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# **INNOVATE project**

## **WP2 D2.1: Market Gap Analysis**

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**Final Version**



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# INTRODUCTION

Following Market Gap Analysis was implemented as a deliverable for the INNOVATE project. Gathered information and its analysis allowed to reveal fresh ideas on the direction of renovation issue development. Following study consist of current state analysis, market failure, gap detailed analysis, general conclusions and SWOT analysis.

## STEP 1: THE TOPIC

Main focus of the Market Gap Analysis for the City of Riga is multi-apartment building renovation that represents the largest part of the building stock in Riga. City of Riga is constantly developing new tools to stimulate interest of citizens and conduct more renovations.

## STEP 2: THE CURRENT STATE

6,000 buildings which cover almost 75% of the total floor surface (12 million m<sup>2</sup>) were built during the post-war period and need urgent renovation. 36% of energy in Riga is used by households, making it the biggest energy consumer group.

Primary focus for Riga is the renovation of multi-apartment buildings that were built since the middle of 1960s, which were erected mainly on the basis of standardized solutions and also panel construction technologies, have low heat stability, which is in line with the construction standards of that time as priority was given to low construction costs. These buildings are the city's main concern, since their energy efficiency needs to be increased and energy consumption made lower alongside reducing CO<sub>2</sub> emissions. About 60 % of the city's population lives in multi-apartment residential houses, and they form the main part of the housing stock, which was privatized when independence of Latvia was regained. Renovation of the privatized multi-apartment residential houses was started in 2001.

Further, we will present more details of housing stock in Riga. Condominiums make 87% of the housing stock versus 12% which are individual houses. Approximately 90% of those condominiums were built in the period from 1960 to 1990 and generally present no historical value. 85% of such condominiums are using district heating. Moreover, 75% of condominiums built solely in 1970s-1980s requires deep renovation. Due to long heating period and generally cold winters heating period is normally 6 month, with allow to get a significant efficiency out of the energy efficiency measures.

Examining owner's characteristics revealed several interesting facts and generally makes a rather clear picture of a person potentially willing to make the renovation. Level of income and personal preference of spending does not differ significantly. Availability of financial possibilities to invest



seems to have similar figures comparing individual houses and condominiums. 77% of people who live in condominiums are individual owners, whereas only 70% live in their own flats while 30% rent. Two largest groups of people living in condominiums are young families and those who have retired. As it was previously found from qualitative analysis, second group is not motivated to conduct energy efficiency measures. Also, retired persons are not able or not willing to carry additional expenses to make renovation. Further, general readiness to make renovation is very low irregarding of the status.

Professional building supply characteristics produces a picture of the market capacity. There are 5 companies working on EE refurbishment projects for condominiums and 12 working on individual houses. With respect to condominium renovations 60% of companies are SMEs, 20% large companies, while other 20% represents general contracts.

Financing supply characteristics data suggest a fairly good access to financing, including commercial offers and grant schemes. Issues that are related to difficulties with regards to financing issues are more correlated to political and social-economical issues that apply to citizens rather than lack of market options.

## 2.1 Interpretation of segmentation

Making renovations of condominiums in Riga is important for both city and flat owners. Long heating period makes it clear that the refurbishment of a condominium is energy efficient and economically sensible.

People's willingness and readiness to make renovation is low for a number of reasons. To make a step towards a better motivation it is necessary to produce more publicly available information with regards to the topic. Primary factor is a large group of retired people who have no motivation. Another factor revealed from the study is a high number of flats that are let by landlords, thus moving obligation of paying utility bills on tenants and not getting direct financial benefits from conducted renovation. Other significant factors that were not analyzed in the summary document but are significant:

- Uncertainty of place of living
- Not willingness to take any loan obligations
- Uncertainty of future saving from renovation
- No trust to quality of building companies
- Expectation of refurbishment cost to decrease in the next 5 years

Market ability to make necessary construction works is very limited. Higher market capacity could create a competition and thus decrease costs. However, it comes to a chicken and egg problem, as it is incredibly difficult to support building companies on market with decreasing population. Further, quality of labor should be increased to create a more quality work. However, biggest problem for refurbishment are public taxes and low heating tariffs, which is unprofitable for ESCO companies.



Financing is not a critical factor in this case, as a number of options are existing on the market. It is unlikely that better market conditions can be achieved. Thus, it is more important to focus on revealing the depth of known issues.

## STEP 3: IDENTIFY THE MARKET FAILURE: THE GAP

Multiple drivers and barriers were identified. Further, most significant aspects are mentioned.

Technical aspects include urgency for renovation, quality assurance, historical buildings and energy performance. Financial aspects include cost of renovation, availability of financial tools, attractive return on investment. Social and behavioral aspects include accurate, reliable & tailor-made information, renovation needs & intentions, awareness of energy saving potential.

### 3.1 Interpretation of barriers and drivers

Abovementioned technical aspects are further discussed in more detail.

Urgency for renovation is a primary concern for the municipality. Flat owners are also aware of the importance for energy efficiency reasons. However, it is difficult to convince all flat owners to start the process of renovation, although few programs exist.

Quality assurance is a very controversial aspect of renovation such as few negative cases exist when the quality of renovation is poor. In some cases it is more reasonable to demolish the house.

Historical value is a significant barrier for the buildings to be renovated. Primary concern is a high cost of renovation, whereas as the market value will also increase the demand as it is not high enough to meet the market, thus making the renovation of historical buildings is not always economically reasonable.

Energy performance is a strong driver in Latvia as the heating period is normally at least 6 month, which means that the benefit from conducted renovation is significant.

Abovementioned financial aspects are further discussed in more detail.

High cost of a deep renovation can be a strong argument to stage the renovation into several phases. So, a concept for a staged renovation might be a technique to tackle this barrier.

Willingness to invest in energy efficiency versus competing products is an issue. Although the homeowner can have enough financial possibilities, the lack of the will to invest in energy efficiency is a huge barrier. In many cases if it is stated that there is a lack of funds, which is due to the lack of awareness or lack of interest rather than the actual lack of funds. A cause can be the competition with another household needs.



Availability of financial tools definitely makes a strong driver and plays a significant role in convincing people on renovation.

Return on investment should be computed taking into account the fact that an important part of the cost of works can be related not only to energy efficiency but also to other reasons to perform the works (deterioration of the building...). ROI should therefore be computed on the extra-cost related to energy-efficient measures compared with normal market-practice measures.

Abovementioned social aspects are further discussed in more detail.

The availability of independent, accurate and complete information that is trustworthy is a driver. Too much of inaccurate, unreliable and contradictory information is a barrier for people. Many people can't judge and remain undecided. The construction sector sometimes takes advantage of ignorance of homeowners by making offers that are overpriced and/or technically unsuitable.

Most of the decisions are not taken on the basis of rational arguments like energy savings, cost savings etc. and this is a major barrier from a classical traditional economic point of view. Leadership is also important, as lack of leadership in the homeowner association is a barrier, while good leadership is a driver.

## STEP 4: HOW THE GAP SHOULD BE FILLED

### 4.1 Interpretation of the gap filled

Strongest motivation come from available financial support from various municipal and state initiatives, significance of obtained energy efficiency in case of renovation and an increase in market value of the property after the renovation.

Main barriers include difficulty to convince all flat owners, cases of low quality refurbishment, high cost of renovation and low energy prices.

In order to fill the gap it is possible to push communication activity harder to convince more people and help volunteers in spreading the information on how to get financial support and thus increasing the level of motivation till the point to make people act.

### 4.2 Actors mapping

Refer to spreadsheet for data.



## 4.3 Interpretation of the actors mapping

The table describes existing and future stakeholder groups which represent various roles.

Private sector companies include two local banks, an energy provider and a house management company. Municipality of Riga has a long history of relationship with following companies. Need to mention that utility company and housing management company are partially owned by the municipality of Riga.

Expert group consist of a technical university and related research institute. Both have been participating in various energy efficiency related projects together with municipality of Riga for many years. Both research institutions also serve as a strong mean of spreading information through multiple media sources.

Public sector bodies are represented by Riga City Council as a main local authority, Ministry of economics of Latvia which is the main policy regulator and Altum as a public body that serves energy efficiency and economy driving initiatives.

Further, associations and NGOs are represented by multiple flat owner cooperatives, Local Municipality Union (LPS) and Latvian Energy Efficiency Association (LATEA).

## 4.4 Services mapping

Refer to spreadsheet for data.

## 4.5 Interpretation of the services mapping

Most of condominiums in Riga were built during 1960s-1970s. They are in need of renovation primarily due to their age. Another reason for renovation that is becoming more obvious for many flat owners is energy efficiency measures.

There are a number of reasons for high motivation to make the renovation, including greater insulation and higher comfort of living, increasing cost of property and lower utility bills. These and other drivers that were previously discussed are creating a strong motivation for some flat owners. However, barriers cannot be dismissed. We have identified that one of the most significant barriers in terms of services provided are quality of renovations and complexity in getting financing. There are findings that financial support tools have strong correlation to the number of renovated houses.

Findings suggest that in order to increase the number of renovated houses the quality refurbishments must be increased. Also, the barriers for refurbishment financing both subsidies and



commercial loans must be decreased, but the procedure to receive state guarantee for loan should be more accessible.

## STEP 5: GENERAL CONCLUSIONS

To conclude, following study allowed to reveal some new factors that affect the number of renovations as a final aim to achieve. Multiple previously-known factors such as financial opportunities and gained through economic impacts proved to be significant and means they should not be dismissed.

Generally, it is important to distinguish factors that can be affected on a local level, a public authority level and more continuous factors that are implied by economic and market conditions. For example, a barrier of people's uncertainty is a quite general factor that cannot be affected significantly by the local government in most cases because it is a long term created attitude and perception of reality of a specific person. In some cases, it is a result of public authority actions that decreases a perception of stability. However, in most cases it should be taken into account that geopolitical and globalization issues have strong impact on such attitude, which cannot be affected by a local authority immediately and significantly. However, to consider the opportunity combining activities for addressing issues of urban-specific territories in order to improve the accessibility and the quality of living environment in the micro-district level with the incentives of local government to promote the complete energy efficient renovation of all multi-apartment housings in the above mentioned micro-districts.

On the other hand, factors such as quality of construction works can be controlled by local authority, which can increase the level of quality control. Thus, it should result in a stricter but more of a higher quality refurbishment. Such actions would impact the perception of the flat owners and its attitude immediately in two ways. First, the statements of a stricter quality control will have a positive impact. Secondly, as soon as first results appear on the market, the media would spread the improvement, thus increasing the impact of attitude to refurbishment as a service.

Economic factors are more diverse. It is important to raise the level of income to make flat owners more comfortable in getting extra liability of refurbishment repayment costs. However, economic factors cannot be affected immediately by local authority, nor public authority in the short run. Another factor that can affect the situation though is subsidies. Which should not be omitted until the economic conditions are improved to make the process of renovation more stable. Thus, it can be concluded that any form of subsidy will play a significant matter.

To conclude, drivers of the refurbishment process should be escalated to greater extent, while the barriers should be decreased. It is crucial that the aim is set on national level and all stakeholders are joining in achieving the set targets.



# STEP 6: CHECK YOUR ACTION

## 6.1 SWOT analysis

SWOT analysis provides a summary of strong and weak points while analysing renovation issues. Refer to spreadsheet for data.

## 6.2 Strong points

Strong points taken into consideration were internal and external factors. Internal factors include experienced employees of Riga Energy Agency, Riga City Council and other stakeholders. Further, city development strategy takes into account importance of housing issues, and finally, successful lobby of renovation tools.

External factors include recent political activity happening around renovation issues, establishment of the revolving fund beyond city of Riga and success in convincing State authorities to assist in policy issues with regards to renovation.

## 6.3 Weak points

Internal factors of weak points include lack of mass communication activity from both municipal and state authorities, and fact that State authorities prevent municipal activity in establishing significant refurbishment tools, as all actions must be approved by the State.

External weak points include ageing, immigration, macroeconomic issues, conflicts of political powers and the fact that energy providers may be negatively affected in case renovations take massive scale in terms of energy consumption decrease.

## 6.4 SWOT conclusions

SWOT analysis shows a good potential in scaling multi-apartment building renovations in Riga. However, a number of external factors makes the process more complicated. Issues that relate to macroeconomy are the most significant. Ageing, immigration and macroeconomic issues create strong barriers in order to convince people in renovating their homes.

In order to overcome external weaknesses it is important to put more effort in the development of strong point listed issues.



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Overall, SWOT analysis established a clean and transparent summary of the forces affecting the market.