CITY, CATCH THE TIME!
Rediscovering socialist neighbourhoods in a new capitalist society

Case in Vilnius Lithuania

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Pictures of the site for the reader: Vilnius and its microdistricts
Sources: Vilnius from above, 2007 and www.fotoskrydis.lt

Medieval old town - in the UNESCO world heritage list. Source: www.fotoskrydis.lt

Medieval old town and fast growing central business district on the banks of river Neris. Source: www.fotoskrydis.lt

Microdistricts in winter

Housing estates - typical skyline of Vilnius and other post-socialist cities and suburban neighbourhoods in Vilnius. Source: Vilnius from above, 2007
Summary of the graduation project

The graduation project is called “City, catch the time! Rediscovering socialist neighbourhoods in a new capitalist society”. The study case is Vilnius, capital of Lithuania. Focus of the project is socialist housing estates, known as microdistricts.

In the beginning of the year I have stated that those housing estates constructed until 1990s in all cities of the former USSR are declined, unattractive, and unsafe. However after analysis of the study case city Vilnius I have found that the city has more problems than the housing estates. There is a big threat of sprawl, and all developments go away from sustainability. While housing estates are popular among citizens, have public transportation, green space, room for development. Although still have a threat of decline and stigmatization.

Considering threats of the city and advantages of housing estates I have developed vision for the city: instead of mono centric sprawling city it has to become a polycentric city with network of centralities, connected by public transportation. A huge socialist housing area in the north of the city supposed to become one of the centralities. Now the site is in a complete city periphery, big sleeping district with 150 000 residents.

Strategy goal was to change that periphery into a centrality. According to study of modernist city was defined rules how it could be changed into a compact and diverse city. This part of the project is named concept rules for the strategy. Applying these rules, transport oriented development principles and advantages of the site was designed strategy how revitalize housing estates area and create a lively centrality. The strategy is divided into phases and projects like: developing three main axes with public transportation and creating an urban centre in between them. The centre is connected with the microdistricts. This connection is a tool to revitalize housing estates by changing their public space system and adding functions on the nodes. The strategy also defines links from microdistricts to the surrounding landscapes.
In the design part was elaborated one of the routes linking housing areas and the centre. The route project has main intervention areas: the centre – conversion of shopping malls into urban blocks, pedestrian shopping street, station area and urban square; in Fabijoniskes microdistrict – forming urban street, designing new houses along the route, moving public and commercial functions to the route, designing urban square and park avenue; in Pasilaiciai microdistrict is formed route with a cultural and sports program, is designed community square and leisure and entertainment park. The approach of the project is to have less open space, but high quality and make space for new low rise housing. The effect of the interventions is - lively integrated housing areas, created centrality and a polycentric city.

Background image – route crosses housing estates with ground floor shops. In the back is seen urban centre with a tram line and station.

The process of the project is broadly explained in the booklet, which is divided into 5 main parts:
1 – introduction,
2 – research,
3 – strategy,
4 – design,
5 – evaluation and conclusions.
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Aim and goal of the final project 18
Introduction

The first part of the booklet describes framework of the graduation project defined in the beginning of the year. It explains societal and academic relevance of the project theme and personal motivation of the author to do it. In the chapter ‘Problem statement’ it is summarized problematic of post-socialist cities and housing estates. The chapter is followed by research questions and research methodology to answer them. These research methods were used to gather and conclude information for analysis described in the second part of the booklet. The last chapter of this part explains project goals set in the beginning of the year and followed during entire process.
Societal and academic relevance

Large scale housing estates are typical neighborhoods reminding us about fast post WWII developments. Once a dream of every family, now many of these areas, especially in Western Europe are facing serious physical and social decline (Project Info: RESTATE n.d.). Prior to 1990 in the Soviet Union, construction of concrete dwellings was a major field of development. The result of building houses for the masses is that the majority of the population in former communist countries lives in this type of estates. They are not yet a spring of social problems, like in some Western European cities. However it is important to develop strategies to prevent this from happening.

In the case of Vilnius, actions are taken to restructure housing estates. In The Lithuanian Housing Development Strategy (The Lithuanian Housing Strategy 2004) revitalizing socialist housing estates is one of the most important issues discussed. Besides planning laws, public-private cooperation projects are started, like “Renovate the Housing – Renovate the City” (Why useful: Renovate the Housing – Renovate the city). However regeneration of micro districts is still not the priority development in City's Development Plan (Vilnius City Development plan, 2007). Those cases illustrate the importance of the issue of housing estates renewal; however most of them focus on housing policies, not on urban planning and design.

Until now, no integral strategy incorporating development of the city, opportunities and needs of a neighborhood have been prepared by Vilnius city municipality, planners or developers.

Research, planning and design project worked out in the graduation year intends to offer alternatives how to develop housing estates in post-socialist micro districts, overtaking coming threats, and satisfying current city needs. As restructuring of socialist neighborhoods is an important topic in all post socialist cities, the proposed strategy and design could become a pilot project for other similar sized cities, in Lithuania, in the Baltic States, or even in all Eastern Europe.

Personal motivation

The special condition of Vilnius, as a post-socialist city in transition, and opportunities of rationally planned housing estates in socialist micro districts seem to be a very challenging and interesting area to explore city planning and strategy, as the issue is not enough explored yet.

My personal motivation for choosing Vilnius is a challenge to plan the city differently than it has been done until now: following less market needs and balance the development. It is a chance to propose a new strategy for a city and it neighborhoods from another point of view, learning from Dutch planning traditions and an
international mentor team. Moreover as Vilnius is my hometown, the project may have its continuation after the graduation. Presenting it to the municipality, or architects and planners community may finally start a discussion of a new future of housing estates in socialist micro districts.

**Problem definition**

Vilnius, the capital of Lithuania, at a first glance like any other modern European city, with a historical downtown, a fancy central business district, a large amount of entertainment and busy street life. But this image of the centre is very different from the surrounding neighborhoods, whose majority are housing estates built in the communist era in between 1945 and 1990.

Vilnius is a typical post-socialist city in a period of transition facing serious urban problems. After 50 years of modest lifestyle under the socialism regime, in 1991 countries that composed the former USSR regained independence. Opportunities for people to enjoy advantages of capitalism appeared. New habits affected city structure a lot. Car based developments following the needs of a market based economy like expansion of private houses into suburbia, shopping malls, concentration of functions in the centre, decay of public transport are the characteristics of city in a transition period. In this process, socialist housing estates become most vulnerable areas.

Microdistrict is the term used to define a social housing neighborhood or part of the city in former East Bloc countries. Those neighborhoods are very typical of Eastern European cities and they have mostly the same general configuration. Traditional micro district were planned and built satisfying socialist society ideologies: balanced amount of houses, facilities and infrastructures, the same apartment typology for so-called ‘typical’ families. All neighborhoods had a clear layout structure and a lot of public space. 2/3 of Vilnius population lives in these areas (Juskevicius, 2003). Now they become mono functional sleeping districts, with a lack of jobs and cultural opportunities as well as decaying physical conditions.

However, problems and threats of the city and neighborhoods may become opportunities with the right development strategy. Rationally planned socialist city layouts have advantages. All microdistricts are well linked with a street net, which has space for more attractive and efficient public transport network. The layout of neighborhoods provides opportunities to accommodate needed jobs and entertainment functions, as well as more housing typologies. Socialist nucleuses structures do not function any more like they used to, but they can be changed, adapted and function again, while satisfying today’s needs.
Main research question that should be answered spatially:

**What are the opportunities to intervene in microdistricts and make them suitable for rapid changes of society?**

In order to answer this question, element contained in it have to be researched separately. Three main topics of different scales are studied:

1. Post socialist cities in transition
2. Housing system in Vilnius
3. Microdistricts

‘Post socialist cities in transition’ is a topic to understand the context and current urban processes in Vilnius. Literature review and mapping conclusions of present situation will be used. As the focus of the project is mono functional housing areas, it is necessary to understand overall housing systems and demands in the city. In order to do that ‘Housing’ topic is researched. The last theme is ‘Microdistricts’, specific housing neighborhoods in East Bloc countries. To find out their redesigning opportunities, firstly it is important to understand how they function now. Methods to answer coming sub-research questions from these topics are discussed in chapter “Methodology”.

Conclusions and suggestions for each topic will come after the research. According to the problems and needs of the city, opportunities and threats of microdistricts, a development vision is proposed to the city. Strategy for the part of the city with the majority of socialist neighbourhoods is designed to reach the city vision goals. Strategy is divided into phases and projects. Key projects are elaborated. Design and strategy proposals answer the main research question and suggest opportunities to intervene in microdistricts and make them suitable for today’s and tomorrow’s changes in society.
Research is done for three main topics. Each of it is analyzed in different scales: firstly understanding the context, then structure and working of the city, and lastly operation of microdistricts. Wide range of actions is used to answer research questions. Main methods are described below.

Literature and case studies are basic tools to understand the context of the project. To find out definition of socialist and post socialist city as well as meaning of large scale housing estates literature is reviewed. Theoretical framework, graduation theory paper explores background and role of post WWII housing neighborhoods. Their decay threats, regeneration practices and policies are revealed by case study of estates in Western and Eastern European cities.

Mapping is most important instrument to illustrate nowadays situation of the city and microdistricts. In the maps location of facilities, networks, function, densities, types of the areas are shown. Analysis of city development plans helps to understand future processes and changes of urban structure. Moreover it reflects city demands and government development priorities. Mapping of open land and public spaces in the neighbourhood scale shows possible room for interventions there. Data for mapping is taken from city development plans, maps.google.com, yellow pages, and analyzing areal photoes.

Demographic changes affect city structure. Population, household, employment statistics, as well as estate market trends of Vilnius show the demands for houses and life quality. Those factors determine land value of neighbourhoods, their position in the housing market. Statistics and estates market trends are used to check if there are signs of deterioration in the oldest microdistricts. Moreover demographic statistics is used to find out social composition of residents in the project area. Statistic data is taken from Department of Statistics to the Government of the Republic of Lithuania (Statistics Lithuania), 2001 and 2005 year census. Market trends data is taken from real estate agencies City24.lt and Ober Haus monthly statistic reports. Data for housing is from The Lithuanian Housing Strategy approved in 2004.

Site visit reveals physical condition of houses and public space. Moreover by visiting and experiencing different neighbourhoods their street life, safety feeling can be compared. This method is more important at local level research and in process of designing.

Interviewing residents of microdistricts reflects advantages and disadvantages of the neighbourhoods of local inhabitant’s point of view. As the attitudes of government and researches may differ from local’s opinion. City planner will be interviewed to find out what city is planning in the microdistricts. And residents will be asked what do they like, dislike, need, lack in their neighbourhoods. Moreover in the study are used questionnaires about safety in public space done by other researchers.
Method of processing information

SWOT Matrix is used to evaluate microdistricts. Qualities and features of neighbourhoods, different in construction period and location are compared. Rated characteristics are: population, density, accessibility, mix of functions, safety, physical condition and many others. Matrix analysis shows what are the features that determine quality of the neighbourhood, and if it affects areas deterioration. SWOT analysis helps to summarize all the findings, conclude and come up to proposal.
Aim of the final project

Aim of the project is to propose regeneration strategy and design for a socialist housing estate and convert it into lively and attractive centrality. The development strategy, should answer main research question: suggest opportunities to intervene in microdistricts and make them suitable the need of new society. Main goal of the final product, strategy and design, is to shift sprawling post-socialist city more sustainable way and prevent socialist housing estates from decline.

Final project goals:
Develop network of centralities
- Less monofunctional areas
- More job, cultural opportunities in microdistricts
- Mix of functions encourages people to move less to the downtown and use their neighbourhoods
- Encourage use public transport

Create conditions in the project neighbourhood for lively and attractive centrality
- Social Mix + Land Use Mix + Density
- Create attractive neighbourhood for people to live, work and recreate
- Create quality and diversity of public spaces
- Improve accessibility

Housing demand
- Make use of existing microdistricts by urban regeneration
- Less sprawling, Compact City concept
- Propose variety of typologies
- New housing types attracts different people and encourages social mix
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Research conclusions 54
Research part of the booklet presents all the analysis done to answer the research questions. The first chapter reviews literature and explains background information of the project context: definition of the housing estates, characteristics of socialist and post-socialist cities.

In the second chapter is explained urban structure of Vilnius, role in the region and historical city development. Microdistricts in Vilnius are presented separately. Size of the area is compared with Delft, to understand the scale of the project.

The last part of the research was done concluding demographic statistics, housing market trends in the city, and analysis of housing situation in Lithuania.

Conclusions of the research became a backbone drawing vision for the city and strategy for the project area.

This part of the booklet includes wide range of maps, charts, images and schemes for illustration.
Future of large scale housing estates in post socialist cities

Literature review paper

Theoretical framework for the graduation project was done for the Theory of Urbanism course. In the literature review paper described hypothesis is used as a basis to prove necessity to regenerate housing estates, moreover conclusions of the paper provide recommendations for the strategy and design. Abstract of the paper is presented below.

Future of large scale housing estates in post socialist cities

Keywords
Housing, large scale housing estates, renewal, post-socialist city, transformation

Abstract

Large scale housing estates are typical neighborhoods reminding us about fast post WWII developments. Once a dream of every family, now many of these areas, especially in Western Europe are facing serious physical and social decline (RESTATE, 2009). This paper explores origins of the problems in the modernist neighbourhoods as well as their opportunities for the sustainable development.

Already in the early 1970s clean and open modern city has started to be criticized for the lack of human scale, public and private space separation, monotony and mono functionality. Urban theorist Jane Jacobs criticizes the regularity of buildings for keeping out diversity of population and business. “While density is efficient, there should be a limit to standardization and emphasis on diversity and product types to create dynamic neighbourhoods” (Jacobs, 1992). Criticism of neighbourhoods has been followed by high crime rates and social problems. While in the seventies most western European countries have already started renewal programs for declined estates, massive construction of uniform tower blocks in the former Soviet Union, continued up until 1990s. However comparison of the post war housing in Western Europe and post-socialist cities made by Ivan Tosics (2005) has showed that despite low physical quality neighborhoods in the east-central Europe were much less deteriorated, then their western counterparts. On one hand post-socialist housing estates do not have problem yet, on the other it may be hypothesized that there is a threat of stigmatization: as soon as the housing shortage is eliminated, apartments in the estates go to the bottom of the market, segregation and urban problems can be triggered (Dekker, et al., 2005). Preventing the threat to happen it is necessary to start rehabilitation programs in early enough stage. However besides the threats of decline and problems debated about modernist cities since 1970s, nowadays housing estates are discovered once more. In the new Millennium sustainable urban development is becoming a fashionable topic (Tosics, 2004) and if the positive aspects of post war housing (compact morphology, potentials of public transport links, environment friendly heating system, and large green areas) could be preserved Europe would gain a lot to reach her very ambitious sustainability goals (Tosics, 2005).

The main objective of this paper is to explore how possible that the above mentioned threat of stigmatization in large scale housing estates will happen in the post-socialist cities. Before answering that it is researched what are the differences of neighbourhoods in Western and Eastern European cities, and what does trigger deterioration of post war housing? How to avoid it? The main findings in reviewed literature propose regeneration guidelines to prevent decline to happen. Assumed hypothesis of this paper will be used as a basis to prove necessity to renew not yet deteriorated housing estates in the post socialist city. Moreover recommendations such as importance of the housing policy in the city, diversity and place making in the neighbourhood will be applied in the graduation project.

The first chapter of the paper, introduction, is followed by the three main sections: past, present and future situation of the housing estates. Second chapter clarifies the roots of post-war housing and characteristics of socialist and post-socialist city. Third chapter explains present situation of modernist housing in western and east-central cities. Furthermore origins of problems and hypothesis of stigmatization is described. The fourth section presents the future opportunities and advantages of prefab housing. The review paper is ended with conclusions and recommendations for the graduation project.
“As soon as the housing shortage is eliminated, apartments in the estates go to the bottom of the market, segregation and urban problems can be triggered” (Dekker, 2005). That have already happened in the 1980s in Western Europe cities and USA.

What is a socialist city?

Government and planning in the USSR

In 1939 Lithuania was annexed to the Soviet Union. Up until its collapse in the 1990s, Vilnius was part of the testing field where communist ideologies opportunities were explored. The main feature of this period in Soviet Union and its satellite countries was government control over all aspects of life. The only communist party was planning the economy of entire region. The government decided amounts of production and consumption. The need for goods, facilities, houses was counted and so was lifestyle, migration, and the media was under control. The planning of cities was also centralized. It became an important tool constructing the socialist ideology.

After the WWII, the focus of the development in USSR was industrialization. The Eastern Block had to overtake the West. Construction of industrial sites, power plants, and massive production caused rapid urbanization. Collectivization of agriculture and miserable living condition in rural areas forced people to go to the city. Urban overcrowding led to total housing crisis.

In 1960s, housing shortage shifted focus of development towards housing construction. Nikita Khrushchev (leader of the Soviet Union between 1958-1964) intended to reach complete communism in 20 years, when there will be no shortage in any sphere, and he promised houses for every family. To reach the goal fast and cheap ways to design and construct had to be found out. A rational modern city model was prepared. It contained diverse importance centralities and neighborhood units: micro districts. In the construction of the houses, prefab concrete panels appeared to be most economic. Plain inexpensive designs, mass production techniques, and the use of prefabricated panels, stereotyped layout are the features of socialist city neighborhoods.

Cities and microdistricts

Architecture through history has been used to reinforce ideas of society, and for system dedicated to workers most important city structure was residential complex. Soviet planners were influenced by modern city planning outlined in the Athens Charter of CIAM and explored in works of Le Corbusier (Stanilov 2007).

Since 1958, an officially approved unit of Soviet city organization has been called the micro district. It is self contained residential neighborhood, covering 10-60 ha area. There, between 5.000 to 15.000 people live in apartments grouped around parks and the micro district centre, with common facilities, such as schools, food shops, libraries, sport facilities, health services, cultural amenities, and other conveniences of daily needs. Group of microdistricts form larger residential city districts, of 10.000-30.000 inhabitants. There were more additional services in the centre of it. And residential districts surround the city centre or historical centre if there is such. Most socialist cities were medium size 100.000-300.000 inhabitants, as they were more convenient to live, operate, and cheaper to build.

Micro districts and residential districts had natural boundaries, greenways, or motorways. Same roads served more than few districts, so construction of roads was reduced. There was a big emphasis on public transport.

Most constructions of micro districts took place in large open areas on the edges of the cities, where stereotyped layout could be used over and over again (Osborn 1966). Neighborhoods were designed for citizen’s conveniences, but to relieve shortage fast, priority in the city construction was housing, and facilities, shops, health care, culture buildings came much later. Cities were developed unbalanced. The other characteristic of socialist city is no mix of functions. Micro districts were meant to live and sleep, industrial areas to work, university towns to study, and city boulevards for parades and celebrations (Robinson 2009).

That is how all cities in Eastern Europe functioned and looked like almost 20 years ago. After the collapse of Soviet Union government, economy, people habits have changed. How are those large housing estates and micro districts function now, in different conditions is explored in following chapters.

Soviet planners were inspired and influenced by modern city planning outlined in the Athens Charter of CIAM and explored in works of Le Corbusier (Stanilov 2007).
Schemes showing nucleus structure of various size socialist cities
Source: Vanagas, Miesto Teorija, 2003

Socialist reality: industrialization, press control, shortage economy in former East Bloc. Source: www.wikipedia.org

Mass houses construction after 1960s in Moscow
Source: www.wikipedia.org

Vilnius - a socialist city

Low cost + high speed = prefab concrete panel house

Vilnius in 1970s

What is a post-socialist city?

Two main features effecting urban structures of post-socialist cities can be noted: new habits of people and lack of government control in planning. With the collapse of the Soviet Union, the population of its former states gained opportunity to enjoy comfort of consumption. After 50 years spend in a modest and standardized society, now for people of post socialist countries private house and car ownership become a norm. They started to value their own comfort and conveniences very highly (Grava 2007). Moreover after a collapse of total government control society denied everything that was centralized. Massive privatization of industries, estate and hosing stock took place in the 1990s.

Post socialist city - car dependent city

East European urban areas experienced loose of population, as there was a sudden flight to suburbs. People were fascinated by the opportunity to change uncomfortable small apartment in a micro district into a private house with a garden. Development of the cities under socialism was focused on the periphery of the city, where residential high-rises were constructed. But in the post-socialist era the focus is more on suburban areas (Robinson 2009). The new sprawling neighborhoods do not have sufficient social infrastructure (health care, educational institutions) and public transport. To own a car became a necessity. The number of cars in fifteen years in Vilnius tripled. For the increased car users’ car dependent facilities started growing on the main arteries of the city, far from the compact urban core. Shopping centers, large furniture stores, automobile showrooms, garden supply and home improvement centers and supermarkets are found as individual box like buildings along major traffic ways, or as clusters forming significant activity centers. Office building and large entertainment places follow similar paths. Even institutions (government, medical, education) need to expand and find place outside the compact city (Grava 2007).

With increased amount of cars, the use of public transport declined. Firstly because it do not reach suburban neighborhoods, secondly it is not as fast and attractive as the cars. The Socialist city was fully equipped by public transport. The system functioned but without paying too much attention to consumers comfort (hard seats, poor ventilation, and slow speed). When in Soviet time there was no choice for other transportation system, people tolerated that. But as soon as opportunities to have private car came, the use of public transport declined (Grava 2007).

New habits changed the appearance of housing estates. During the Soviet era the residential districts feature was expansive park areas. Now they are informally and formally converted into parking lots (Brown 2009). In the original neighborhood design was counted that just few families would have a car, but now every household have one or even more cars. Moreover plan to satisfy all residents living, working, entertaining needs within the urban unit, do not function any more. Offices are attracted by new developments in the urban core, were under utilized space is regenerated. Grey concrete housing estates do not attract investment, and that causes uneven distribution of jobs within the city.

Residential districts are isolated in the outskirts, old industrial districts are too close to the city centre and suburban development is appearing in the areas with insufficient infrastructure (Brown 2009). That is the image of a post-socialist city

To fight these processes, governments of post socialist cities, including Vilnius, adopted strategic or city development plans intending to stop sprawling, reuse existing districts, strengthen livability or the city centre, improve and enhance public transportation system and to shift city development more sustainable way. The graduation project will continues those city goals.

Functioning of infrastructure, housing system, location of institutions, offices and facilities in Vilnius and its micro districts are analyzed in the coming chapters.
Residential micro districts packed by cars. Source: Pictures by author

Public transportation, trolleybuses in a traffic jam. Source: http://www.miestai.net/forumas/

From the left // Most popular shopping and entertainment mall in Vilnius attracting people even from far parts of Lithuania // Gated communities in the outskirts of the city. Source: Vilnius from above, 2007 // City artery in a rush hour. Source: http://www.miestai.net/forumas/
Vilnius - a post-socialist city

God made the country, man made the town, devil made the suburbia. De Bouman
Flight to suburbs

Suburbs of private houses and gated residential neighborhood far from urban core in Vilnius.

Source: Vilnius from above, 2007
Mapping the city
Vilnius in regional context

LITHUANIA FACTS
Population 3,349,872  Area 65,200km²  Density 52 per/km²

Data source: www.stat.gov.lt
Mapping the city
Vilnius in regional context

Data source: www.stat.gov.lt

Map: Vilnius in Region (Vilnius County)
Introduction to Vilnius

Vilnius in Baltic States

Lithuania is the largest of three Baltic Republics. More than 50 years it was part of the Soviet Union and in 1990 renewed and declared its independence. After 14 transition years in 2004 it joined the European Union and NATO. Lithuania has around 3,5 million inhabitants of which 67 percent live in urban areas. 16 percent of the population, six hundred thousands live in the capital - Vilnius.

Vilnius is the major economic centre of Lithuania and one of the largest financial centres of the Baltic states. It generates approximately 25% of Lithuania’s GDP. Main governmental, business, educational institutions are located in Vilnius, but it is not the dominating city. Second largest city Kaunas is just 100 km nearby, and port - Klaipeda, 300 km from Vilnius. Vilnius is well connected with these two, and other big cities by highways and railroad network.

Distances to other major cities of the region:
Warsaw, capital of Poland - 470 km
Riga, capital of Latvia - 280 km
Minsk, capital of Belarus - 170 km

Vilnius in the region

The city of Vilnius is located in the largest county of Lithuania - Vilnius County. The capital is the dominating city in the region. Big part of the surrounding towns population come to Vilnius to study, entertain, or to work.

Population in Vilnius - 553 000
Daily population in Vilnius - 673 000
Population in metropolitan area - 800 000

City administrative boundaries cover 400 square kilometers area, so the density of the city is very low - 1,357 person/km². (Data source: www.stat.gov.lt)

City scale comparison

Compared with other cities in the region and Europe - Vilnius has very low density, and big administrative boundaries. Amsterdam and Vilnius are similar size cities, however density of Vilnius is four times lower. Low density and sprawl are one of the main problems in the city.
Morphology and population density

Vilnius has variety of living typologies. A compact city centre, with medieval old town and 19 century developments, is enclosed by industrial sites and historical urban villas neighbourhoods (see pict.4).

Free standing large housing estates build during soviet era surround the city. They cover the biggest part of the city, and there majority, 60% of population lives (see pict.2 and 3). These neighbourhoods have the highest population density in the city (see pict.5).

In city development plans the importance of regeneration of socialist estates is noted and emphasized. Plan also marks areas for expansion of private houses neighbourhoods (see pict.1, pink color). Until now part of suburban areas is constructed, while regeneration of microdistrict did not start yet.

1. Expansion areas in the city development plan, pink color - low density. Data source: Vilnius City Development Plan, 2007
2. Percentage of population in different housing typologies
Data source: Juskevicius, 2003

3. 61% of Vilnius inhabitants live in socialist housing estates (brown color)

4. Current dominating morphologies in the city (Same scale as left page)
Data source: Defined form the map by the author

5. Population density in the neighbourhoods
Data source: Vilnius City Development Plan, 2007
Vilnius is very car dependent city. Well developed road network covers all urban areas, and integrates socialist microdistricts. Good freeways network make the city even more congested.

New ring road (see pict.1, red dotted line) in the west of the city is planned in city development plans, and part of the construction is already started. Road will connect large housing estates and accessibility by car will be advantage of microdistricts.

Public transport

Public transport network covers entire city quite well, especially socialist estates. But the system is outdated, very slow in rush hours and uncomfortable. During 15 independence years public transport ridership decreased three times, and amount of private cars in Vilnius tripled (see next page).

There are opportunities to implement new public transport systems in Vilnius, as the biggest part of the city is covered by low build intensity on the area housing estates, with high density of population, and well developed road network.

City development plans: tram or metro in Vilnius?

The city is already planning to implement a new public transport system, just the mode of it, fast tram or metro, changes with the change of government.

In 2007 prepared city development plan for 2015 indicated where tram lines should go (see pict.3). The proposed tram lines go on major public transport intensity routes: from city peripheries, especially from socialist microdistricts, to the city centre. Microdistricts in between remain not connected.

While recently developed Vilnius metro (see pict.4) idea suggest even stranger routes, out of which majority duplicates major private transport arteries, with biggest congestion problems. Metro lines on one hand connect strategic city nodes, such as research centres, university town, but on the other hand socialist microdistricts with huge amount of population remain disconnected. Moreover big shopping malls are connected in the first phase of metro construction, and city international airport, or housing estates come much later.

To conclude, there are plans and opportunities to implement new public transport systems in Vilnius. Just its network should follow overall city development strategy, and connect important strategic locations, giving them additional value. Not just to solve current problems, but also to propose future opportunities.
1. Major existing and planned (dashed line) road routes. Dark grey - socialist microdistricts
Data source: Vilnius City Development Plan, 2007

2. Public transport use intensity
Data source: Burinskiene, 2003

3. Planned tram line (red line) duplicates major public transport routes
Data source: Vilnius City Development Plan, 2007

4. Planned metro lines in Vilnius. Dark grey - socialist microdistricts
Data source: www.vilniausmetro.lt
Traffic problems in Vilnius

Use of car has tripled
Data source: Burinskiene, 2003

Use of public transport declined 4 times
Data source: Burinskiene, 2003
Public transportation, trolleybuses in a traffic jam

Source: http://www.miestai.net/forums/
Spread of functions

The first presumption of socialist microdistricts as monofunctional areas with lack of services was partly proved during mapping of the city.

Maps 3 and 4 show that city is well covered by public services, such as educational and health care institutions, as well as shopping facilities. These facilities are remains of socialist city layout. At that time everyone had good access to social infrastructure and daily shopping. Those spaces are used by the same function till now. This is the advantage especially of socialist microdistricts.

While the maps of major job and entertainment opportunities show totally different conclusion. Culture and entertainment facilities are concentrated in the old town (see pict.5). Some microdistricts has none of these functions. Majority of main business and governmental institutions with a lot of work places are also concentrated in the central parts of the city (see pict.6). Microdistricts were even more proved to be monofunctional, after putting on the map statistics data. Map 1 on the right shows ratio of population size and job opportunities. There are much more job opportunities than residents in the centre, and totally opposite in socialist microdistricts. There is lack of jobs.

Those maps partly reveal why city is congested: everyday crowds move to the centre back. Moreover this is one of the reason, why socialist neighbourhoods lack of urban life and are empty at certain hours.

Jobs concentration in city development plans

The problem of monofunctional housing areas is obvious, and already noticed by city planners.

In the city development strategy major job concentration areas are marked not in the centre, but in surrounding areas (see pict.2), closer to homes of population, and with much better accessibility by existing or planned infrastructure networks.

All planned job concentration areas, except industrial sites and existing knowledge clusters, are near, or in the microdistricts. This is a very positive sign, that government search for solutions to solve problems.
3. Educational and health care institutions in Vilnius
Data source: Vilnius City Development Plan, 2007

4. Daily shopping facilities, supermarkets in the city
Data source: mapped by the author

5. Culture and entertainment facilities in Vilnius
Data source: Vilnius City Development Plan, 2007

6. Offices, governmental institutions in the city
Data source: www.maps.google.com, Vilnius City Development Plan, 2007
Housing estates - monofunctional sleeping districts

Welcome to my sleeping district!
In the microdistrict sleeping function dominates. Data source: http://www.panoramio.com/photo/246044

There are much more jobs than residents in the centre of Vilnius. Data source: Vilnius City Development Plan, 2007

Socialist microdistricts have very little job opportunities. Data source: Vilnius City Development Plan, 2007
Historical development

Vilnius during ages

In 1321 Vilnius is first time mentioned in documents. It started to emerge from trading settlement in the junction of two rivers and firs catholic church during reign of Grad Duke Vytenis in 14th century. In 1387, Vilnius was granted Magdeburg rights to the city.

During the Polish-Lithuanian Commonwealth Vilnius underwent a period of expansion. City walls were built for protection in the beginning of 16th century. With establishment of the university, soon Vilnius developed into one of the most important scientific and cultural centers of the region. Until XVIII century it grew like most European medieval cities, was influences by church, university, country expansions, as well as wars, setbacks and fires. The historical, medieval old town of Vilnius is one of largest in Europe.

In the 19th century city growth was influenced a lot by industrial revolution and railroad. In 1900 Vilnius reached 200 000 residents (see pict. 4). Centre was expanded south west by urban grid developments. During the World War I and II periods city lost its population. In 1944, when Lithuania was annexed to Soviet Union, city stated to grow in population and size.

Until that time Vilnius can be described as a compact European city. Diverse neighbourhoods from all periods: medieval core, 19th century blocks, neighbourhoods of residential villas or villages grew close one to another.
Role of the microdistricts during the time

In 1950s, Vilnius started to develop very fast. The biggest constructions of socialist housing estates were built in the northwest periphery of the city and continued until union’s collapse in 1990. Stereotyped layout of neighbourhoods and houses was repeated in the area where currently live 200,000 inhabitants. Housing areas were separated from the city by river slopes and valleys (see pict.6), however were well connected with public transportation. According to modernist principles functions were separated, so people lived in the housing areas, and worked in industries around Vilnius (red dots, see pict.6). Housing estates were big sleeping areas that served the city.

In the recent decades city is not growing so fast in population, however is growing in size. It is sprawling (see pict.7). Single family house neighbourhoods are spread in the suburbia. Vilnius does not have so many industries any more. Now all business and services are concentrated in the centre and monofunctional housing estates and suburbia depend on jobs there.

It can be concluded, that socialist housing estates over the history, since their construction till nowadays, were meant to serve the city, and depend on the city. These big housing areas have never been considered as independent, self-sustaining districts.
Social housing neighbourhoods in Vilnius were build in between 1945 and 1995. Construction was fulfilled in four development phases. Different age neighbourhoods differ by their location, proximity to the centre (oldest estates are closest to the centre, others were built in the periphery) as well as social composition of inhabitants. Comparing demographic statistics of the microdistricts was checked relation between age of the neighborhood and urban problems there.

**Introduction to the project area**

Project area is the biggest city district of socialist housing estates on the main Vilnius road going towards Riga. In the city development plans axis is marked as important for future growth. It is a strategic location for development, with big concentration of people, a lot of potentials, as well as a lot of problems. There are 142,5 thousands inhabitants, 27% of total city population. And 98% of them live in socialist apartment blocks. Project area size 3,5 km x 4,5 km, which makes approximately 1100 ha.

Age of the microdistricts in Vilnius
Source: data collected by the author

Right page: Project area, 5 microdistricts, 142 500 inhabitants. Data source: Vilnius City Development Plan, 2007
Socialist estates are big enough to sustain themselves

Scale comparison

Project area with population and its size could be compared with Delft, middle size town in the Netherlands.

Delft has clear mix use historical centre, surrounded by diverse morphology neighbourhoods. City has university, cinemas, theater, many cultural as well as business functions. There is diversity in land uses, public space, and people. While the project area, housing estates in Vilnius, are completely different. Entire city district is the same housing type, same open modernist public spaces, mainly residential function. It is a city periphery; while with its size could be an independent town.

Socialist estates are big enough to sustain themselves, to have center, more functions, and more diversity. This is a very important aspect that will be considered in the strategy for the area.
Conclusions from demographic statistics

Data source: www.stat.gov.lt

1. UNEMPLOYMENT

2. POPULATION AGE

3. EDUCATION

4. HOUSEHOLD SIZE
Diversity of people in the project area

Statistic data about the residents of microdistricts is taken from Department of Statistics to the Government of the Republic of Lithuania (Statistics Lithuania), 2001 and 2005 year census. Schematic maps represent main conclusion that there is a relation between age of the neighborhood and urban problems there.

- The oldest microdistricts have highest unemployment (see pict.1) and lowest education level (see pict.3).

- The newest microdistricts have bigger size families, and here can be found biggest concentration of kids (see pict.2).

- Neighborhoods in the project area have mixed social composition of residents: various age, income, education people and diverse family sizes. Some districts have problem of aging people (see pict.6), others have a lot of kids and young families. The majority of population is very well educated (see pict.5), that even increases possibility that higher education people get higher incomes and move out to better neighbourhoods, or suburban housing areas. Designing the strategy for the area it is important to take into consideration what people are living in those neighbourhoods, and what are their needs.

All in all, could be said that there are signs proving the hypothesis of stigmatization in the oldest microdistricts in the south of the city. The rest of socialist neighbourhoods and the project area share quite a big diversity of age, income, family size, education people.
Housing market trends in Vilnius


Market trends data is taken from real estate agencies City24.lt and Ober Haus monthly statistic reports.

Schematic maps represent main conclusions:
- House prices in the oldest microdistricts are the cheapest, just half of centre price (see pict.1);
- Office or commerce rent price is just half of centre price (see pict.2).
Housing system in Vilnius
Data source: The Lithuanian Housing Strategy

Conclusions from The Lithuanian Housing Strategy approved in 2004 helps to consider the main goals of the government to improve housing in Vilnius. It also gives important facts about housing shortage, social and rental housing percentage in the country. This data will help while designing the strategy for socialist neighbourhoods.

Main conclusions:
- There is a housing shortage;
- Weak rental housing sector;
- Low income families have poor opportunities in selecting houses;
- Houses in housing estates are very poorly maintained (common use property, too many private homeowners, not clear who is responsible);
- Limited housing choices.

Main strategy goals:
- Expand housing choices, more type variety;
- Provide social housing (for low in come, young families);
- Provide housing for higher and average income families;
- Renovate, modernize multi storey apartment buildings;
- Use for social housing dwellings that are not in demand of the market;
- Keep social diversity in multistory apartment buildings.

### Income and apartment price ratio

- **Average LT income 32% of average EU income**

<table>
<thead>
<tr>
<th>Household income</th>
<th>Apartment price</th>
<th>House price</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT 1x $</td>
<td>8x 25%</td>
<td>20x 30%</td>
</tr>
<tr>
<td>EU 1x $</td>
<td>4x 30%</td>
<td>30x 40%</td>
</tr>
</tbody>
</table>

Difference between apartment price and income ratio is much higher in Lithuania. For Lithuanians to buy a house or apartment is much more expensive than for other European citizens.

### Housing shortage

- **LT 0,3% of housing stock**
- **EU 1,5% of housing stock**

Housing shortage in Lithuania is much higher than in other European countries.

### Annual housing construction

- **LT 0,3% of housing stock**
- **EU 1,5% of housing stock**

### Floor space per capita

- **LT 22,4 sq.m./cap**
- **EU 30 sq.m./cap**

Floor space per capita in Lithuania is much smaller than the average in Europe.

### Aging

- **25% Household over 60 years**

Population is aging and decreasing but households are getting smaller. However number of household over 60 years is very big.
Research conclusions

Conclusions from the research could be drawn for few scales: for the city and the project area, housing estates.

Sprawl in Vilnius

Vilnius has a threat of sprawl, development processes go away from sustainability: declined use of public transport, increased number of cars, uneven developments, spread low rise housing. In this process, socialist housing estates can play important role promoting sustainable development for future.

Advantages of microdistricts

Large housing estates are dominating housing typology in the city; they are the densest areas of the city. They are well linked with road and public transport networks, have good accessibility from the city, social services, environmental friendly heating, a lot of green public space, as well as room for developments and improvements. It is important that Vilnius municipality is actively planning, implementing new fast public transport system, organizing microdistricts regeneration projects, however the plans are not complement each other. There is lack of collaboration.

Disadvantages of microdistricts

Besides advantages, microdistricts in Vilnius have a lot of disadvantages: they lack cultural, job, or economical opportunities, are mono functional, apartments do not satisfy nowadays comfort need, is a lack of diversity in housing typologies. Neighbourhoods are not renovated very long time, public space is declined, and common property is badly maintained.
Threat of stigmatization and decline

Disadvantages and lack of attractiveness in the socialist neighbourhoods can become a serious problem in the future if they will go to the bottom of the housing market. In the literature review paper it is hypothesized that as soon as the housing shortage is eliminated, apartments in microdistricts go to the bottom of the housing market and then segregation, physical decline and urban problems can be triggered. It did not happen yet in Vilnius as housing estates are still popular among the residents, city has big housing shortage. However conclusions from statistics showed that oldest microdistricts have lowest income residents, lowest education level, and highest unemployment. However the other estates and the project area still share quite a big diversity of age, income, family size, and education people.

The last very important aspect is that the housing estates in the project area are in city periphery, one big sleeping neighbourhood. It is very important that it becomes independent, sustaining itself city district.

All in all

Vilnius has big threat of sprawl. The city would gain a lot if advantages of housing estates could be used. Moreover it is necessary to regenerate microdistricts to avoid their stigmatization and physical decay.
Vilnius city models

Thematic models of Vilnius were done parallel to the mapping process. Models helped to schematize and simplify information. Each model shows only one, specific topic.

There were made four models: morphology type, major roads, concentration of functions, and city landscapes.

1. Morphology

2. Infrastructure
3. Concentration of functions

4. Landscapes in Vilnius
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The third part of the booklet explains vision for the city and regeneration strategy for the project area.

Firstly according to research conclusions is drawn vision for the city – network of centralities. The goal of the strategy is to change project area from periphery into a centrality.

In this part of the booklet are presented all steps of the strategy. According to study of modernist city character was defined strategy concept rules how it could be changed into a compact and diverse city. Main elements of the plan: transport oriented development principles and qualities of the area are described. Strategy of the area is widely explained in phases and projects.

One of the projects later is elaborated in the design part.
How to change periphery in to a centrality?

Birds eye view photo of the project area in winter, Vilnius.
Compact city with network of centralities

Vision for the city

Phases of Vilnius

Vilnius city development could be summarized into three main phases.

The first one could be named – compact European city (see pict.1). City had all neighbourhoods close one to another, diversity of urban morphologies connected by roads and paths, accessible by walking (read booklet part ‘Research’, chapter ‘historical development’). The historical old town of Vilnius still looks like this.

Illustration 2 represents the second period – socialist city (read booklet part ‘Research’, chapter ‘What is socialist city?’). City had nucleus layout of microdistricts, division of functions: housing areas and industries separated by green areas. It was a modernist city.

Nowadays city is mono centric and sprawling, eating surrounding green and loosing boundaries (see pict.3). All the functions are concentrating in the city. Housing estates are decaying in the periphery.

What could be future Vilnius?

Vilnius should develop into a compact city with network of centralities. The existing city qualities and layout should be reused: rediscover modernist nucleus structure (microdistricts), use advantages of regional connections and develop centralities on the main axes. Diverse functions should be spread all around the city (not only in the centre) with bigger concentrations on main nodes.

Centrality on the city axis

One of the future centralities should become project territory - big housing estates area with potential to become independent city district. As it is located in strategic location on road leading to A2 highway, has density and size.

The compact city

The compact city is The best known planner’s city model for the desirable European city. It can be summarized in the following way: “...making optimal use of the infrastructure of the city, through compact, mixed use and dense settlement structures enabling effective use of public transport ... and minimizing vehicular movements” (WG Urban Design, 2003).
Modernist city is different from the compact city

The goal of the strategy is to change modernist housing estates, periphery of the city into a real city. But then, what is character of original city? And how modernist city could be changed in it? To search answer to these questions was compared historical centre of Vilnius (see pict.1 and 2), city that grew time by time, to modernist estates of Vilnius (see pict. 3 and 4), city purely planned at once during socialism time. Later this comparison developed into strategy concept rules, presented in the coming chapter of the booklet.

What is the difference between modernist and compact cities?

Compact city

Old town of Vilnius is a compact city, where neighbourhood from all periods grew naturally alongside. Each different typology or morphology neighbourhood is connected to the other completely different one. Variety of neighbourhoods and quarters is a very important character of a ‘natural’ city. It brings diverse quality open spaces, diverse housing type, all that attracts different income, education, age, and lifestyle people.

Complexity of networks, routes and roads is another character of the city. Districts are connected and accessible for pedestrians. The compact city is a low speed city, a city for people (Salingeros, 2006). “Most
successful urban regions all over the world are found to have a great range of connections, from footpaths, to bicycle paths, to low traffic roads, to through roads, up to expressways in decreasing number” (Salingaros, 2005).

The last very important quality of the city is density and diversity of functions. All traditional European old towns have ground floor shops facing the streets and houses above. Mix land use in cities has always been natural for humans.

**Modernist city**

The modernist city (or a socialist city) is totally different. It is obviously seen comparing black and white drawings of the areas (see pict.1 and 3). Modernist city has all around the same type of houses, equally open public space, is very monotonous, uniform. Microdistricts are very fragmented, remote one from other.

Moreover modernist city is dominated by residential function. There is no clear centre, no concentration of functions.
Strategy concept rules

According to study of modernist city character was defined rules how it could be changed into a compact and diverse city. Applying these rules was designed strategy how to revitalize housing estates and create a lively centrality.

Modernist city structure could be simplified into three main features: 1 – tree like road structure, 2 – fragmented residential neighbourhoods, 3 – green open space.

Modernist city planners had a good intention to keep the more possible space for pedestrians and they used tree like road structure (see pict. 2). To get to the house you go from main road into smaller one until it ends with dead end street. However this is not how the city should look like.

Secondly, socialist city layout was done by coping and pasting standardized microdistricts over and over again. Scheme 3 illustrates project area with six mono functional sleeping districts, each with 30,000 residents, with a community centre in the middle (red dot). Neighbourhoods are separated by green-ways or highways. Even if they are alongside to get from one microdistrict to the other using the tree like structure is quite far away. No shortcuts.

Thirdly, the quality of modernist city is a lot of green open space. But it also has some disadvantages: all the space is the same, equally badly maintained, urban environment is very monotonous (see pict. 4), same density, same typology all around.

Good bye modernism!
Current structure

1. Current structure of the socialist housing area

2. Tree like road structure

3. Fragmented neighbourhoods

4. Open green space
Modernist city structure has to be changed keeping its original qualities. New structure should be created not by demolishing and cleaning up the old one, but combining the new one with the original one.

**From “tree” structure into a network**

As the city is not a “tree” (Alexander, 1966), the tree-like road structure should be changed into a network (see pict.4) by: improving accessibility, removing boundaries, adding shortcuts and missing links, filling empty not used lands by new developments, creating pedestrian, bike paths and routes.

Nikos Salingaros (2005) theory of urban web says that living city exists of complexity and organization of nodes, connections and hierarchy. “The neighbourhood works only if contrasting nodes are placed so as to provide active links between the nodes. Without sufficient variety of nodes, functional paths can never form” (Salingaros, 2005). Salingaros (following Christopher Alexander) points out that pedestrian path are basic to the vitality of neighbourhood and city. Design should start with spaces for pedestrian and greenery, followed by pedestrian connections, building and roads.

**Continuous, diverse urban area**

The second aspect of the new centrality is a continuous, not fragmented urban area (see pict.5). It needs variety of morphologies, spaces, and people. Diversity and product types create dynamic neighbourhoods (Jacobs, 1992).

**Mix of land uses**

The new city need mix land uses. Areas with concentration of mix of functions should be located in the central zones of the project area, and least variety of functions in peripheral zones (see pict.6). There has to be hierarchy in concentration of functions, and it should change according to proximity to highest accessibility node.

**Housing density and typology**

The new centrality also needs variety of housing types and housing densities. The densest housing areas should be in the most important node, with most mix of functions, and the lowest density, low rise housing in the edges of the district. Socialist estates remain in the middle with fewer interventions (see pict.7).

Functions density and housing typology changes according to proximity to public transport stop. These nodes are defined using Transit Oriented Development principles (TOD) (read next page).
New structure

4. From "tree" structure into a network

5. Continuous, diverse urban area

6. Near public transport stop highest variety of land uses

7. Near public transport stop highest density of houses/ha
Strategy concept rules

Hierarchy in public transportation
TOD principles

Multifunctional land use can be most commonly observed in high density urban environments, especially at nodes of high accessibility such as railway stations and metro stops. In the literature mix land use locations around public transport nodes are often referred to as Transit Oriented Development (TOD) (Dieleman & Wegener, 2004).

There is an opportunity to create hierarchy of transport nodes (see pict.1) in Vilnius, especially in the project territory. Municipality is planning to locate regional bus terminal in the area, as well as new tram line on main avenue. Moreover housing estates have well developed public transport – busses network. The new projects (station and tram) do not match yet, although it is very important that station, located in most important node, is combined with the tram stop, busses hub, as well as park’n go car parking system. Public transport network should be combined with pedestrian and bike paths.

Concentration of functions and housing density is defined according to proximity to the node; regional, district, local or residential.

Diversity in public space

All these interventions (new routes, new housing types, functions) will create opportunities to have diverse public spaces (see pict.3-8). However, above all, the new interventions still have to keep the quality of open modernist space, but there may appear private, or semiprivate spaces, routes to the centers may become urban streets, new developments in the centre should have street profile and urban squares. It is an opportunity to use surrounding landscapes and create clear green belt and a public park.
New structure

2. Hierarchy in public transportation

3. Diversity in public space

4. Urban spaces: streets and squares

5. Keep quality of open space

6. Private spaces

7. Semiprivate spaces

8. Green boundary, public park
Defining centralities in modernist estates

**TOD**

The opportunities to create a centrality in the housing estates area in Vilnius was defined by finding best accessibility areas (see pict.2). There were mapped major roads, most important crossings (red dots) and nodes of public transportation, such as tram line or station.

The project area has a lot of potential to be developed: Ukmerges avenue is a main city street leading towards the A2 highway. This highway is the main entrance to Vilnius from all North and East Lithuania, as well as gate coming from Latvia and Estonia, two other Baltic States (see pict.1). Moreover in Ukmerges avenue municipality is already planning regional bus terminal (busses are major public transport mode to travel within the country).

Eastern ring road is under construction and northern street is already planned. Both new street will highly increase accessibility to the area from the city.

Improved road and public transport connections will create conditions to develop area into a centrality, as it will become more attractive for investment, to locate business, housing. In many cities new concentration of business and financial services are developed both in some parts of the inner city as well as at accessible transport nodes at the periphery of metropolitan areas. It is at these locations that areas of multifunctional land are most likely to develop (Dieleman & Wegener, 2004).

According to TOD principles nodes with highest accessibility will be developed into high density mix use areas.

**Landscapes**

The second advantage of the area, that is going to be used in the strategy, is landscapes surrounding housing estates (see pict.3).

Currently modernist neighbourhoods are separated from the city core by river valley slopes and forests. However, green belt can give a big quality, while revitalizing neighbourhoods. The strategy will define how forest and city should be connected, by creating routes, parks, program, developing along the edge.

1. Highways A1, A2 and A2 coming to Vilnius. A2 goes to the project area.
Quality - Landscape surround the neighbourhoods

2. Major roads, crossing and public transport nodes in housing estates
3. Green belt surrounding microdistricts
Housing estates surrounded by forests in Vilnius

Forests around Lazdynai microdistrict in Vilnius
Source: www.fotoskydis.lt
Structural elements of the strategy

1. Three axes + centre
   TOD principles

2. Public spaces and park

3. Land use, density, identity

The strategy for the centrality is developed along two main structural elements: three axes with a centre (see pict.1) and landscape public space system (see pict.2).

**Three axes + centre**

The project area is crossed by three very important city roads: Ukmerges street leading towards A2 highway, planned Siaurine street, and Laisves avenue, little city ring. Ukmerges street will have bus station and a tram line. The district centre is created in triangle area around crossings of the axes. It is TOD centrality with highest housing and functions density (see previous chapter). Regeneration strategy for the area proposes how to change axes profile, how to use these roads as a connections, not a barriers, what functions and intensity should be developed, how to connect created centre with a neighbourhoods.

**Public spaces and park**

The second structural element of the strategy is public space system. Neighbourhoods located east from Laisves avenue borders green belt of the city (see previous page).

Routes from these microdistricts to the park are defined in the strategy. Housing estates west from Laisves avenue do not have connections to these parks. Here it is necessary to design new green space system, to provide quality public space, and new neighbourhood parks.

**Land use, density, identity**

The other developments, new housing, land use or functions are chosen according to proximity to the parks or axes. For example high density housing and business functions are on the nodes of axes, and low rose housing and leisure program in near the parks.

The new identity of socialist microdistricts changes with their location, mix use urban image in the centre, or variuso type residential in the parks.
Regeneration strategy

Ukmerges street in Vilnius, looking towards the project area
Picture by the author
From the periphery into the centrality

According to the concept rules and qualities of the project area defined as structural elements was designed regeneration strategy for housing estates in Vilnius. Strategy shows, what areas, when and how have to be changed during transformation process. The plan attempts to be a flexible framework. Consultation should be ongoing throughout the regeneration process.

The strategy can be explained in few layers:

1 – Transport strategy (road structure from “tree” into a “network”, development of three axes, hierarchy in public transportation, TOD principles);

2 – Land use strategy (changing into continuous, diverse, mix use urban area, new housing, and renovation of existing stock);

3 – Open space strategy (diversity of public spaces, green belt and neighbourhood parks).

Later, the strategy is explained in phasing and intervention areas. In the design part is presented project covering all layers and intervention areas.
Transport strategy

Road network

The main goal of the new road system is to change it from “tree” like into a “network” structure. There are provided missing road links to create routes from the neighbourhoods to the district centre, tram stops, parks, or to other neighbourhoods. Links are designed between active nodes. The main routes through the site are planned with cycle ways to connect into the city wide network.

All of the new centrality has to be accessible to pedestrians, so all roads will be designed with footpaths and landscaped verges between the footpath and the road.

Important part of the transport strategy is transformation of Ukmerges street into main city avenue. It will form the focal point for the regeneration. From the barrier, a highway it is changes into urban city avenue, main district street, with district centre facilities, shopping on both sides of the road.

Siaurine street is a newly designed street, connecting area with the other parts of Vilnius. The new street is designed that way, which it is not a barrier, in contrast, it help to connect now much separated microdistricts.

Public transport

The goal of public transport strategy is to create hierarchy of transportation networks. All the networks (regional busses, tram, city busses, bike routes, car parking) intersect in the centre of the district, in the station-transferium. The first city tram line goes from the station terminal to the Vilnius old town. Car parking, part of the city system “park’n go”, is located in the station as well. Citizens from suburbs or region will park their car and transfer into tram to go to the centre. City bus network is extended and upgraded.
Transport strategy - References

Transformation of Ukmerges street
From highway into avenue

Ukmerges street now - highway with shopping malls, and Ukmerges street in future

Dublin. Transformation of highway into a main district street was part of Ballymum housing estates regeneration.
Image source: www.bri.ie

Mix use, dense developments along main streets in Bijlmermeer housing estate in Amsterdam
Image source: www.panoramio.com
New Siaurine street will link the neighbourhoods

Now: Gap in between the neighbourhoods
Future: Two levels Siaurine street: lower level highway, upper level urban streets

Laisves avenue - linear park

Sketches: Laisves avenue now and in the future

Linear park along Gran Via in Barcelona
Image source:
The public chance - New urban landscapes, 2008
Land use strategy

The main goal of the land use strategy is to create continuous, diverse urban areas by applying transit-oriented development (TOD) principles.

Firstly, the triangle area between three main streets is transformed into a mixed-use high-density area. The major intervention is the conversion of car showrooms, shopping malls, building material, and furniture stores along Ukmerges street into mixed-use urban areas. Key ingredients for enduring the district centre are density and a mix of uses - shops, offices, apartments, leisure, community, and so forth - and the ability for them to change over time. This zone is developed into the highest density and most functional area, as according to TOD principles it has better accessibility and most of public transports.

To ensure diversity of living types, it is necessary to provide low-rise, lower density housing. Currently, this type is most desired in the city. Private or row houses are planned along the residential streets, in empty lands, or areas that got empty after replacing some of the public functions closer to main routes.

New functions are also planned in the residential environment, in the housing estates, on routes leading to the centre. The strategy for the housing estates is designed to ensure a mix of necessary facilities and supports such as parks, playgrounds, shops, childcare facilities, meetings, leisure, entertainment spaces, and offices. Residential areas will be within walking distance of amenities.

Existing housing stock in the socialist estates is renovated to improve their physical condition; some houses are changed into new types of apartments, such as duplex, studios, rental houses, working combined with living. Routes to the centre and new public-private space systems will open opportunities to change ground floor functions into commercial, change house layouts, entrances, extend homes towards private terraces.
Land use strategy - References

Dense, urban mix use centre
Mix use, dense developments along main streets in Bijlmermeer housing estate in Amsterdam
Pictures by the author

New low rise housing
Adding low rise housing part of Bijlmermeer housing estate in Amsterdam regeneration. In the images F-buurt
Source: www.eracontour.nl
Renovation of socialist housing
Renovation of post war apartment blocks in Frankfurt am Main, Germany
Office - Stefan Forster Architekten
www.stefan-forster-architekten.de
Open space strategy

Goal of the open space strategy is to change monotonous modernist spaces into variety of public spaces, accessible to all lifestyle, age, education residents. A range of open space is proposed, upgrading the existing open spaces and developing a range of new parks in a variety of sizes and designs.

Urban streets

The modernist city neglected street space. A variety of street will be used to define the urban structure of the new centrality. Especially it is common in the new district centre. There, to keep the block structure and street profile is necessary. Centre has few urban squares along the shopping street as well. In the housing estates street profiles are created on routes to the centre and in the existing neighbourhood streets. The streets are designed as a public space which encourages walking and cycling. Open spaces is designed to be overlooked to promote natural supervision or ‘eyes on the street’. Roads become place, not just conduits for traffic.

Parks and green avenues

Green Belt Park is an important resource for the area. It is a continuous landscape changing from wild forest, to activity landscape, sport zone, protected city areas. The redevelopment program of the park can be seen as an opportunity to improve safety and facilities within the park by providing upgraded sports pitches and changing facilities and an all weather sports area. The eastern part of Fabijonioskes microdistrict, edge of the park will be built upon. New homes will overlook the park and so improve its setting and security.

Microdistric parks will contain a mix of sports pitches and amenity facilities together with walks and informal park areas. These larger parks will be surrounded by 3 or 4 story homes all fronting onto the park to create a sense of scale and containment, and to create well defined public spaces.

Green Belt Park and microdistrict parks have activity zones accessible to all district residents. The will be all king of sport facilities, sport fields, running tracks, skating parks, playgrounds, zones for cultural activity. They will provide a better environment, with landscaping; tree planting, hard and grass surfaces for sports, children’s play and general recreation areas.

Neighbourhood avenues are spread throughout the socialist housing areas to create small scale open spaces and to help link existing and proposed housing areas. Some will contain small scale sports facilities such as tennis, basketball courts or pitches. They can be used by local residents as a place to play, sit and enjoy.

Private spaces, courtyards

There should be a clear definition between public and private space to maximize the ownership by the community. Courtyards in the housing estates are closed and designed to encourage the community to take responsibility for maintenance. Ground floor apartments in the housing estates, as well as in new the housing area, have private terraces or small gardens.
Open space strategy - References

Urban streets and squares

Iconic, visible, clear routes

Private spaces
Closed courtyards
Green Belt and Neighbourhood parks

Playgrounds, sport fields
Strategic projects

There can be defined major intervention areas in the regeneration strategy “From the periphery into the centrality”.

TRANSFORMATION OF THE CENTRE:

1- Downgraded Ukmerges street with tram line and conversion of shopping mall, car showrooms zone;
2 - Bus terminal-transferium in Ukmerges street, mix use area with shopping street and squares;
3 - Construction of new Siaurine street and development of mix use area along it;
4 - Redesign of Laisves avenue and developments of empty plots along it;

REVITALIZATION OF HOUSING ESTATES:

5 - Reorganization of public space system, routes to the centre;
6 - Housing renovation and management, forming semi-private courtyards

PARKS:

7 - Green belt park;
8 - Microdistrict parks with activity program;
9 - Neighbourhood avenues.
Project for design

It is necessary that all the projects in the strategy are comprehensive and integrated. Cooperation and partnerships are essential. All the interventions should follow the main strategy goal: to create a vital centre and connect it with revitalized neighborhoods.

**Route linking microdistricts and the centre**

Project elaborated in the design part is a route that covers all intervention areas: transformation of the centre, Ukmerges street, revitalization of housing estates and park design.

The route, connection to the centre is a tool to revitalize neighbourhoods by changing their public space system and adding functions on the nodes. Goal of this project is to create mix use, vital urban artery.
Route will link microdistricts with mix use area 94
Evaluation of the public space on the route 96
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In the fourth part of the booklet is explained design of the route project.

Firstly according to strategy goals was evaluated project territory, public spaces and layout. There were defined design tools how the area can be changed. Revitalization toolbox can also be applicable in other modernist estates of Vilnius. The route project is presented step by step, with explained designs, stakeholders, illustrated with reference images and collage pictures.
The planned route

Route that will be changed during design process into an urban street goes from edge of planned Green Belt Park in Fabijoniskes microdistrict towards Ukmerges street to the planned centre. On the other side it goes from planned Local Park in Pasilaiciai microdistrict, crosses the neighbourhood, goes towards Laisves avenue to the centre.

In total route length is round 2,5km. From each microdistrict to the centre is approximately 700 meters.

The planned mix use area in between three axes (red color) currently is separated from housing estates (yellow) by hard infrastructures – Laisves avenue and Ukmerges street. Especially the last one is dominated by car parking, car showrooms, furniture or building material stores. Current function and environment of the area do not fit for the centre.

Auto -dependent landscape

Salingaros (2006) defined such city as auto -dependent landscape. It consists of road surface, parking and all areas devoted to care and feeding of vehicles. The highways of auto-dependent landscape are designed to maximize a smooth and fast flow of traffic, without any consideration of human being outside the car (Salingaros, 2006).
Pedestrian unfriendly environment

Ukmerges street - a barrier

Fabijoniskes microdistrict

Planned Green Belt Park
Evaluation of the public space on the route

Prior to designing there were identified problems of public space, function or layout in the project area. There are two most common problems.

1 – The area around planned centre is too much dominated by cars, parking lots, and infrastructure. Streets are the barriers. It is very pedestrian unfriendly environment.

2 – While public space in housing estates is exactly opposite; calm and pedestrian friendly. However public space is not maintained, is decaying, very monotonous, no street space, sometimes surroundings is very empty and unsafe. Design there has to deal with situation when resident do not fell responsible for their surroundings, and municipality do not have means to take care of it.

Major problems are listed and mapped in the project areas, as well as in the other microdistricts of Vilnius.
Revitalization toolbox

Revitalization toolbox is a collection of public space problems found on the route area, mapped and presented with design solutions how that could be changed.

Housing estates in Vilnius were planned applying the same design principles. Many times just copying / pasting the same layouts and the same houses. For the same design principles there can be applied the same revitalization rules – the toolbox. The toolbox is a list of design recommendations used in the route project that can be applied in other socialist housing estates of Vilnius. One of possibilities to use it is to discuss it with the residents, change, add or improve and find ways to regenerate each microdistrict.

*Mapped problems of public space*  
*Tools applied for the route project*  
*Design rule*  
*Applicable in other microdistricts*  
*Reference images*
Revitalization toolbox

Create space for pedestrians not for cars

KEEP THE URBAN BLOCK STRUCTURE

Currently in the planned centre area shopping mall are car parking lots are dominating. There are no street spaces. In the future there have to be kept block structure, street limits.

SOFTEN THE SURFACE OF PARKING lots

Those spaces for cars that need to be left should be soften with planting, pavement, design elements. Environment need to be more attractive.
DEFINE PUBLIC SPACE

Currently most public spaces in microdistricts are converted into informal parking lots. The open space has to be defined or as neighbourhood avenue, or as urban public space on the route to the centre.

REORGANIZE PARKING LOTS

Car parking lots in the neighbourhoods should be reorganized so that there is more space for pedestrians, trees, terraces. Cars should be arranged more rationally.
**Revitalization toolbox**

**Encourage public private partnerships**

**CLOSE THE COURTYARDS - RECREATE THE STREET PROFILE**

There should be more private spaces in the microdistricts. Most of socialist apartments block do not have a defined courtyard. The new house would close the courtyard and will help to define route space as well. The new construction should be a partnership between developer and current residents.

**PARTNERSHIP:**
- **HOUSING ASSOCIATION** - Houses (and can be land) owners, with new owners will be responsible for the courtyard maintenance.
- **DEVELOPER** - Builds the houses, contributes for local residents by creating public space, providing car parking.
- **NON PROFIT CONSTRUCTION ORGANIZATION** - (supported by government) - builds social housing.

**TRANSFORM THE GARAGES - RECREATE THE STREET PROFILE**

There are a lot of underground garages with green roof in the microdistricts. However, garaged are very outdated, they create barriers and unpleasant street space, the roofs are not used. Garage could be replaced by a new house.

**PARTNERSHIP:**
- **MUNICIPALITY** - Framework for collaboration, guidance, documentation.
- **GARAGE OWNERS ASSOCIATION** - (residents have private garages, parking is managed by company). Owners sell current garages and get a new one.
- **DEVELOPER** can construct a house, but provides sufficient underground parking.
Every school: professional, special or higher education has a separate stadium. Sometimes you can find few equally badly maintained, outdated stadiums in the one small area. Sport fields could be combined, renovated with private money. Playgrounds should serve all neighbourhood community.

**PARTNERSHIP:**
- **MUNICIPALITY** - Framework for PPP, guidance, documentation. Discounts for developers - permission for building, low land rent.
- **DEVELOPER** - Gets land for low rise (market) housing construction. Build new kindergartens.
- **EU FUNDS** - In Vilnius EU supports construction of educational institutions

- Kindergartens paid by municipality, developer, EU.
- Housing paid by developer.

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**REPLACING KINDERGARTENS TOWARDS THE ROUTES - SPACE FOR NEW HOUSING**

Microdistricts were well served with schools and kindergartens. However all the kindergartens are outdated, and need to be renovated or rebuild urgently. Infant schools could be replaced inside the neighbourhood, towards the routes. Left space could be used for low rise, new type of housing for microdistrict residents.

**PARTNERSHIP:**
- **MUNICIPALITY** - Framework for PPP, guidance, documentation. Discounts for developers - permission for building, low land rent.
- **DEVELOPER** - Gets land for low rise (market) housing construction. Build new kindergartens.
- **EU FUNDS** - In Vilnius EU supports construction of educational institutions

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**CONCENTRATE AND COMBINE PLAYGROUNDS - PROVIDE SPORT FACILITIES**

Every school: professional, special or higher education has a separate stadium. Sometimes you can find few equally badly maintained, outdated stadiums in the one small area. Sport fields could be combined, renovated with private money. Playgrounds should serve all neighbourhood community.

**PARTNERSHIP:**
- **MUNICIPALITY** - owner of the land, rent a land.
- **SCHOOLS** - uses sport fields during study hours
- **DEVELOPER** - invest in the sport fields, can build facility rooms, inside playgrounds, private sport club, facilities such as caffè, teaching classes. In the morning field are used by pupils, in evenings and weekends, holidays by developer.
**Revitalization toolbox**

**Provide activities along the route**

**REMOVE THE SLOPE – RECREATE THE STREET PROFILE**

Many streets in the microdistricts do not have activity. Slopes are separating streets from the residential areas and from the parks. Land along the roads should be changed into residential, with ground floor shops and slopes should be changes into terraces, designed landscapes.

**ACTIVITY ALONG THE STREET**

In microdistricts traffic streets are separated from residential areas. To create lively streets and residential areas. To create lively streets and routes its is necessary to provide program there. Community, shopping, daily and leisure facilities, markets, hosing can be placed along the streets.
**Create private and semi-private spaces**

**REORGANIZE ENTRANCES FROM APARTMENTS TO COURTYARDS**

All houses in socialist estates have only one side entrances. Therefore, most of the courtyards so not have entrances to houses at all.

During the housing renovation, entrances should be reorganized, making more of them to the courtyards. Natural supervision or ‘eyes on the yard’ are encouraged.

[Diagram showing before and after reorganization]

**DEVELOP “NO LAND” AND EMPTY LAND INTO ROW RISE HOUSING**

There are many empty lands in between the microdistricts, or on their edges. The land should be developed or into parks or into new housing, but still keeping the route profiles, creating private spaces, streets.

[Diagram showing before and after development]
Creating urban centre

The new city centrality needs to have a centre. The first intervention is downgrading Ukmerges street and conversion of surrounding areas.

Ukmerges avenue is radically altered. From the barrier, a highway it changes into an urban city avenue, main district street. The new road layout is narrowed, added series of new junctions that create better permeability for vehicles and pedestrians. Traffic lights at pedestrian crossings give priority to pedestrians and make crossing the road easier. Once the Ukmerges avenue is narrowed and made safer, it is realistic that there could be district centre facilities on both sides of the road.

Key ingredients for an enduring main street are density and a mix of uses - shops, offices, apartments, leisure, community and so forth - and the ability for them to change over time.

According to the strategy in the junction of Ukmerges street and Laisves avenue is planned bus station-transferium. Tram stops are set on nodes where routes from microdistrict come. There is a pedestrian shopping street (red) parallel to the main street with urban square in front of the station. The centre has a lot of business, office, entertainment and leisure functions. According to TOD principles it is highest density and mix uses area.

The area should attract business that do not need to be in expensive and prestige city centre, but require good accessibility and necessitate to be close to consumers and employees.

The design rule for the area is to keep block structure, street profile, and create pedestrian friendly environment.
Creating urban street

As soon as part of the centre starts to function, it can be connected with the microdistricts. To create a route is formed street by adding missing links in between dead end streets, urbanizing along the nodes, forming crossings, and building along the route to form street profile and close courtyards.

Closing the courtyards

Transformation of garages - Recreate the street profile
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Missing street links
Pedestrian friendly street

Interventions on the nodes

Transformation of garages - Recreate the street profile
Program on the route

It is necessary to provide program, which attracts people to use more the route and to turn it into main neighbourhood artery. Nodes with the on other bigger streets have bigger scale functions than those within residential environment. These nodes are micro-business and micro-commerce areas, while in neighbourhood micro-culture.

In Fabijoniskes microdistrict kindergartens are replaces towards the route. They are combined with cultural, leisure, meeting and community facilities. Square formed with modern iconic cultural building becomes icon of the new neighbourhood, community meeting place.

In Pasilaiciai microdistrict current supermarket is replaced by new mix use area with urban square. The local neighbourhood centre has a church, market, cultural and shopping facilities.

The important part of the housing estates green structure, Local Park is designed facing the route. The landscape is designed with walk paths, informal areas as well as sport and activity places, such as sports pitches, playgrounds amenity facilities. The park is surrounded by 3 or 4 story homes.

Activity along the street – Community, shopping, daily and leisure facilities in the street
Community rooms

Day care centre

Micro commerce

Define public space – Neighbourhood avenue – Urban square on route to the centre
Closed and calm courtyards

The important part of the strategy is to create more private spaces and to maximize ownership by the community. The new houses to close the courtyards are done with the partnerships between community, developers of new houses and municipality, which currently owns the land. Formed block community with local and new residents take responsibility for their semi-private space – the courtyard. Ground floor apartments in the housing estates, as well as in new the houses, have private terraces or small gardens as well.

Calm and private courtyards are the contrast to lively public space.

Reorganize entrances to apartments – More entrances to the courtyards - Natural supervision or ‘eyes on the yard’
Private courtyards contrast to lively route

Close the courtyards - Recreate the street profile – Provide underground parking for local residents – Encourage PPP - Partnership between residents, municipality and developer

Closing socialist courtyards
New housing typology

The approach of the project is to have less open space but good quality.

Reorganization of public spaces, replacing of some functions made room for new developments. New low rise housing will be places in former kindergarten territories, along streets, or in empty lands.

New type of housing is necessary to prevent socialist neighbourhood decay. Moreover low rise type, private houses or row houses, are currently most desired in the city. It attracts people to move to suburbs, but now that type will be found within the city, in the revitalized socialist estates.

NOTE:
It is important to mention that the new neighbourhood density should not increase too much. Currently there are 2,7 persons per household, there is a big housing shortage. In the future the will be less people in the house, it means we will need more homes, more types, but for the same number of people.

Moreover, current residents of the neighbourhoods will have the priority to move to new houses.
New low rise housing: partnership between developer, municipality, EU funds
Possibilities for commercial ground floor activity

When the centre starts functioning and more and more people use the route, there appear many opportunities for ground floor shops and facilities in the socialist apartment blocks (see picture next page). The houses layout, entrances can be changed. That brings more diversity, and more activities in the housing estates.
Opportunities for ground floor shops in socialist houses
Possibilities for commercial ground floor activity

In the image - route crosses housing estates. More people use it - more opportunities for ground floor shops. In the back is seen urban centre with a tram line and station.
Who is forming the centre?

Implementation of the route will have challenges that need to be dealt with collaboration of all the stakeholders.

The centre transformation is realized in four phases. Downgrading the Ukmerges street, new tram line and the interchange station will increase accessibility and value of the area. That will trigger the most important project – transformation of the shopping malls strip into mix use urban block structure.

1. DOWNGRADING UKMERGES STREET, TRAM LINE, CROSSINGS, STREET SPACE

PARTNERSHIP:
- MUNICIPALITY
- EU FUNDS. In Vilnius EU supports new public transportation
- TRAM COMPANY

2. STATION - TRANSFERIUM, PARKING

PARTNERSHIP:
- MUNICIPALITY
- BUS COMPANY
- TRAM COMPANY
- STATION COMPANY
- CAR PARKING COMPANY

3. CENTRE PUBLIC SPACE, SHOPPING PEDESTRIAN STREETS, SQUARES.

PARTNERSHIP:
- MUNICIPALITY
- DEVELOPER
(Land around the building, in the plot)

4. NEW MASTERPLAN, CONVERSION, TRANSFORMATION INTO NEW MIX USE AREA

PARTNERSHIP:
- MUNICIPALITY - defines, approves masterplan, density, land uses
- DEVELOPERS invest in land, construction
- CURRENT COMPANIES - need negotiation

Implementation of the route will have challenges that need to be dealt with collaboration of all the stakeholders.

The centre transformation is realized in four phases. Downgrading the Ukmerges street, new tram line and the interchange station will increase accessibility and value of the area. That will trigger the most important project – transformation of the shopping malls strip into mix use urban block structure.

This phase is the biggest challenge as there are so many land owners along the street. Not everyone might be willing to change land use, or sell the land and move out. However if all the parties are involved in the master plan decision making, they participate and can influence the plan. Collaboration can ensure that everyone will benefit from the new plan.
Stakeholders of projects in the centre

Collaboration and partnerships are necessary

RESIDENTS

NEW RESIDENTS
Need affordable housing, private houses or social housings. Need jobs, facilities, conveniences, environment.

NGO

EU FUND
Supports public transport projects

PRIVATE - EXISTING

CURRENT COMPANIES, LAND OWNER (RENTERS)
(car showrooms, petrol station, building material, electronics, furniture stores, mannequins factory)

- May lose customers when city ring is completed, Ukmerge street is downgraded
- Can be attracted to sell land, change function into more profitable one
- There are risks that function will not change

PRIVATE - DESIRED

DEVELOPER
Builds housing, offices, commerce. Follows market, customers, infrastructure, building regulation land uses. Can be attracted by profitable land use, density, allowed heights.

BUSINESS, COMPANIES, SERVICE OWNERS
Follow customers, commerce, market, infrastructure.

PRIVATE - TRANSPORT

TRAM COMPANY
Private, but may be supported by municipality

VILNIUS PUBLIC TRANSPORT COMPANY
Private, but supported by municipality

VILNIUS STATION COMPANY
CAR PARKING COMPANY
REGIONAL BUS COMPANIES

PUBLIC

STATE
New planning law encourages building in urban areas, not in suburb or periphery. State can encourage that (lower land price, transfer development right, reduce tax, easy building permission, less documentation)

MUNICIPALITY, NEIGHBOURHOOD AUTHORITY
Responsible for planning, defines land uses, density, masterplan. Finance public space, infrastructure projects.

The centre
Public space, upgraded avenue, shopping streets, squares, tram line, street links, station, parking, housing, transformation into mix use area
Who is changing the microdistrict?

Collaboration and partnerships are necessary

1. AVENUE PUBLIC SPACE MUNICIPALITY pays for public space design

2. REPLACING KINDERGARTENS, NEW HOUSING.
   PARTNERSHIP:
   MUNICIPALITY. Framework for PPP, guidance, documentation.
   Discounts for developers - permission for building, low land rent.
   DEVELOPER. Gets land for low rise (market) housing construction.
   Build new kindergartens
   EU FUNDS. In Vilnius EU supports construction of educational institutions
   - Kindergartens paid by municipality, developer, EU.
   - Housing paid by developer.

3. THE ROUTE, STREET LINK, SQUARE
   MUNICIPALITY pays for public space design, new street link, design of the square

4. EXISTING HOUSING RENOVATION
   MUNICIPALITY. Framework for collaboration, guidance, documentation, establish housing associations, prepares the project
   PARTNERSHIP:
   HOUSING ASSOCIATIONS (association of residents, home owners)
   WORLD BANK, INTERNATIONAL FUNDS (support for sustainable renovation projects)

5. NEW HOUSE, CLOSING THE COURTYARD, PUBLIC SPACE, GARAGE
   PARTNERSHIP:
   MUNICIPALITY - owner of the land. Framework for collaboration, guidance, documentation.
   HOUSING ASSOCIATION. Houses (and can be land) owners, with new owners will be responsible for the courtyard maintenance.
   DEVELOPER. Builds the houses, contributes for local residents by creating public space, providing car parking
   NON PROFIT CONSTRUCTION ORGANIZATION (supported by government) - builds social housing

6. REPLACING CAR GARAGE. NEW HOUSE (CLOSING BLOCK, STREET)
   PARTNERSHIP:
   MUNICIPALITY. Framework for collaboration, guidance, documentation.
   GARAGE OWNERS ASSOCIATION (residents have private garages, parking is managed by company). Owners sell current garages and get a new one.
   DEVELOPER can construct a house, but provides sufficient underground parking

New ground floor plan, entrances to houses depend of the route

Public space around kindergartens and community rooms

Courtyard design and housing entrances depend

Avenue gives quality for new houses, Easier to sell
Stakeholders of projects in the microdistrict

Implementation of the projects in the microdistricts is complex as well. Firstly housing estates have incredible a lot of stakeholders as all the apartments are privatized. Involving resident or their associations in the development is essential.

Secondly it is very important that municipality starts public spaces projects. Improvements of the environment will increase value of the neighbourhood, it will satisfy local residents, and most important will attract new resident and developers to build new houses for them.

Thirdly it is necessary to attract developers invest in the microdistricts. To achieve that, local authority has to prepare framework for partnerships. Involvement in all the parties in decision making (residents, NGOs, developers, associations and government) and contribution to development will ensure that strategy goals are achieved.

NOTE: New planning law will be approved soon. It restrict building in areas without sufficient infrastructure (roads, public transport, public space, schools) - in suburbia, periphery. Encourages building in urban areas (reduces for developer such as: land rent, easier building permission, less documentation, not necessary land use plan, project gets cheaper). It will encourage housing construction in microdistricts.

### RESIDENTS

**LOCAL RESIDENTS - HOUSING ASSOCIATIONS**
Owners of the houses. Could be owners of the land. Want to renovate housing, want to participate in decision making. Need jobs, facilities, conveniences, public space.

**NEW RESIDENTS**
need affordable housing, private houses or social housings. Need jobs, facilities, conveniences, environment.

### PUBLIC

**STATE**
New planning law encourages building in urban areas, not in suburb or periphery. State can encourage that (lower land price, transfer development right, reduce tax, easy building permission, less documentation)

**MUNICIPALITY, NEIGHBOURHOOD AUTHORITY**
Owns the land. Responsible for maintenance of public space, parking, infrastructure, educational institutions.

**NON PROFIT CONSTRUCTION ORGANIZATION**
Supported by local government and state, builds social housing

### PRIVATE

**DEVELOPER**
Builds housing, offices, commerce. Follows market, customers, infrastructure, building regulation land uses. Wants profit.

**BUSINESS, COMPANY OWNERS, SERVICE OWNERS**
Follow customers, commerce, market, infrastructure.

**NGO**

**EU FUNDS**
Supports construction of educational institutions

**WORLD BANK**
Support housing renovation, sustainable energy saving renovation projects
**Evaluation: Lively integrated neighbourhoods and vital centre**

**Regeneration approach**

The route project shows how the centrality is created and socialist neighbourhood are revitalized. Reorganization of public space system is the back bone of regeneration.

The route, connection from microdistricts to the centre, is the most important part of the new modernist city – the network city. Project creates new identity of the neighbourhoods: lively, integrated, diverse, more compact. Strategy creates city for pedestrians, encourages mix uses, public transport, walking, and density. It also creates barriers for car oriented developments.

**Implementation challenges**

However, regeneration project will face challenges as well. Collective decision making and involvement in development of land owner along Ukmerges street and home owners in estates is essential.

Realization of the route in microdistricts mostly depends of municipality input: money for public space, and time for other project guidance and management. While the new image of the centre mostly depends of private parties – developers. On one hand it makes process easier and faster to develop with private money, on the other hand it will be a challenge to ensure that all interventions follow desired plans and goals.

**Phasing**

Realization of the strategy should start at the same time in the centre and in the neighbourhoods. The centre transformation is triggered by two big projects: the new station and conversion of Ukmerges street into the avenue. While microdistrict is changes by small scale projects: top down municipality input as well as small scale bottom up initiatives between resident and developers. In time, intervention by intervention, the route will be created. Therefore, the line has to be always in developers, residents or authorities mind.
Pedestrian shopping street
Central square

Station - transferium

Corner development above car garage

Urban square design

Replacing kindergartens, creating community rooms, cultural facilities

Avenue design

Closing the courtyard

New low rise housing

Closing the courtyard

Ukmerges street transformation

Tram line

TOD centre - mix use, high density area

Corner development above car garage

Park design
Conclusions
Polycentric city

“From the periphery into the centrality” is a strategy which proposes how to create a new centrality in peripheral but very big housing estates area in Vilnius. Centrality is part of the new desired city model. Vilnius is not a sprawling mono-centric anymore, but is connected, integrated and polycentric city.

General strategy concept rules

Failure of modernism was demolition of the compact cities and replacing them with new open cities. It was considered the best decision. Currently, when problems and disadvantages of post war area are recognized, failure of today would be to demolish modernist city and replace it back to compact or suburban.

The strategy “From the periphery into the centrality” suggests ways how to change modernist city into a compact and diverse by keeping it and using its qualities. In the booklet presented strategy concept rules – are general principles that can be applied in other similar situations – big housing estates areas in peripheries of the post-socialist cities.

Strategy - From the periphery into the centrality

The strategy presented in the booklet was designed according to concept rules and qualities of the location – potentials of connectivity and advantages of green space. The new plan of the centrality defines mix use district centre and urban routes, paths that connect centre with the neighbourhoods. In the beginning the modernist periphery had too much badly maintained open space; too much infrastructure for cars and one dominating function – residential. Now the area has less space for cars, more for pedestrians, less green, but better quality, more density and diversity in land uses and houses.

Integrated and revitalized housing estates

Design of one of the routes shows opportunities of socialist estate to become lively and attractive neighbourhood. Structure of public spaces is changed, there are added more functions, facilities for communities, playgrounds and program. However, big number of projects needed to achieve strategy goals revealed implementation challenge: collaboration of different stakeholders is necessary.

Design applicable on the other routes

The new centrality consists of five microdistricts. Project shows how two of them can be connected with the centre. The route was drawn using design toolbox. The same design tools can be applied in the routes of the other microdistricts. These principles are general guidelines applicable in specific locations in Vilnius, or other post-socialist cities.

All in all revitalization strategy presented in the booklet shows creative, new and feasible approach how dull socialist estates can be rediscovered and changed into lively and attractive centrality.
City was sprawling and monocentric

Became a polycentric city with network of centralities

Project area was a fragmented periphery

Became integrated and diverse centrality


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CITY, CATCH THE TIME!
Rediscovering socialist neighbourhoods in a new capitalist society
Case in Vilnius Lithuania

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Thesis report, June 2010