

The decision to invest in thermal retrofits in private multi-family buildings: a research project linked to the MurMur programme

Intermediary report

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1. Goal of the study : to better understand the factors leading to the collective decision of investing in thermal retrofit in multi-family buildings

The massive energy retrofit of the private building stock is crucial to reach the GHG emission reduction targets set in France's national low-carbon strategy. Knowing the motives underlying the decision to renovate is necessary to define efficient public policies in this field. This knowledge has considerably increased in individual housing over the last years but it is still very scarce in collective housing. More specifically, in private multi-family buildings, the collective decision turns out to be complex, due to the number of actors who participate in the decision-making process, and to the heterogeneity of individual situations and preferences.

The goal of the research undertaken by Gael Laboratory of Grenoble-Alpes University is to shed light on the collective behavior of the co-owners in the decision making-process for energy retrofitting their multi-family building. While focusing on the dialogues between the various stakeholders involved in the decision, it aims at analyzing the factors that may impact the decision, e.g. individual dynamics, interpersonal interactions, social relations, and the social representations of energy, the dwellings and the building.

Our research draws on the thermal retrofit incentive programme called MurMur2, which is currently underway and targets the private multi-family buildings of the Grenoble urban district "Grenoble Alpes Métropole", shortly named "Metro".

2. Research protocol : observation of the collective moments in the building process of the retrofit decision

Within the MurMur2 programme, the decision to undertake the thermal retrofit comes after four formal steps with which each condominium has to comply. The steps of the "Parcours de service" (service process) include the following meetings of the co-owners:

- a preliminary information meeting (REP) organized by ALEC (Agence Locale de l'Énergie et du Climat), showing the thermal characteristics of the co-owners' building, the advantages and challenges of insulating, as well as the general collective financial support brought by MurMur2;
- a general assembly of the co-owners to select and vote for a prime contractor ;
- an information meeting organized by Soliha, focusing on all the possible financial assistance mechanisms for co-owners (including loans and individual financial support)

- a general assembly of the co-owners to make the final decision.

The research protocol intends to keep track of 20 condominiums along the whole service process, ie from the preliminary information meeting to the final vote in favor of or against the thermal retrofit. The 20 condominiums are representative of the diverse situations found in the Metro area (condominium size, heating type, energy used for heating, location). For each selected condominium, the researchers will therefore attend the 4 meetings of the service process, as observers. The dialogues between all the persons present at the meetings are recorded. They are then transcribed and anonymized, so that the researchers can work on a written corpus: this constitutes their main analysis material.

The idea is to combine i) the cross-sectional analysis that compares the contents of the dialogues in the condominiums at a same step of the service process (ie REP) with ii) the longitudinal analysis that analyses the dialogues for every single condominium over the four steps of the entire service process. The results below deal with the cross-sectional analysis of the preliminary information meetings (REPs).

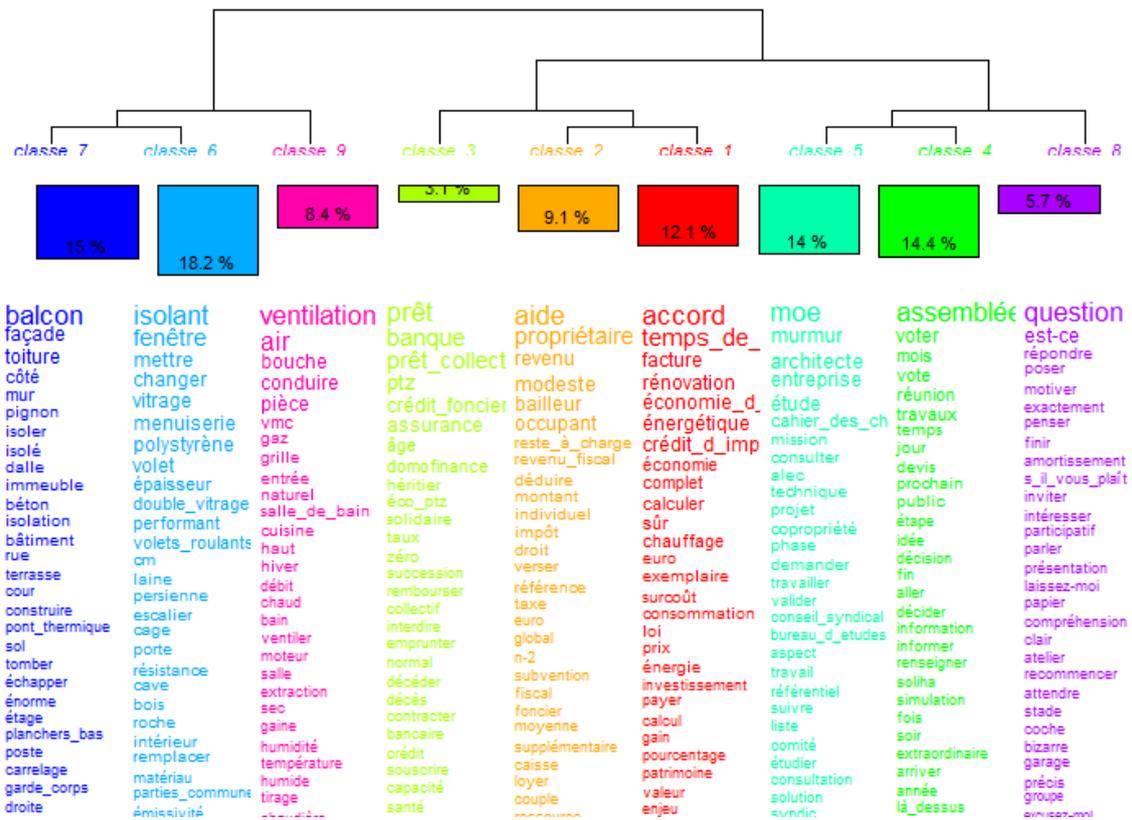
The considerable corpus stemming from the transcripts of the 20 REPs was analyzed with two different softwares of textual analyses. The first software, IRAMUTEQ, builds on the concomitance between the words used within text segments ; it leads to identifying the prevailing subjects addressed in the dialogues, without defining them ex ante. The second software, N'VIVO, requires to code the transcripts ex ante: the researchers identify and code the various subjects addressed, the different types of persons taking part in the meetings and some rhetoric elements that may be important in the decision making process. N'VIVO leads to a finer analysis of the dialogues held by various types of participants.

In the next section, we present some results stemming from our analyses. They are complemented by the Powerpoint presentation that is attached in the appendix.

3. First results : subjects addressed during the preliminary meetings (REPs)

Nine consistent subjects addressed during the preliminary information meetings pop up after an iterative process led with IRAMUTEQ (Fig. 1). We can group them in 3 main classes : the technical questions linked to insulation (classes 6, 7 and 8), the financial aids and funding conditions of the retrofit (classes 1, 2 and 3), and the MurMur process (classes 4, 5 and 8). Of course these subjects were addressed in various time proportions, depending on the condominiums and on the participants. For example, in some condominiums, the participants present at the REP meeting spent a lot of time talking about technical questions (windows, shutters or ventilation). In other condominiums, the decision process or the selection of the prime contractor were much more at the forefront of the dialogues, particularly from the property managers.

Figure 1: main subjects addressed during the REP meetings (IRAMUTEQ)

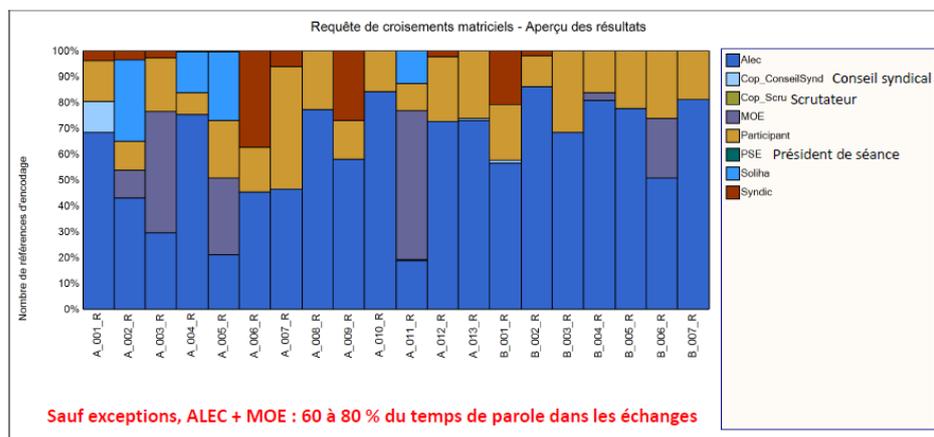


Analyses using N’VIVO show a similar distribution of the main subjects addressed, and a fairly large heterogeneity between the condominiums, as with IRAMUTEQ. At this stage of the decision process, as expected, we note that questions relating to the MurMur process and technical questions loom large in the dialogues. Technical questions range from the impact of insulation on the use of the co-owners’ balconies, to replacing old windows, to the ventilation choice, etc..

With regard to the speakers during the REP meetings, the officers from ALEC and the prime contractors are those who speak most of the time (Fig.2). This is consistent with the goal of the REP meetings which is to bring information to and answer questions from the co-owners.

Figure 2 : who speaks during the dialogues in the REP meetings ? (N’VIVO)

Qui parle pendant les échanges, dans chaque REP ? (% de mots encodés)



In conclusion, through the textual analyses of the REP meetings, no distinctive feature looms yet to make us suggest ex ante that some identified condominiums would in the end make the decision to retrofit, while others would be more likely not to. For that matter we must expand our corpus beyond the REP meetings, and draw on the three other types of meetings of the service process. Our aim in the coming months is to apply the same research process to the other steps of the service process and carry out a similar analysis to that used for the REP meetings, till the end of the process, ie the final vote.