



European
Commission



MINISTERUL MUNCII
FAMILIEI, PROTECȚIEI SOCIALE
ȘI PERSOANELOR VÂRSTNICE

The Genies in Transylvania Brasov, Romania Sustainable Energy University



Brasov is located in the center of Romania. It has 286 000 inhabitants and is signatory to the Covenant of Mayors city. This project was part of the Sustainable Energy Action Plan.

Establishment of the new campus Green Energy Independent University (GENIUS) began in 2009 with the support of the Operational Programme "Increase of economic competitiveness" and was completed in 2012.

Innovation, sustainability and education

GENIUS campus covers an area of 30 hectares of student university buildings and buildings - library, internet, pool, gym, football field and table tennis. All buildings are built in low power consumption vision, integrating a set of measures optimized sustainable energy and renewable energy technologies and solutions Smart Grid - Smart power grids.

GENIUS is a "living laboratory" for students and researchers, R & D center for sustainable energy. The campus was designed by researchers and students from the Faculty of Engineering of the University of Transylvania, in order to become a leading national and European level in the field of sustainable energy research and development of advanced technologies and innovative products.

Reducing energy consumption and management

Energy savings, innovation, education ... all together lead to the better!

The most important results are:

- Reducing heat loss through natural building materials, windows and doors, triple glazed windows, heat recovery, optimal orientation of the building (north-south orientation)
- Reduce electricity consumption by using passive solar energy for lighting, lighting illumination with low energy, passive optical networks.



- The use of passive solar heat systems optimization due greenhouse effect controlled indoor ventilation, automation control blinds, blinds, curtains.
- Monitoring and energy management for each building, smart power grids, outdoor test systems (photovoltaic, solar thermal systems, heat pumps, small wind turbines).

KEY BENEFITS

A 32% reduction in CO2 emissions by 2020!

Innovation, Sustainability and nonformal
education through learning practice

Reducing energy consumption and management

The most interesting aspects of the project are integrated management of production and consumption of energy includes: renewable energy systems, outdoor test facilities, photovoltaic systems, solar thermal systems, heat pumps, small wind turbines and energy efficient buildings.

Invoices with low energy costs will have a positive impact on the budget and reduce taxes university dorm for students. The campus will provide a high level of quality education. Students will learn by seeing and feeling the effects of living, integrating in a highly interactive environment, innovative and inspiring.

Partnership of the project:

- Transilvania University of Brasov,
 - National Research Institute
- Ministry of Education, Research, Youth and Sports
- Regional Development Agency of Romania

The total budget of the project

Total investment costs: € 24.92 million

The project contributed to the National Strategy for Sustainable Development. It was introduced as a response on sustainable energy policy priorities at National and European level.