



Joint Project: Capacity Building in the Field of Higher Education ERASMUS+ 2018

Crisis and Risks
Engineering for
Transport Services

## **WP2: Development**



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

Dr. Iuliia Bulgakova



# WP2: Development Aim and Tasks



To create educational environment for preparing specialists in innovative area of Crisis and Risks Engineering for Transport Services



## WP2: Development Aim and Tasks



- 2.1 To develop new and update existing core and transferable curricula on CRENG
- 2.2 To develop and accredit new MA program "CRENG"
- 2.3 To develop teaching/learning materials and to update Join Web Platform, to develop e-learning courses
- 2.4 To develop documentation/ purchase, install equipment for the CRENG Labs and VCR
- 2.5 To develop guidelines and hold the courses to retrain academic teachers in new curricula methodology incl. IPBL
- 2.6 To develop Skills Wallet
- 2.7 To conduct pilot teaching of students on new curricula in CRENG; pilot operating of CRENG educational environment; updating MA curriculum, if necessary
- 2.8 To conduct Master Classes on new curricula
- 2.9 To develop documentation, purchase and install equipment, staff training, establishing of CRENG Service Offices



## 2.1 Curricula development



Main Tasks	Responsible Partners	Timelines
1. To develop descriptions of new curricula	P1-P3	15.03.2019 - 15.07.2019
2. To update existing curricula	P5-P13	15.03.2019 – 15.07.2019
3. To present curricula incl. educational content to PCs universities	P1-P3	15.07.2019
4. To download new curricula descriptions to Web platform	P1-P13	15.07.2019



## List of curricula



No	Core curricula	Responsible
1	New technologies and big data for innovations in crisis and risk management + IT Security - 6 ECTS	
2	Risk and crisis forecast, Analysis and Reduction Methods and Tools - 10 ECTS	
3	Disaster preparedness – challenges, principles, recourses, systems and tools - 6 ECTS	
4	Safety Management and Incident Investigation - 6 ECTS	
5	Emergency Response & Crisis Management - 6 ECTS	
6	Hazard Identification - 5 ECTS	
7	Human Factors in Design & Operations – 5 ECTS	WUT
8	Humanitarian logistics and transport services in disasters conditions - 6 ECTS	
9	Informational-Analytic and Diagnostics for Sociotechnical System - 6 ECTS	
10	Risk and crisis engineering of Transport systems - 5 ECTS	
11	New challenges for crisis and risk management in logistics systems - 5 ECTS	
12	Supply chain management and networks - 5 ECTS	WUT
13	Health, Safety & Environmental Management Systems - 6 ECTS	
	Transferable Curricula	
14	Project management and leadership in logistics and research, through open communication and team-	TUB
	working - 5 ECTS	
15	Research methods and professional development - 5 ECTS	TUB
16	Carrier Managing, Soft skills for engineer, basics of technical creativity - 3 ECTS	TUB



### 2.3 Teaching/learning content



Main Tasks	Responsible Partners	Timelines
<ol> <li>To develop set of teaching/learning materials for each curricula: lectures notes, presentations etc. *</li> </ol>	P5-P13 With support of P1-P4	15.09.2019 - 15.09.2020
2. To upload materials to the Web platform	P4	15.09.2020- 15.11.2020
3. To develop e-learning courses for each curricula on MOODLE platform	P5-P13	Till 15.01.2022

<sup>\*</sup>Teaching/learning materials content will be developed by PCs HEIs **individually** according to peculiarities of the region, requirements of employers and scientific achievements of HEIs



# 2.4 CRENG Labs and VCR2.9 CRENG Service Office



Main Tasks	Responsible Partners	Timelines		
1. To approve list of equipment	P1-P13	Till 15.03.2019		
2. To develop documentation for purchasing equipment	P4	Till 15.05.2019		
3. To supply equipment to PCs	P4	Till 15.10.2019 the latest date!!!!!		
4. To install equipment	P5-P13	Till 15.04.2020		
5. To prepare documents for CRENG Lab and CRENG Service Office establishing it in own institution	P5-P13	Till 15.04.2020		



## **List of Equipment**



Excel table



# 2.5 Retraining of academic teachers on new curricula and teaching methodology



Responsible Partners	Timelines
P1-P3	Till 15.08.2019
P4	Till 15.06.2019
P5-P13	Till 15.07.2019
P1-P3	Till 15.09.2019
P5-P13	Till 15.10.2019
	Partners P1-P3 P4 P5-P13 P1-P3

<sup>\* 3-4</sup> teachers form each PC will pass 10-14 days training courses in P1-P3





**Skills Wallet** is a tool for collaboration of HEIs and employers or mechanism, that allow to provide to the future specialists skills needed in current conditions of labor market

Main Tasks	Responsible Partners	Timelines
1. To develop guidelines on SW implementation in HEI	P5	15.02.2020
2. To conduct webinar on SW for PCs	P5	15.03.2020
3. To start operating of SW in PCs HEIs	P5-P13	15.09.2020



## 2.7 Pilot operating of new educational environment

### 2.8 Master Classes on new curricula



Main Tasks	Responsible Partners	Timelines
1. To conduct pilot teaching of students on new MA program with using of new educational environment (new educational content/ LABs)	P5-P13	From 01.09.2020
2. To update curriculum, if necessary	P5-P13	Till 01.09.2021
3. To develop timetable and guidelines on conducting master classes in PCs	P1-P13	Till 01.09.2020
4. To conduct master classes on new MA program in PCs HEIs (it is planned to conduct 6 master classes of 3 days duration)	P1-P13	01.09.2020-01.05.2021



# 2.2 To develop and accredit new MA program "CRENG"



Main Tasks	Responsible Partners	Timelines		
1. To develop new MA program "CRENG"	P5-P13	Till 30.07.2020		
2. To approve MA program at institutional level	P5-P13	Till 30.07.2020		
3. To update MA program if necessary	P5-P13	Till 30.07.2021		
4. To prepare a set of document for MA accreditation at national level	P5-P13	Till 30.08.2021		
5. To accredit MA program at national level	P5-P13	Till 30.09.2021		



## 1<sup>st</sup> project year tasks



Main Tasks	12/18	01/19	02/19	03/19	04/19	05/19	06/19	07/19	08/19	09/19	10/19	11/19
To prepare need analysis on CRENG curricula												
To develop descriptions of new curricula												
To update existing curricula												
To download new curricula descriptions to Web platform												
To approve list of equipment												
To develop documentation for purchasing equipment												
To supply equipment to PCs												
To select academic teachers from PC to participate retraining courses												
To conduct training courses on new curricula for PCs academic teachers in EU												
To conduct seminars for sharing experience gained in EU HEIs at home												







# Thank you for you attention!



#### DR. IULIIA BULGAKOVA

Associate Professor at the Department of Management of Railway Commercial Activities
State University of Infrastructure and Technology