Interreg CENTRAL EUROPE
FEEDSCHOOLS
European Union
European Regional
Development Fund

D.T3.5.3 EVALUATION REPORT OF PILOT ACTION

Hungary

Version 1
07 04 2020

1. General information about the pilot

1.1. Aim of pilot activities

Pilot programme is a small-scale version of a larger project. It allows testing proposed approach, identifying problems and preventing them from escalating. When identified, problematic issues might be solved, and the programme adjusted. Pilots reveal unforeseen challenges and help the staff involved in the programme to get prepared for a full-scale implementation. The aim of evaluation of pilot programmes is to verify whether objectives defined for the pilot phase are met, and to propose recommendations how to improve the programme before launching it in a full-scale. It is done by reviewing activities performed and evaluating whether they allowed for achieving the objectives.

The aim of FEEDSCHOOLS pilot activities was to test and evaluate the FEEDSCHOOLS toolkit: ERE App, Financial App, and the database of best NZEB practices. When validated, apps should allow non-experts for development of an energy renovation plan for school. ERE App should provide qualitative data on current energy performance of a building and compare it with other buildings in a given country in terms of energy consumption. It should be followed by a list of improvement measures that would allow for reaching the nZEB standard. Data on energy savings, emissions avoided, financial costs, and carbon footprint of a renovation should be also available. Using these results, the Financial App should suggest an optimal financing plan, i.e. combination of using own funds, credit/loans, subsidies, ESCO and PPP. Database of best practices should allow for getting more information about innovative solutions that have been successfully implemented in other public building in the Central Europe region.

Pilots have taken place in 6 countries: Croatia, Czech Republic, Hungary, Italy, Poland, and Slovenia. 8 schools from each country have been involved. In each school three different functional zones were targeted: classroom, sport hall, and canteen. Pilot consisted of the following activities:

1. Data collection – preliminary data, such as historical energy consumption and building technical schemes, have been collected.
2. On site energy audits – pilot schools have been visited and energy audits have been conducted. As a result, reports describing building energy performance have been drafted.
3. Improvement options – based on on-site energy audits results, energy efficiency measures have been proposed so that nZEB standard could be reached.
4. Optimal financing schemes – using the Financial App, plans of financing the renovation measures have been proposed.
5. Carbon footprint of restoration - using the ERE App, the improvement of building carbon footprint has been calculated.
6. Open lessons for behavioural change of school staff and students – in each school participating in the project lessons activating energy saving behaviour have been organised. Lessons targeted students, teachers and technical staff.
7. Improvement and validation of the apps – results of the ERE App and Financial App have been compared with results of on-site audits, so that Apps could be improved.

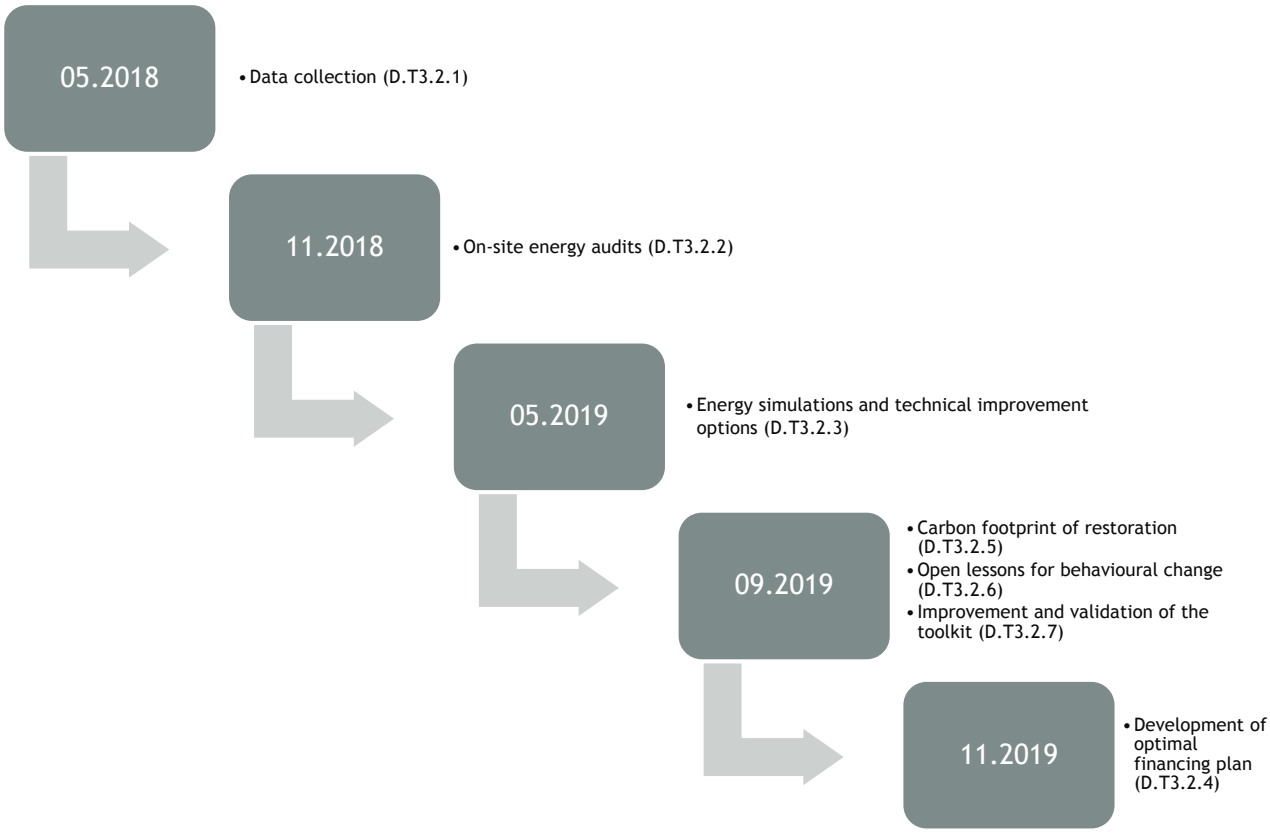
The aim of activities 1-3 was to collect on-site data and perform calculation using traditional energy auditing approach usually used in a given country. Results got in this process have been considered then as a reference level for apps validation and improvement within activity 7. When developed, ERE App was used for development of financing plan (activity 4) and carbon footprint calculations (activity 5).

1.2. Schools selected for pilot activities

Please remove rows with schools outside your country and then delete this comment

School ID	Building name	Street, number, city and postcode
HU_01	Zalaegerszegi SzC Csány László Szakgimnáziuma	8900 Zalaegerszeg, Jókai u. 4-6.
HU_02	Zalaegerszegi SZC Deák Ferenc Gimnáziuma, Szakgimnáziuma és Szakközépiskolája	8900 Zalaegerszeg, Göcseji út 16.
HU_03	ZSzC Munkácsy Mihály Szakgimnáziuma és Szakközépiskolája (főépület)	8900 Zalaegerszeg, Gasparich M. u. 24.
HU_04	Nagykanizsai SZC Zsigmondy Vilmos Szakképző Iskolája	8800 Nagykanizsa, Hunyadi u. 16-18.
HU_05	Nagykanizsai SZC Thúry György Szakképző Iskolája	8800 Nagykanizsa, Ady E. u. 29.
HU_06	Zrínyi Miklós Általános Iskola	8800 Nagykanizsa, Zrínyi Miklós u. 38.
HU_07	Batthyány Lajos Gimnázium	8800 Nagykanizsa, Rozgonyi u. 23.
HU_08	Kiskanizsai Általános Iskola	8800 Nagykanizsa, Bajcsy-Zsilinszky u.67

1.3. Pilot timeline



1.4. Partners involved in Pilots

> Partner name: **Zala County Foundation for Enterprise Promotion**

- Country: Hungary
- Partner type: technical / institutional / external: institutional
- Partner description: **Zala County Foundation for Enterprise Promotion** was founded in 1992 to provide support for stakeholders, enterpreteurs. Our objectives to promote the economic development of Zala County, support the establishment, survival and first of all the growth of SMEs by operating with 5 offices. Participating in a number of national and EU- funded projects. ZMVA is significant stakeholder in the field of projects, raising, energy efficiency, incubator houses, fields of financing, micro crediting. ZMVA offers starting possibilities for newly established enterprises, to promote their growth by offering affordable rentals. ZMVA built up a wide range of international partnership, committed to boost environmental awareness through joint initiatives.
- Main role and duties in Pilots: manage to cooperation with schools and coordinating the pilots with an external technical manager

2. Pilot evaluation

2.1. Pilot implementation

The external expert visited the Hungarian schools and audited the condition of schools. From the datas the energy audits were created, which was gone well. The most difficult situation was that the technical documents aren't up to date so we had a lot of working for calculating the relevant datas which are used for the pilot implementation.

Our opinion is that for the edited of template we should examine the national rules because there are different in every country. Fortunately, the nZEB (which we based on) is calculated identical.

In Hungary, there have been 9 lessons organised. In total, 264 students and 25 school staff participated in open lessons. Lessons for students focused on importance of sustainable environment and encourage them to the environmentally responsible behaviour and providing sound information and strengthen motivation and behavioural skills that are necessary to make the needed changes in behaviour and lifestyles.

But during the local working tables and regional workshop we were in difficult situation because in Hungarian schools there are just few technical staff. In order to achieve the participant numbers, we had to involve other employees who work in other part of education. In our events we tried to explain the basic informations too about energy efficiency, nZEB and other technical issues.

2.2. Relevance

During the pilot action test new technology wasn't used. For target status we determined on the nZEB standard and energy indicators. The pilot action are in line with the objective of the European dimension, for example: contribute to reducing greenhouse gas emissions. The owner of school buildings whose would like to have newer and better condition's building and the most important for the operating organization is to reduce the cost of the buildings. The side of economical: more economical operation, reducing the costs and using development of new technology for example: solar collector, insulation material. The other side of the pilot action reflects societal: more comfortable buildings and awareness raising.

2.3. Transnational added value

During the project implementation Zala County Foundation has selected 8 participating schools in Zala County which was contributed for awareness of other schools. FEEDSCHOOLS project was promoted for different school's managers who are interessted in the pilot action and energy audit. So in Zala County the project has significant relevance. The involved schools are the biggest education institutions who are stand for best practices for all other elementary and high schools in the region. We could present the methodology and utility of the project with the different finalized documentation.

2.4. Impact

The impact of societal was high because we involved different experts to local events. On the workshops were technical managers, teachers, owners and school's representatives who interested in the FEEDSCOOLS topics. During the events had a lot of good idea and best practices, which were shared between each others. The best practices were most of all daily problems and remarks about school buildings and the operating. But the most successful activities were the ,,open lessons" for the student because in the school framework the energy efficiency and environmental topics aren't impacted.

We would like to emphasize the financial planning which is forwarded on the results in the future. Although these calculated datas aren't exact but the schools can plan the different investment and use the renewable energy sources. The Hungarian State has a great support policy for renewable energy sources which is contribute the EU mitigation. Hungary set the target of reaching a 20% share of renewable energy sources within primary energy consumption by 2030.

3. Summary

The idea of pilot is clear and useful because all partners can learn from colleague's knowledge and we can exchange of our experiences which based on further common cooperation in international level. Those energy efficiency projects are based on the aims to develop and promote a tool for stakeholders to make intelligent decisions on energy renovation strategies. The utility of whole pilot is focused on the transfer of knowledge and experience and leads to increase of capacity of the involved organizations (partners) and increase of ability of institutional cooperation (partners, education institutes) in the field of environmental protection, energy efficiency and renewable energy in order to achieve in international level.