Most microrayons in Riga have a mixed character. Such microrayons as Imanta, Ilguciems, Sarkandaugava, Kengarags, Jugla, Purvciems, Daugavgriva and Vecmilgravis has a mixture of buildings. The ones which show quite clear planning layout and building character, such like Agenskalns, Bolderaja, Zolitude, Ziepniekalns, Mezciems and Purvciems were built on a vacant land, so they have a more ‘clean’ structure.

The biggest part of built Riga’s microrayons were simply in filled into already existing built area. However the change of political situation in the country has modified the appearance of all socialistic housing estates in Riga. The current situation of built environment shows that all buildings: the panel blocks, the ones built before them and the ones built after them, do not correlate with each other. Especially problematic situation is with buildings built after the independence. The site investigation has shown that most of the times those buildings are not adapted to the environment but plays as an individual projects. Instead of connecting with existing public places they occupies them from inhabitants of panel housing blocks.

The chaotic built environment in Riga’s microrayons has evolved from the overlapping ownership, which was implemented right after the independence in 1991. Before the independence the land and the real estate were the national property, which meant that everything was collective. The fall of Soviet Union had brought a change and the socialistic environment turned into a capitalistic one. The nationalized land (Plaut and Uzulena, 2006) was returned to the original owners, who possessed the land before the occupation of 1940, or to their relatives. Whilst the flats (Lejnieks, 2013) were privatized with vouchers, which were given considering the personal achievements in life (age, profession and etc.). The collective ownership turned into private one. In consequence the privatization process have caused an overlapping ownership not only in microrayons but in the whole city of Riga. The diagrams A,B and C describes the change of property ownership.

The overlapping ownership (Lejnieks, 2013) made the current condition of microrayons quite complicated: a house with private flat owners turned out to stand on the private land, which means that the flat owners must pay rents for the land owners. While the land owners turned out to be irresponsible for the condition of the house and are benefitting the flat owners.

The ones who meant to owe a vacant land in microrayon are interested to maintain the land only according to their private needs, (Lejnieks, 2013). The current situation shows how once used as public, those spaces are now treated as private property. They either become filled with new buildings, private parking lots or the opposite – totally unmaintained spaces, which is seen from tacky equipment and outdated paving.

The onsite investigation has shown that there is a chaos in microrayons. New buildings are not adapted to the existing built character and very often there is a feeling of self-made architecture or new buildings tend to expose a very ‘personal’ taste. The built environment gains a negative aspect of eclecticism. In general eclectic built environment is a plus to the neighborhood. The architecture of panel houses has a tendency to be quite monotonous and brutal, while new housing projects inside the microrayons breaks the monotony of these mass housing estates. However, currently built new houses do not rise the quality of microrayon because the panel blocks tend to be left in the same condition since they were built. Moreover, new buildings are usually fenced and are not willing to share their public space with inhabitants of neighbouring houses. As Zvirgzdins (2013) notes, those new houses supposed to upgrade the public space, unfortunately it is just an illusion. They tend to steal that public space instead.
Local business

1a. Purvciems
2a. Zolitude
3a. Imanta
4a. Daugavgriva
5a. Mežciems
6a. Purvciems
The privatization process not only influenced the construction of new buildings inside microrayons but also the minor transformation of industrially produced panel houses themselves. The most common transformation is the transformation of the flat into the commercial space. Usually the flats in the first floor are being transformed, which can seem logical because it is a convenient way for the clients to reach the commercial spaces.

The form of flat transformation varies but the most typical and the simplest transformation is done by reconstructing a window space into the door space and adding stairs to it. The sign of the name and facilities are usually located above the entrance. After that follows different variations of decoration according the owners style and fantasy. Usually the plot of the façade which belongs to that space is repainted (pict.1a,3a) or ‘upgraded’ with plastic tiles (pict.4a,5a) and etc. Some commercial spaces are transformed in a ‘smarter’ way by building extra space in the front (pict.4a,5a).

The self-transformation of flats not only have a negative building on the house structure but also forms a degraded aesthetical appearance. Even though the transformed spaces brake the monotonous building’s façades, they do not give a positive aesthetical effect to the building. They instead increase an uneven style and a shabby image to the district.

The independence from Soviet Union has modified people’s lifestyle. The capitalistic market (Golhoorn and Sverdlof, 2009), which proposed a great variety of goods, affected the ascetical life, used to be so common in former USSR. Suddenly, very rare goods or the ones which were difficult to get, became easily available. The increased demand of ‘new’ and ‘unseen’ products from the West resulted the establishment of private shops or service facilities, which happened to be established in privatized flats of mass housing blocks. Even though, the currently expanded network of supermarkets in the city, which could be found in every microrayon(fig.24), have suppressed these small commercial places, which made them to become more specific in order to survive (Lejnieks, 2013), their existence proofs that the demand of such places is still vivid these days.

In conclusion, the abolishment of self-reconverted spaces would be disadvantageous, because there is still a need for them. A positive step would be to keep and encourage the local business, while the self-guided reconstruction and decoration projects should be limited or even prevented. The further development of spaces for local business and the upgrade of the existing ones should be done under the guidance of an architect, who has an understanding that the commercial space is not an individual project but the important detail of the whole façade. Furthermore the wider range of facilities should be introduced. Public services like dentist office, gym, hair salon, book stores and etc. could be implemented in microrayon according to the needs of inhabitants. In such way the mono-functional neighborhood would upgrade into the mixed one.

Figure 24. Supermarkets is a big danger to the local business.
Public spaces: challenges

1b. Mežciems

2b. Zolitude

3b. Purvciems

4b. Plavnieki

5b. Agenskalns

6b. Ilguciems
Current situation of the public spaces:

Neglected public spaces:

One of the major problems in microrayons is the neglecting public space. The construction of mass housing estates may have solved the severe housing shortage in the past, therefore the current condition do not meet the requirements of present people needs. As Kokins, interviewed by Iltnere (2013), states that the main problems, lying in those districts, are actually not about the buildings themselves but more about the spaces they are surrounded with. Nowadays those places have lost their original function as a public space and are more likely accepted as an unsafe and uncomfortable transit zones, which are, in some cases, converted into unsecure parking lots where the potential of vehicles getting robbed is rather high, (Iltnere, 2013).

The factors which cause the decline of public space are numerous. One of the major problems can arise from the fact, that those mass housing estates were not finished. According to that, the public spaces were never clearly defined and that is why it is even more difficult to define them now. Moreover, many public spaces in microrayons are just a vast land, which is usually to wide and is not adapted to the human scale. (pict.1b,5b) Person feels uncomfortable in the environment which is overscaled. The outdated equipment and deteriorated pavement is also a great factor of reduced popularity. The children playgrounds have not changed since they were build. There can be seen a slight update of old iron structures by repainting them but that is all. Sand boxes and steel climbing structures looks dangerous and unattractive. Sitting places in many microrayons are horribly run down (pict.2). Some of them are in ruins. However, there are some places in every microrayon where the envornment is updated, even though mostly at a minimum level (pict.3b,6b). Lejnieks (2013) notes, that these updates are seen now, because of some successful and active collaborations made between the land owners and inhabitants of panel houses, which implements these updates. It means that the collaboration between parties is possible it just needs to be more encouraged.

Another factor, which could cause such situation now, is, again, the change of economic and political situation. The parking lots are too small for the current load of cars, which number has risen tremendously after the independence of Latvia. In consequence, the cars are parked on every vast space of the land found. Especially the occupation of pedestrian roads is very common,(pict.4b). Cars have concurred the pedestrians.

A survey made by Treija and Suvorovs (2010), which took place in microrayon Purvciems showed that out of 246 (100%) people interviewed even 67% of respondents answered negatively about the quality of the environment. The reasons of frustrating environment were “unattended courtyards and plantations, destroyed and neglected landscape elements, lack of benches and playgrounds”, (Treija and Suvorovs, 2010). Survey also showed that 34% of respondents used courtyards only for parking, while 26% - did not use the courtyard at all. The communication between inhabitants is also very poor – 78% of respondents do not know their neighbors, (Treija and Suvorovs, 2010).

Gehl (1980, in Weeler an Beatley, 2009) has divided public spaces into two categories and determines their quality with the amount of activities happening in the space. He analyzed what activities takes the biggest part in poor physical environment and in the good one. (fig.25). His analysis has shown that places of a poor physical environment supports only those activities which are necessary for people’s daily life, which are going to school, to work or shopping, waiting for a bus or the movement of service people in the neighborhood. While the places of a good physical environment are rich of all sorts of activities. They support social activities not only on the necessary level of movement but also the ones which are optional, such like – going for a walk or simply sitting on the bench and observing the environment. The activities which are not necessary to do but are pleasant to practice. Gehl (1980,in Weeler an Beatley, 2009) describes that people feel encouraged to engage in optional activities only if the environment is pleasant. Pleasant environment is the one which has an inviting public space and good appearance of facades. The resultant activities, which involves people’s sociability with each other and are the outcome of the necessary and optional activities, tend to have a higher level in well-designed public spaces, (Gehl, 1980 in in Weeler an Beatley, 2009). In order to increase people’s activities and sociability in microrayons the upgrade of the public spaces is crucial.

Figure 25. Gehl’s graphic description of the amount of activities in public space according to it’s quality.
The scale in microrayons:
An over scaled public spaces in microrayons is another factor which makes them unpopular. Already in late 1970s, according to the survey done by that time, it was obvious that inner courtyards of industrially produced blocks of flats were not popular. Around 88% of inhabitants responded that they would like to use the courtyards located outside their flats, while only 37% of inhabitants were actually using them, (Treija and Suvorovs, 2010). Looks like the public spaces of microrayons were unpopular since they were built.

For a deeper look into public spaces of microrayons, six microrayons of the ‘pure’ planning system were chosen because they were built without considering the already existing environment, which could influence the original planning rules of that time, (fig.5,p.13).

Gehl (2010) and Polyzoides (2012) criticizes mass housing estates as being unsociable just because they are over-scaled. Gehl (2010) gives an ironical remark about modernist housing estates, stating, that the best solution to reduce sociability in the city is to build a district according to the “modernistic planning principles”, (Gehl, 2010). While Polyzoides (2012) criticizes their scale by comparing them with the structure of a traditional city. He states that builders of modernistic blocks looked into the housing as an industrial form, where standardization and efficiency are the most important elements, which totally ignored the organic pattern of a traditional city, (Polyzoides, 2012).

Gehl (2010) describes that the human’s connection with the environment comes through one’s senses and the key for qualitative public spaces is shaping them according to the human dimension. He gives a clear image on how a certain distance can have an impact on people’s communication. There are two measures, which are very important in urban design – 100meters and 25meters. The distance of 100 meters is the limit when one can recognize another and 25 meters is the starting point of communication. However, the distance from 25 meters to 100 meters is more for watching and observing than for communicating. The chance of communication becomes very high only at a distance of 25 meters and intensifies with every meter reduced.

According to the theory of these measures it becomes clear why the interest level in public spaces of microrayons is so low. The average distance in courtyards of microrayons, which is 70 meters long and 50 meters wide, is higher than the average communication distance. The current condition shows that in order to make the communication possible in microrayons, an extra effort of inhabitants has to be made. (p.37). While the social interaction is very possible in the courtyards and squares of Riga’s central district, because of the small scale, (fig...). Surprisingly, the average size of typical courtyard in microrayon is the same as an average size of the square in central district of Riga.

Another measure which is important indicator of a lively space is the time which needs to be taken to cross the space. Gehl (2010) distinguishes architecture in two types: 5km/h and 60km/h. 5km/h is the average walking phase, while 60km/h is the average car riding phase in the city. The speed difference of these two types of movement is very high, the same difference is with the space. The old cities are found to be designed in a 5km/h distance because they were built at the time when the motor vehicles were not invented and much attention was given to on foot transportation, (Gehl, 2010). Riga’s old town – Vecmilgravis is not an exception. One can feel the pleasure walking in Vecmilgravis and enjoying the facades of old buildings. This feeling appears because the facades of houses are changing in every two meters and they are different in color and shape. Supposedly, Riga’s old town is popular among tourists not only because of its historical buildings but also because of the invisible planning layout, where the feeling of long streets melts down because of their curved shapes and the division of one long façade into small different sections.

While (Gehl, 2010), the urban space for cars is designed in a way that the objects would be visible at a speed of 60km/h. The big signs and monotonic facades dominate in such type of architecture, so that they would be visible from the moving car, (Gehl, 2010). The architectural layout of microrayons create an impression of 60km/h architecture, even though during the soviet times the production of cars was very limited and the primary idea was not to adapt the environment for cars. However, the environment of microrayons contrasts with the compact old town of Riga. A 10 minute walk in one of microrayons becomes exhausting because of its monotonic environment. Knowing these factors, the recipe to encourage people to walk more than to use a vehicle is actually very simple: the architecture should be adapted for pedestrians instead of cars.

Of course these findings do not claim that the architects and urban planners should ignore importance of cars and start to build medieval cities again, when the humanity is facing the century of technology. The purpose of these observations is to have a critical overview of the past designing principles and in order to make a successful renovation of Riga’s microrayons the good principles should be applied and the bad ones erased, according to the conditions and needs of the people living in the XXI century.
Public spaces: potentials

Sarkandaugava

Imanta

Bolderaja

Ilguciems

Purviems

Agenskalns
The research has shown that public spaces in microrayons face many challenges. However, they also have promising potentials. On-site investigation has shown that even though the spaces are unorganized and badly maintained, people still try to make them useful. The most common actions spotted in public spaces were: laundry drying and gardening on vacant land plots.

**Line drying laundry:**

Every microrayon has rack constructions specially designed for line drying laundry, most of them are in critical condition but still in use, (pict.2c) In some places, if existing racks are not found, people create them by attaching the rope to the trees or pillars (1c,3c). Since, cars have occupied the public space, most of outdoor laundry drying equipment nowadays can be found just besides the parking spot (pict.2c). This phenomenon is not only unsound but also unhealthy, since clothes get gas emissions from cars. Freshly washed clothes, which are left to dry outside, is a clear evidence that there is a vivid demand for such places, but the equipment is outdated and spaces are unorganized.

To reorganize laundry spots and to replace old drying equipment with the new one sounds like the most beneficial solution, because there is a high chance that outdoor drying racks will be in use after renovation.

Drying clothes outside is a simple and cheap step towards environment preservation, as there are numerous benefits to encourage drying clothes outside: it helps to save money on electricity bills, because there is no need to use electrical laundry dryer; it is a good tool to save energy and reduce the emission of fossil fuels; clothes get natural freshness and there is no need to use artificial fresheners; on the contrary to tumble drying, line drying has very low risk to damage clothes; sun works as a natural dryer and bleacher; It prevents from extra humidity in winter, which usually happens when drying clothes inside; statistically the chance to experience fire from an electrical laundry dryer is very high, while drying clothes outside the chance to have fire at home is equal to zero, (Leverette, 2013).

**Urban gardening:**

Urban gardening is getting very popular all over the world just because of numerous positive factors it brings. As urban areas are becoming more and more remote from food system, urban agriculture is a great opportunity for city inhabitants to be a part of food system chain, since the food prices are raising every year, (Urban Design Lab, 2012).

Latvia is not an exception. The research results made in 2013 by Institute for Private Finances of Swedbank has shown that Latvians spend almost one third of their salary on food, which is much more than other EU countries and it is the highest expenditure rate in the Baltic States. A four person family in Latvia spends even 32% of their monthly income on food. For vegetables average Latvian family spends 12% and 13% for fruits of food basket, (Swedbank, 2013).

Urban gardening could be a great alternative for people to reduce these numbers. Moreover, Riga’s microrayons have a strong potential for urban agriculture. Every post-war district in Riga has signs of gardening, most of which are decorative gardening, which consists of various types of flowers, (pict.4c,5c,6c). Even though the vegetable gardening was not spotted as a common factor in mass housing estates, the preservation and encouragement of such practices can be quite convenient for its inhabitants because the purpose of this approach is not to change their environment but to encourage their hobbies, while involving more people.

Moreover, the role of urban gardening is not only to provide food for the city inhabitants or to decorate the environment but it also brings them to collaborate together and exchange their ideas. It decreases inequality in neighborhood and it serves as a good teaching tool for urban children about crops. Moreover, it is a good tool for healthy free time, (Urban Design Lab, 2012).
Conclusions of the analysis:

According to the analysis of microrayons in Riga, a list of problems and potentials was made. Naming the weak and strong points of microrayons will help to find a starting point for the urban transformation. The proposed transformation is thus based on these findings which include the challenges and potentials of the analysed microrayons.

Challenges:

- River divides the city into two parts, the current amount of bridges is not enough to create a strong connection between both sides. Since the city center is located on the right bank of the river, microrayons which are located on the left bank become quite remote from it.
- More than a half of city’s population lives in mass housing dwellings;
- Car dependent city;
- The lack of bicycle routes in the city;
- Newly built buildings in microrayons do not fit the current environment, steals a public space and reduce the quality of mass housing blocks even more;
- Private shops and commercial activities, which are located in newly built buildings and in transformed flats, ignore aesthetical appearance and follows ’individual’ taste of an owner;
- A domination of supermarkets in microrayons prevents the development of entrepreneurship.
- Over scaled public spaces with unclear functions;
- Outdated equipment (old benches, old children playgrounds, which became very unsafe for children use)
- Unorganized parking spaces, current parking lots are not adapted for the current loads of cars;
- Monotonic and dull architecture of buildings.

Potentials:

- Riga is a compact city, where the distances are relatively short;
- Riga has a nice nature of which, 28% is forests and 15,7% is water;
- All inhabitants of microrayons have easy access to a public transportation;
- Dense arrangement of public transportation stops;
- All microrayons are connected with car roads;
- Every microrayon has ingredients of entrepreneurship;
- Urban gardening – in every microrayon it is possible to see occupied plots for gardening, usually people grow flowers. The cultivation of vegetables was not found in any of the areas.
- Drying clothes outside is a very common activity in microrayons.
URBAN RENOVATION STRATEGIES FOR RIGA’S MICRORAYONS

Study area: Mežciems 1977-1985
Mežciems in Riga’s context

Mežciems problems are, but not limited to the ones mentioned in the precedings sections thus more specific problems are introduced in this section. Based on these and the problems mentioned before the design proposal is made.

**Built year:** 1977 - 1985

**Size:** 112 ha

**Architects:** M. Medinskis, E. Fogelis, I. Mille-ris, A. Vītols, J. Paegle, O. Krauklis, A. Kronbergs, M. Gelzis.

**Distance from the city centre:** 4,5km - 5km

**Time spent to reach city centre:**
- With a car: 5-6min (60km/h, non peak hours)
- With a bicycle: 20 - 25min (15km/h)
- On foot: 1h - 1h15min (5km/h)

**The frequency of buses to the area:** 1152 times /day
Mežciems in Riga’s context

Location:

Mežciems is one of the 14 microrayons in the city of Riga. It is also called a sleeping district (Leijnieks). It is located 5km outside the inner city ring, on the eastern part of the city. It is quite remote district from the city centre, however it has a well developed road connection from the city center and quite good public transportation. Therefore there are no clearly defined bicycle roads and the area is more focused on car transportation. Mežciems is located in a green area, surrounded with forests, yet the forest on the west side of Mežciems separates it from the city center.

History:

The district (Berglund, 2001) was built on a vast land near the former village Mežciems and it got the same name as that village. Mežciems in Latvian means forest village. The microrayon was built 1977 until 1985. Mežciems was only partly in the composition of Riga city and by that time was considered as located quite far from the city but the great demand of housing had caused a greater development of microrayons. Firstly there were a development of blocks of flats around the village and it was named ‘Old Mežciems’, however the demand of new housing was still high and the ‘New Mežciems’ was designed in the vast area nearby, (Berglund, 2001).

Mežciems was built with a typical structure of microdistrict: with kindergartens, schools and public buildings. However it has more sophisticated layout than other microrayons. One of the architects – Andris Kronbergs, who was a part in the project team of Mežciems is a well-known and influential architect today. Kronbergs’s notes that the project area is surrounded with forests which prevents from planning a large scale housing, on the other hand the size of the area gave a possibility to create confined neighborhood with its own center. The groups of buildings were formed to create a special environment with the main core of the district, which was implemented for the first time in Riga, - walking avenue in the middle of the district (film,...). Unfortunately, the project in reality was not finished. Two big shopping center’s designed in the south were not finished (was built only one of them) and the same happened with the pedestrian avenue in the middle.

Figure 27. Original scheme of Mezciems project, 1970s
Despite the fact that Mežciems microrayon is located further from the city center it has numerous benefits:

1. It is surrounded with forests from both sides;
2. The northern part of study area neighbours with the lake;
3. The car museum, which attracts tourists is located very close to the area;
4. Car racing track, which is located on the western part of the area, is a potential attraction point for entertainment/events;
5. A healthcare center is located just across the street on the eastern part of the area.

All these benefits create a great potential for urban renovation of Mežciems. Its remote location and rich natural environment can attract people who seek a more private space.

However, Mežciems is surrounded with high speed car roads, which is a strong barrier between microrayon and its surroundings.
Mežciems built character:

1d. Pedestrian avenue

2d. Children playground

3d. Parking problem

4d. Self infill building

5d. Pedestrian road divided from car roads

6d. 9 storey blocks of flats
Despite the fact that the area was designed by team of architects of a high profile there were many conditions and rules they had to stick to while planning a microrayon and the frames of microrayon concept are very visible in Mežciems. Another problem is that architects did not really considered the human scale, the plan was made ‘from above’, even though the whole area is designed for pedestrians. Nowadays the problems which arises in public spaces are even greater because nice ideas of architects were not implemented and now the equipment is even outdated.

The study area mainly consists of undefined vast green lots and unstructured parking lots. The lack of parking lots is a great problem in Riga’s microrayons and Mežciems is not an exception. The onsite investigation gave the impression that cars are parked everywhere, were the free plot of asphalt is found.[pict] This is also because originally designed parking lots are too small for current people’s consumption of cars.

Another problem is large vast spaces with no particular use. Some courtyards have playgrounds but in general public spaces are in a very poor condition. The supposed to be a core of the area – Pedestrian Avenue in the middle of the neighborhood is now just a large unfinished space with already outdated pavement and undefined green plots.

General situation of public spaces:
Nine and sixteen storey blocks of flats define the main built character of Mežciems. They are built from industrially mass produced panel blocks and have a typical rectangular shape of a block. The height and the monotonic architecture of these blocks creates cold and aggressive atmosphere.1  Their height are also a cause of large spaces between them, in order all flats would have enough sunlight. Public buildings are, in contrary, very low – mostly one – two story height. There are quite few self-built buildings, most of them are built for the commercial use.
Mežciems is a typical sleeping district which consists mostly from blocks of flats. There are two kindergartens and one school in the area. Three public buildings with some shopping and service facilities. In contrast from blocks of flats kindergartens and school are renovated and well preserved and the school building has an extended part. However, the stadium situated near the school is in a critical condition. Four buildings of commercial use are located in the southern edge of the microrayon and the other two – on the northern edge. A few private businesses are also located in the bottom floor of blocks of flats. The majority of transformed flats are concentrated in the area near the stadium.
RENOVATION STRATEGIES FOR THE STUDY AREA: MEŽČIEMS
Vision for a compact neighborhood with the good connection to the city center

From the previous sections it is shown that the problems plaguing the microrayons (Mežciems in particular) are complex though at the same time they show a great potential for a more value oriented neighborhood. These problems span from individual problems within the microrayons to the global perspective of Riga. This implies that though the design proposal is based on Mežciems, all microrayons need to be revitalised in order for Riga to have a complete face transformation. Based on the principles of sustainable urban design as mentioned in the proceeding sections the proposed design seeks to solve the problems identified from the global perspective of Riga to the local perspective of each microrayon while at the same time making use of the potentials in Mežciems.

In order to create a lively neighbourhood, it should be diverse in functions, with interesting points of focus, objects designed within the walking distance. However the functions existing in neighborhood should not conquer with the functions existing in the city centre in case to avoid a satellite town effect. The connection with the city center should be quite strong instead.
Strategy Nr. 1: Better connection with the city center

According to the analysis on Riga’s traffic system, it is quite well connected by public transport and easy to reach with the car. However the car roads which are located in Mežciems separates the neighborhood from its surroundings, because all Mežciems is enclosed with high speed streets. This type of infrastructure decreases the movement of cyclists and pedestrians. Considering cycling paths – currently there is no existing path which would lead to the city center, and the ones which are designed to build in the future are made along the car roads, which are designed in a longer distance. Even though the connection to the city center with public transport is not bad, the improvement of it could reduce the need to have a car. In order to improve the connection of Mežciems with the city center some policies are suggested:

1. Improving paratransit system of public transportation: In order to reduce the car use among Riga’s citizens, the reasonable solutions could be the improvement of the paratransit network and quality. This could be solved by making it to become a higher level than a bus considering such factors as: vehicle quality, faster connection, person oriented service, comfortable paying system but yet cheaper than a taxi. Paratransit system is a real alternative for cycling during the cold season (late autumn, winter, early spring), when going by bike becomes too hard and demotivating.

2. To create the cycling link between the city center and Mežciems: The solution for poor cycling infrastructure is the improvement of it by creating more bike lanes which are separate from car roads with good parking facilities. To reduce the danger in cycling is by no means separate bike lanes also apply. Bicycle tracks should be integrated in nice landscapes and adjusted to unexperienced cyclists.

3. Traffic calming strategy in order to strengthen walking and cycling links from the city center to Mežciems: To slow down the speed of vehicles in the streets which surrounds Mežciems and to reduce the existing barrier between Mežciems and its surroundings (forests, car museum, hospital).
Infill development (Wheeler, 2002) could be one of the best answers for resolving the aforementioned problems such as urban sprawl, complicated land ownership situation, self-built architecture objects in the area, and a dissonant arrangement of an existing environment between the buildings. As Wheeler (2002) states the Infill development is focused on the building of new houses within the existing urban pattern, contrary to urban sprawl which is focused on the creation of new areas around the city. Infill development might be more expensive than urban sprawl in terms of buildings, but solves more complex problems which might arise in the future. The infill development takes advantage of existing infrastructure, reduces government costs, provides new buildings, which increases the functions needed for the city and prevents the increase of car usage, (Wheeler, 2002).

The infill development in mass housing districts can be a tool for the municipality to gather all owners of the district and to create a united reconstruction project, from which all parties could benefit. This approach is complex, involving architects, inhabitants, land owners and the municipality to work as a team. In this case participants could benefit from rents or sales of new houses, while the existing inhabitants will be able to enjoy new public places and renovated post-war blocks.

The mixed use infill in Mezciems can be implemented in two steps:

1. Renovation of mass housing blocks of flats by extending their size;
2. New residential buildings of different types and new public buildings of different functions;
Strategy Nr. 3: To create new and encourage existing forms of entrepreneurship

Lively public spaces and infill development cannot function properly without entrepreneurship. In order to have a lively neighborhood a certain amount of public services which support local people needs should be provided in the area. Also some commercial areas could be provided to rise the local income for Mežciems. With the provision and encouragement of local entrepreneurship Mežciems can become a self-sustained neighborhood, without a high dependence from the state.

This aspect can be implemented in two steps:

1. To encourage small businesses, which could be run by one or few people, and self employment by creating commercial spaces, which could be rented for a low price for self-employed people.

2. To create mixed use objects with infill development, where certain amount of spaces for offices would be introduced for rents or local business development, (Wheeler and Beatley, 2009)
Human scale is the main factor of public space quality, which can be described according to the activities happening in public spaces, [Wheeler and Beatley, 2009]. That is why the transformation of spaces between the buildings has a potential to increase the level of sociability in mass housing estates. Gehl (eds. Wheeler and Beatley, 2009, p.102) describes a sociable city as one which has relatively small spaces between buildings, is equipped with pedestrian lanes, has outdoor areas directly connected with dwellings and enough public buildings and places to work. The quality of public space is proportionally dependent on the number of activities. Usually, simple adjustment in the physical spaces are enough to see an increased in the usage of public space. This kind of city is filled with people just because it is equipped with comfortable public spaces, which are easy to access and to use, (Gehl, eds. Wheeler and Beatley, 2009).

Huge public spaces should be minimised into the comfortable size for pedestrians, there should be a room for communication and interaction. Domestic activities such as urban gardening and inline drying should be encouraged amongst inhabitants and planned in a way that would not mix with public spaces, in order to keep the privacy of inhabitants.

Parking lots should be organised and should have a clear distinction with public spaces, so that cars would not occupy the spaces which belong to pedestrians.
Strategy Nr. 5: The mix of functions within a walking distance

In order to encourage people to use public spaces in Mežciems only to make them smaller in size is not enough. They should also be divided into small areas which are of a wide range of functions within a walking distance (Gehl, 2010). The aim of a strategy is to propose the variety of functions spread out in different spots of Mežciems, which are not further from each other than a 5 min. walking distance (human dimension). Different public spaces and public buildings create a variety of functions and they should be placed in transit places, in order to create interesting views, which visually shortens the distances and encourage people to stop. The functions which could be implemented in Mežciems are: public services of a local importance – gym, dentist office, printing office and etc., public spaces of various activities – sports, games and resting places.