



BESTSDI



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Western Balkans Academic Education Evolution and professional's Sustainable Training for Spatial Data Infrastructures– BESTSDI

Erasmus+ Ka2 CBHE BESTSDI Project

Ammar Šarić, University of Sarajevo

Western Balkans Academic Education Evolution and professional's Sustainable Training for Spatial Data Infrastructures– BESTSDI

BESTSDI objectives

- The wider objectives of the BESTSDI project were to improve the quality of higher education in Geographical Science and Technology field, SDI and geodesy, enhance its relevance for the labour market and society and to improve the level of competences and skills in HEI's by developing new and innovative education programmes within the field of SDI. These wider objectives are fully compliant with the priorities of the Capacity Building projects within the Erasmus+ program.

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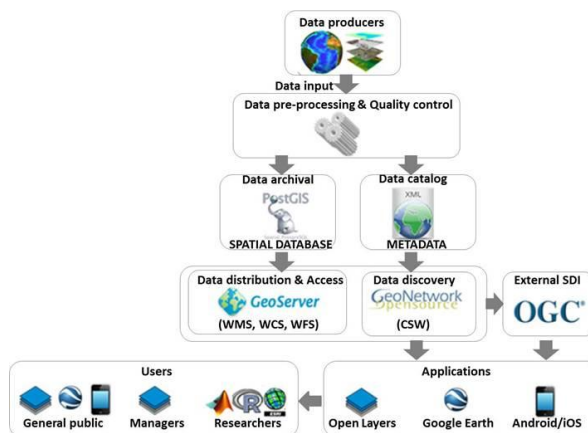
BESTSDI objectives

The specific project objectives were to develop, test and adapt new curricula, courses, learning material and tools within the field of SDI. In doing so, existing undergraduate and graduate geodesy and geoinformatics curricula's in the academic institutions in the WB region were lifted to higher levels, recognising of spatial data for modern society and its development. By the incorporation of SDI concept and other modern concepts based on spatial data and information, the students of the new courses will have the ability to provide efficiently spatial data and services to SDI users.



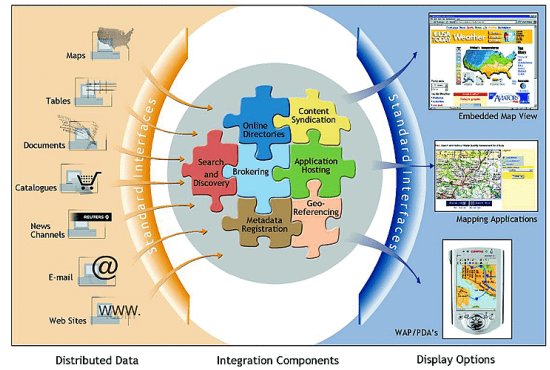
BESTSDI objectives

In parallel, the project also introduces SDI and related concepts in undergraduate and graduate study programs on academic institutions which profiles are well recognized as SDI users, raising awareness among the students and professionals about the relevancy of SDI and advantages of well organized spatial data.



SDI concept

A Spatial Data Infrastructure (SDI) is a framework to share, discover and re-use spatial data among public authorities, the private sector and citizens. SDI's are based on a "coordinated series of agreements on technology standards, institutional agreements, and policies" (Kuhn 2005) that unlock geospatial information resources for a wide range of application fields, for instance environmental monitoring and policy making, transportation planning, health care, physical planning, national security, etc. They are an integral part of the e-government movement and open data initiatives.



SDI is much more



Smart environment



Intelligent transportation

Precise farming



Smart cities



BESTSDI partners

Project coordinator:

- Sveučilište u Zagrebu (University of Zagreb) – Croatia

Program countries:

- Katholieke Universiteit Leuven (Catholic University of Leuven) – Belgium
- Sveučilište u Splitu (University of Split) – Croatia
- Univerzitet “Sv. Kiril i Metodij” Skopje (Ss. Cyril and Methodius University in Skopje) – North Macedonia
- Hochschule Bochum (Bochum University of Applied Sciences) – Germany



BESTSDI partners

Partner countries:

- Universiteti Politekniki i Tiranës (Polytechnic University of Tirana) – Albania
- Universiteti Bujqësor i Tiranës (Agricultural University of Tirana) – Albania
- Univerzitet u Banjoj Luci (University of Banja Luka) – Bosnia and Herzegovina
- Sveučilište u Mostaru (University of Mostar) – Bosnia and Herzegovina
- Univerzitet u Sarajevu (University of Sarajevo) – Bosnia and Herzegovina



BESTSDI partners

Partner countries:

- Javna Ustanova Univerzitet u Tuzli Universitas Studiorum Tuzla (University of Tuzla) – Bosnia and Herzegovina
- Universiteti Nderkombetar per Biznes dhe Tehnologji UBT (University for Business and Technology – UBT) – Kosovo
- Universiteti “Ukshin Hoti” ne Prizren (University of “Ukshin Hoti” in Prizren) – Kosovo
- Javna ustanova Univerzitet Crne Gore Podgorica (Unviersity of Montenegro) – Montenegro
- Unvierzitet u Beogradu (University of Belgrade) – Serbia
- Univerzitet u Novom Sadu (University of Novi Sad) – Serbia



BESTSDI partners

Associated partners:

- Republička uprava za geodetske i imovinsko-pravne poslove Republike Srpske (Republic Administration for Geodetic and Property Affairs of Republika Srpska) – Bosnia and Herzegovina
- Federalna uprava za geodetske i imovinsko-pravne poslove Federacije Bosne i Hercegovine (Federal Administration for Geodetic and Property Affairs of Federation of Bosnia and Herzegovina) – Bosnia and Herzegovina
- Agencija na katastar na nedviznosti (Agency for Real Estate Cadastre) –North Macedonia

Subcontractors:

- Lantmäteriet (Swedish National Mapping and Cadastre Authority) – Sweden
- Novogit AB – Sweden



PROJECT COORDINATOR AND PARTNERS MAP



WESTERN BALKANS ACADEMIC EDUCATION EVOLUTION AND PROFESSIONAL'S SUSTAINABLE TRAINING FOR SPATIAL DATA INFRASTRUCTURES

9 Participating countries:

[DOWNLOAD AS PDF](#)

[VIEW PROJECT MAP](#)

Start: 15-10-2016 - **End:** 14-10-2019
Project Reference: 574150-EPP-1-2016-1-HR-EPPKA2-CBHE-JP
EU Grant: 978166.66 EUR
Website:
<http://bestsdi.eu>

Programme: **Erasmus+**
 Key Action: **Cooperation for innovation and the exchange of good practices**
 Action Type: **Capacity Building in higher education**

<http://ec.europa.eu/>

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BESTSDI project activities

Work packages:

- WP1 – Preparation – Specification of the core curriculum
- WP2a – Development – Development of curriculum
- WP2b – Development – Implementation of curriculum
- WP3 – Quality Plan
- WP4 – Dissemination & Exploitation
- WP5 - Management

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BESTSDI expected results

To develop appropriate curricula, courses and their content for both target groups (SDI providers and SDI users) of academic institutions. This includes the development of:

- SDI compulsory course for undergraduate study programs in geodesy
- SDI modules for graduate study programs in geodesy and geoinformatics
- SDI user course components (not necessary full courses) for undergraduate study programs of partner faculties
- SDI elective courses for graduate study program of partner faculties (SDI users)
- Development of sustainable training courses (life-long education) of broad scope of professionals



BESTSDI expected results

- To disseminate the project experiences and results in order to create additional value and multiply the impact of the results. As a consequence, dissemination will be made about best practices in teaching on SDI, the content of the developed courses, experience in introduction of newly developed courses and training courses for professionals to professional society. These dissemination activities are made to targeted audience like professional bodies, public authorities etc.
- To establish the necessary foundation for the participation of partner universities in the academic SDI arena.
- To provide equipment for implementation of modernized curricula to partner universities so that new kind of professionals will be equipped with broad cognition, knowledge and skills about SDI and other modern spatial data related concepts will be result of education process in involved institutions.



BESTSDI additional benefits

- New level of communication and cooperation among the partner universities with the emphasis on SDI but expanding it on institutional and project cooperation.
- Exchange of students and staff will be fostered through the project activities and information about activities conducted by the partners communicated among the partner universities



BESTSDI outcomes



- This brochure is a compilation of all the final achievements of BESTSDI project in which all project partners contribute to. The brochure presents the key project outcomes, quality improvements of higher education in Geographical Information Science and Technology, new and innovative education programme developments, lifelong learning courses, the partnerships with public authorities and business sector to develop the annual national SDI reports, the dissemination of project experiences and results.
- The outcomes have been packed in three groups focusing on (1) the development and implementation of Spatial Data Infrastructure (SDI) curriculum in the study programmes of project partners; (2) creation of preconditions (developing human and technical capacities) for the implementation of developed curriculum and establishing new awareness of the role of academic institutions in the development of national SDI's, and (3) new forms of cooperation with other SDI stakeholders, governmental and business sector in particular.



BESTSDI outcomes

- SDI curriculum has been specified and subsequently developed encompassing 9 modules and 70 topics. In total 142 courses have been modernised with SDI content and given at partner universities. Those courses have been attended by 3.128 students
- Two summer schools were organised in Split within the scope of the project offering intensive theoretical and practical training in the field of SDI and related topics for 40 teachers, each of them developing human resources at partner universities. The effects of the training were visible not only in the conducted SDI courses during the third year of project lifetime but also in the number of scientific and professional articles and presentations given and two books on SDI published by consortia partner team members.
- 15 laboratories were equipped



BESTSDI summer school



Filed work with BESTSDI equipment



LLL courses at partners universities

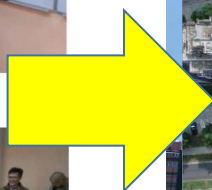
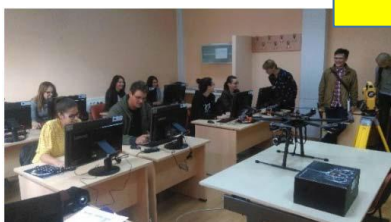


BESTSDI outcomes

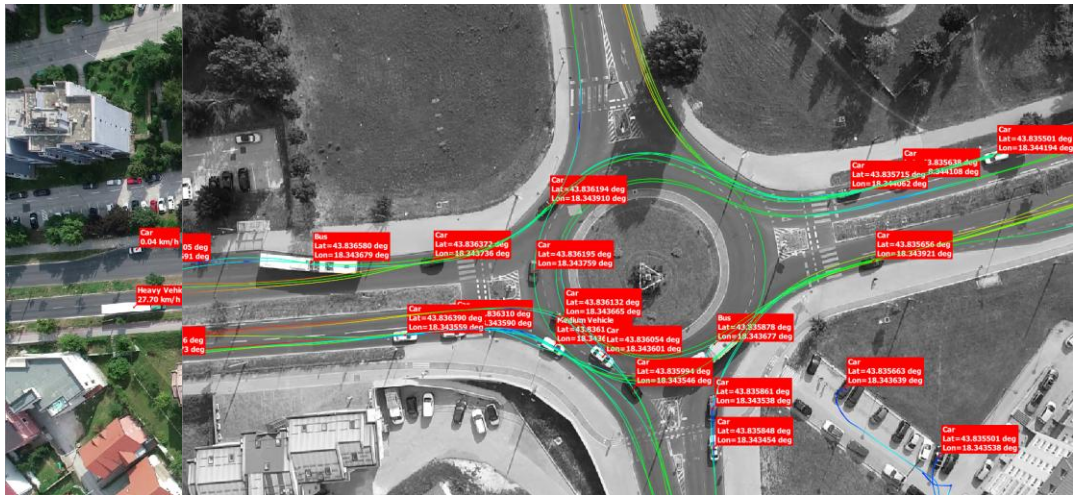
- One of the important outcomes of BESTSDI project was creation, preparation and drafting of Annual National Spatial Data Infrastructure (NSDI) Reports for five partner countries. It was the first time that academic view about the establishment of the NSDI in partner countries has been written down and presented to other major stakeholders. The aim of this activity is to contribute to further development of NSDI in respective countries, and promote the creation among stakeholders, as well as to raise awareness of the role of academic society in SDI development in academic society itself and among other stakeholders.



SDI beyond BESTSDI



SDI beyond BESTSDI



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BESTSDI and NatRisk final conference

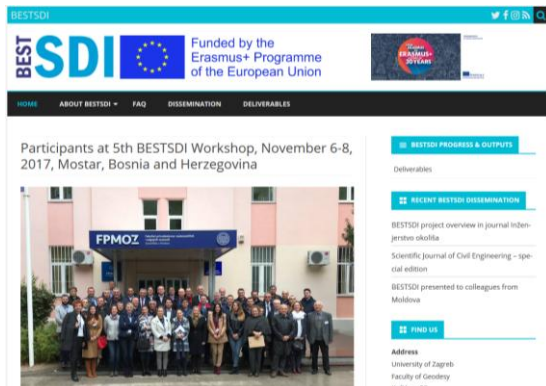


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bestsdi.eu

Official web site of BESTSDI project funded by the European Union under ERASMUS+ KA2 Capacity Building in Higher Education.



BESTSDI NEWSLETTER:

- **Bestsdi INFO**
- **Bestsdi news**

BESTSDI Social networks



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Thank you for your attention!



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 This project has been funded with support from the European Commission. This presentation reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

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