

# Knowledge FOR Resilient soCiEty

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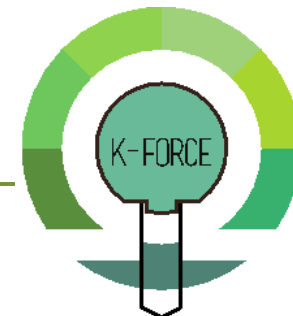
University of Novi Sad  
Faculty of Technical Sciences  
Department of Civil Engineering and Geodesy

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



# The Project CV

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<b>Project Title</b>	Knowledge FOr Resilient soCiEty
<b>Project acronym</b>	K-FORCE
<b>Project Number</b>	573942-EPP-1-2016-1-RS-EPPKA2-CBHE-JP
<b>Project duration</b>	3 years
<b>Start</b>	15 <sup>th</sup> October 2016
<b>Programme</b>	ERASMUS+
<b>Key Action</b>	Cooperation for innovation and the exchange of good practices
<b>Action</b>	Capacity building in the field of higher education
<b>Total cost of the project</b>	1.237.129,00 EUR Grant for Project Activities: 985.474,00 EUR Additional Grant for Special Mobility Strand: 251.655,00 EUR
<b>Coordinator</b>	University of Novi Sad <a href="mailto:k-force.pmt@uns.ac.rs">k-force.pmt@uns.ac.rs</a> <a href="http://kforce.uns.ac.rs/">http://kforce.uns.ac.rs/</a>

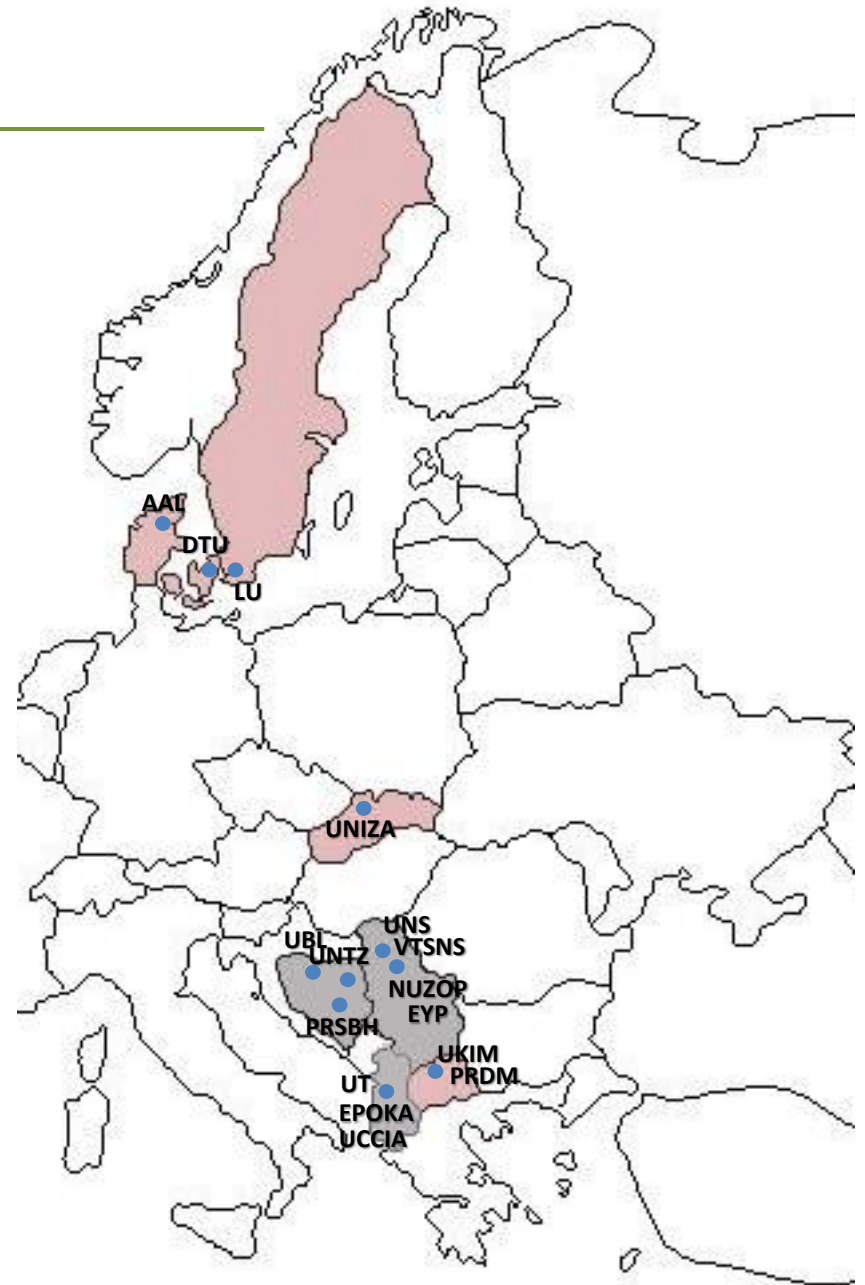
# Consortium

**Number of partners:** 14 + 2 associated partners

- University of Novi Sad, Serbia
- The Higher Education Technical School of Professional Studies, Serbia
- The University of Tuzla, Bosnia and Herzegovina
- The University of Banja Luka, Bosnia and Herzegovina
- The University of Tirana, Albania
- Epoka University, Albania
- Technical University of Denmark, Denmark
- Aalborg University, Denmark
- The Lund University, Sweden
- The University of Žilina, Slovakia
- Ss. Cyril and Methodius University in Skopje, FYROM
- Protection and Rescue Directorate of the Republic of Macedonia, FYROM
- National Fire Protection Association – NUZOP, Serbia
- European Youth Parliament Serbia – EYP, Serbia

Associated partners:

- Ministry of Security of Bosnia and Herzegovina, Protection and Rescue Sector, Sector for International Cooperation and European Integrations
- Union of chambers of commerce and industry of Albania



# The Motivation Behind the Project

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- Natural and man-made disasters - floods, landslides, earthquakes, storm winds, hail, drought, wild fires and building fires are on the rise in the last decades in the Western Balkans.
- Human casualties, extensive damages to the urban areas, negative impact on the environment and further weakening of the regional economy are amongst indicators of increasing vulnerability.



# The Motivation Behind the Project

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- Preliminary surveys have shown that shortage of skills exists. Knowledge and skills of the existing staff in this area is based on the education acquired from other engineering disciplines.
- We have noticed very different levels of knowledge and skills, with many people learning on the job in an unstructured way. These competences, knowledge and skills are insufficient to solve the growing problems in the field of Disaster Risk Management and Fire Safety Engineering.
- The lack of safety culture in society in general is notable.



# The Aim of the Project

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- The aim of the K-FORCE project is to **improve regional resilience to hazards** and capability for regional cooperation in risk prevention and response and to ensure national professional resources and regional capacities in order to build regional-based disaster preparedness and a culture of safety and resilience at all levels according to EU Integration Strategies and National relevant strategies.
- The overall broader objective to which K-FORCE project will contribute is to ensure national professional resources and regional capacity for resilient society.
- In order to achieve this, K-FORCE project will create effective, contemporary and sustainable Study Programs in the field of Disaster Risk Management and Fire Safety Engineering (DRM&FSE).



# The Specific Project Objectives

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- Modernization of DRM&FSE **master study programme** and development and implementation of new Master programmes/modules in WBC partners HEIs, according to regional needs and contemporary EU trends.
- Development and implementation of DRM&FSE **Doctoral study programme** in accordance to available resources, regional needs and European partners' expertise, in aim to ensure regional capacities and sustainable education and research in the field.
- Continuous professional development of employees in DRM&FSE sector in WBC through creation and implementation of **certified LLL courses** for practitioners.
- To improve cooperation between project partners in order to modernize teaching and training process on novel technical and technological solutions, exploiting the ICT application.

# WorkPlan

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K-FORCE project is planned in three phases: preparation, development and implementation, and valorization phase, to be realized through 9 Work Packages (WPs):

- **WP1** Define directions for development of Master programs
- **WP2** Define directions for development of PhD programme
- **WP3** Improve teaching methodologies and embed the ICT in learning material
- **WP4** Implementation of Master Programmes
- **WP5** Implementation of PhD Programme
- **WP6** Implementation of LLL courses
- **WP7** Quality Assurance and Monitoring
- **WP8** Dissemination and Exploitation
- **WP9** Project Management





# WorkPlan

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## WP 1 Define directions for development of Master programmes

### Activities:

- 1.1 Analyse DRM&FSE MPs in EU and WBC
- 1.2 Analyse WBC needs for DRM&FSE MPs and learning outcomes
- 1.3 Develop new DRM&FSE MPs Curricula aligned with EU trends
- 1.4 Procure, install and activate the equipment

**Duration:** 15.11.2016 . – 15.10.2017.

**Lead Organisation:** Chair: DTU

Co-chair: UNTZ

Steering Committee Member (SCM): UNS



# WorkPlan

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## WP 1 Define directions for development of Master programmes

### Equipment for MPs:

- 60 PC Clients
- 6 Outdoor handheld GPS GIS Mapping Data Collectors
- 6 Handheld laser distance measurers
- 6 Digital cameras
- 60 Books, journals, e-books
- 60 E-book readers
- 6 Agent based evacuation simulation softwares
- 24 Lap tops + external displays

### Equipment for PhD:

- 2 Rack servers
- 1 Outdoor handheld GPS GIS Mapping Data Collector
- **1 Fire dynamics and smoke control software**
- 1 Digital Map of Serbia with database
- 1 Hyphenated TGA-FTIR
- **1 Unmanned Aerial Photogrammetric Vehicle with PC client**



# WorkPlan

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## WP 2 Define directions for development of PhD programme

### Activities:

- 2.1 Assess WB needs and EU trends in DRM&FSE PhD
- 2.2 Analyse WB teaching resources for MPs and PhD
- 2.3 Compare PhD models and curricula in EU
- 2.4 Develop PhD Curriculum
- 2.5 Compile a list of research PhD themes, according to disaster trends in WB

**Duration:** 15.02.2017. – 15.02.2018.

**Lead Organisation:** Chair: LU  
Co-chair: UNS  
SCM: UNIZA



# WorkPlan

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## WP 3 Improve teaching methodologies and embed the ICT in learning material

### Activities:

- 3.1 Study visits to PR HEIs
- 3.2 Analyse and agree on the modalities of using ICT for b-learning
- 3.3 Train the WBC teaching staff on both DRM&FSE topics and b-learning methodologies
- 3.4 Develop b-learning materials for MPs and PhD
- 3.5 Pilot the new MPs and PhD learning material, evaluation and fine tuning

**Duration:** 15.12.2016. – 15.07.2019.

**Lead Organisation:** Chair: AAL  
Co-chair: UNIZA  
SCM: EPOKA



# WorkPlan

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## WP 4 Implementation of Master Programmes

### Activities:

- 4.1 Accredite MPs
- 4.2 Enrol the Master students
- 4.3 Activate flexible ICT learning platform
- 4.4 Selected MP lectures held by K-FORCE guest lecturers
- 4.5 Evaluate the 1<sup>st</sup> cohorts' progress and satisfaction of students and staff

**Duration:** 15.05.2017. – 14.10.2019.

**Lead Organisation:** Chair: UNTZ

Co-chair: UT

SCM: DTU



# WorkPlan

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## WP 5 Implementation of PhD Programme

### Activities:

- 5.1 Accredite the PhD programme
- 5.2 Enrol the PhD students
- 5.3 Selected PhD lectures held by K-FORCE guest lecturers
- 5.4 Evaluate the 1<sup>st</sup> cohorts' progress and satisfaction of students and staff

**Duration:** 15.10.2017. – 14.10.2019.

**Lead Organisation:** Chair: UNS

Co-chair: AAL

SCM: LU



# WorkPlan

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## WP 6 Implementation of LLL courses

### Activities:

- 6.1 Analyse the WBC needs for LLL courses
- 6.2 Define LLL outcomes according to EQF/NQFs
- 6.3 Create K-FORCE Glossary
- 6.4 Adapt selected learning material for LLL courses
- 6.5 Deliver LLL courses in blended way to professionals

**Duration:** 15.02.2017. – 14.10.2019.

**Lead Organisation:** Chair: UNIZA

Co-chair: VTSNS

SCM: AAL



# WorkPlan

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## WP 7 Quality Assurance and Monitoring

### Activities:

- 7.1 Develop Quality Assurance mechanisms and procedures
- 7.2 Create polls for different types of activities
- 7.3 Learning material peer review
- 7.4 External review of the Glossary

**Duration:** 15.11.2016. – 15.05.2019.

**Lead Organisation:** Chair: UKIM

Co-chair: LU

SCM: UT





# WorkPlan

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## WP 8 Dissemination and Exploitation

### Activities:

- 8.1 Create dissemination plan
- 8.2 Develop, maintain and promote K-FORCE Website
- 8.3 Open/maintain e-library public access area
- 8.4 Perform media, enrolment and LLL promo campaigns
- 8.5 Organise 3 K-FORCE Symposia

**Duration:** 15.11.2016. – 15.05.2019.

**Lead Organisation:** Chair: UT

Co-chair: PRDM, NUZOP, EYP

SCM: UBL



# WorkPlan

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## WP 9 Project Management

### Activities:

- 9.1 Organize K-FORCE bodies meetings
- 9.2 Prepare/adopt the PM plan, procedures and Risk Plan
- 9.3 Organize inter project coaching
- 9.4 Manage all project activities and monitor their execution regarding timescale and expenses

**Duration:** 15-11-2016. – 14.10.2019.

**Lead Organisation:** Chair: UNS

Co-chair: DRU

SCM: UKIM



# Innovative Character

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- Interdisciplinary curricula include subjects from various academic disciplines:
  - Engineering and engineering trades as the dominant academic discipline,
  - Environmental protection,
  - Architecture and Construction,
  - Civil Protection,
  - Fire Science,
  - Rescue studies,
  - Climatology,
  - Hydrology,
  - Seismology ,
  - Economy,
  - other disciplines (Health, Sociology).



# Innovative Character

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- The implementation of interdisciplinary study programs DRM&FSE in the field of Technical Sciences, created in a way that enables continuation of the studies for a number of different profiles of engineering undergraduates, as well as continual education of professionals by offering LLL courses.
- Introduction of a novel interactive ICT platform for staff, student and workers' training enables preparation of real-life case studies.
- K-FORCE support the creation and dissemination of Open Educational Resources in diverse European languages:
  - study programs will be available in WBC HEIs in EN and regional languages as well as the blended learning material offered by **Flexible ICT learning platform**, **Glossary of DRM&FSE key words and terms** and **On-line Library**.



# Special Mobility Strand

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We have foreseen following SMS activities:

1. Students mobility between WB HEIs
2. Staff mobility from WB HEIs to Programme countries HEIs for the purpose of training
3. Staff mobility from project partner HEIs to WB HEIs for the purpose of teaching



# Special Mobility Strand

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Objectives of SMS activities are:

- Contribution to the improvement of Master programmes, Modules and PhD programme implemented in WB HEIs,
- Creation of international learning experience for students at project partner HEIs,
- Development of cultural awareness among students,
- Exchange of innovative teaching practices,
- Learning about teaching methods and practices from Programme countries HEIs,
- Development of complementary skills and competencies in the field of DRM&FSE,
- Promoting international understanding and cooperation.



# Special Mobility Strand

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Expected results of SMS activities:

- Improved teaching skills and methodologies,
- Gained teaching experience in an international context,
- Strengthened intercultural competences of all parties involved,
- Students provided with a wider range of topics and international perspective in the field of DRM&FSE.



# Expected impact of the project

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- Students will be educated within an interdisciplinary and problem-solving framework, through acquiring theoretical, practical and applicable knowledge, skills and competences, according to National qualifications framework and European qualifications framework, WB countries' needs and EU trends, which will be well recognized by the national and regional labour market.
- Students on other HEIs study programmes will gain basic or improved knowledge of DRM&FSE issues, consequently resulting in raised awareness among student population.
- Implemented programs will enable regional and international mobility of students and teachers from WB and their horizon broadening in this specific field.



# Expected impact of the project

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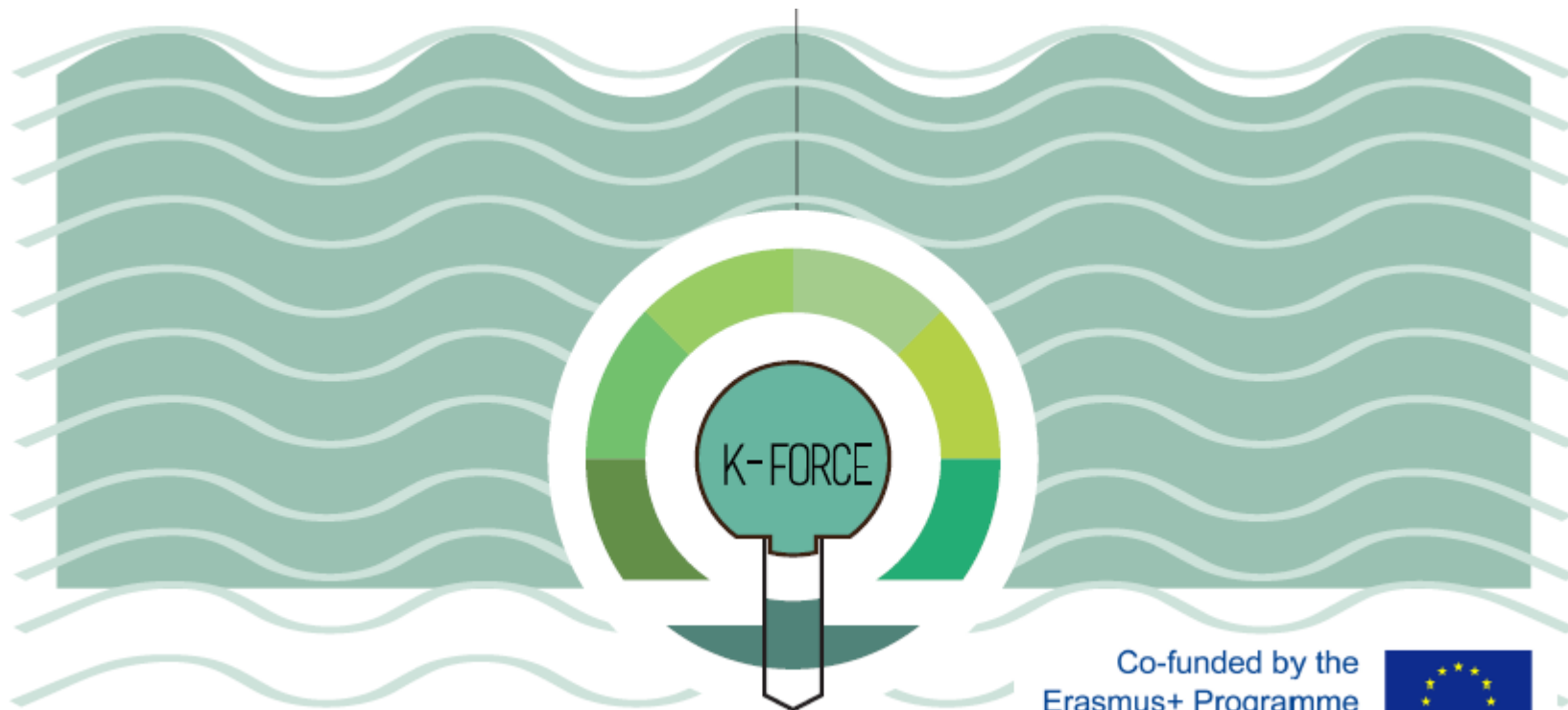
- Teaching staff will have opportunity to upgrade their teaching experience, capacity to pass on the knowledge updated with novel trends both in the field and teaching tools and methodology.
- Teaching staff in other disciplines will be able to foster their knowledge and capacity to introduce and interconnect DRM&FSE issues into their disciplines.
- Non-profit NGOs will have opportunity to realize their own visions and missions in building national and regional capacities for safe and prospective WB societies, on the path towards EU.
- Professionals in DRM&FSE area will expand and upgrade their knowledge and skills through LLL courses.

# Expected impact of the project

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- Public bodies and administration in charge for civil protection will improve qualification structure and better act as liaison between the emergency sector and scientific and education institutions as well as liaison between educational institutions and stakeholders from the emergency sector.
- Employees in various industrial sectors will have an open access to created On-line Library, ICT portal and LLL courses database, through which they can gain knowledge on various DRM&FSE issues, thus raising their awareness about fires and disasters.





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# Thank you for your attention!

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