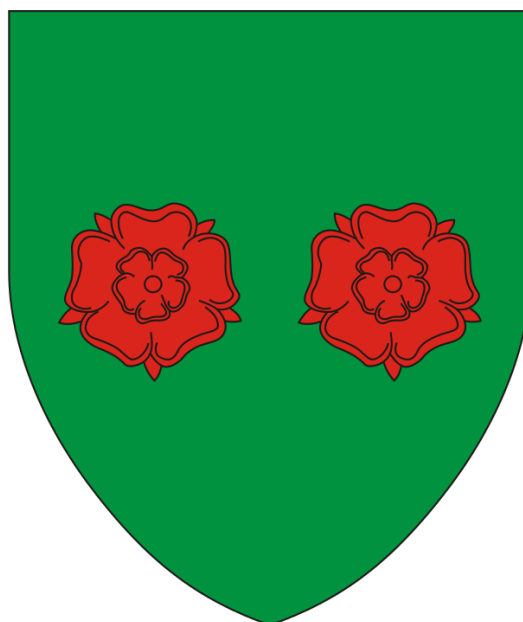
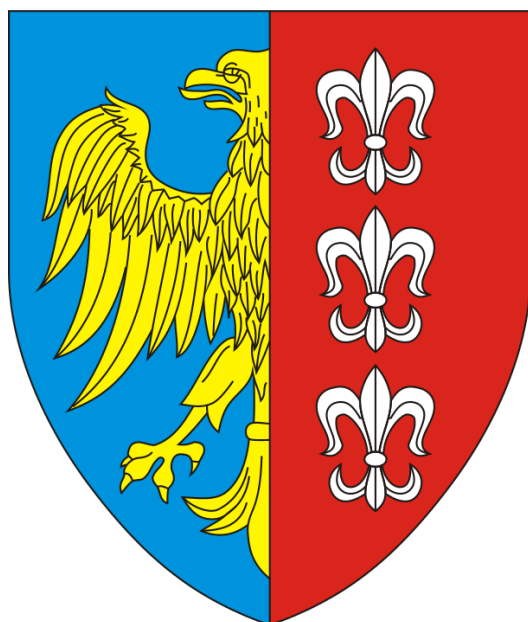


Bielsko-Biała

Building of a training & research center in the field of
renewable energy sources and energy-efficient construction
in Bielsko-Biała



Project description was prepared within the umbrella project "Polish-Norwegian cooperation platform for climate and energy conservation", which is funded under the PL04 Programme of the Bilateral Cooperation Fund, financed from the Norwegian Financial Mechanism (NMF) 2009-2014.

Description of the municipality

Bielsko-Biała is a large city located in the southern part of Poland, in Silesian Voivodeship, at the Silesian Foothills. It counts over 170 000 inhabitants. The city is very active and dynamically developing - it is a seat of the county authorities, seat of Euroregion Beskidy association, capital of the Bielsko agglomeration and the main center of the Bielsko's Industrial Region. Bielsko-Biała is located in the area, which is touristically attractive but insufficiently ventilated and affected with persistent air pollution. According to the WHO's report, the city was ranked as the 27th European city with the highest concentration of PM_{2,5} particles. At the same time it is the city of relatively high environmental awareness. For many years Bielsko-Biała's authorities and citizens have been implementing different environmentally friendly actions. Bielsko-Biała is one of the Polish frontrunners in the area of environmental protection and reducing environmental footprint. It is one of the founders of the Association of Municipalities Polish Network "Energie Cités" and the Covenant of Mayors signatory.

WWW: <http://www.bielsko-biala.pl/>

Description of the overall idea for innovation

Identified problem: lack of sufficient detailed knowledge regarding renewable energy and energy-efficient construction -> many companies operating on the RES and EE market don't have adequate competences and contractors' mistakes generate consumers' reluctance towards the whole sector. To prevent such a situation, it is necessary to educate both employees of the companies operating in the RES/EE sector and the consumers/prosumers. Main objective of the innovative project: building of a training & research center in the area of renewable energy sources and energy-efficient construction. Bielsko-Biała already has the experienced teaching staff working in different centers. It enables educating young people preparing for their future professional career, students and adults - both wishing to improve their skills or to retrain. Planned training & research center, along with its equipment, will allow for conducting efficient trainings for contractor companies, as well as for conducting - to some extent - innovative research of PV panels. Solar energy potential of the region is relatively high due to its favourable geographical location. Moreover, Bielsko-Biała's unique location makes it possible to test the influence of solar installation's location on the solar energy yield. It is planned to build test solar installations in at least three locations within the city area: in the dust-polluted city center, on the suburbs and in the mountain green area. Such solution will enable assessment of the influence of dust pollution on the production of electricity by solar installations, as well as will help to analyse sensitiveness to dust of different types of PV panels. Results of the research will have impact on a more appropriate selection of panels, also in the mountain and sub-mountain region, and the trainings will contribute to the increase in competences and the development of renewable energy use and energy-efficient construction. As a consequence, the emission of solid particulates from more energy efficient and dispersed households will drop. New center will also contribute to the achievement of the 20% CO₂ reduction by 2020, which is the target set in Bielsko-Biała's Sustainable Energy Action Plan (SEAP) and Low-Emission Development Programme (LEDP).

Description of the micro-project

The micro-project consists in the development of the concept (planning study) of the training & research center in the area of renewable energy sources and energy-efficient construction in Bielsko-Biała. The study is crucial for drawing up complete project documentation enabling physical construction of the center, which will be done in stages. The micro-project also includes visit at the seat of the Norwegian partner and his visit in Bielsko-Biała. Experience gathered as a result of this exchange of experience will help to finalize the concept developed.

Planned results/outputs of the micro-project

Collection of all available supporting documents and preliminary arrangements related to the creation of the center, including: technical documentation of the hall, photo documentation, arrangements with the owners/administrators of respective locations planned for use, initial recognition of available instruments that may be used to equip the center; (2) Arrangements with possible main users of the center and employers of qualified teaching staff; (3) visit to another Polish facility of similar character.

Expected role of the Norwegian

(1) The city looks for a Norwegian partner, who possesses or is building similar RES/EE laboratory/center, in order to exchange experience and take benefit from his know-how (including organising a visit at such educational facilities in Norway). It is desirable that the Norwegian partner is interested in cooperation also at the future stage of the project, i.e. when the center will be already operating, e.g. by carrying out joint experiments or sharing research results with international scientific community (via Internet). (2) Within the duration of the micro-project we are looking for Norwegian experience and knowledge in the area of the latest achievements, technologies and available equipment in such fields as: photovoltaics, PV installations, devices for measuring energy, weather conditions and environmental conditions (dust measurements), equipment and systems used in intelligent buildings, etc.

Contact person

Piotr Sołtysek, Mayor's Plenipotentiary for Energy Management

+48 33 49 71 518, pze@um.bielsko.pl