LOGICAL FRAMEWORK MATRIX – LFM

Wider Objective: *What is the overall broader objective, to which the project will contribute?* • Education of experts for water resources management in the Western Balkans (WB) in line with the national and EU policies.	*Indicators of progress:* *What are the key indicators related to the wider objective?* • Graduated students competent for effective management of water resources and applying of innovative solutions in WB partner countries • Increased requests for educational trainings from public and private water sector	*How indicators will be measured:* *What are the sources of information on these indicators?* • WB HEI's annual reports on students' graduation • WB HEI's annual reports on number of realized trainings for professionals in water sector	
Specific Project Objective/s: *What are the specific objectives, which the project shall achieve?* • Improve the level of competencies and skills in HEI's 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 coperation 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	**Indicators of progress:** *What are the quantitative and qualitative indicators showing whether and to what extent the project's specific objectives are achieved?* • Report on WB regional issues related to water resrces management by April 2019 • 7 new and up-to-date laboratories designed and equipped by November 2019 • At least 15 novel courses and learning materials developed by January 2020 and implemented by October 2021 • At least 90 members of WB teaching staff trained in WRM in EU partner countries by March 2020 • 6 master curricula (UNI, UPKM, UoM, UNSA, UNMO, UNS), one professional specialist studies program (TCASU) and one bachelor study program (UNI) in WRM developed, modernized and implemented by introduction novel SWARM courses October 2020 • At least 100 students enrolled in new	**How indicators will be measured:** *What are the sources of information that exist and can be collected? What are the methods required to get this information?* • Quality reports; report on purchased equipment, software and library units; interim and final project reports available on project website and platform • Report on up-to-date equipped laboratories • Websites of project partners • Project publications containing achieved results • Report on WB teaching staff trained in EU partner HEIs available on project website • Training programmes offered to water sector in WB partner countries • Report on newly developed courses in WRM on project website • Acts of official accreditation of master curricula • Commission for Accreditation and Quality Assurance websites	**Assumptions & risks:** *What are the factors and conditions not under the direct control of the project, which are necessary to achieve these objectives? What risks have to be considered?* • Increased students interest in water resources management in WB partner countries • Cooperation between HEIs and stakeholders in public and private water sector • Lack of interest from the local authorities • Duration of the accreditaion process • Personal motivation of each and every participant in program • Political and economical stability in the Western Balkan region

	and modernised master curricula by October 2020 • 7 three-day trainings conducted for the professionals in water sector by implementation January 2021 • At least 210 participants from WB countries' water sector trained by January 2021 • 78 student participated in winter/summer schools by November 2021 • 17 teaching staff trained in using new laboratory equipment by November 2021		
Outputs (tangible) and Outcomes (intangible): • *Please provide the list of concrete DELIVERABLES - outputs/outcomes (__grouped in Workpackages__) leading to the specific objective/s.:* WP1 Analysis of water resources management in the Western Balkan region 1.1 Report on WB regional issues related to WRM 1.2 Report on EU water policies and innovation and EU recommendations and legislation in water sector 1.3 Report on master curricula related to WRM in EU and WB partner countries 1.4 EU HEIs WM laboratory equipment lists; Report on needed resources for harmonization of WB laboratory environment 1.5 Report on innovative practices for WRM in EU	**Indicators of progress:** *What are the indicators to measure whether and to what extent the project achieves the envisaged results and effects?* • Kick-off meeting held in December 2018 • Website and promotional materials created by December 2018 • Brussels kick-off meeting by February 2019 • EU HEIs WM lab equipment lists by March 2019 • Project management and reporting guide, Dissemination & Exploitation Plan, Quality & Assurance Plan created by April 2019 • Report on WB regional issues related to water resorces management by April 2019 • Report on EU water policies and innovation and EU recommendations and legislation in water sector by April	**How indicators will be measured:** *What are the sources of information on these indicators?* • Project website and platform developed and regularly updated • Official call for tender published in media • Equipment specifications, user guides, documentation in WB partner HEIs • Laboratory equipment registers • Reports on teaching staff trainings available on project website • Workshop and meetings reports • Attendance sheets • List of developed master curricula, trainings and published materials • Accreditation reports from WB partner HEIs • Evaluation reports on organised trainings for WB teaching staff	**Assumptions & risks:** *What external factors and conditions must be realised to obtain the expected outcomes and results on schedule?* • Efficient and effective consortium management • Inability of making precise financial plans because of differencies in national financial laws in Western Balkan partner countries • Motivation of staff, professionals in water sector and partners to participate • Lack of participants for trainings in water sector • Delay in the delivery of the laboratory equipment, software or literature units

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WP2 Development of competence-based curricula aligned with EU trends 2.1 Catalogue of competencies 2.2 SWARM unique set of courses 2.3 Report on SWARM master curricula 2.4 Master curricula accredited 2.5 Teaching staff trained 2.6 Laboratories equipped WP3 Development of trainings for professionals in water sector 3.1 Report on LLL courses for professionals in EU water sector 3.2 Survey of water sector needs in WB 3.3 Trainings' material prepared WP4 Implementation of developed master curricula and trainings 4.1 Master curricula implemented 4.2 Participants trained 4.3 Quality report on master curricula 4.4 Quality report on trainings WP5 Quality assurance and monitoring 5.1 Quality and Assurance Plan created 5.2 Minutes of the meetings 5.3 Report on the external quality evaluation 5.4 Report on the finacial audit 5.5 Report on the inter-project coaching WP6 Dissemination and exploitation 6.1 Dissemination and exploitation plan created 6.2 Promotion material created	2019 • Report on master curricula related to WRM in EU and WB partner countries by April 2019 • Report on LLL courses for professionals in EU water sector by April 2019 • Report on innovative practices for WRM in EU by June 2019 • Workshop organised by June 2019 • Quastionarries created, survey conducted and data processed by June 2019 on at least 1050 respondents in WB • Catalogue of competencies created by October 2019 • 7 equipped laboratories in the WB region operational by November 2019 • SWARM unique set of courses by January 2020 • Report on SWARM master curricula by January 2020 • 6 theme-based training organised; 90 WB teaching staff trained by March 2020 • Trainings' materials prepared by March 2020 • Interim report submitted by April 2020 • Inter-project coaching report by May 2020 • 7 info days organised for promotion student enrolment by October 2020 • At least 10-15 students per WB HEI enrolled by October 2020	• Acquired new skills of trainees trained • Created training material • Reports on organised trainings for professionals from water sector • Training attendance sheets • Report on trainings' participants feedbacks available on SWARM website • Dissemination and Exploitation plan, Quality and Assurance Plan, Project management and reporting guide adopted and available online • Project disseminatation channels • Designed and printed promotional materials and social and digital media marketing • Documented mass media and social network disseminations • Meeting minutes (20 meetings) • Reports on organised info days and roundtables • Financial management records • External quality assessment report • External financial report • Project interim and final reports created and available on project platform • Partner interim and final financial reports • Project documentation on Steering Committee, Project Management Committee and Quality Assurance Committee work • Official correspondance with the	

6.3 Info days organized 6.4 Roundtables organized 6.5 Winter/summer schools organised 6.6 Report on organized symposium WP7 Project management 7.1 Minutes of the meeting 7.2 Minutes of the meeting 7.3 Project management and reporting guide created 7.4 Minutes of the meetings 7.5 Project correspondence 7.6 Interim and final reports submitted	• 7 roundtables organised by December 2020 • 7 three-day trainings organised; 210 participants from water sector trained by February 2021 • One report per training on quality self-evaluation by March 2021 • Symposium organised by August 2021 • One report per term on quality self-evaluation of curricula by September 2021 • 6 winter/summer school organised; 78 WB students participated; 17 WB teachers trained for using lab equipment by September 2021 • External evaluation (June 2020) & financial audit reports by November 2021 • 6 SC, PMC, QAC reports by October 2021 • Final report submitted by November 2021	National Erasmus+ Offices • Official correspondance with EACEA • Websites of Commission for the Accreditation and Quality Assurance in WB partner countries	
Activities: *What are the key activities to be carried out (__grouped in Workpackages__) and in what sequence in order to produce the expected results?* • 1.1 Identification of WB regional issues related to WRM • 1.2 Analyse of EU innovations in water policy and EU recommendations and legislation in water sector • 1.3 Analyse of existing curricula related to WRM in both EU and WB partner countries • 1.4 Identification of needed	*Inputs:* *What inputs are required to implement these activities, e.g. staff time, equipment, mobilities, publications etc.?* • Staff costs: 365,279 EUR (Preparation - 52,572 EUR; Development - 155,250 EUR; Quality plan - 39,445 EUR; Dissemination and Exploitation - 48,234 EUR; Management - 69,778 EUR) • Staff time: 4,210 days (Preparation – 494 days; Development – 1,886 days; Quality plan - 397 days; Dissemination		**Assumptions, risks and pre-conditions:** *What pre-conditions are required before the project starts? What conditions outside the project's direct control have to be present for the implementation of the planned activities?* • Adequate language skills of WB staff and students to fully participate in transfer of knowledge and know-how practices • Interested and motivated students regarding the water resources management

laboratory resources in WB HEIs and alignment with formed EU HEIs WRM laboratory equipment list • 1.5 Workshop on innovative practices in the EU water sector: barriers and opportunities • 2.1 Development of specific competencies and learning outcomes of curricula in WB • 2.2 Development of courses content and syllabi • 2.3 Innovation of existing and development of new master curricula for WRM in WB • 2.4 Accreditation of master curricula • 2.5 Theme-based training of teaching staff for acquiring new teaching and learning methods • 2.6 Purchasing of literature, software and laboratory equipment • 3.1 Introduction with LLL courses for professionals in water sector in EU • 3.2 Analyse of water sector needs for LLL courses in WB • 3.3 Development of trainings' content and corresponding educational material • 4.1 Implementation of developed master curricula • 4.2 Implementation of trainings for professionals in water sector • 4.3 Self-evaluation of master curricula • 4.4 Self-evaluation of trainings for professionals in water sector	and Exploitation - 641 days; Management - 792 days) • Preparation (Cat1 - 99, Cat2 - 329, Cat3 - 30, Cat4 - 36) • Development (Cat1 - 187, Cat2 - 1064, Cat3 - 287, Cat4 - 349) • Quality plan (Cat1 - 77, Cat2 - 150, Cat3 - 73, Cat4 - 97) • Dissemination and Exploitation (Cat1 - 90, Cat2 - 157, Cat3 - 196, Cat4 - 198) • Management (Cat1 - 330, Cat2 - 66, Cat3 - 169, Cat4 - 227) • Equipment: 254,000 EUR for purchasing up-to-date laboratory equipment for wastewater treatment experiments, sample analysing and preparation, for engineering and technical teaching, for fluid mechanics, testing principles in hydrodynamics, software for water modelling and at least 30 literature units • Mobilities: 273,360 EUR (Student - 50,265 EUR; Staff - 223,095 EUR) • 355 mobilities: 277 staff; 78 students • Preparation: Staff (WB to EU - 16; EU to EU - 6) • Development: Staff (WB to EU - 91) • Quality plan: Staff (EU to WB - 4; EU to EU - 17) • Dissemination and Exploitation: Students (WB to EU – 78), Staff (WB to WB – 11; WB to EU – 17; EU to WB - 14) • Management: Staff (WB to WB - 22; WB to EU - 32; EU to WB - 20; EU to		• Interest for trainings among WB water sector • Recognition of graduate MS students' competences by institutions responsible for the water resources management

• 5.1 Development of the Quality and Assurance Plan • 5.2 Regular Quality Assurance Committee meetings • 5.3 External evaluation of the project • 5.4 External financial control • 5.5 Inter-project coaching • 6.1 Creation of the Dissemination & Exploitation Plan • 6.2 Development of project website and promotional materials • 6.3 Info days for student enrolment • 6.4 Roundtables with non-academic sector • 6.5 Winter/summer schools • 6.6 Symposium for promoting WRM in WB • 7.1 Kick-off meeting • 7.2 Brussels kick-off meeting • 7.3 Development of Project management guide • 7.4 Regular Steering Committee & Project Management meetings • 7.5 Day-to-day coordination of project activities • 7.6 Submission of interim and final reports	EU - 27) • Subcontracting: External expert for project quality evaluation; External expert for financial audit; Design and printing of promotional material - 3500x student guide for master curricula (20 pages per unit), 7000x promotional leaflets for master curricula, 2x roll-up banner, 100x poster, 350x notebook with project logo, 1500x folder with project logo, 1500x pencil with project logo, 1500x bag with project logo, 2000x project brochure (4 pages), 4000x promotional leaflets with project results, 420x material for training of professionals in water sector, 200x proceedings for symposium		

WORKPLAN

Please use the model provided. Applicants are expected to complete a <u>one-page work plan for each project year</u>.
For each year of your project proposal, please complete a work plan indicating the deadlines for each outcome and the period and location in which your activities will take place. Please create additional work plan tables if further space is needed.

The same reference and sub-reference numbers as used in the logical framework matrix must be assigned to each outcome and related activities

Activity carried out in the Programme Country: = (E.g. activity in France for two weeks in the first month of the project 2 = under M1)
Activity carried out in the Partner Country (ies): **X** (E.g, activity in Tunisia for three weeks in the second month of the project: 3X under M2)

WORKPLAN for project year 1

Ref.nr/ Sub-ref nr	Activities Title	Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1.1	Identification of WB regional issues related to WRM	16	3X	3X	3X	3X	4X=							
1.2	Analyse of EU innovations in water policy and EU recommendations and legislation in water sector	11	2=	2=	2=	2=	3X=							
1.3	Analyse of existing curricula related to WRM in both EU and WB partner countries	18	3X=	3X=	3X=	3X=	3X=	3X=						
1.4	Identification of needed laboratory resources in WB HEIs and alignment with formed EU HEIs WRM laboratory equipment list	10	2X=	2X=	3X=	3X=								
1.5	Workshop on innovative practices in the EU water sector: barriers and opportunities	8					3=	3X=	2=					
2.1	Development of specific competencies and learning outcomes of curricula in WB	12						2X	2X	2X	2X	2X	2X	
2.2	Development of courses content and syllabi	18							3X=	3X=	3X=	3X=	3X=	3X=
2.3	Innovation of existing and development of new master curricula for WRM in WB	18							3X=	3X=	3X=	3X=	3X=	3X=
2.4	Accreditation of master curricula	0												
2.5	Theme-based training of teaching staff for acquiring new teaching and learning methods	13							3X=	2=	2=	2=	2=	2=

No.	Activity	Total												
2.6	Purchasing of literature, software and laboratory equipment, installation and activation	22			2X	2X	2X	2X	2X	2X	2X	2X	3X	3X
3.1	Introduction with LLL courses for professionals in water sector in EU	10		2=	2=	2=	2=	2=						
3.2	Analyse of water sector needs for LLL courses in WB	22		3X	3X	4X	4X	4X	4X					
3.3	Development of trainings' content and corresponding educational material	12									3X	3X	3X	3X
4.1	Implementation of developed master curricula	0												
4.2	Implementation of trainings for professionals in water sector	0												
4.3	Self-evaluation of master curricula	0												
4.4	Self-evaluation of trainings for professionals in water sector	0												
5.1	Development of the Quality and Assurance Plan	5		1X=	1X=	1X=	2X=							
5.2	Regular Quality Assurance Committee meetings	8						1X=	2X=	1X=		1X=	2X=	1X=
5.3	External evaluation of the project	0												
5.4	External financial control	0												
5.5	Inter-project coaching	0												
6.1	Creation of the Dissemination & Exploitation Plan	5		1X=	1X=	1X=	2X=							
6.2	Development of project website and promotional materials	14		2X=	2X=	2X=	1X=	1X=	X	X	X	X	X	X
6.3	Info days for student enrolment	0												
6.4	Roundtables with non-academic sector	0												
6.5	Winter/summer schools	0												
6.6	Symposium for promoting WRM in WB	0												
7.1	Kick-off meeting	4	1X=	2X=	1X=									
7.2	Brussels kick-off meeting	1		1X=										
7.3	Development of the Project management guide	5		1X=	1X=	1X=	2X=							
7.4	Regular Steering Committee & Project Management meetings	10						1X=	3X=	1X=		1X=	3X=	1X=
7.5	Day-to-day coordination of project activities	24	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=
7.6	Submission of interim and final reports	0												

Ref.nr/ Sub-ref nr	Title (Activities)	Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1.1	Identification of WB regional issues related to WRM	0												
1.2	Analyse of EU innovations in water policy and EU recommendations and legislation in water sector	0												
1.3	Analyse of existing curricula related to WRM in both EU and WB partner countries	0												
1.4	Identification of needed laboratory resources in WB HEIs and alignment with formed EU HEIs WRM laboratory equipment list	0												
1.5	Workshop on innovative practices in the EU water sector: barriers and opportunities	0												
2.1	Development of specific competencies and learning outcomes of curricula in WB	0												
2.2	Development of courses content and syllabi	8	4X=	4X=										
2.3	Innovation of existing and development of new master curricula for WRM in WB	8	4X=	4X=										
2.4	Accreditation of master curricula	19		3X	3X	3X	3X	2X	X	X	X	2X		
2.5	Theme-based training of teaching staff for acquiring new teaching and learning methods	8	2=	2=	2=	2=								
2.6	Purchasing of literature, software and laboratory equipment, installation and activation	0												
3.1	Introduction with LLL courses for professionals in water sector in EU	0												
3.2	Analyse of water sector needs for LLL courses in WB	0												
3.3	Development of trainings' content and corresponding educational material	16	4X	4X=	4X=	4X=								
4.1	Implementation of developed master curricula	4												4X
4.2	Implementation of trainings for professionals in water sector	0												

No.	Activity	Total												
4.3	Self-evaluation of master curricula	0												
4.4	Self-evaluation of trainings for professionals in water sector	0												
5.1	Development of the Quality and Assurance Plan	0												
5.2	Regular Quality Assurance Committee meetings	8					1X=	2X=	1X=			1X=	2X=	1X=
5.3	External evaluation of the project	6					2X=	2X=	2X=					
5.4	External financial control	9					3X=	3X=	3X=					
5.5	Inter-project coaching	7					2X=	3X=	2X=					
6.1	Creation of the Dissemination & Exploitation Plan	0												
6.2	Development of project website and promotional materials	17	X	X	X	X	X	X	X	2X	2X	2X	2X	2X
6.3	Info days for student enrolment	18	X	X	X	X	2X	2X	2X	2X	2X	2X	2X	
6.4	Roundtables with non-academic sector	13				X	X	X	X	X	2X	2X	2X	2X
6.5	Winter/summer schools	0												
6.6	Symposium for promoting WRM in WB	0												
7.1	Kick-off meeting	0												
7.2	Brussels kick-off meeting	0												
7.3	Development of the Project management guide	0												
7.4	Regular Steering Committee & Project Management meetings	10					1X=	3X=	1X=			1X=	3X=	1X=
7.5	Day-to-day coordination of project activities	24	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=
7.6	Submission of interim and final reports	16			4X=	4X=	4X=	4X=						

WORKPLAN for project year 3

Ref.nr/ Sub-ref nr	Activities — Title	Total duration (number of weeks)	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
1.1	Identification of WB regional issues related to WRM	0												
1.2	Analyse of EU innovations in water policy and EU recommendations and legislation in water sector	0												
1.3	Analyse of existing curricula related to WRM in both EU and WB partner countries	0												
1.4	Identification of needed laboratory resources in WB HEIs and alignment with formed EU HEIs WRM laboratory equipment list	0												
1.5	Workshop on innovative practices in the EU water sector: barriers and opportunities	0												
2.1	Development of specific competencies and learning outcomes of curricula in WB	0												
2.2	Development of courses content and syllabi	0												
2.3	Innovation of existing and development of new master curricula for WRM in WB	0												
2.4	Accreditation of master curricula	0												
2.5	Theme-based training of teaching staff for acquiring new teaching and learning methods	0												
2.6	Purchasing of literature, software and laboratory equipment, installation and activation	0												
3.1	Introduction with LLL courses for professionals in water sector in EU	0												
3.2	Analyse of water sector needs for LLL courses in WB	0												
3.3	Development of trainings' content and corresponding educational material	0												
4.1	Implementation of developed master curricula	48	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X	4X
4.2	Implementation of trainings for professionals in water sector	11	3X	4X	4X									

No.	Activity	Total	1	2	3	4	5	6	7	8	9	10	11	12
4.3	Self-evaluation of master curricula	12			2X	2X	2X			2X	2X	2X		
4.4	Self-evaluation of trainings for professionals in water sector	6		2X	2X	2X								
5.1	Development of the Quality and Assurance Plan	0												
5.2	Regular Quality Assurance Committee meetings	8			1X=	2X=	1X=			1X=	2X=	1X=		
5.3	External evaluation of the project	0												
5.4	External financial control	9										3X=	3X=	3X=
5.5	Inter-project coaching	0												
6.1	Creation of the Dissemination & Exploitation Plan	0												
6.2	Development of project website and promotional materials	12	X	X	X	X	X	X	X	X	X	X	X	X
6.3	Info days for student enrolment	0												
6.4	Roundtables with non-academic sector	0												
6.5	Winter/summer schools	18			3=	3=	3=			3=	3=	3=		
6.6	Symposium for promoting WRM in WB	9							3X=	3X=	3X=			
7.1	Kick-off meeting	0												
7.2	Brussels kick-off meeting	0												
7.3	Development of the Project management guide	0												
7.4	Regular Steering Committee & Project Management meetings	10			1X=	3X=	1X=			1X=	3X=	1X=		
7.5	Day-to-day coordination of project activities	24	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=	2X=
7.6	Submission of interim and final reports	16									4X=	4X=	4X=	4X=