



# GovernEE



**CENTRAL  
EUROPE**  
COOPERATING FOR SUCCESS



**EUROPEAN UNION**  
**EUROPEAN REGIONAL  
DEVELOPMENT FUND**

## Newsletter 5<sup>th</sup> Edition *December 2012*

---

### ► Editorial

#### *Transnational Workshops and Project Milestone Visit: Czech and German Partners Turn Up the Heat on Successful Energy Management for an extended period*

Energy monitoring and governance was in the heart of the EU - Central European (CE) Programme GovernEE's project partnership meeting in Prague: the 4<sup>th</sup> Transnational Workshop (11-13 September, 2012) looked into the after-project opportunities and present the conclusions of GovernEE's external experts report on the project's advancement, allowing an overview of the latest project outputs, results and their future use. Held two months later, in Quedlinburg, the project's 2<sup>nd</sup> Milestone visit (13-14 November, 2012) gathered project partners around the table to reach further levels of cooperation with regard to GovernEE's impact on future policy-making after an extended project lifetime, now officially closing in August 2013.

GovernEE's Prague conference in early September, later completed by the outcome of the Quedlinburg partner meeting, overviewed GovernEE's main findings: guidelines and benchmarks for feasibility studies related to EE and the use of renewables (RES). These documents focus on creating an efficient tendering framework related to public heating, and monitoring and financial evaluation system to assess and evaluate energy efficiency programs applicable to public buildings. It also comprises of ex-ante analyses of EE measures in public buildings of partner cities.

A summary of an international survey on innovative alternative energy sources in district heating (DH) was presented by the Italian partner institute, CETA. Functioning as a heat energy broker, DHC collects wasted or unused local heat and fuel sources from CHP plants, industrial processes and moderates heat production. DHC systems allow RES to penetrate the heating market and the electricity sectors and would be then an excellent resource for the public building sector.

In Quedlinburg, partners' debates have essentially focused on the project's sustainability and on the operation of the Knowledge Network which management has been allocated to the Italian partner institute, CETA.

The Italian municipal partner, Bologna is in charge of preparing the Integrated transnational & cross-sectoral strategic toolkit that will be of key assistance for decision makers when preparing energy efficiency interventions in public & historic buildings. Details on the Guidelines on the incorporation of energy awareness into municipal-level policies have been presented by Burgenlandkreis.



Partners also concluded on a series of recommended actions, such as the setting up or the optimization of municipal-level energy management systems, the elaboration of instructions, guidelines and recommendations, the training & the coaching of persons in charge of energy-supervising (s facility managers and administrative staff). It has also been decided to define the goals for the reduction of energy consumption within building rehabilitation concept documents and the substitution of energy source as to advantage the use of renewables and the improvement of users' habits. Partners also agreed on the organisation of coaching sessions for decision-makers, with respect to concrete interventions on projects or taking of measures. Partners discussed upon the draft survey on priority measures and future periodical investments together with the preparation of an "energy efficiency concept" tailor-made to each administrative unit and decision-making authority.

A long-term program concerning research on energy efficiency & innovation in public heating, prepared by CETA was debated by partners and reviewed for a final version to be presented next year. GovernEE's knowledge centres, CETA and CERE made suggestions on the improvement of the operation of the knowledge network working now under the coordination of CETA (Gorizia): the Competence Centre's online platform (<http://occ.governee.cere.net>) which should follow up with the project's future outcomes and thematic developments beyond August 2013.

## ► Pilot Reports

Before the release of the final project outputs, the cross-sectoral Strategic Toolkit and the ensuing Policy recommendations for good governance in energy efficiency (EE) GovernEE is entering the final phase of preparation of its pilot actions which will be tested by partners in the upcoming period. According to GovernEE's Expert Panel recent conclusions (Prague, September 2012) each pilot has been defined as to highly contribute to the goals of the project and the CE Programme, ensuring that good governance principles applied to EE measures will be fully implemented within the public sphere. Local tests will be driven by partners for intelligent energy monitoring (ICT measurements), efficient use of RES in heating historic buildings by testing photovoltaic panels & insulation to boost EE in public historic buildings and also training & coaching to strengthen the public sphere's responsibility and improve local decision-makers' competence. Pilots' transnational added value shall be useful for both project partners and external stakeholders throughout entire CE region where similar problems are dealt with at a macro-regional level.

## *When the Old inspires the New: Quedlinburg's historical premises looking for up-to-date techniques*

An energy-related rehabilitation of protected buildings and especially half-timbered ones is an interesting and rewarding task: energy-savings of 50 % or more are not an exception, with improved residential living-comforts into the bargain. Interventions in law-protected buildings require specific know-how and experience, always requiring the intervention of specialised architects.

# UNESCO Welterbe Quedlinburg



## Energy Efficiency in Protected Historical Buildings

<b>1</b> Energy Efficient Residence	<b>2</b> A Merchant's Court Brimming with Energy	<b>3</b> Energy Mix for a Classicist Residential Building	<b>4</b> Combined Heat and Power Generation	<b>5</b> Half-Timbered House with a Geothermal Source
				
<b>Location:</b> private <b>Client:</b> private <b>Address:</b> private <b>Usage:</b> Living Area/Residence Area <b>Area:</b> 100 m² <b>Year:</b> 18th century <b>Restoration/Construction:</b> 1990s <b>Energy:</b> 100 kWh/m² per year	<b>Location:</b> private <b>Client:</b> private <b>Address:</b> private <b>Usage:</b> Living Area/Residence Area <b>Area:</b> 100 m² <b>Year:</b> 18th century <b>Restoration/Construction:</b> 1990s <b>Energy:</b> 100 kWh/m² per year	<b>Location:</b> private <b>Client:</b> private <b>Address:</b> private <b>Usage:</b> Living Area/Residence Area <b>Area:</b> 100 m² <b>Year:</b> 18th century <b>Restoration/Construction:</b> 1990s <b>Energy:</b> 100 kWh/m² per year	<b>Location:</b> private <b>Client:</b> private <b>Address:</b> private <b>Usage:</b> Living Area/Residence Area <b>Area:</b> 100 m² <b>Year:</b> 18th century <b>Restoration/Construction:</b> 1990s <b>Energy:</b> 100 kWh/m² per year	<b>Location:</b> private <b>Client:</b> private <b>Address:</b> private <b>Usage:</b> Living Area/Residence Area <b>Area:</b> 100 m² <b>Year:</b> 18th century <b>Restoration/Construction:</b> 1990s <b>Energy:</b> 100 kWh/m² per year

Historic building structures, for many of them being time-resistant constructions, have been functioning quite well for several centuries but are today seriously damaged due to the superposition and integration of unsuitable "modern" building materials. Since a growing awareness of the physical complexities of old buildings has developed, the demand for sophisticated contemporary building materials has increased and led to the market-availability of a multitude of traditional products which can be handled in a simply and safe way without requiring specific expertise in monument rehabilitation. In combination with further



new components and products, a whole range of practical solutions is today available for a comprehensive rehabilitation of historic buildings, especially of protected monuments without impairing their specific characters, nevertheless improving their energy-performance.

6 Restoration of a Mediaeval Building	7 Residential Loft with Micro Co-Generation Plant	8 Sunlight for the Farm Yard	9 Conversion of Garage to Residence	10 A Childbirth Centre Banks on Renewable Energy
				
<b>Location:</b> No. 9 Klink <b>Client:</b> private <b>Architect:</b> ggbau / Horungsblum GmbH Quedlinburg <b>Completed:</b> 11/97 <b>Living Area/Usable Area:</b> 135 m <sup>2</sup> <b>First Emitted, Refurbished:</b> about 1410 kg CO <sub>2</sub> /year <b>Restoration Costs/yr:</b> 1.200 €/year (gross construction cost but including ancillary expenses) <b>Energy Required:</b> no data available	<b>Location:</b> No. 7 Damm <b>Client:</b> private <b>Architect:</b> ggbau / Horungsblum GmbH Quedlinburg <b>Completed:</b> 11/97 <b>Living Area/Usable Area:</b> 250 m <sup>2</sup> / 250 m <sup>2</sup> <b>First Emitted, Refurbished:</b> about 1500 kg CO <sub>2</sub> /year <b>Restoration Costs/yr:</b> 1.200 €/year (gross construction cost but including ancillary expenses) <b>Energy Required:</b> no data available	<b>Location:</b> No. 18 Kiechstraße <b>Client:</b> private <b>Architect:</b> ggbau / Horungsblum GmbH Quedlinburg <b>Completed:</b> 11/97 <b>Living Area/Usable Area:</b> 160 m <sup>2</sup> / 200 m <sup>2</sup> <b>First Emitted, Refurbished:</b> 1500 kg CO <sub>2</sub> /year <b>Restoration Costs/yr:</b> 1.300 €/year (gross construction cost but including ancillary expenses) <b>Energy Required:</b> no data available	<b>Location:</b> No. 14 Kiechstraße <b>Client:</b> private <b>Architect:</b> ggbau / Horungsblum GmbH Quedlinburg <b>Completed:</b> 11/97 <b>Living Area/Usable Area:</b> 160 m <sup>2</sup> <b>First Emitted, Refurbished:</b> about 1400 kg CO <sub>2</sub> /year <b>Restoration Costs/yr:</b> 1.000 €/year (gross construction cost but including ancillary expenses) <b>Energy Required:</b> no data available	<b>Location:</b> No. 7 Kienberg <b>Client:</b> private <b>Architect:</b> ggbau / Horungsblum GmbH Quedlinburg <b>Completed:</b> 11/97 <b>Living Area/Usable Area:</b> 214 m <sup>2</sup> / 130 m <sup>2</sup> <b>First Emitted, Refurbished:</b> about 1000 kg CO <sub>2</sub> /year <b>Restoration Costs/yr:</b> 1.000 €/year <b>Energy Required:</b> no data available

The UNESCO Heritage Town Quedlinburg's restoration cases date from 2000-2012. The works were realized by local architects. Most of the buildings had previously stood empty for long years and were in bad state and even in ruins. Energy concerns have been, from the beginning, an integral part of the overall refurbishment project, with the aim of long-term preservation and of economical performance.

## Governance principles rule EE decisions: how to improve public servants competences

The pilot activity led by Burgenlandkreis is not only directed to strengthening higher level decision-makers' responsibility but is in fact focusing on the awareness-raising of public authorities' staff members as to achieve better results in economizing energy-efficiency in the entire public sphere. Training materials were prepared with regard to specific audiences, addressed to more technically involved facility managers, any staff members, or decision-makers themselves. The approach has also been adopted by the Municipality of Quedlinburg (DE), the Municipality



of Hódmezővásárhely (HU) and Prague11 (CZ). GovernEE project training activities started in the beginning of 2012, a total number of 280 persons have been trained so far.

Content of the training covers topics such as:

- Exchange of experiences on specific problems
- Technical issues (energy forms, metering, devices)



- Consumption (energy costs, saving potentials incl. electrical powers, role of the facility manager)
- Improvement of energy efficiency, impacts on water costs saving
- Isolation (Heating losses, room and surface temperatures, case studies and identification of the buildings' energetic weaknesses, energetic evaluation of the existing technology, heating system regulation)
- State of the buildings (damages caused by fungi)

They were mainly concentrating on “Energy efficiency and energy saving” measures. Participants gained awareness on how to deal with energy resources in a more responsible approach by an energy expert instructor. During the training the participants got acquainted with measurement technologies, thermal images, photos of thermal isolation, software measuring, etc. Visits to case study sites and exchange of experience between facility managers completed the practical part of the training activities.

## ***CETA: Monitoring Energy for Evaluating Efficiency***

Defining a uniform monitoring system to assess and evaluate energy efficiency actions in public buildings, especially historic ones, is indeed a very ambitious task since no methodology has been so far available. Historical buildings from different eras and built upon various standards might be subject to inadequate comparison. In addition the buildings can be partly reconstructed, being unequally used, or having a different use respect to the original one. GovernEE aims to establish a monitoring system and address the difficulties of detecting existing energetic statuses for buildings or of evaluating related aspects such as environmental impacts, cost effectiveness, etc.

CETA's pilot activity announced as “Monitoring system and financial evaluation framework to assess and evaluate energy efficiency programs related to public heating” is a preparatory phase for a most in-depth work plan covering “Ex-post analysis: joint monitoring and evaluation of pilots” with regard to historic buildings of Quedlinburg (DE) and of Bologna (IT) partner cities. The approach is general and is found to be suitable for all kind of EE programs related to public heating and will be integrated into the final GovernEE Strategic Toolkit. The tool will be the disposal of at any Public Authority (PA) to help defining priorities when it comes to adopt EE measures as make a better use of energy resources and evaluate Municipalities' Local Action Plans.

***The methodology prepared by CETA is based on energy audits and compares the reduction of heat consumption (kWh/m<sup>2</sup> year and kWh/m<sup>3</sup> year) or GHG following energy efficiency measures. Results are being compared with a series of indicators,***

***i.e. costs with limitations due to:***

- The preservation of cultural & historical identity;***
- The conservation of historic elements;***
- The respect of legal obligations;***
- The use of traditional materials & techniques.***

In current and/or historical buildings there are much less flexibility in the design and the layout of energy efficiency measures. This situation might causes difficulties in comparing the goodness of energy efficiency measures in different buildings. Energy analyses performed on current buildings, particularly on historical premises are often based on inaccurate data (lack of information on building components and systems) and current analyses reveal to be often unrealistic. CETA's pilot take into account different criteria and indicators to define energy and environmental performance of buildings aiming at monitoring energy efficiency trends and policy measures in public heating. The parameters included within the

system cover the main topics of building sustainability: environment, social aspects and economical issues. A Likert scale guides the monitoring process: each criterion is described through indicators and for each indicator value score and weight are assigned.

## ► Energy Days & Campaign activities

### *Smart energy with smart people: Burgenlandkreis works on cost savings at smaller scale at Energy Days campaign*



Naumburg citizens familiarised with GovernEE on the 2<sup>nd</sup> Energy Day campaign Days organised on 20 November 2012 in the presence of representatives from public authorities, scientists, engineers, energy consultants, energy suppliers and more than 80 students from Secondary School Alexander von Humboldt and the Domgymnasium High School.

After the official opening by Mr. Engelhardt, Deputy of the District Administrator the project manager, Mr. Jörg Perrmann gave a short

overview of the current status of the project and an outlook on future activities to be realized.

Experts' presentations highlighted how important is the understanding and knowledge about energy efficiency measures amongst staff and decision makers and impacts on the daily implementation. Ideas on creating energy saving assistant positions for long-term unemployed people were presented.



Questions on the advantages and opportunities of the introduction of an automatic energy consumption metering & evaluation system for public buildings were raised: lignite and renewable energy-energy mix for the future as interesting solutions. Presentations were followed by

intensive and sometimes controversial discussions, especially about the Energy Policy of the EU & the



energy turn in Germany. The University of Applied Sciences Merseburg presented a small exhibition of a prototype of a petrol saving car, developed by students and scientists. All interested people could use the possibility to get free energy advices by consultants and visit the "Flemmingen" biogas plant near Naumburg.

In order to make the subject more interesting for the younger an "Energy adventure path" providing educational and practical aspects for sustainable use of energy, has been set up with the assistance of the "Harz" District associated to Quedlinburg, Blankenburg, Halberstadt public utility companies and the Harz University of Applied Sciences and the Teutloff Training Institute.

Finally, the energy day closes with training for the staff of public authorities in the District Burgenlandkreis and the Municipality Quedlinburg, implemented by René Beyer, external expert for the District Burgenlandkreis in GovernEE.

## ***Energy for the future: Hódmezővásárhely focuses on education***

It is with huge success that GovernEE project Lead Partner, the municipality of Hódmezővásárhely has organised the 2<sup>nd</sup> Energy Days dedicated to the GovernEE project, with the participation of cca. 400 persons, mostly school children.



The most successful moment of the day was however the competition organised for the pupils and children what appeared to be a very popular way of learning and bring some joyful moments into the overall day's program:

The Energy Days took the opportunity to showcase energy concerns to the institutional and the business sphere around welcoming stands, and raise awareness amongst the wider public at interacting conferences. Interested participants could also consult with specialist on energy issues and receive guidance on how to adopt energy conscious behaviours at home.





Children did modelling and manufactured themselves RES-propelled models such as salt water- or solar energy- fuelled automobiles and other vehicles as well as to rediscover traditional folk songs honouring the natural elements (sun, wind, water) and sing them under the guidance of Liszt Ferenc Elementary school & Kindergarten of Music's teachers. The day was spiced with enjoyable concerts.



## ► Events to come

### *Project events*

- 11 December, 2012:** 2<sup>nd</sup> Stakeholders meeting, Hódmezővásárhely, Hungary
- January 2012:** GovernEE Energy Days, Vienna, Austria (organised by CERE)
- March 2013:** 5<sup>th</sup> GovernEE Transnational Workshop, Vienna, Austria (hosted by CERE)
- June 2013:** GovernEE project's Final Conference, Hódmezővásárhely, Hungary

### *Other events*

- 17 Jan 2013** Models of sustainable energy action planning – SEAP, Bologna, Italy ([www.managenergy.net](http://www.managenergy.net))
- 23 Jan 2013** European IEE Info Day, Brussels, Belgium
- 24-26 April 2013:** Energy Cite's Annual Rendezvous "BUILDING THE ENERGY TRANSITION" , Växjö, Sweden ([www.energy-cities.eu](http://www.energy-cities.eu))
- 9 May 2013** 9<sup>th</sup> SEE Congress & Exhibition on Energy Efficiency & Renewable Energy Sofia, Bulgaria ([www.eeandres.viaexpo.com/en/exhibition](http://www.eeandres.viaexpo.com/en/exhibition))
- 29 May 2013** SMART BUILDINGS South-East Europe, Sofia, Bulgaria (<http://www.eeandres.viaexpo.com/en/smart-buildings>)
- 6-8 June 2013:** 4<sup>th</sup> International Youth Conference on Energy 2013, Siófok, Hungary
- 24 Jun 2013** Sustainable Energy Week, Brussels, Belgium ([www.eusew.eu](http://www.eusew.eu))
- 17 -18 Dec 2012** Energy and GHG observation: supporting the transition towards sustainable energy regions, Lyon, France ([www.buildup.eu](http://www.buildup.eu))



## ***Editorial:***

Project Manager: Attila Nagy - [governeeproject@hodmezovasarhely.hu](mailto:governeeproject@hodmezovasarhely.hu)

GovernEE Communications: [lolitaszabo@grantseurope.eu](mailto:lolitaszabo@grantseurope.eu)



[www.governeeproject.eu](http://www.governeeproject.eu)

This project is implemented through the CENTRAL EUROPE Programme co-financed by the ERDF.

