



Funded by the Horizon 2020
Framework Programme of the
European Union



INNOVATE project

WP2 D2.1: Market Gap Analysis

January 2018



Final Version



CONTENT

INTRODUCTION	1
STEP 1: THE TOPIC	1
STEP 2: THE CURRENT STATE	2
2.1 Interpretation of segmentation	3
STEP 3: IDENTIFY THE MARKET FAILURE: THE GAP	3
3.1 Interpretation of barriers and drivers	4
STEP 4 HOW THE GAP SHOULD BE FILLED	4
4.1 Interpretation of the gap filled	5
4.2 Actors mapping	5
4.3 Interpretation of the actors mapping	5
4.4 Services mapping	5
4.5 Interpretation of the services mapping	5
STEP 5 GENERAL CONCLUSIONS	6
STEP 6 CHECK YOUR ACTION	7
6.1 SWOT analysis	7
6.2 Strong points	7
6.3 Weak points	7
6.4 SWOT conclusions	7



INTRODUCTION

This Market Gap Analyses (MGA) is conducted as one of the first deliverables of the INNOVATE project and was prepared in a few months. The results presented below are based on the knowledge of the energy manager of the city of Litoměřice and on the discussion with household representatives. So, the results serve as preliminary information and identification of main actors, barriers and first ideas on how to overcome them. For more robust results the questionnaire should be used.

STEP 1: THE TOPIC

For the City of Litoměřice the topic of MGA was mostly focused on individual family houses which represent the majority of building stock and city of Litoměřice is one of the learning partner in the project as presented in the tables bellow.

Building type	Partner name	Number of buildings to be renovated	Assumed number of dwelling units per building	Number of units	Investment triggered [M€]*
Condominium	Frederikshavn	10	10	100	9.25
	KAW	20	10	200	16.45
	Brussels	3	10	30	2.67
	Riga	1	10	10	1.75
	Mantova	1	10	10	0.69
Individual family house	Frederikshavn	20	1	20	1.85
	Aradippou	10	1	10	1.09
	Litoměřice	30	1	30	1.78
	Parity Projects	10	1	10	0.53
	Linnaeus University	2	1	2	0.17
	Agenex	3	1	3	0.42
	Riga	2	1	2	0.35
	Heerlen	5	1	5	0.41
Total		117		432	37.41

*Calculated assuming average renovation cost of 700 €/m²



partners	Experienced partners	Learning partners	Existing Target	Will upgrade / re-organise their existing EE services	New Target	Develop new integrated EE service package
Frederikshavn	yes	no	Single-family housing	yes	condominium	yes
Frederikshavn	yes	no	\	\	Single-family housing	yes
KAW	yes	no	Single-family housing	no	condominium	yes
Brussels	yes	no	Single-family housing	no	condominium	yes
REA	yes	no	condominium	yes	condominium	no
REA	yes	no	\	\	Single-family housing	yes
Parity Projects	yes	no	Single-family housing	yes	Single-family housing	no
Mantova	no	yes	\	\	condominium	yes
Aradippou	no	yes	\	\	Single-family housing	yes
Litoměřice	no	yes	\	\	Single-family housing	yes
Linnaeus University	no	yes	\	\	Single-family housing	yes
Agenex	no	yes	\	\	Single-family housing	yes
Heerlen	no	yes	\	\	Single-family housing	yes

STEP 2: THE CURRENT STATE

Litoměřice is a municipality in the north of the Czech Republic with 25.000 inhabitants and building stock of 2.486 buildings, 68,2% of these are individual houses, most of which 60% are built before 1979.

All houses have energy labels of which some 70% have label D, or E. Some 50% have label C and D, while some 10% have B.



There is no clear insight on the state of the houses in relation to possibilities for renovation. For this further research is needed. This should be combined with a marketing/promotional campaign that informs house-owners on the options and the benefits of deep renovation.

An important advantage is that city of Litoměřice is experienced city in deep renovation of public buildings, so there are no doubts about benefits of such as approach proved by the database of energy data in the public sector and relevant time series. In 2018 the city will also finish SECAP, so it means that there are and will be data on the energy consumption in the various sectors (mostly in building sector), and extensive ideas how alternatives for this consumption can be generated including also plan for its broader reduction.

2.1 Interpretation of segmentation

Segmentation reveals that the technical potential for deep renovation in the building sector is really high. There is a lot of old houses with poor energy standards. Anyway, at this time, there is not relevant information for home owners to conduct deep energy renovation which can be also economically prosperous.

There is not enough insight in relevant data for cost of renovation in different type of private buildings in Litoměřice and also for necessity of cost spent. Whether the gathering of data is really necessary is yet unclear, as there are different routes to the goal of renovation. Probably a different approach than gathering data is needed to achieve the desired results.

STEP 3: IDENTIFY THE MARKET FAILURE: THE GAP

There are various opinions, it is yet unclear whether individual house owners are opened or motivated for renovation. From a technical point of view there is a lack of knowledge on the possibilities at hand. Furthermore, the market of supply and demand is not transparent. In other words, house owners have difficulties finding their way towards renovation.

The main gap is evocated by different motivation of main stakeholders involved in the process of renovation. These motivations are as follows:



- Building owners (households) – have lack of information about complex renovation and its benefits, prefer low cost investment and doesn't care too much about future operational (energy) cost
- Building companies – have no motivation on future energy standard of the building – they care mostly about total investment cost and doesn't matter if cost is spent on energy or other measures
- Energy consultants – are able to provide good advice, are mostly familiar with deeper renovation, but have no other measures how to motivate households for realization of measures in practice
- City – if the city is also co-owner of buildings, than has motivation for deep refurbishment and for low operational cost, if not, there is no special motivation for energy performance of buildings in "third hands"
- Supporting structures – (e.g. State Environmental Fund) – offer public grants for deeper renovation and has motivation for such as projects, but have no local data and information about barriers, carrots and sticks for successful projects
- Financial institutions - have no motivation on future energy standard of the building – they care mostly about total investment cost and fees and doesn't matter if cost is spent on energy or other measures

3.1 Interpretation of barriers and drivers

Barriers now have a negative impact on the possibilities for renovation, in our MGA for the city of Litoměřice following main barriers were identified.

Main barriers

- Urgency for renovation – there are mostly realized only urgent renovations with no deeper energy savings
- Inconvenience linked to the renovation – deeper renovation is realized in longer time period
- Willingness to invest in energy efficiency - lack of awareness or lack of interest
- Cost for renovation - high cost of a deep renovation can be an argument to stage the renovation into several phases
- Return on investment - return on investment is often calculated also with cost, which are not related to energy savings, so deep renovation has worse ROI
- Energy use patterns - low intensive energy use patterns can be a barrier. a deep renovation is not an accurate answer to the needs. The return on investment will be low.



Drivers should have a positive impact on the possibilities for renovation, in our MGA for the city of Litoměřice following main drivers were identified.

Main drivers

- Availability of tailor-made stepwise approach for renovation - the option to stage the deep NZEB-renovation into several phases which can be carried out over a longer period, can be a convincing driver
- Inconveniences and effects - people do not only choose for better energy performance, but also to experience the comfort of living in a house with reduced inconveniences and defects
- Energy performance – the energy performance of the house can be a driver if the EPC is bad, so the energy renovation is interesting to save energy and money
- Advice and guidance - assisting people in the many choices they have to make during the renovation process
- Energy savings financing – development of financial scheme, which helps to finance investment cost through energy savings
- Combination of support – combination of structural, or national financial schemes with local one

STEP 4 HOW THE GAP SHOULD BE FILLED

The gap should be filled through the creation of a market-place between supply and demand. It should shape a level playing field in which customer demands should be clear and should find the best options for renovation. On the other hand, suppliers should get a clear picture of what the options in the market are, so they can conduct their business in the most productive and economically profitable way. Furthermore, the market-place should contain expertise, and should shape the conditions needed in order to further extend the expertise knowledge, create practical experiences on EE, and look for ways to make these productive and crucial for individual house owners.

4.1 Interpretation of the gap filled

Drivers should be strengthened and barriers removed. Now we are confronted with a combination of the various technical, social and financial barriers and drivers.



The benefits are not clear (enough) or are not yet strong enough to create real market for deep renovation and discussion is mostly focused on barriers rather than on possibilities how to deal with these obstacles.

Litoměřice is working on strategies to deal with this situation and to bring to customers what they really appreciate. Also, innovative financial scheme combining structural, or national financial schemes with local one will be analyzed and evaluated.

4.2 Actors mapping

The Excel file shows a small number of participants. On the diffused EE market in Litoměřice there are many more players. For the first stage, it is proposed to use such as actors:

- Hennlich s.r.o. - investor
- Gerhard Horejsek - investor
- S-BAU BOHEMIA - investor
- EZV - investor
- Local banks - cooperative
- Local/regional energy consultants (EKIS) - stakeholder
- City of Litoměřice - project manager
- Resident associations (building owners) - active actor
- Broker companies operating in Litoměřice - broker

4.3 Interpretation of the actors mapping

As mentioned in step 3 - there is a huge number of various actors playing in the field of EE. The large number of actors and their roles are described above. It is crucial for the city of Litoměřice to find appropriate role for each actor in the whole process to trigger deep renovation of individual houses. From the first insights it will be important to motivate house owners by pre-financing investment cost, or to finance investments from energy savings with conservation or increase of quality of life in the buildings.

4.4 Services mapping

The Excel file shows that there is an absence of any focused and complex service towards home owners. There are (too) many services and these create a diffused and segregated market. What is really needed is a one-stop-shop as a market-place for services towards supply and demand.



4.5 Interpretation of the services mapping

There is no one-stop shop, but multi-stop shop that hampers any actions of individual home owners towards deep renovation. Therefore a one-stop-shop market-place is needed. This includes economic, social, technical or financial services in any possible way or combination. Furthermore a focused communication and marketing strategy is strongly needed, and needs to be developed in order to inform those supplying and demanding. This should shape an open, transparent and effective market-place.

STEP 5 GENERAL CONCLUSIONS

From the first MGA following aspects for triggering deep renovation are needed:

- market-place
- network of suppliers
- new financial scheme
- marketing and communication

Market-Place

What is strongly needed is a market-place in which one-stop shopping is realized and in which a level playing field between supply and demand is constructed. This also involves a strategy towards home owners in order to really research their drives and wishes. It involves economic, social, technical and financial partners.

Network of suppliers

Today's network is so segregated with specific functions (advice, financing, construction, etc.), which means, that actors on the market act in their own way, and for their own benefits. So, to attract the concept of EE and deep renovation, it is necessary to build unique network of suppliers, which can provide "all in one", e.g. all services from the project preparation through financing to realization, monitoring and saving and benefits evaluation.

New financial scheme

It is supposed, that additional investment will be one of the most important barrier for deep renovation and additional energy measures. So, if possible, the city of Litoměřice would like to introduce new financial scheme which will help potential home owners to pay back investment from energy savings, so called "internal energy performance contracting".



Marketing & Communication

What is strongly needed is focused strategy on marketing and communication in order to create a robust, flexible and sustainable market-place. Now we are confronted with a situation where it is unclear for the various actors what the market, as it is now, has to offer. This strategy should focus on economic, social, and financial drivers.

STEP 6 CHECK YOUR ACTION

6.1 SWOT analysis

The SWOT analysis gives an impression of the situation in Litoměřice.

6.2 Strong points

- Knowledge and experience with deep renovation in public buildings
- Big potential for energy savings in the building sector of the city
- Municipal subsidy and energy saving fund for EE and RES measures
- Closer cooperation with local actors in sustainable energy projects
- Possibility to use combination of national and structural funds for EE and RES projects
- Experience of the city with innovative financial schemes (EPC project)

6.3 Weak points

- Dispersed market for supply & demand
- Insufficient insight in data of building stock
- Quality of the projects and procedures in EE and RES projects
- Knowledge gap of EE and RES by homeowners
- Not sufficient knowledge of economic drivers for civilians and businesses
- Lack of marketing and communication focused on EE and RES



6.4 SWOT conclusions

The SWOT for Litoměřice shows that there is a potency for EE renovation for individual houses. It shows opportunities as there is a lot of willingness and potential of home owners for EE. However the market is disaggregated with a lot of players with different motivation. Therefore a EE policy has to be constructed as well as a focused marketing and communication campaign. The end-result should be a 'market' place with complex service for EE and RES measures.