DEMAND SIDE SEGMENTATION IN EU AND REGIONS

REFURB DELIVERABLE REPORT 2.1

Overview and
one-stop shop solutions
for private homeowners

refurb

Deliverable D2.1
Demand side segmentation in EU and regions

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Summary

Renovation in the EU's residential sector towards increased energy efficiency is seriously lagging behind. As more than sufficient technological solutions are available, focus must be on removing non-technological barriers. The main barriers relate to fragmentation of the renovation offer, resulting in inefficient or only partial solutions. One way to solve this is the use of a 'one-stop-shop concept'. Many have been put in practice. Some were successful, others not. They often lack an understanding of the concerns and demands of homeowners.

The REFURB project focusses on the complex interplay of barriers through coordinated process organization, innovation and optimization to improve this one-stop-shop concept. Work package 2 and work package 3 are dedicated to analyse demand and supply side drivers. This report is part of work package 2 ("demand side mapping"), and the result of task 2.1 establishes a **segmentation of the demand side** (dwellings and dweller typologies). This segmentation is the first step to better understand the homeowners, which is a diverse group of decision makers in energy efficiency investments. A segmentation that is relevant for NZEB-renovation and demand aggregation schemes is created. This type of segmentation of the demand side is not commonplace. Usually market segmentation is very much technology driven from the point of view of the supply side of the renovation market. Based upon REFURB partners' experience and research it was, however, possible to create such a segmentation based upon dwelling but also – and more importantly- upon dweller characteristics.

With this report the REFURB project offers a **framework to create a tailor-made segmentation** or define a set of segments that fit a certain context in a country, rather than fix a pan-European set of segments to cover the entire demand side.

Market or customer segmentation has proven its value in concepts such as the Business Model Canvas as to avoid targeting heterogeneous groups with value propositions which are too general and customers cannot identify with at all.

A **multidisciplinary view** to the creation of this segmentation is essential. For the purpose of the segmentation, many different points of view have to be explored to fully gain understanding of how homeowners decide, plan and think, and more in particular how this could affect their choice to either invest in NZEB-renovation or not. Behaviour study, psychology, sociology, economics, technology, legislation, architecture, building physics, urbanism are all relevant research fields and the list of them illustrates the complexity of the task.

With a single technical, architectural or financial approach it appears hard to generate segments to design successful one-stop-shops for. Likewise it is not useful to develop such a segmentation purely based upon the building typology as -after all- it is not the building which decides to go for a renovation, but its owner or occupant.

In task 2.1, the segmentation of the demand side was developed for the purpose of the REFURB project. A segment is a group in the market with similar characteristics. For the segmentation in the REFURB project the following categories of characteristics were used:

- dwelling characteristics (e.g. flat/houses, year of construction, energy efficiency, neighbourhood, architectural characteristics, building techniques and materials etc.), and

- dweller characteristics, the decision makers (e.g. owner vs tenant, financial possibilities, stage in life of inhabitant, household composition, technical building skills and knowledge etc.).

In the REFURB project, 2x3 clusters of characteristics that are relevant to underpin the segmentation were identified:

Three clusters of dwelling characteristics, which are important to design consistent NZEB-renovation packages (Figure 1):

- Cluster 1: **similar dwellings**, with the interlinked characteristics "neighbourhood type", "construction type", "dwelling typology", "construction era", and "historical value".

- Cluster 2: **state of the dwelling**, with the interlinked characteristics "urgency for renovation", "inconvenience linked with the renovation", "inconvenience and defects" and "value of the house".

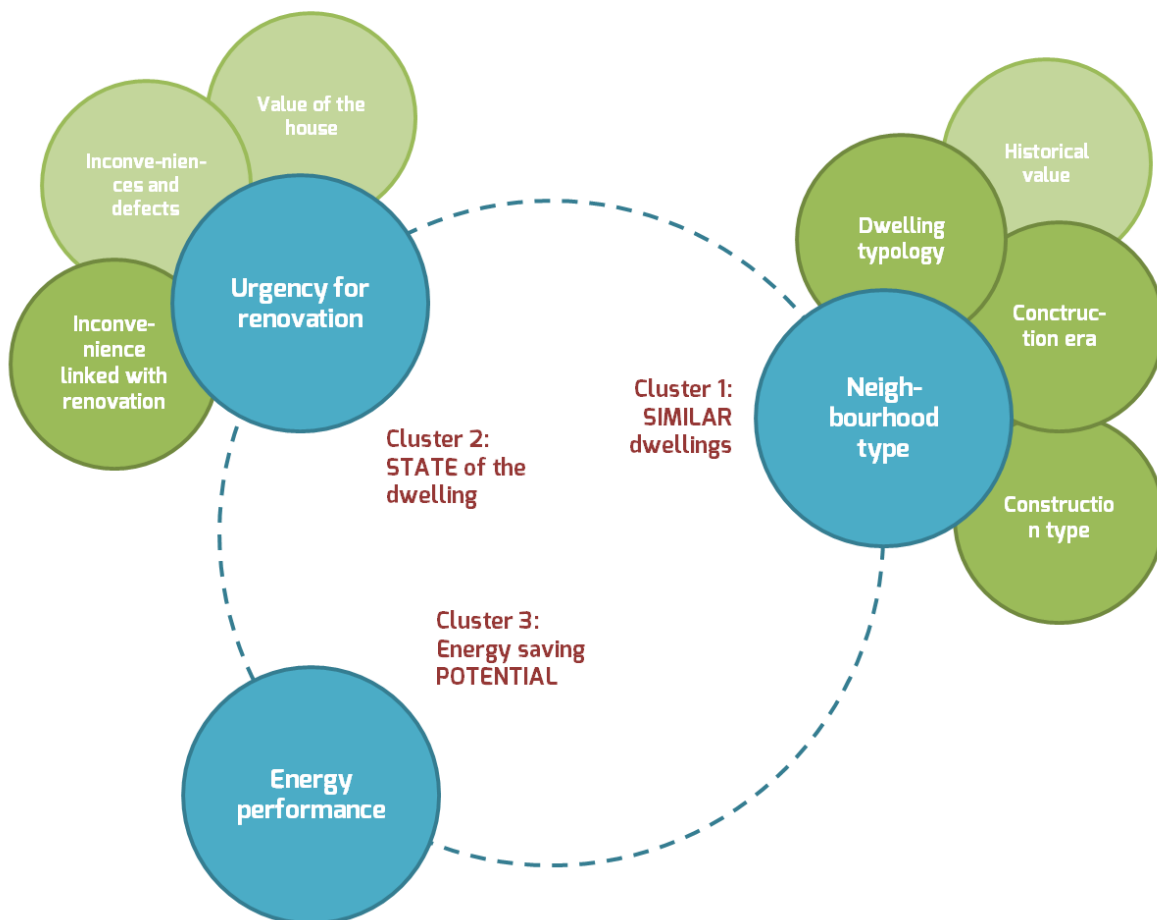- Cluster 3: **energy saving potential**, with the characteristic "energy performance".

Figure 1: Clusters of relevant dwelling characteristics

Three clusters of dweller characteristics, which are important to design consistent demand aggregation schemes (Figure 2):

- Cluster 1: **the right moment for NZEB-renovation for the dweller**, with the interlinked characteristics "stage of life", "expected period to own the house", "available time to manage renovation project", "age of dweller", "energy use pattern" and "home occupation pattern".

- Cluster 2: **possibilities and intentions of the dweller**, with the interlinked characteristics "financial possibilities", "owner status", "intentions to renovate", "environmental values and attitudes", "willingness to invest in energy efficiency".

- Cluster 3: **the different personalities of the dweller**, with the interlinked characteristics "type of decision maker", "renovation needs", "access to information", "male/female", "general knowledge level" and "technical knowledge level".
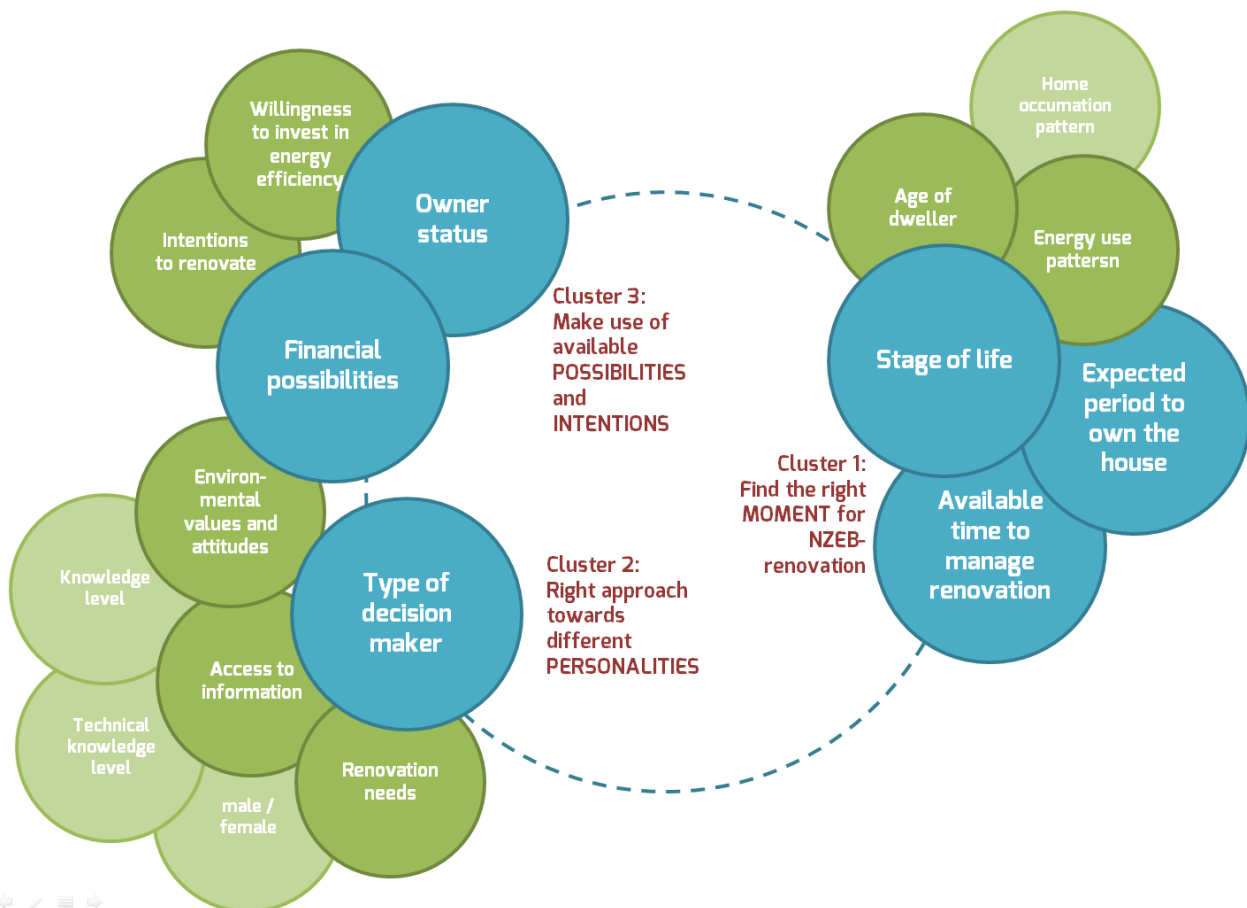

Figure 2: Clusters of relevant dweller characteristics

Based on these characteristics and insights from studies, best practices and experiences, the REFURB partners created **a matrix as a tool to design tailor-made segments**. This matrix organizes the interplay of dweller characteristics (interesting for demand aggregation schemes) and dwelling characteristics (interesting for NZEB-renovation). The set of 3x3 clusters with dwelling and dweller characteristics offer a framework for a balanced design of segments.

The tool can be used in different contexts to help to define tailor-made segments. This is necessary as it is shown in chapter 2 that in different EU-countries or regions housing markets can be very different. As a consequence, the REFURB project does not propose generic, pan-EU-valid segments for housing renovation.

Table 1: Matrix as a tool to segment for demand aggregation schemes for NZEB- renovation in the residential sector

Clusters of dwelling characteristics		SIMILAR dwellings • Neighbourhood type • Dwelling type • Construction era • Construction type • Historical value	STATE of the dwelling • Urgency for renovation • Inconvenience linked with renovation • Inconveniences and defects • Value of the house	energy saving POTENTIAL • Energy performance
Clusters of dweller characteristics	**The right MOMENT** • Stage of life • Time to manage renovation project • Expected period to own the house • Age of dweller • Energy use patters • Home occupation pattern			
	Different PERSONALITIES • Type of decision maker • Renovation needs • Access to information • General knowledge level • Technical knowledge level • Male/female			
	Available POSSIBILITIES and INTENTIONS • Financial possibilities • Owner status • Willingness to invest in energy efficiency • Intentions to renovate • Environmental values and attitudes			

The matrix offers flexibility to focus on mainly dwelling or dweller characteristics, or a combination of both. To illustrate this matrix, a set of 5 high-potential segments for integrated NZEB-renovation packages and demand aggregation schemes were described:

- "young families",

- "Post-war suburbs with detached houses",
- "Empty nesters",
- "Terraced houses with a high energy bill" and
- "convinced energy savers".

Next to these 5 high-potential segments, other segments can be defined and designed, relevant for specific countries, regions or contexts. E.g. Germany has a large private rental sector, the Netherlands have a large social housing sector, Estonia a majority of apartments. These conditions are important to design appropriate segments.

Based on the segmentation of this report, drivers and barriers (financial, social, psychological...) will be linked with different segments (report D2.2), better ways to organise the demand side will be examined (report D2.3), local differences in demand side drivers and barriers will be examined (report D2.4), and improved approaches to seduce homeowners to integrate NZEB-ambitions within their renovation will be designed (report D2.5).