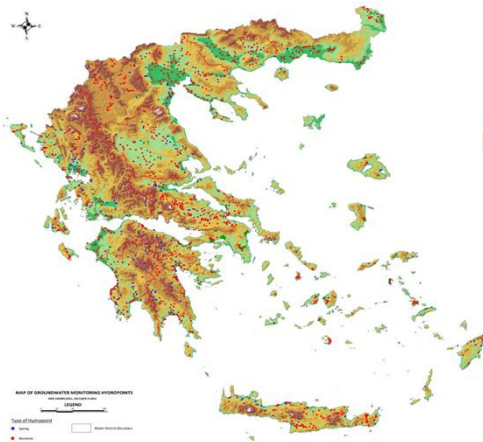


www.voda.hr

Investments to upgrade, rebuild, complete and develop an existing flood protection systems to achieve a high level of protection of the target population on priority river basins in Croatian and thereby reducing flooding and their negative socio-economics impacts in Croatia

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Example: Greece



Creation of a national water monitoring network (2008 stations)

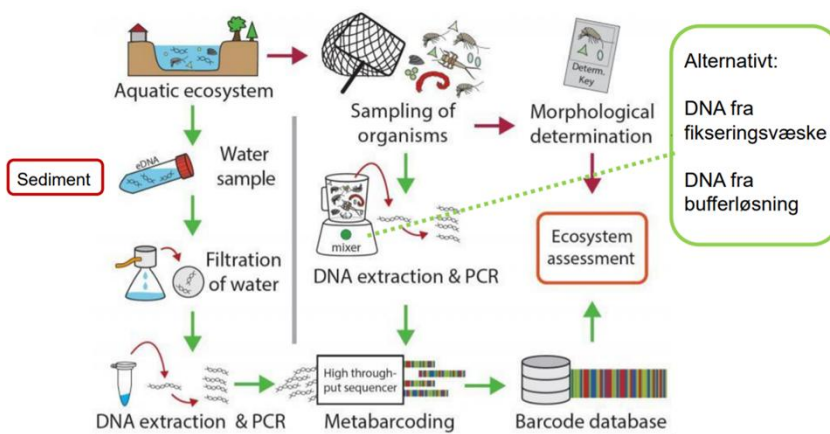
Monitoring network stations of surface water

Monitoring network stations of groundwater resources

<http://nmwn.ypeka.gr/>

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Example: Norway



Biomonitoring of water quality by eDNA

Figur: Vasco Elbrecht & Florian Leese

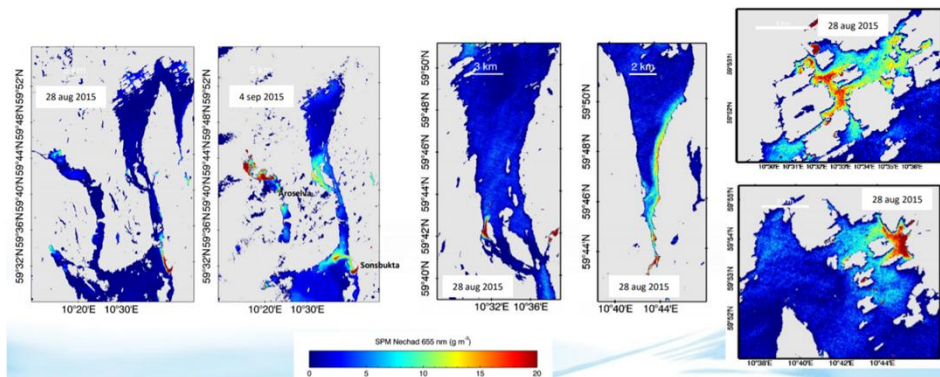
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Example: Norway



Partikler i Oslofjorden August/September 2015 EU prosjektet HighROC/Fagrådet for Indre Oslofjord

Turbidity measurements in coastal waters using satellite data – HighROC project



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Identification of needs



→ Identify strengths and weaknesses to answer the central question:

What should be the actions for innovation in WRM for the Western Balkans?

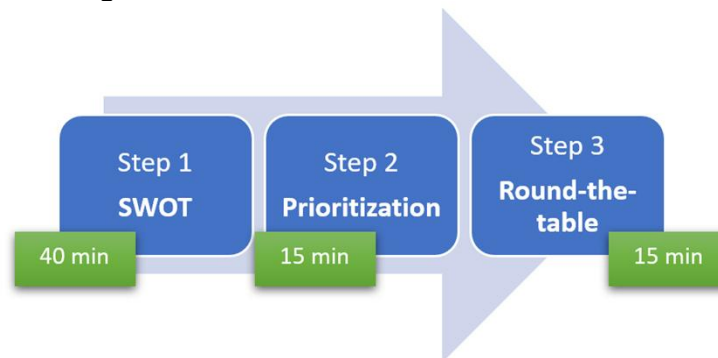
→ based on knowledge of challenges and innovative practices

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Method



SWOT analysis using GroupMap – a real-time online brainstorming tool



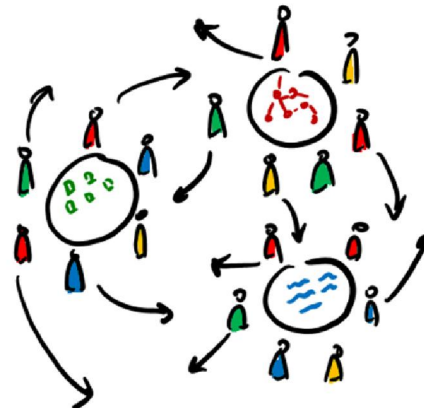
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SWOT Analysis



Helpful to achieving the objective	Harmful to achieving the objective
<p>S</p> <p>Strengths</p> <p>Table 1</p>	<p>W</p> <p>Weaknesses</p> <p>Table 2</p>
<p>O</p> <p>Opportunities</p> <p>Table 3</p>	<p>T</p> <p>Threats</p> <p>Table 4</p>

Discussion at each table – 10 minutes



After 10 minutes – change the table

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Results: Strengths



Strengths	
Creativeness and resilience	
Human resources (professionals and academics) 21	
Good education (particularly in water-related issues)	
Possibilities to learn from good examples and practices e.g. in EU countries	
Human potential in IT sector to develop smart systems	
Possibilities to learn from mistakes already made somewhere else	

- Great trust in the human potential and the education system in the WB partner countries
- Resilience inherent to several generations of people after enduring the Balkan Wars is identified as an important asset

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Results: Weaknesses



Weaknesses	
Lack of water related laws implementation on all levels	
Corruption	
No politics to save water and to prevent pollution	
Lack of understanding (ignorance) of political class about Water Resource Management	
Lack of cooperation and communication between Ministries and authorities	
The penalties of polluters are not paid as nobody collects them	

- Lack of water-related governance identified as major concern
- Development of curricula and LLL courses reduce associated weaknesses over time, with well-educated stakeholders entering the labor market and developing policies
- Corruption can hardly be addressed on an academic level

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Results: Opportunities



Opportunities	
Lessons learned - WB countries will not repeat the mistakes done in EU countries	
Information systems & digitalization - abundance of data	
Strengthen collaboration between countries in region	
Ready to apply for EU funds, with preparation of data and projects in time	
Possibilities to obtain European support and funding for implementation	
Use international knowledge networks	
IT sector, artificial intelligence	

- Top nomination: advantage of applying existing knowledge
- Technological aspect of novel information systems, data science and digital tools received nearly a similarly high ranking; possible bias due to technical background of many participants
- Cooperation of countries with common history: key opportunity

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Results: Threats



Threats	
Corruption	
Lack of educated people in decision-making positions	
Unstable political situation	
Lack of political willingness for implementation of WRM	
Not holistic vision of WRM	
Lack of transboundary cooperation	
Lack of public awareness	

- Corruption perceived as top threat
- Lack of educated people in decision-making positions is directly addressed by the new and updated curricula developed
- Higher political stability could be expected upon accession of the WB region towards European Union membership

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Conclusions



- **Curricula** developed and implemented on the basis of identified gaps in knowledge and EU innovative practices
- Once also the **LLL courses** planned for practitioners will be in place, a functional framework of improving the knowledge in WB countries within the field of WRM is expected
- This will contribute to **mitigating several weaknesses and threats** currently identified as major obstacles and **activate the strengths of the WB population**
- Some factors identified as threats or weaknesses can be improved through soft-skills development – issues on the **level of politics** are outside the scope of a technically-oriented framework.

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Thank you for your attention!

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