Energy and Resource efficiency (ERE) app

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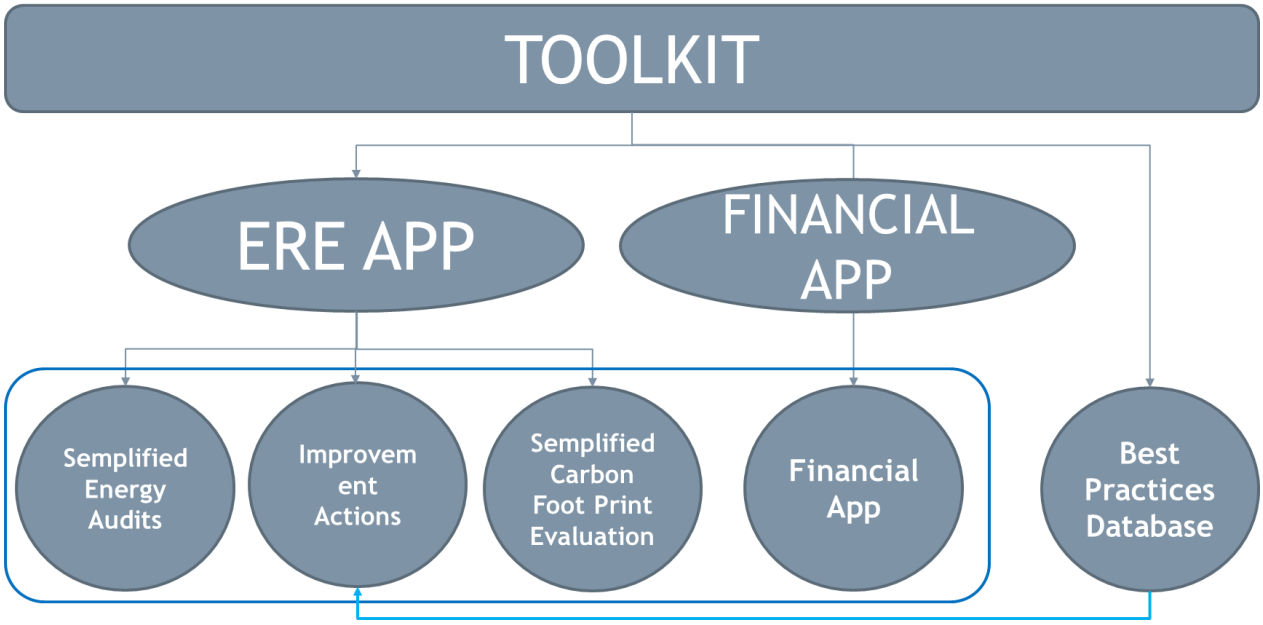
1. Aim of the document

The aim of this report is to summarize the characteristics of the FEEDSCHOOLS web toolkit and in particular pf the ERE APP tool and its functions. The tools have been designed for a non-expert user with which knows basic characteristics of the school building. Furthermore, the additional sections of the web tool will be listed underlining which documents can be found in it.

2. Web toolkit

The FEEDSCHOOLS project toolkit can be accessed at the link www.feedschools.eu and consists of 2 apps (1 ERE app for energy efficiency and environmental evaluation and 1 for financing models) and a database of best practices.

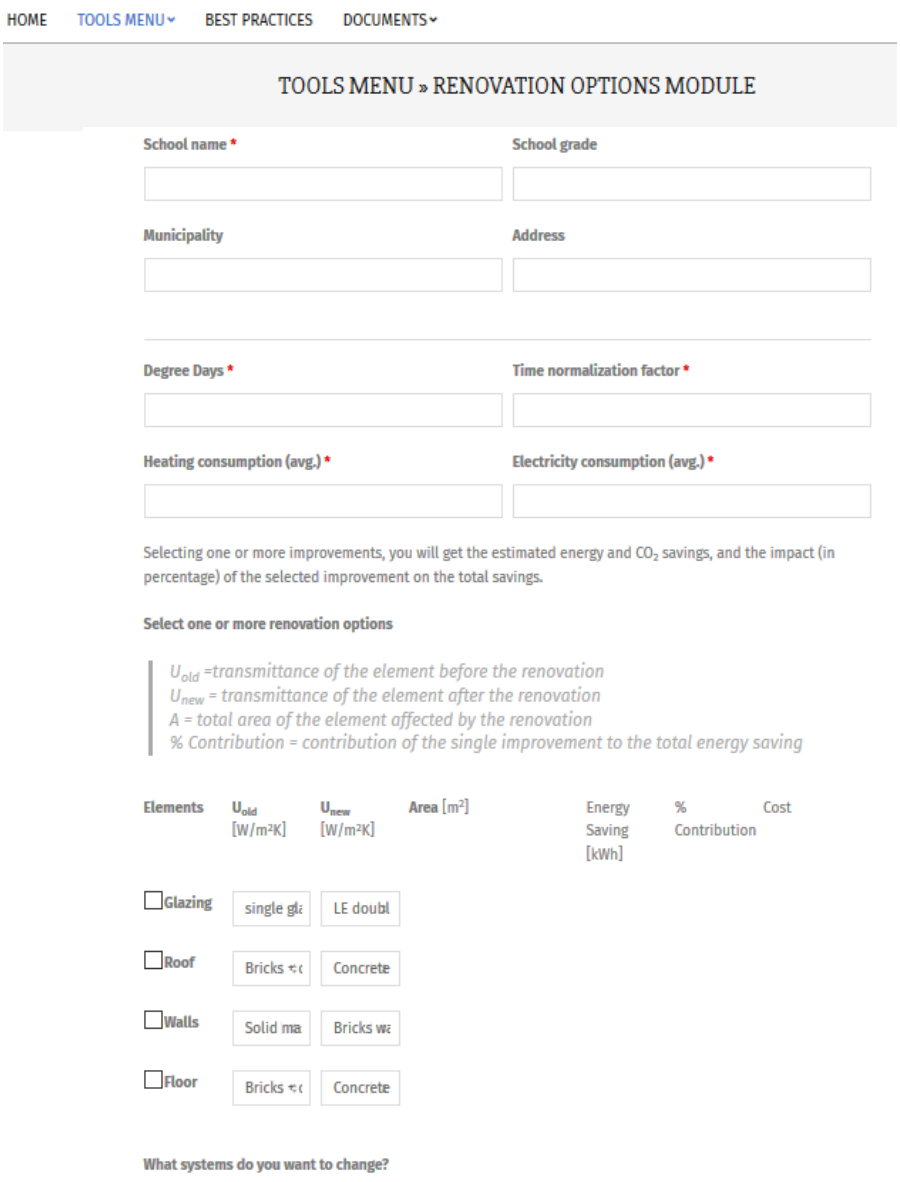


2.1. ERE app

The aim of ERE app is to support a non-expert user to conduct a simplified audit on an existing school building and evaluate different improvement options for the building. ERE app allows to estimate the energy and cost savings as well as the CO^2 emissions reductions derived from the energy savings. The ERE APP consists of 2 separate modules. The first module allows, through the insertion of a few specific data of the building (dimensions, electric and thermal consumption and location), to make a simplified energy analysis of the current situation. The amount of CO_2 emitted in the as built condition is also obtained.

The second module gives the possibility to choose different energy improvement solutions both for the envelope and for the systems. Energy improvement actions using renewable energy sources are included (photovoltaic and solar thermal). By indicating the surfaces for wall or windows or roof or the yields of

the new systems, the investment costs needed for the proposed improvement are also obtained. After choosing the best solutions, economic and energy savings are estimated, as well as the reduction of CO^2 emissions due to the fact that less fossil fuels are burned to obtain thermal or electric energy.



2.2. Financial app

Financial app will allow to make an economic analysis calculating the main financial indicators of the proposed action such as NPV of the intervention and the internal rates of return. The app, using the data of the first two modules, activates a financial calculation that returns one or more possibilities of access to financial benefits.This analysis allows the user to understand if, from a financial point of view, it is useful to invest in the renovation.

2.3. Database of best practices

Database of best practices is a collection of documented best practices adopted in school buildings of the partner area that can be used as working examples.

HOME TOOLS MENU BEST PRACTICES DOCUMENTS

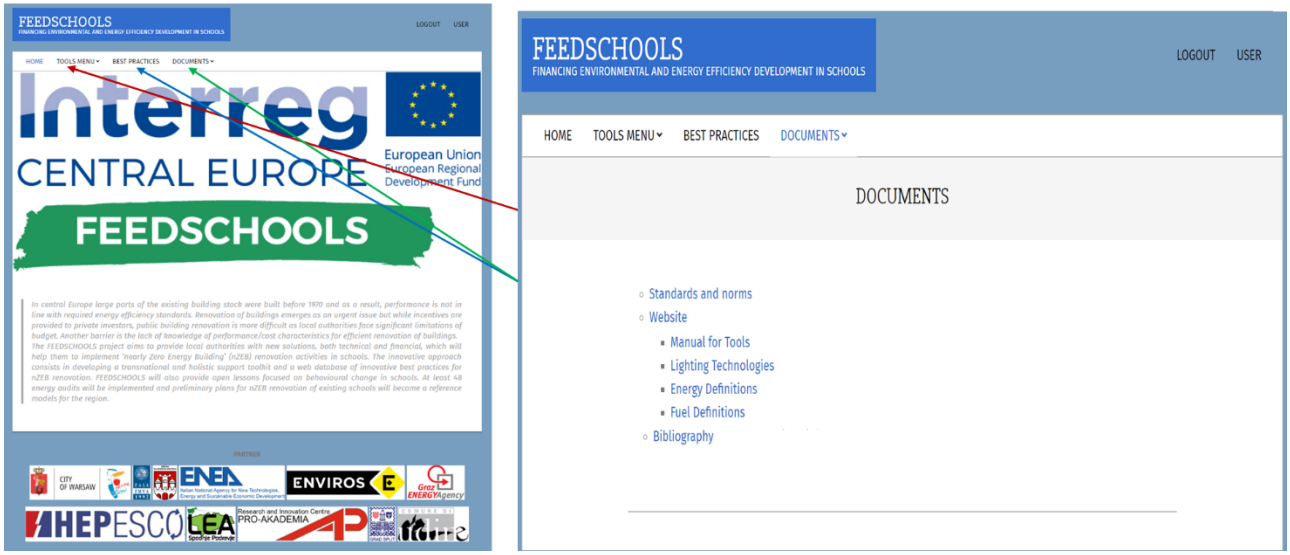
BEST PRACTICES

secondary

COUNTRY	NAME	GRADE	SAVINGS	LINK
Italy	UDINE BELLAVITIS SECONDARY SCHOOL	Secondary School	Energy saving kWh/year: 8.120 Money saving €/year: 1865	PDF
Italy	UDINE G. ELLERO SECONDARY SCHOOL	Secondary School	Energy saving kWh/year: 283.021 Money saving €/year: 26.205	PDF
Austria	Secondary School Langenzersdorf	Secondary School	Energy data calculated according to passive house standard tool PHPP after renovation heating demand (HWB): 14.0 kWh / m² net floor spacea according to PHPP Primary energy demand (PEB): 56.0 kWh / m²a	PDF
Austria	Secondary School Bad Eisenkappel	Secondary School	Heating requirement previously: 125.1 kWh / (m²a) Heating requirements later: 23.4 kWh / (m²a) Specific heat load Before: 283 kW, equivalent to 56.8 W /m² with a gross floor area of 4,995 m² After: 109 kW, equivalent to 22.5 W /m² with a gross floor area of 4.828 m² Expected CO2 savings: 117 t / a ... -95%	PDF
Austria	Agricultural Training Center Salzkammergut	Secondary School	heating demand decreased 1.200.000 kWh heating requirement: 14.8 kWh / (m2a) calculated according to PHPP (net floor space)	PDF
Austria	Secondary School Schwanenstadt	Secondary School - Technical School	space heating: savings of 400,000 kWh	PDF

3. Other toolkit sections

The toolkit also includes some sections with documents and useful references for the user:



In the section documents it is possible to find:

- a section with the energy standards and norms for all country partners and especially specific rules for school buildings.
- a section where it is possible to download the EREAPP user manual
- sections in which are included different definitions of energies, fuels and a bibliographic section is included with interesting references for those who want to learn about the subject of the project