Interreg CENTRAL EUROPE
FEEDSCHOOLS
European Union
European Regional
Development Fund

SWOT analysis report

Deliverable D.T2.1.4 **Final version**

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1. INTRODUCTION

Energy efficiency is a key point in EU energy policies, and buildings, as the single largest energy consumers, are in the focus of these policies. EU confers to public sector an exemplary and promoting role in energy efficiency, and public administrations should gather this indication as an opportunity rather then an obligation: acting in an energy efficiency viewpoint means stimulating new economic activities and job opportunities, it means using public resources in a more efficient way, avoiding wastes and complying in the same time with the global needs of environmental protection that are more and more a priority for the sustainable and durable development of current and future generations.

More than others, education sector is a special player in this context, since, in addition to the practical benefit of consumption reduction obtained from the refurbishment of school buildings, there is the opportunity to involve users (teachers, students, janitors and parents) in raising awareness of the importance that each one has in the use, and consumption, of energy resources. It means to form citizens of tomorrow to a conscious and responsible use of resources, either energetic, economic or natural.

As public bodies, municipalities are involved in improving EE measures together with central governments, as they manage a lot of educational buildings, usually rather old and energy inefficient. In local contexts, the refurbishment of public buildings produces, beyond environmental improvement, a remarkable advantage in terms of cost savings and, by the consequence, the possibility to better allocate public funds for community welfare.

Despite these benefits, there are many barriers to impelemnetation of EE projects in schools. There are limitations of various types that can impete implementation of even the most simple or inexpensive intervention, let alone complex energy renovation projects that will bring the buildings to nZEB standard. The main barrires for energy renovation of school buildings to nZEB standard identified in the FEEDSCHOOLS project (see report D.T2.1.1) are universal across the participating countries. They may be summaried as follows:

- Lack of legislative consistency and clear definition of nZEB standrad for renovated buildings;
- Lack of subsidies or diversification thereof to better stimulate achivement of nZEB standard after the renovation;
- Lack of knowledge/awareness about nZEB stadard in general, related obligations and national strategies;
- Lack of know-how to implement nZEB energy renovation projects at the regional/local level.

Actions that will remove these barriers are needed to stimulate nZEB energy renovation of public buildings on the larger scale.

To better understand the drivers and barriers to implemntation of EE projects in schools, FEEDSCHOOLS project partners were asked to prepare a related SWOT analyses for their countries, i.e. participating municiplities in particular. The aim of this report is to provde an overview of SWOT analyses reults accros Project Partner countries (Austria, Croatia, Czech Republic, Hungary, Italy, Poland and Slovenia), based on which the general SWOT analysis for impleemtation of EE projects in schools was developed. The focus is on energy renovation of public buildings, in particular schools.

2. SWOT METHODOLOGY

SWOT analysis is an analytical method which is used to identify and categorise significant internal (**S**trengths and **W**eaknesses) and external (**O**pportunities and **T**hreats) factors faced either in a particular arena, such as an organisation, or a territory, such as a region, nation, or city. It provides information that is helpful in matching the organisations' resources and capabilities (internal) to the competitive environment (external) in which it operates and is therefore an important contribution to the strategic planning process. Strategic logic requires that the future pattern of actions to be taken should match strengths with opportunities, ward off threats and seek to overcome weaknesses.[1]

To be more specific, the set of questions that needs to be answered in SWOT analysis should be similar to the presented in Table below.

	Positive	**Negative**
Internal	Strenghts	Weakneses
	• What are your advantages? • What do you do well? • What relevant resources do you have access to? • What do other people see as your strengths?	• What could you improve? • What do you do badly? • What should you avoid?
Externl	Opportunities	Treaths
	• Where are the good opportunities in front of you? • What are the interesting trends you are aware of?	• What obstacles do you face? • What is your competition doing? • Are the required specifications for your job, products or services changing? • Is changing technology threatening your position? • Do you have bad debt or cash-flow problems? • Could any of your weaknesses seriously threaten your business?

To facilitate the process of SWOT development for FEEDSCHOOLS Project Partners, a template for such an analysis has been prepared. The template defined the most common internal and external factors that need to be taken into account related to implementation of EE projects in schools (template with factors and criteria is given in Chapter 3). For each factor, critera have been set, based on which it can be determenied whether a given factor represents strenght or weakness in case of internal factor and opportunity or treath in case of external factors. Project Partners needed to mark negative factors (Weakneses and Threaths) in red and positive afctors (Strenghts and Opportunities) in green coulour. This facilitated the comparison between countries as well as drawing up a general conclusions.

[1] More info on SWOT methodology can be found at: http://forlearn.jrc.ec.europa.eu/guide/2_scoping/meth_swot-analysis.htm (accessed on February 7th 2019)

3. MAIN FINDINGS OF SWOT ANALYSIS

Each FEEDSCHOOLS Project Partners has prepared its own SWOT analysis for implementation of EE projects in schools, based on the prepared template. These individual SWOT analyses are presented in Chapter 4. Based on them, a general SWOT analysis for implmentation of EE projects in schools has been devloped and presented below.

Questions to decide in which category to put the internal/external factor	**Internal factors of your school**	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepare EE project	< 2 employees capable to develop and prepare EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no

Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

** The following colour coding is applied: red = negative issue for majority; green = positive issue for majority; orange = equaly distributed positive and negative perception of an issue between respondents or an issue is seen neither as positive or negative.*

The most significant **strenghts** related to implementation of EE projects in schools, perceived in majority of Project Partners' countires are as folows:

- Support and commitment from the school management;
- Eco-friendly schools polocy and
- Climate conditions that make EE projects attractive (continental or colder climate).

The most significant perceived **weaknesses** are as folows:

- Lack of capacities in schools to implement/supervise implementation of EE investment project;
- Lack of capacities in institutions that manage schools to prepare applications for financing support programmes for EE projects in schools;
- Inavailablity of own budget for implementation of EE measures and
- Complicated procedures to get permision to get loan financing.

The most important **opportunities** are seen in the following:

- Expected increase in energy prices;
- Available co-financing schemes for EE projects in schools from national or EU sources and
- Interest of private sector to participate in EE projects in schools.

Threats to the implementation of EE projects in schools are as follows:

- Lack of long-term, stable, well known and transparent conditions for co-financing EE projects;
- Underdeveloped ESCO market and
- Underdeveloped PPP market.

Based on these finding it may be concluded that:

1. **Internally**, there is a need to build capacities within schools and institutions that manage schools (local authorities) to develop and implement EE projects and
2. **Externally**, there is a need to ensure continous and transparent access to co-financing for EE projects in schools and to create an enabling environment to attract private capital in EE projects through ESCO and PPP models.

4. SWOT ANALYSIS PER COUTRY

3.1. AUSTRIA

Questions to decide in which category to put the internal/external factor	Internal factors of your school		
	Strengths	**Weaknesses**	**Comments for orange cells**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepared EE project	< 2 employees capable to develop and prepared EE project	Only in bigger communities and cities there are more than 2 employees to develop and prepare EE projects
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures	Normally there are no staff members capable to supervise the implementation (only educational staff and the caretaker, responsible for 2-3 schools)
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE	willingness is rising and projects in the direction of behaviour change are getting more and more (implemented in the lessons), but there are still a lot of schools without these employees
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE	Only in bigger communities and cities
Support and commitment from the school management	yes	no	no generalization possible
Available all administrative documents to prove legality and ownership of the school building	yes	no	
Available own budget for implementation of EE measures	yes	no	depending on the general financial status of the municipality
Eco-friendly school policies	yes	no	in general, yes (but it ends with the financial resources)
Climate	continental (or colder)	Mediterranean (or hotter)	
Procedure to get permission to get loan financing	easy	complicated	
School building protected as cultural heritage	no	yes	normally yes, but a procedure to dismiss them from cultural heritage (especially

			modern schools) can be started and has been done for a lot of schools
Ownership and management divided between different institutions	no	yes	in some cases, in bigger cities
	External factors influencing decision on EE investment in school		
	Opportunities	**Threats**	**Comments for orange cells**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no	in principle yes - federal schools use the EPC approach, but some municipalities have strong concerns. PPP models are used for new buildings.
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no	subsidies are changing every year and co-financing from states strongly vary
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no	only if they pay the service from their own budget
Developed ESCO market	developed	not developed	but still a niche market
Expected changes in energy prices	expected increase	expected decrease	
Clear, transparent and adequate legal framework	yes	no	
Interest of private sector to participate in EE projects in schools	yes	no	yes, but EPC is a niche market, therefore only few market members. Classical implementation: yes (public sector is a main investor)
Developed PPP market	developed	not developed	in principle yes. PPP is often used for new buildings
Average interest rate	< 2,5%	< 4%	at the moment below 2.5% for municipalities
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no	in theory yes, but former projects showed that it is too complex and does not work. It is therefore mostly not recommended.

** Austria has prepared SWOT analysis for the whole country, as there are no specific schools that are participating in the Project. General colour coding is provided with red – negative and green – positive issue, while orange colour coding is used to point out that there may be some exceptions.*

3.2. CROATIA

Questions to decide in which category to put the internal/external factor	**Internal factors of your school**	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepare EE project	< 2 employees capable to develop and prepare EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

3.3. CZECH REPUBLIC

Questions to decide in which category to put the internal/external factor	**Internal factors of your school**	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepared EE project	< 2 employees capable to develop and prepared EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

3.4. HUNGARY

Questions to decide in which category to put the internal/external factor	**Internal factors of your school**	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepare EE project	< 2 employees capable to develop and prepare EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

3.5. ITALY

Questions to decide in which category to put the internal/external factor	Internal factors of your school	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepare EE project	< 2 employees capable to develop and prepare EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

3.6. POLAND

Questions to decide in which category to put the internal/external factor	**Internal factors of your school**	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepare EE project	< 2 employees capable to develop and prepare EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no

3.7. SLOVENIA

Questions to decide in which category to put the internal/external factor	Internal factors of your school	
	Strengths	**Weaknesses**
Own capacities in institutions that manage schools to develop EE projects	>= 2 employees capable to develop and prepared EE project	< 2 employees capable to develop and prepared EE project
Own capacities in school to implement/supervise implementation of EE investment project	>= 3 employees with technical knowledge related to EE measures	< 3 employees with technical knowledge related to EE measures
Own capacities in school to implement soft behavioural measures among employees and students	>= 2 employees willing to engage in activities for promotion of EE	< 2 employees willing to engage in activities for promotion of EE
Own capacities in institutions that manage to prepare applications for financing support programmes for EE projects in schools	>= 2 employees willing to engage in activities for financing of EE	< 2 employees willing to engage in activities for financing of EE
Support and commitment from the school management	yes	no
Available all administrative documents to prove legality and ownership of the school building	yes	no
Available own budget for implementation of EE measures	yes	no
Eco-friendly school policies	yes	no
Climate	continental (or colder)	Mediterranean (or hotter)
Procedure to get permission to get loan financing	easy	complicated
School building protected as cultural heritage	no	yes
Ownership and management divided between different institutions	no	yes
	External factors influencing decision on EE investment in school	
	Opportunities	**Threats**
Available co-financing schemes for EE projects in schools from national or EU sources	yes	no
Long-term, stable, well known and transparent conditions for co-financing EE projects	yes	no
Available technical support for preparation of EE projects (e.g. regional/local energy agencies, city/municipality EE offices)	yes	no
Developed ESCO market	developed	not developed
Expected changes in energy prices	expected increase	expected decrease
Clear, transparent and adequate legal framework	yes	no
Interest of private sector to participate in EE projects in schools	yes	no
Developed PPP market	developed	not developed
Average interest rate	< 2,5%	> 4%
Possibility to form cluster of schools with other institutions/agencies to facilitate implementation of EE projects in schools	yes	no