



## SWARM project

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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



Co-funded by the  
Erasmus+ Programme  
of the European Union

## Basic Information

<b>Contract number</b>	597888-EPP-1-2018-1-RS-EPPKA2-CBHE-JP
<b>Project acronym</b>	SWARM
<b>Project name</b>	<i>Strengthening of master curricula in water resources management for the Western Balkans HEIs and stakeholders</i>
<b>Project duration</b>	15th November 2018 - 14th November 2021
<b>Programme</b>	Erasmus+ Call for Proposals EAC/A05/2017
<b>Total cost</b>	931,289.00 €
<b>Coordinator</b>	University of Niš, Serbia Univerzitetski trg 2, 18000 Niš, Serbia
<b>Project website</b>	<a href="http://www.swarm.ni.ac.rs">www.swarm.ni.ac.rs</a>
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## Motivation

One of the major environmental and sustainability challenges of the 21st century is **preserving and ensuring the most precious resource – water**. Water as the basic resource incorporated into functioning of different sectors requires **innovative, interdisciplinary, structural, and trans-boundary approach** - strong coordination and cooperation across countries and across sectors. Carefully manage of this **limited resource** is urgent due to plenty of statistical facts.

WB countries should above all **develop new** or **improve the existing education** in this field, to **raise technical capacity** and accomplish creation of **more efficient systems** in the field of **water resources management**.

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## Overall Broader Objective

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

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## Specific Objectives

- **Improve the level of competencies and skills in WB HEIs** by developing new and innovative master programmes in the field of water resources management (WRM) in line with the Bologna requirements and national accreditation standards by October 2021
- **Design and implement seven new and up-to-date laboratories** in WB partner HEIs in cooperation with EU project partners by November 2019
- **Develop and implement LLL courses for the water sector** in line with EU Water Framework Directive by January 2021

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## Sustainability

- **Seven new and improved master programmes in WRM** at the WB partner HEIs that will be improved or developed, accredited and implemented.
- **Four new training programmes in WRM** (one per each WB partner country) with training materials for water resources sector developed and conducted.
- **Retrained teaching staff** with up-to-date knowledge in WRM to teach on the new/improved master programmes.
- **Advanced teaching and learning process introduced.**
- **Introduced new laboratory equipment, library units and software** necessary for the continuation of the master programmes.

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## Consortium

### EU partners



University of Natural Resources and Life Sciences, Vienna (BOKU, Austria)



Norwegian University of Life Sciences (NMBU, Norway)



Aristotle University of Thessaloniki (AUTH, Greece)



University of Architecture, Civil Engineering and Geodesy (UACEG, Bulgaria)



University of Rijeka, Faculty of Civil Engineering (UNIRIFCE, Croatia)



Universidade de Lisboa (UL, Portugal)

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## Consortium

### Western Balkan partners



University of Niš (UNI, Serbia)



University of Novi Sad (UNS, Serbia)



University of Sarajevo (UNSA, Bosnia and Herzegovina)



Dzemat Bijedic University of Mostar (UNMO, Bosnia and Herzegovina)



University of Pristina in Kosovska Mitrovica (UPKM, Kosovo\*)



Technical College of Applied Sciences Urosevac with temporary seat in  
Leposavic (TCASU, Kosovo\*)



University of Montenegro (UoM, Montenegro)



Public Water Management Company "Vode Vojvodine" (PVMCVV,  
Serbia)

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## Consortium

### Associated partner

- SOFIYSKA VODA AD
- Association for Water Technology and Sanitary Engineering
- Association Resource Aarhus center in B&H
- Regionalni vodovod Crnogorsko primorje

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## Work Packages

**Preparation WP1:** Analysis of water resources management in the Western Balkan region

Leader: **U niversity of Natural Resources and Life Sciences, Vienna (BOKU)**

**Development WP2:** Development of competence-based curricula aligned with EU trends

Leader: **Aristotle University of Thessaloniki (ATh)**

**Development WP3:** Development of trainings for professionals in water sector

Leader: **U niversity of Pristina in Kosovska Mitrovica (UPKM)**

**Development WP4:** Implementation of developed master curricula and trainings

Leader: **Norwegian University of Life Sciences (NMBU)**

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## Work Packages

**Quality Plan WP5:** Quality assurance and monitoring  
Leader: **Universidade de Lisboa (UL)**

**Dissemination & Exploitation WP6:** Dissemination and Exploitation  
Leader: **University of Niš (UNI)**

**Management WP7:** Project management  
Leader: **University of Niš (UNI)**

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## Outcomes

- Report on WB regional issues related to WRM
- Report on EU water policies and innovation and EU recommendations and legislation in water sector
- Report on master curricula related to WRM in EU and WB partner countries
- Workshop on innovative practices in the EU water sector: barriers and opportunities
- Report on innovative practices for WRM in EU

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## Outcomes

- Catalogue of competencies
- Report on development of specific competencies and learning outcomes of curricula
- Theme-based training of teaching staff for acquiring new teaching and learning methods (UACEG, NMBU, UNIRIFCE, AUTH, UL, BOKU)
- 7 laboratories equipped
- Report on LLL courses for professionals in EU water sector
- Survey of water sector needs in WB
- Register of companies in the field of WRM in the WB countries
- Handbook for training in water resources management

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