# The pitfalls of redevelopment projects in suburbs in Finland

Jessica Karhu<sup>1</sup>, Tytti Wiinikka<sup>2</sup>, Suvi Nenonen<sup>3</sup>, Juha-Matti Junnonen<sup>4</sup>

## Abstract

Worldwide in the growing cities a significant amount of housing is situated in the suburbs built in the 50 hties, sixties and seventies. Today those suburban residences are confronting massive reconstruction needs but inhabitants and owners are lacking financial resources and knowledge to organise large renovation projects. This article is aiming to identify and describe the obstacles, which are seriously endangering renovation redevelopment projects in suburbs and to show some possible enablers to solve these obstacles. We approach this phenomenon from the inhabitants' point of view.

This research is based on a case study in a suburb in the city of Helsinki called Siltamäki. This area is a typical seventies housing areas. The research direction on this study is action research and the method used is case study. We followed renovating and areal redevelopment projects on this area and compared inhabitants' expectations and wishes with the possible realistic outcome. We also studied the physical renovations needs of the real estates in order to find the key reasons why those renovations are not materializing and crucial projects are postponed. In this research we identified following four types of obstacles that are hindering renovation projects. These obstacle types are:

- Governance obstacles: decision making is unpredictable in Housing companies
- Co-Creation obstacles: in the renovation projects there is no adequate place for the user knowledge
- Diversity obstacles: inhabitants' interests are confronting •
- Ownership obstacles: no stakeholder is taking the primary responsibility of the final outcome of the projects in the wholeness

Keywords: redevelopment, suburb, sustainability, housing company, and co-working.

<sup>&</sup>lt;sup>1</sup> Researcher, Doctoral Student; Department of Civil and Structural Engineering, BES; Aalto University; PO Box 13300, FI00076, AALTO, Finland; jessica.karhu@aalto.fi.

<sup>&</sup>lt;sup>2</sup> Researcher, Doctoral Student; Department of Civil and Structural Engineering, BES; Aalto University; PO Box 13300, FI00076, AALTO, Finland; tytti.wiinikka@aalto.fi.

<sup>&</sup>lt;sup>3</sup> Senior Researcher, Ph.D.; Department of Civil and Structural Engineering, BES;

Aalto University; PO Box 13300, Fl00076, AALTO, Finland; suvi.nenonen@aalto.fi. <sup>4</sup> Research Manager, Lic.Tech.; Department of Civil and Structural Engineering, BES;

Aalto University; PO Box 13300, FI00076, AALTO, Finland; juha-matti.junnonen@aalto.fi.

## 1. Introduction

Worldwide suburban residences are confronting massive reconstruction needs and the increasing urbanisation trend demands more housing in the cities. In order to improve sustainability of the suburban areas it is important to densify suburban areas by complement building in the middle of existing housing. Even if this phenomenon is global, has Finland some very special characteristics problems that can be solved only by understanding the habitants' point of view.

The goal of this article is to describe, which circumstances prevent and delay renovation projects in suburbs. Additionally this article will explain some special characteristics of Finnish housing stocks and forms of housing possessions.

First in this paper we describe some characteristics of Finnish housing history and present situation. Second we describe our case study and the all the stakeholders that are involved to a renovation project and finally we identify four types of obstacles that are preventing and delaying renovation projects in Finnish suburbs.

## 2. Background

The Finnish urbanisation started late only in the beginning of the 20<sup>th</sup> century. In the beginning of the century only 12 per cent of inhabitants lived in urban areas when at that same period already 30 per cent of the inhabitants of the Western Europe dwelled in cities. But in Finland when the urbanisation begun it was rather intensive having its peak in the years 1969 – 1975 and this pheromone was faster in Finland than elsewhere in Europe. (Laakso and Loikkanen 2004). Still after a hundred years of urbanisation only 66 per cent of Finnish citizen dwell in cities compering to other EU countries ´ average of 80 per cent.

This short but heavy migration caused a strong demand of reasonable housing. This problem was solved by building with industrialised methods large suburban areas of blocks of flats with similar design. The main attention on that time was on the physical environment of housing areas and the social and functional aspects were neglected. Today these suburban housing areas form more than half of the Finnish housing assets and demand large renovation operations due the ageing of the building structure. Also the demand of energy efficiency of housing requires renovations on these areas. On this moment of evitable renovations one consideration is complement building in the middle of existing housing. This densifying would better the sustainability of an originally spacious area and provide a stronger customer base for the services. (Junnonen and Karhu 2012)

In Finland home ownership is widespread in all forms of housing, including apartments as well as detached houses and row houses. Two-thirds of housing stock consists of owneroccupied homes. A Finnish specialty is dwellers owned housing companies that are a very typical form of housing management in Finland. Most housing companies are small, and manage a limited number of properties. Residents own shares of the housing company, have representation on the board, and pay a monthly fee towards maintenance costs. In year 2008 on average Finnish people spent under 17 % of their disposable income on housing. In general, tenants spend a higher proportion of their income on housing than homeowners. (Ministry of Environment, Housing facts 2008) But housing costs have risen rapidly in resent years. The main reasons to the high housing costs are the increased renovation and maintenance costs as we can see in table below.

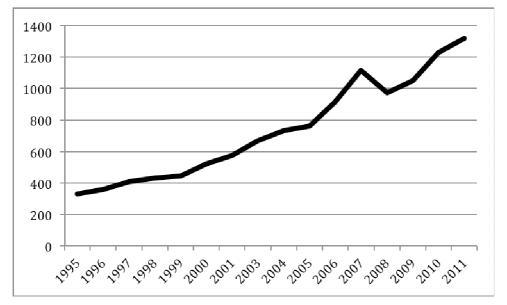


Table 1 Renovations costs of housing companies in Finland(millions of euros)(Official Statistics of Finland)

There is a long history of developing projects of suburban areas in Finland. After Kokkonen (2009) there have been three major national suburban development projects on the years 1995 – 1999, 2000 – 2003 and 2008 – 2011. Besides these large national development project ran by the Ministries there are numerous minor projects organized by larger Finnish cities. Typically these development projects can be divided into inhabitants and theme projects and into research and development projects. Inhabitants and theme projects are usually concentrating to social improvement or to some specific theme like unemployment of the youth. Research and development projects are concentrating to improvement on life cycle costs, physical environment energy efficiency or for example developing the local shopping centre.

Kokkonen (2009) made an assembling research on Finnish development projects in suburbs and after him key elements for successful redevelopment project in suburbs are understanding the needs of the inhabitants, commitment of all the stakeholders, common rules and language, continuity, interaction, trust and of course a common goal and resources to achieve it.

After Heinonen and Ratvio (2007) improving the physical, functional and social environment we can support the identity of the housing area, which is an important element when creating communal feeling. Even it is not possible to solve the social problems by improving the physical environment it is possible to prevent the social segregation by taking care of the maintenance of housing. Inhabitants may be very much aware of neighbourhood's social problem but that does not necessary lead to removal if inhabitants are content with the

environment and the services. The quality of housing environment is a crucial competitive edge in the completion between areas.

After Mohammadjavad (2011) in an areal renovation case study situated in Iran concluded that participation is a way to meet social sustainability. They argued based on reviews of renovating project in Iran that four parameters are crucial in order to reach better sustainable environment that arises from the greater participation of the people in reconstruction projects:

- 1. Participation in all stages from schematic design to operation
- 2. Design in distressed areas should be for people with people and distance that exist between stakeholders should be eliminated
- 3. In renovation projects special attention should be regarded in cultural context in the region and building fabric in the site. In distressed areas rehabilitation must be regarded in this point that future residents should be current residents to prevent people immigration.
- 4. People should be involved in a real participation paradigm to meet social sustainability and it means people should be a part of decision making process and should be involved in all parts of design stages from schematic design till operation phase.

## 3. Methodology and research design

Research direction in this study is action research and the aim of this experiential case-study design is to benefit from experiential learning cycle described later on in this article. After Pasmore (2001) action research is often mentioned based on American philosopher John Deweys' ideas on 1930 how practical problems needed practical solutions. He states that reflective thinking has five phases: suggestion, intellectualisation, hypothesising, reasoning and testing hypothesis in action. He emphasises that a solution is viable only if when it was demonstrated to produce desired outcomes on practice. (pp 38-40)

After Riel (2010) action research is a process of deep inquiry into one's practices in service of moving towards an envisioned future, aligned with values. Riel describes that action research is the systematic, reflective study of one's actions, and the effects of these actions, in a workplace context. As such, it involves deep inquiry into one's professional practice. The researchers examine their work and seek opportunities for improvement. As designers and stakeholders, they work with colleagues to propose new courses of action that help their community improve work practices. As researchers, they seek evidence from multiple sources to help them analyse reactions to the action taken.

Riel states (2010) that the researcher uses data collected to characterize the forces in ways that can be shared with practitioners. This leads to a reflective phase in which the designer formulates new plans for action during the next cycle.

Riel and Lepori (2011) describes the goals of action research:

- The improvement of professional practice through continual learning and progressive problem solving;
- A deep understanding of practice and the development of a well specified theory of action;
- An improvement in the community in which one's practice is embedded through participatory research.

Straatemeier et al. (2010) have proposed a new methodology, which they have labelled "experiential case-study analysis". In their approach they base their method on experiential learning circle. In this learning cycle, the findings on concrete experience leads to the forming of abstract concepts. These concepts are then tested in new concrete situations and when they are successful they will cause chances in existing practices. They state that the experiential learning cycle can also provide a useful framework to characterise planning research, planning practice, and their (potential) relationship. The four activities, observation and reflection, forming abstract concepts, testing in new situation and concrete experience are, of course, already present in current planning research and practice. However after Straatemeier, they are often not linked. He argues that a more direct and systematic link between these different activities would much improve learning processes and thus knowledge development in planning research and practice. This requires change on both sides. In Straatemeier's approach the most important aspect is to gain insight into the underlying mechanisms. Why does a particular planning innovation work, or not work? In order to understand the mechanisms, the researcher has to reflect upon different aspects in each case.

This study is based on a research and development projects realized in 2001 in a suburb of Helsinki, Finland. The case area is a typical seventies housing area with some architectural values. Houses are two or three floors high without elevators. Inhabitants mainly own themselves their apartments. Houses are in situation that plumbing and facade renovation are indispensable. The maintenance and managing of this area is done by a house managing and maintenance agency owned by the housing companies. A housing company is typically formed of the apartment owners of an apartment building or buildings. Housing company's shareholders' meeting is also the primary decision making body when choosing a renovation company. This Siltamäki housing area was originally planned for 3 000 inhabitants with a small shopping centre including a swimming hall, day care facilities and a library. Salastie (2009). Today in this area there are eleven housing companies and four other companies owning garages and some store and business premises. These housing companies have to make in the foreseeable future heavy investments to maintain the condition of the houses. Several different stakeholders involve them selves to renovation project and they all have their own perspective and goals. This picture below illustrates the involved stakeholders.

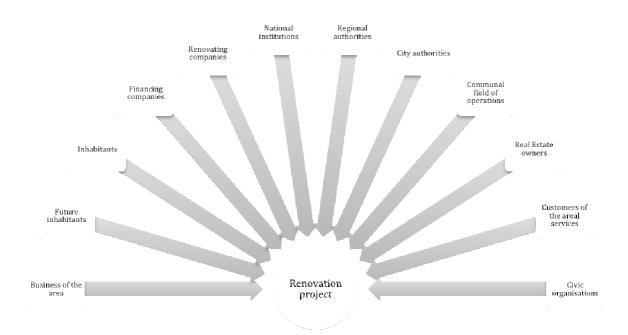


Figure 1: Stakeholders of a renovation project (Junnonen and Karhu, 2012)

## 3.1 Investigating residents' preferences and positioning them into a renovation process

This case was a research and development project in order to find methods how inhabitants' preferences could be taken into account in a large renovation project in a typical seventies suburb. This project is described in Junnonen and Karhu (2012). In many cases in the beginning of renovation project the inhabitants are interviewed and asked on their wishes but seldom this data is included in the planning process of a renovation process. Often these wishes or preferences are not included in the process because they would need some extra agreements and funding between the customer and the renovation company or the construction companies are not the relevant suppliers for these ideas or the ideas are collected too late. Often inhabitants feel themselves frustrated afterwards and contentment to whole renovation project is decreasing while they cannot see any benefit of participating to planning process in first-hand.

Three workshops were organized on this case area together with the inhabitants, researcher, representatives of construction companies and planners. These workshops were following a special method developed by research group Mind at Aalto University. The goal of the two first workshops was to create development ideas with help of co-working among the inhabitants. The participants of the workshops were not selected in any criteria but it was free access to all workshops and the participants were not asked to leave any personal information. In these two first workshops participants started by listing their idealistic housing area and the workshop followed by refining these ideas in groups to be more concrete ideas possible to realise during the renovation project.

The third workshop was a larger but more formal event where there was also official information on future renovation project. In this workshop participant were asked to vote on

the most preferable vision or concrete subject that could be possible to realise during the renovation project. The participants were also asked by which method (questionnaire, oral or written interview, model exhibition, prototyping) they want to communicate their wishes to construction companies and planners.

These workshops were recorded and afterwards the inhabitants' presentations were analysed in order to find what they think is a obstacle to renovation project and what they would like to achieve as a result of the renovation project. On that same period the researchers and representatives of the construction companies had their own workshops and meetings in order to find what the construction field finds to be obstacles. One of the goals of this project was to describe a theoretical model how and which point in the construction process (owner-) inhabitant needs and wishes should be taken account. After this research we can state that these needs should be investigated early enough that they could be prioritised and taken into preliminary planning. Otherwise they will be neglected for the economical and technical reasons during the process.

## 4. Results

The practical aim of the research was to recognise obstacles that prevent or delay necessary, desired, planned or profitable improvements in suburban redevelopment projects. Based on research we find four categories of obstacles.

#### **Governance obstacles**

The suburban housing areas are usually composed of individual housing companies. These housing companies own usually of one or few apartment houses. The decision makers in the boards of these housing companies are the flat owners. Also all the funding in private housing companies comes from the flat owners. The owners typically differ in life situation and they have varying possibilities to finance improvements. Thus in a decision making situation the share of the more wealthy owners determines the level of renovation and housing companies are unwilling to take costly decisions that would be difficult to less wealthy owners. Some decisions demand qualified majority. Typically decision making in such housing companies is rather conservative and difficult decisions are often delayed because these decisions often mean funding difficulties and temporary housing elsewhere to the owners. Flat owners also are laymen on real estate and construction business and the board members can change randomly. All this makes decision-making unpredictable in housing companies.

#### **Co-Creation obstacles**

Successful redevelopment projects often benefit from the user knowledge and co-creation between all stakeholders. These processes create involvement among the inhabitants and the owners. The processes of the construction companies at their present state are not capable to integrate this kind of information in the renovation projects. In these processes there is no adequate place for the user knowledge. This phenomenon creates dissatisfaction

towards to the redevelopment project's outcome and might create frustration if inhabitants' expectations were very high that their propositions would become concrete.

#### **Diversity obstacles**

Typically inhabitants in a suburban housing area differ in age, education, and professions and in many different ways. Thus their needs and desires are different and often their interests are confronting. This can be remarked in questions like would it be a good occasion to build an elevator in the house or should the playground for children be renovated. These divergent desires of owners can paralyse development projects.

#### **Ownership obstacles**

In development projects there are several different stakeholders, owners, construction companies, city planning, business life. All the stakeholders are forced to collaborate but they all have their own targets and point of views. Stakeholders tend to optimise their own share and expenses. Thus no stakeholder is taking the primary responsibility of the final outcome of the projects in the wholeness

Enablers to overcome these obstacles can be discovered by carefully studying successfully cases where all the stakeholders have benefitted. The co-planning, co-working and sharing information are the key elements in order to reach an optimised outcome to all the parties.

## 5. Conclusions

These obstacles of renovation projects are not solved without strong co-planning and new attitude in managing redevelopment projects. One solution could be an urban manager who could operate as an enabler between inhabitants, city planning and construction companies. Such an urban manager should be chosen by the inhabitants in order to have the position of trust towards all the stakeholders. As a renovation project is a multidisciplinary task should such as urban manager have professional knowledge from different fields.

Developing financing methods such as inverse housing loans should eliminate the instability of the financial situation. Also by developing co-renovating models, inhabitants could achieve more reasonable renovation offers from the companies due larger contracts but also that would support communal feeling end experience. Inhabitants' organisations could be more involved to the renovation project so that inhabitants could by them selves sketch the renovation project and what they want of it.

For further research it would useful to study more enablers to overcome these obstacles. These enablers can be discovered by carefully studying successfully cases where all the stakeholders have benefitted.

## References

Heinonen S and Ratvio R (ed.) (2007) "Asumisen tulevaisuutta ennakoimassa." VTT Technical Research Centre of Finland, research report VTT-R-04021-07.

Junnonen J-M and Karhu J (2012) Asuinalueen parannusopas, Helsinki, Aalto University, Unigrafia Oy.

Kokkonen J, Seppänen M and Haapola I (2009) Lähiöiden kehittäminen Suomessa, kokemuksia asukkaiden osallistumisesta, University of Helsinki.

Laakso S and Loikkanen H A (2004) Kaupunkitalous, Helsinki, Gaudeamus.

Ministry of the Environment of Finland (2008) *Housing facts.* (available online <u>http://www.environment.fi/default.asp?node=10078&lan=en</u> [accessed on 29/11/2012])

Mohammadjavad M and Masoome A (2011) "Public Participation for Sustainable Urban Planning in Case of Iran", *Procedia Engineering*, **21**: 405-413.

Pasmore W (2001) "Action Research in the Workplace: the socio-technical Perspective." *Handbook of Action Research*: 38 – 47 (ed.) Reason P & Bradbury H, SAGE Publications Ltd, London.

Riel, M. (2010). Understanding Action Research, Center For Collaborative Action Research. Pepperdine University. (available online <u>http://cadres.pepperdine.edu/ccar/define.html</u> [accessed on 29.11.2012])

Riel M and Lepori K (2011) "A Meta-Analysis of the Outcomes of Action Research", *Paper presented at the American Educational Research Association conference*, April 2011, New Orleans.

Salastie R, Fogdell M, Karisto M and Tiainen P (2009) *Siltamäen kontaktikaupunki*, Helsingin kaupunkisuunnitteluvirasto/ City Planning Department of Helsinki, Helsinki, Edita Prima Oy.

Straatemeier T, Bertolini L and te Brommelstroet, M (2010) "An experiential approach to research in planning", *Environment and Planning B: Planning and Design*, **37**: 578-591.