

FUTURE

jOiNEd For sUsTainability - bUilding climate REsilient communities in WB and EU

Presentation of climate and sustainability practices at CEPS

LUND meeting University College "CEPS-Center for Business Studies"

(Kiseljak, Bosnia and Herzegovina)

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ADDRESSING THE ISSUE

- There are **4 aspects** of addressing the issue within CEPS:
- 1. Object capacities and architecture
- 2. Curriculum
- 3. Raising awareness activities
- 4. Projects







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1. Object capacities and architecture

- New building (2017) energy-efficient building structure, perfect thermal insulation, energy saving and environmentally friendly:
 - **glass wool** in walls energy efficient, excellent thermal insulation, addition to thermal conductivity, it is recyclable and its low density reduces the overall impact on the environment;
 - quality *PVC window frames* directly affect consumption of the building's heating and cooling;
 - approx. 70% of the *building* is *covered in tint glass* Energy savings up to 30%, sufficient natural light to illuminate the interiors during day; a green building material in green architecture; prevents the loss of heating energy, and enables the generation of energy transmitted by the sun's rays; reduces the impact of the high temperatures during hot summer days;
 - **LED lighting** throughout the building reducing energy consumption for lighting by 7-8 times; by using LED bulbs instead of ordinary incandescent bulbs, you can save up to 80% of electricity for lighting annually.



IFUTURE 1. Object capacities and architecture

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- Biomass heating system (wood pellet boiler):
 - protect the forests (contributes to improving the use of RES, adaptation to the Kyoto Protocol and rural development);
 - eco-friendly material (compared to fossil fuels, pellets are almost CO2 neutral);
 - sustainability (renewable energy source);
 - there is a plan for transition to more renewable heating and cooling systems (solar energy and heat pumps).
- Use of solar energy a bench with a solar panel in front of the building for charging devices, and 4 sets of solar panels on the roof of the school building to power the practical cabinet for the study program of Energetics;
- Green enviroment inside and outside of the building different types of plants placed in the hallways of the building; behind the building there is a river and a park.

NEEDS TO BE DONE: To evaluate the energy efficiency of the building



FUTURE 1. Object capacities and architecture







2. Curriculum

- Sustainability and environmental protection are included in all study programs at CEPS (on several courses) and integrated into the learning outcomes;
- Especially in study programs such as Energetics, Traffic and Transport Engineering, Safety at Work and Fire Protection.
- But not quite at a satisfactory level
- NEEDS TO BE DONE: To reform HEI curricula to involve more climate change and sustainability lessons and practices, and to introduce lifelong learning programs





2. Curriculum



ENERGETICS

Study directions: RENEWABLE ENERGY SOURCES - systematic energy management, application of energy efficiency measures, and sustainable energy management. ENERGY MANAGEMENT AND ENERGY EFFICIENCY - use of renewable energy sources wit

- use of renewable energy sources with the aim of ensuring reliable and costeffective power generation.

TRAFFIC AND TRANSPORT ENGINEERING

Traffic and Spatial Planning (II s) Traffic and Ecology (II s) Technology and the Organization of Urban Transportation (IV s) Traffic & Transport Protection (V s) – Elective Transport planning (VI s) Urban public transport (VII s) Traffic Prevention and Ecology (VIII) s – Elective

SAFETY AT WORK AND FIRE PROTECTION

Environmental Protection (Health Protection) (II s) Hazardous Substances Risks (III s) Traffic & Transport Protection (III s) Ecology (V s) Industrial Waste Management (VI s) – Elective Fire Protection and safety ... in various situations

- **BUSINESS ECONOMY**: Risk Management (VI), Economics and Environmental Policy (VII elective);
- SECURITY STUDIES: Crisis Management (V);
- HEALTH STUDIES: Health protection systems (I); Health ecology (II); Waste Management (V); Healthcare Management; Nutrition with sanitary control (VII)...





 CEPS is promoting environmentally friendly practices to all students and staff during different events and activities:





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- CEPS is promoting environmentally friendly practices to all students and staff and participating in various events and activities:
 - CEPS's staff and students are continuously attending various forums, workshops and conferences, such as:
 - ✓ InterUni 2022 forum organized by Akademia WSB on the topic "<u>Sustainable university</u> <u>– engagement of students as responsible leaders of tomorrow</u>,;
 - ✓ XI International Scientific Conference NEW ECONOMY 2023: "Innovative Solutions for Managing the Economy in an International Crisis Scenario,,;
 - Workshop on sustainable urban mobility within the "TRIBUTE" project, and participation in the development of the strategy for Mobility Islands and methodologies for the action plan;
 - Round tables "Exchange of practice in higher education" with universities from Spain, Turkey, and Bosnia and Herzegovina;
 - Bosnia and Herzegovina Environmental Strategy and Action Plan BiH ESAP 2030+ (supported by Swedish Embassy and Stockholm Environment Institute) participation in preparation and development, etc.



BìH ESAP 2030+

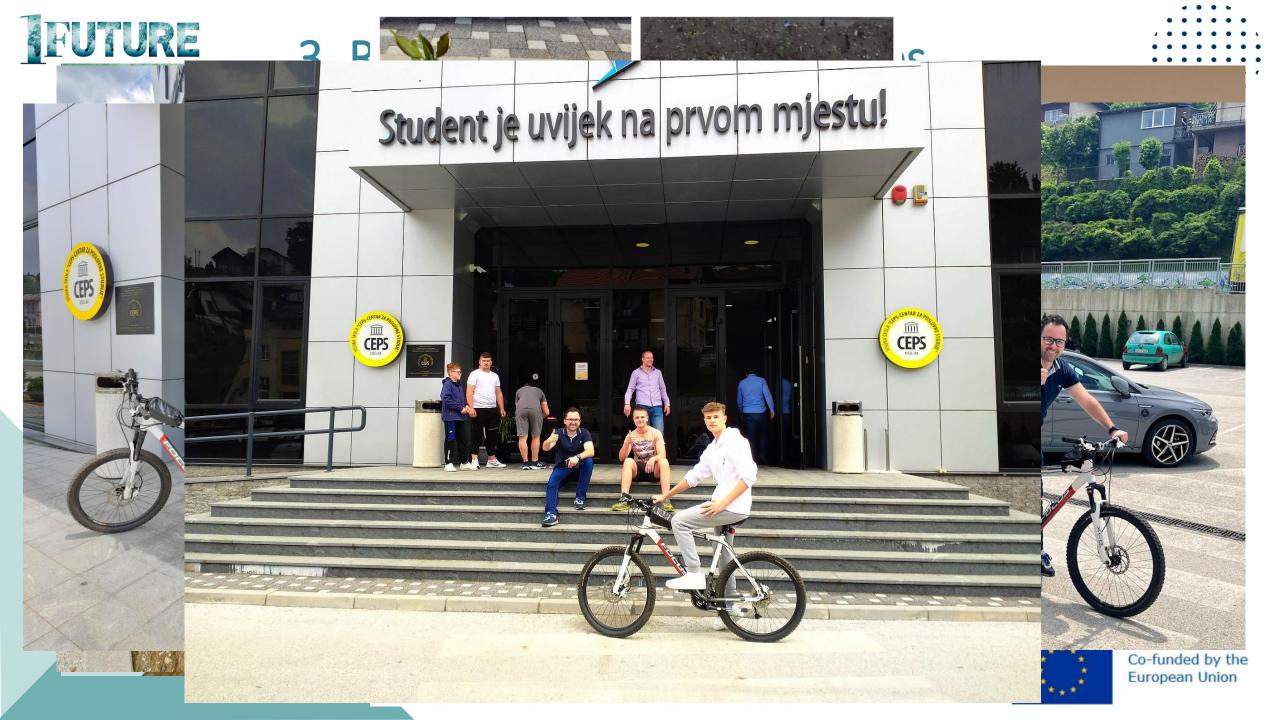
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Bosnia and Herzegovina Environmental Strategy and Action Plan 2030+

> BiH SAP 2030+

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ZAVRŠNI DOGAĐAJ





- CEPS is promoting environmentally friendly practices to all students and staff during different events and activities:
 - guest lectures for students on the topic of Sustainable development
 - outgoing staff on ERASMUS+ visits at insititutions that practice environmentally friendly activities.







• <u>NEEDS TO BE DONE:</u>

- a) <u>Place a Calendar of important dates on the official CEPS webpage that is filled</u> <u>and can be filled during the year with dates of conferences, celebration dates</u> <u>(on topic of climate and sustainability), and dates of workshops, seminars;</u>
- b) In order to lower impact on the environment due to the emission of greenhouse gases, CEPS expects its employees limit business or study trips (use of video conferencing), or to take the train and public transport with lesser use of air travel.





4. Projects

- University College CEPS Kiseljak is exprienced in implmenting projects on the topic of renewable energy (**completed projects**):
 - Sustainable survival and investment for the future efforts made to take in consideration environmental protection, preservation and creation of prerequisites for retaining young people in Bosnia and Herzegovina;
 - More energy efficient Bosnia and Herzegovina this project aims to promote a more efficient way of using energy, and to reduce emissions and environmental pollution;
 - Desing of an alternative power supply model for research projects in the field of energy, targeting renewable energy sources in Bosnia and Herzegovina.



REPUBLIKA HRVATSKA Središnji državni ured za obnovu i stambeno zbrinjavanje





Horizon 2020 European Union Funding for Research & Innovation







4. Projects

- Currently active projects:
 - jOiNEd For sUsTainability bUilding climate REsilient communities in WB and EU (1FUTURE);
 - Greening Relevance in Operations in Western-Balkans Tertiary-Education Habitats (GROWTH) – the general objective is to assist Western Balkans HEIs in green transition efforts:
 - ✓ to make higher education and research in the Western Balkans more environmentally conscious;
 - ✓ to introduce green education methodologies and practices in partner HEIs.









4. Projects

- Supporting and participating in projects (still active):
 - Writen support and participation of CEPS professors in implementation of the Interreg ADRION fund – "TRIBUTE" project – designing and building Mobility Islands across whole Sarajevo city. Mobility Islands is a concept that include specific spatial points in the city equped with ecologically clean elements and ways of travel, such as eScooters/eBikes/eCars, production of clean energy and installation of electric charging stations.



TRIBUTE







4. Projects

- Submitted application for projects:
 - Interreg Euro-MED fund "GREEN RURAL MODEL" project:





- \checkmark successfully passed the first round of evaluation, results at the end of July 2023;
- main objective is developing and testing concrete solutions in order to help small farms in rural areas to become self-sufficient, adapted to climate change and fulfill their potential for sustainable tourism. The solutions are aiming at increasing environment protection and promoting sustainable tourism management;
- ✓ CEPS is supposed to be the leader in WP4: Ensuring energy self-sufficiency with renewable energy sources like solar energy (photovoltaic panels) or local wood;
- ERASMUS+ consortium KA171 for Students and Staff Mobility with 10+ HEIs with study programs in Renewable Energy Sources from Valencia (Spain).







CONCLUSION

- University College CEPS Kiseljak is promoting climate and sustainability practices.
- However, everything is done spontaneously and without a specific strategy and plan.





IDEAS FOR THE FUTURE

- Developing sustainability University strategy with a yearly Action plan;
- Reform HEI curricula and introduce thematic lifelong learning programs;
- Calendar of important dates;
- Open classrooms;

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- Evaluation of the building's energy efficiency;
- Continuation and increasing of raising awareness activities;
- Transition to more eco-friendly modes of mobility and transportation, etc.









Thank you for your attention

Contact info of the presenter: **Nermin Palić, PhD** Head of Traffic and Transport Engineering Department E-mail: <u>nermin.palic@ceps.edu.ba</u> Mob. (Viber, WhatsApp, etc.): +38761327423







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