

Project name:	Renewable Energy Sources for smart sustainable health Centers, University Education and other public buildings
Description:	The three key targets of EU 2020 climate and energy package are: 20% cut in greenhouse gases emissions (compared to 1990), 20% of EU energy from Renewable Energy Sources (RES) and 20% improvement in Energy Efficiency (EE). Usage of RES and EE measures in public buildings are important part in achieving these targets. Region has diverse RES potential but the share of RES is far behind EU2020 goals. Even with new legislation, public's inherited inertness and unawareness of benefits in improving RES usage and EE of existing public buildings still remains a major concern. Main goal of this project is therefore to demonstrate innovative RES and EE approach for public buildings in the cross-border region. FERIT and FTN gained substantial know-how in the field of RES by implementing small-scale RES on their public buildings through successful cooperation on bilateral projects aiming to establish common research and education frame in the cross-border region. This project will strengthen this cooperation and involve new partners: KCV, KBCO and UNISB. Within the RESCUE project we are aiming to promote the use of sustainable energy and energy efficiency in public buildings (specific objective 2.2), especially in public buildings with high energy demand. By introduction of RES based energy efficient smart Buildings Energy Management Systems (BEMS), RESCUE seeks to demonstrate sustainable, low-carbon solution for health centres and university education buildings, demonstrating applicability to other public buildings. Transferring know-how from university to healthcare a climate-smart solution will help reduce healthcare's climate footprint and yield multiple benefits. This way health centres and university education public buildings are no longer exempt from playing an important role as an environmental leader in the region. All targeted groups will benefit from resulting knowledge transfer, workshops, publications, project conferences, printed and digital promotion material.
Webpage:	https://rescue-ipa.eu/
Source of finances:	Interreg – IPA CBC Croatia - Serbia
Beneficiary:	Faculty of technical science, University of Novi Sad
Partners:	Clinical Center of Vojvodina; J.J. University Strossmayer in Osijek, Faculty of Electrical Engineering, Computing and Information Technologies Osijek; Clinical Hospital Center Osijek; University of Slavonski Brod, Faculty of Mechanical Engineering in Slavonski Brod
Project budget:	1.936.989,70 EUR
Duration:	1.4.2019. – 31.12.2021.
Location:	Novi Sad, Osijek, Slavonski Brod
Target groups:	Scientific and/or academic institutions, health centres, public institutions working in the field of climate changes, the local authority units, students, economy sector
Objectives:	The main objective of RESCUE is to promote EE and sustainability of high energy demand public buildings by integration of smart RES based solutions for building energy management system. Different RES types will be installed at partner institutions to provide a proof of concept and

exemplary facilities for other public buildings with high energy demand in the region. Final goal is to offer the resulting know-how through a series of educational activities (for local and regional authorities, precisely municipal, cities and counties/province public buildings) on innovative approaches to sustainable exploitation of RES, economic constraints and environmental protection legislation in the cross-border region. This is directly contributing to the overall aim of the Programme to strengthen the social, economic and territorial development of the Programme area through implementation of joint interventions in the areas of environmental protection and sustainable energy. Also, the main project objective contributes directly to priority axis 2 by strengthening the usage of renewable energy thus improving energy efficiency and to the specific objective 2.2.: to promote the use of sustainable energy and energy efficiency on the Programme area public buildings. The installed capacity of the RES based systems at partner institutions will directly contribute to the Program output indicator additional capacity of renewable energy production (MW). Expected output is implementation of innovative exemplary facilities for smart RES use and EE measures through establishment of at least 1.7 MW RES based BEMS on public buildings of FTN, KCV, FERIT, KBCO and UNISB consisting of:

- PV systems ~ 712 kW
- wind power plants ~ 8 kW
- heat pumps (HVAC) ~ 105 kW
- solar thermal systems ~ 54 kW
- bidirectional storage/supply and PV based charging station ~ 68 kW
- waste utilization system for biodiesel generators ~ 750 kW.

This will have direct impact on Programme output indicator: additional capacity of renewable energy production through implementation of RES based BEMS at all five partners' public buildings.

Programme result indicator will be impacted through the newly installed capacities that will provide invaluable energy resources to support partners' public buildings energy consumption. As a consequence, this will directly result in cost reduction of consumed electrical energy, since all partners' buildings have significant energy expenses. Furthermore, new capacities will decrease the cost of health care procedures, since procedure cost is tightly coupled with energy consumed per procedure. Project results will also be reflected through reduction in fossil fuels consumption and CO2 emissions as well as in improvement of EE in partner public buildings.

Based on scientific research methods, relevant results will be obtained and these will be used in promotion of RES usage through series of educational events for general public, local and regional authorities and their public facilities management in major cities and counties/districts of the Programme area. The aim of these events will be to raise the awareness and importance of EE and the role that RES has, thus encouraging other parties to consider implementation of RES in order to achieve higher EE. All obtained scientific results, will be published in relevant scientific journals, thus achieving certain contribution as well as high visibility.