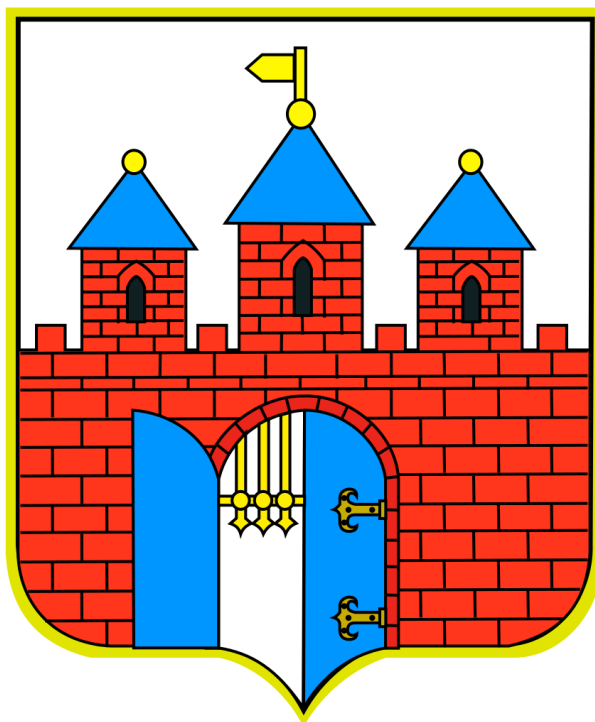




POLSKIE I NORWESKIE GMINY
razem dla klimatu i energii

Bydgoszcz

Clean Energy laboratories



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Description of the municipality

Bydgoszcz is a large city located in the central part of Poland. With over 350 000 inhabitants it is the biggest city of the Kujawsko-Pomorskie Voivodeship. It is the leading industrial, commercial and service center, focusing especially on IT and outsourcing services. The city is attractive for the tourists due to the surrounding forests and integrating Brda river into the city's urban fabric (with long tradition of water sports). Bydgoszcz is developing dynamically and is an active member of many organisations, including the Union of Polish Metropolies, Eurocities and the Association of the Cities of King Kazimierz the Great. It is also a seat of 8 honorary consulates. Up to now the city didn't implement many actions in the area of EE and RES use, however they are starting to work on the topic. Since 2014, there is a RES Demonstration Center operating at the Mechanical Schools Complex. Moreover, the city developed and adopted local low-emission development policy (Sustainable Energy Action Plan and Low-Emission Development Programme) and hired an Energy Manager.

WWW: <http://www.bydgoszcz.pl/>

Description of the overall idea for innovation

Identified problem: shortage of experts (technicians and installers) in the area of EE and RES. There is a need to further train the specialists, especially the ones with the vocational and technical background. Main objective of the innovative project: development of new educational programmes for youths and adults, based on the practical experience and on the cooperation with the producers of EE materials and RES installations. The programmes will be established on the basis of a network of Clean Energy Labs, which are planned to be built as pilot projects in two schools: Technical School of Electrical and Electronic Engineering (field of study: refrigeration and heat engineering) and Technical School of Construction (field of study: passive housing). Pilot labs will complement two already existing educational initiatives, thus creating a coherent network. This will answer the growing market demand for educated specialists in this field. Clean Energy Labs is a complex educational programme, including practical training scheme with workshops conducted in newly-built labs equipped with complete installations and control mechanisms used in smart passive buildings. This approach integrates theory with practice based on high-tech technologies, and helps to train specialists in the field. Moreover, the labs will form a background for creating new professions - EE and RES experts - thus promoting this method of reducing consumption of traditional energy sources.

Description of the micro-project

The micro-project consists in the development of the concept of the 2 EE labs, which will be built in the Technical School of Electrical and Electronic Engineering and the Technical School of Construction in Bydgoszcz, as well as in the creation of the cooperation network. The concept will be developed with active participation of both involved schools and other local stakeholders. Innovative and creative methods, like e.g. Design Thinking, will be used to ensure that the

solutions proposed are desirable by the users, technically feasible and economically reasonable. The concept will include and describe inter alia:

1. Analysis of regional and local needs;
2. Analysis of interconnections between different parties involved (RES Demonstration Center, technical schools, producers, employers, universities);
3. Cooperation frameworks between different stakeholders;
4. Scope of the necessary construction works in both schools;
5. Demand for labs' equipment;
6. Analysis of human resources and necessary changes related to launching operation of the new labs - demand for trainings for the teachers;
7. Assumptions of the new educational programme addressed to technical schools;
8. Programme of integrating labs' operation into different local and regional events;
9. Schedule of works and expenditures.

The concept will be a basis for the construction of the labs, including applying for external funds to implement the task.

Planned results/outputs of the micro-project

1. Identification of stakeholders involved in the project and their expectations from it; establishment of the working team including experts.
2. Study visit to Norway and organisation of the visit of the Norwegian partner in Bydgoszcz.
3. Creating Clean Energy Labs' concept: proposition of equipment, educational programme, budget.
4. Creating systemic relationships between newly-built labs and other relevant bodies, including already existing RES Demonstration Center.
5. Participation in seminars, workshops and conferences or visits to another labs in Poland (e.g. in Łódź, Wrocław, Lublin); the participants will include representatives of the schools and the municipal employees.
6. Development of the promotional leaflet presenting the overall concept in order to increase educational impact of the project.

Expected role of the Norwegian

The city looks for a Norwegian partner that will be able to share its knowledge in the area of teaching and innovative educational schemes, which are implemented in vocational and technical schools and which are focusing on EE and RES. From the technological point of view, they are interested in the activities of such entities as the Norwegian Energy Agency (Enova SF), Switch, the

Norwegian Research School in Renewable Energy (Nor Ren), SINTEF (MiNaLab) and the Institute for Energy Technology (IFE).

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