

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory compilation*

# City and regional contributions

Ljubljana.....	3
Roma.....	19
Budapest.....	30
Barcelona.....	42
Porto.....	53
Oslo + Akkershus.....	66
Helsinki.....	78
Göteborg.....	98

# 4<sup>th</sup> Workshop

## Transit Oriented Development

*Inventory Ljubljana*

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### A) Open questions on creating transit oriented development

- 1 In your region, does transport corridors play a special role in spatial planning?

*Yes, transport corridors are defined in Spatial Development Strategy of Slovenia (SPRS, 2004) as a backbone of so-called “development axes”. They also play a crucial role in strategic parts of many municipal spatial plans. The City of Ljubljana Municipal Spatial Plan also defines main corridors as key defining element of Ljubljana, following a decades long strategic orientation of the city.*

- 2 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

*On the national level, such policy document is Spatial Development Strategy of Slovenia (II. Priorities and Guidelines for Achieving Slovenian Spatial Development Objectives, 4. Harmonized Development of Wider Urban Areas).*

*Municipal spatial plans (e.g. of the City of Ljubljana) include fostering housing/services along the transport corridors, especially in the strategic parts of the documents.*

*Municipal sustainable urban mobility plans (SUMP) sometimes include the recommendations on densifying urban tissue and placing train and bus station at the points of high density.*

- 3 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in

your region?

*Yes, to some extent, at the strategic level, both at national and municipal level. But contradictions exist, however. E.g. in Ljubljana the Municipal Spatial Plan intends to densify settlement within the motorway ring, which is to some extent contradictory to fostering development on transport corridors.*

- 4 How would you define the concept of an urban station community in your region?

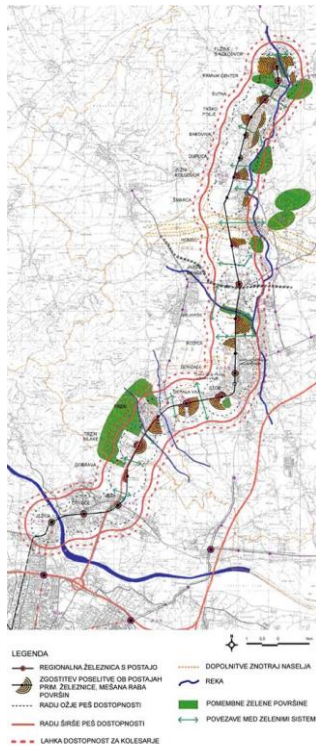
*Traditional neighborhoods ('soseska' in Slovenian), built mostly from 1950s to 1980s are a mix of residential and service programmes, with a neighborhood centre developed around the station of public transport, which was predominantly bus network. In that time it represented a key urban planning tool in Slovenia. Examples of such neighborhoods are Fužine, ŠS6 in Šiška, Ruski car or BS3 in Ljubljana.*



Source: [http://trajekt.org/arhiv/pictures/lj\\_19651.jpg](http://trajekt.org/arhiv/pictures/lj_19651.jpg)

*In the wider region an example would be the development of the conurbation between Ljubljana and Kamnik, with the clearest example of what is here called an urban station community being Domžale town centre, where a new centre of a sprawling town was built in the 1970s around a train*

station.



Source: [http://trajekt.org/arhiv/pictures/severni\\_krak.jpg](http://trajekt.org/arhiv/pictures/severni_krak.jpg)

5 Which local organizations work to develop urban station communities?

*It is hard to talk in the present tense, as what is described as urban station community is not really developed systematically in our region nowadays. Neighborhoods ('soseske') are very close to the concept of TOD, but are not promoted and planned in municipal spatial plans anymore.*

*From 1960s to 1980s the planning offices/institutes were the main actors, promoting neighborhoods / urban station communities, because they operated on a regional scale. In the early 1990s they were privatized and their role of planning authorities was abandoned. A part of their role is now conducted by regional development agencies.*

*Nowadays, municipalities are the main actors that could develop urban station communities through their spatial development plans.*

*Public transport providers (rail and bus operators) are also involved during the preparation of the plan, but the coordination is usually rather formal. They also cooperate regularly with municipalities, as local transport is their responsibility, but on a more operational level.*

*Rarely – and depending on project funding – research institutions such as Urban Planning Institute of the Republic of Slovenia promote TOD.*

- 6 Is the public involved in the work? And how?  
*Public is involved in the preparation of spatial plans, but participation is often limited to formal hearings.*
- 7 Do you work actively, from a regional perspective, to develop local station communities?  
*RRA LUR is/was actively involved in the preparation of municipal SUMP, which contribute to local station communities.*
- 8 What methodology is used?  
*There is no specific methodology to develop urban station communities apart from the spatial planning methodology used for the spatial plan. This is on the one hand formally prescribed by the law, but on the other hand it also depends on the knowledge and practices of the planners involved.*
- 9 Who initiates a TOD in your region (or using alternative method mentioned above)?  
*Neighborhoods are not really planned as TOD anymore. But they could be and in this case they could be initiated by the municipality in its municipal spatial plan. They could also be initiated by the developer or a group of developers. We are not familiar with any such case, though.*
- 10 Which are the main barriers/constraints for using the TOD methodology?

There are several barriers to using TOD methodology in Ljubljana urban region.

*The main barrier is weak regional planning, that often follows the ad-hoc individual initiatives of the developers, investors, land owners, etc. Since the investors are predominantly small, the comprehensive spatial development is not an easy task and TOD likewise.*

*Planning is in practice implemented by different sectors, such as transport or energy. As a consequence, transport and spatial planning are poorly linked. Imbalances are even within sectors: road network is developed very well, while rail network is in poor condition.*

11 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

*We can observe no strong driver. Accessibility could be one of the drivers. In addition, lower land values of less central locations.*

12 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

- Participation in transport planning
- Regional mobility plan
- Low-emission logistics planning

*The participation in transport planning is low and there is not much public awareness of TOD at all. The afore mentioned illustrates the necessity for a better governance at the regional level, that would merge sectorial, municipal and national views on the development in a certain region with the expectations of the inhabitants.*

*The regional mobility plan could serve as a helpful tool to manage regional public transport, which is a backbone of TOD. Again, more competences should be given to regional level as well it is necessary to make a clear institutional setting at the regional level.*



*In designing urban station communities it is of crucial importance they are not just housing areas but should be properly equipped with the services of general and general economic interest. From this perspective respecting and implementing new solutions in the field of low-carbon logistic is a must.*

- 13 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?

*Within a municipal spatial plan housing, transport and infrastructure planning is done simultaneously. Unfortunately, implementation of sectorial plans on national and local level is poorly coordinated, as mentioned above. In particular, rapid settlement of suburban areas almost completely neglected the aspect of transport and accessibility.*

- 14 How many green areas are in the urban station community in ha / total area?

*The percentage of green area is not defined/regulated.*

- 15 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?

*Concept of urban station communities is not adopted in our region, however some suburban settlements, located by the railway, show the tendencies of such development. In this section we're presenting three such locations from Ljubljana urban region, which in the future could benefit from the implementation of the transit oriented development principles. They are located in settlements Borovnica, Grosuplje and Trzin. Even if spatial development was done in line with local spatial planning acts, the residential areas, services and transport infrastructure developed more or less spontaneously.*

*Data presented here are demonstrating a current state; they*

were calculated for the buffer area of 1000 m from their railway stations.



### **Borovnica (Distance from regional centre: 25 km)**

a. What population density and population volume do your urban station communities have?

*In 2015 number of inhabitants in Borovnica area was 2405, population density was 766 people/km<sup>2</sup> (7,66 people/ha).*

b. To what extent/distance do these stations include. Total area in hectare?

*Selected area has approx. 314 ha (1000 m buffer area from railway station).*

c. What kind of services are available in these urban stations communities?

*All basic services: Elementary and nursery school, seat of the municipality, local health centre, library, grocery stores, restaurant and bar.*

d. Is commuter parking made available at the station?

*Parking is possible by the railway station, but it's unregulated, parking spaces are not marked, there is no parking toll system. It has a function of P+R, but it's not officially parking, there is no special signalisation, there are also no safety measures taken for pedestrians or bicyclist who are passing the area.*

- e. Describe the public transport that feed the station and what frequency there is in the regional public transport system?  
*During the weekday there are approx. 22 trains in the direction of the regional centre - Ljubljana (duration of travel is 20-25 minutes). During the weekend there are approx. 10 trains scheduled for the direction of Ljubljana per day.  
Bus connection is very weak – there is only one bus per day in the direction of Ljubljana (in comparison to train, bus is not optimal choice – it's more expensive and time consuming).*
- f. How green (park, forest, etc.) is the urban station community in hectare/total area?  
*There is 75 % of green areas (parks, forest and agricultural land included). It is necessary to add that urbanization rate in Slovenia is rather low (around 50%) and that settlements are relatively small. Consequently, all inhabitants have access to green areas.*
- g. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!  
*Along the roads there are few pedestrian route sections (near elementary and nursery school). There is no special infrastructure for cycling. Data about the percentage of users of public transport are available for 2002 – the percentage was 30 %. No modal split studies have been conducted after that.*
- h. Are there any other modal split calculations?  
*No.*

### **Grosuplje (Distance from regional centre: 25 km)**

- a. What population density and population volume do your urban station communities have?  
*In 2015 number of inhabitants in Grosuplje area was 6554, population density was 2087 people/km<sup>2</sup> (20,87 people/ha).*
- b. To what extent/distance do these stations include. Total area in hectare?  
*Selected area has approx. 314 ha (1000 m buffer area from railway station).*
- c. What kind of services are available in these urban stations communities?  
*All basic services: Elementary and nursery school, seat of the municipality, cultural centre, local health centre, library, grocery stores, restaurant and bar.*
- d. Is commuter parking made available at the station?  
*There is municipal parking available near the station, but it's not commuter parking – it's primarily parking for people who come to use the services in the area. Parking toll is high and is stimulating users either to park only on short-term or to come in the centre on foot or by bike.  
The construction of P+R with 156 parking lots is planned (it's included in Regional development plan for Ljubljana urban region in the period 2014-2020).*

- e. Describe the public transport that feed the station and what frequency there is in the regional public transport system?  
*During the weekday there are approx. 17 trains in the direction of Ljubljana (duration of travel is 25-30 minutes).  
During the weekend 4 trains on Saturdays and 7 trains on Sundays go in the direction of Ljubljana.  
In 2011 one of the line of Ljubljana public transport was prolonged all the way to Grosuplje and was included in city's bus network, which drastically improved the frequency of public transport. There are more then 40 buses going in the direction of Ljubljana during the week-days, 17 buses on Saturdays and 10 buses on Sundays.*
- f. How green (park, forest etc) is the urban station community in hectare/total area?  
*There is 45 % of green areas (parks, forest and agricultural land included).*
- g. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!  
*Along the roads there were pedestrian routes constructed. Data about the percentage of users of public transport are available for 2002 – the percentage was 12 %. No modal split studies have been conducted after that, but considering the improved accessibility and frequency of public transport, this percentage increased.*
- h. Are there any other modal split calculations?  
*No.*

### **Trzin (Distance from regional centre: 10 km)**

- a. What population density and population volume do your urban station communities have?  
*In 2015 number of inhabitants in Trzin area was 3089, population density was 984 people/km<sup>2</sup> (9,84 people/ha).*
- b. To what extent/distance do these stations include. Total area in hectare?  
*Selected area has approx. 314 ha (1000 m buffer area from railway station).*
- c. What kind of services are available in these urban stations communities?  
*All basic services: Elementary and nursery school, seat of the municipality, cultural centre, sport centre, local health centre – ambulant, library, grocery stores, restaurant and bar.*
- d. Is commuter parking made available at the station?  
*There is no commuter parking available in the area. There are parking lots available for the users of the services in Trzin, but in limited number. In the scope of the development of the regional P+R network (project prepared by the Regional development Agency of Ljubljana urban region), one P+R parking is planned also in Trzin (76 parking lots).*

- e. Describe the public transport that feed the station and what frequency there is in the regional public transport system?  
*During the weekday there approx. 20 trains go in the direction of Ljubljana (duration of travel is 20-25 minutes), but there is no train connexion during the weekend. Considering the distance to Ljubljana (10 km) travel time is above average. This is due to non-modernised railway infrastructure with many same-level crossings.  
Bus connections are strong – there are more then 60 buses in the direction of Ljubljana scheduled during weekdays, and approx. 25 on Saturdays and Sundays.*
- f. How green (park, forest etc) is the urban station community in hectare/total area?  
*There is 70 % of green areas (parks, forest and agricultural land included).*
- g. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!  
*The passenger's routes and cycling routs to Ljubljana are constructed. For this area no data on modal split are available.*
- h. Are there any other modal split calculations?  
*No.*

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

*To our knowledge, there is no clear case of TOD currently developing in Ljubljana urban region.*

*Stanežiče neighbourhood is an urban development proposal, but is not implementing. ([http://www.zaps.si/index.php?m\\_id=natecaji\\_izvedeni&nat\\_id=87](http://www.zaps.si/index.php?m_id=natecaji_izvedeni&nat_id=87)).*

1. What are the objectives of the plan in regards to land use?  
/

2. What time frame has the plan?  
/
3. Who has the legal responsibility for the plan?  
/
4. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?  
/
5. Is density used as a target for the plan?  
/
6. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?  
/

### C) Good examples/bad examples

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
Name: <i>The location of residential area in village Borovnica</i>	Name: <i>The location of non-profit housing neighbourhood in Cesta v Gorice, Ljubljana</i>
Context: <i>In 2015 the new residential area with more than 50 apartment units was build in village Borovnica, in the distance of 30 km from Ljubljana. It was built by Housing Fund of the Republic of Slovenia and than sold off to individuals by the principle of open calls and tenders.</i>  <i>Buildings are located in proximity of railway station (400 m) and basic services (elementary and nursery school, seat of the municipality, local health centre, library, grocery stores...).</i>	Context: <i>Non-profit housing neighbourhood in Cesta v Gorice with 114 apartments was built in 2007 by The Housing Fund Of The Municipality of Ljubljana.</i> <i>Considering it's location within the city, buildings are located relatively far from public transport network and basic services (750 m to nearest bus station, 2,5 km from elementary school, 3.5 km from local health centre, 3 km from library, 2 km from grocery store/shopping centre.</i>
Main authorities and stakeholders involved: Housing Fund of the Republic of Slovenia, Municipality of Borovnica, Slovenian Railway (Slovenske železnice)	Main authorities and stakeholders involved: <i>The Housing Fund Of The Municipality of Ljubljana, Municipality</i>
Web links: <i><a href="http://ssrs.si/">http://ssrs.si/</a> <a href="http://www.najem.stanovanjskiskladrs.si/Lokacija/13">http://www.najem.stanovanjskiskladrs.si/Lokacija/13</a></i>	Web links: <i><a href="http://ljublanski.projekti.si/neprofitna-stanovanja-na-cesti-v-gorice.aspx">http://ljublanski.projekti.si/neprofitna-stanovanja-na-cesti-v-gorice.aspx</a></i>

Why is the practice considered as 'good'?  
*The investor, Housing Fund of the Republic of Slovenia, is serving the interest of the state by implementing the national housing programme. Through it's programme and its' projects the Fund can promote the transit oriented development and implement it. The case of Borovnica could be presented as such example (or at least already has some TOD elements).*

*Good access to all elementary services within walking distance, the direct public transport connection to greatest employment centre in the country and good access to green areas are increasing the quality of life in this residential units.*



Source: <http://www.najem.stanovanjskisklad-rs.si/Lokacija/13>

Why is the practice considered as 'bad'?  
*The study, which was measuring the residents' satisfaction with the quality of their living environment in these neighbourhood, shows that more than 75 % of them is not satisfied with the accessibility of public transport, they also emphasised the long distance to services, lack of cycling infrastructure (the pedestrians and bicyclists need to pass industrial zone to reach the nearest bus station) and absence of playgrounds for children and recreational facilities. (<https://repozitorij.uni-lj.si/Dokument.php?id=102801&lang=slv>).*

*Beneficiaries of non-profit housing in this neighbourhood are citizens with lower income, this make it even more unacceptable that on the last 10 years practically no progress has been done.*



Source: <http://ljubljanski.projekti.si/neprofitna-stanovanja-na-cesti-v-gorice.aspx>



## **D) Current experience**

1. Has your organization implemented a urban station development plan?

*No, but RDA LUR was involved in elaborating of sustainable urban mobility plans for some of the municipalities in the region, including the city municipality of Ljubljana. Proposed measures for the city of Ljubljana are encouraging or enabling the development of urban station communities.*

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

*The activities were carried out internally and with externals with a wide range of stakeholders including public.*

3. What methodology was used?

*Questionnaires, workshops, public presentation, interviews, open space events and exhibitions.*

4. What objectives and targets were set up for the planning?

*The measures in the SUMP for the city of Ljubljana, which are encouraging or enabling the development of urban station communities were for example:*

- limiting the speed at 30km/h in the neighborhoods and the overall calming of traffic in these zones,*
- the reorganization of the streets according to the principle of common transport space,*
- implementing parking policy in the neighborhoods,*
- the integration of the railways into urban transport: new train stations and establishment of the city rail.*

5. Has an evaluation been conducted and set in relation to set goals and objectives?

*-*

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

*Is it possible to evaluate the additional market value of real-estates/apartments in newly designed urban station communities in relation to classical planned neighborhood?*

*Are there any unsuccessful stories, regarding TOD/urban station communities? What were the main reasons it?*

*What could be the main arguments (for decision makers/investors) for planning the neighborhood around the railway station? What are the arguments to plan together transport and new development and not to adjust PT to new development?*

*Are there any good practices on mechanism that would encourage settlements around rail stations (in terms of easier documentation access, financial incentive, tax mechanisms...)?*

*What can be done to change an existing neighborhoods/settlements into urban station communities? The cities in Ljubljana urban region are often located away (few km from existing train station (railway) like Vrhnika, Mengeš). What could be the solution?*

*We would like to discuss in more detail different elements of urban station communities: parking policy (min, max. number of parking space, common parking spaces for visitors, innovative arrangements...), urban design - friendly for pedestrians and cyclists, distance and frequency of PT, possibilities of including the waterways as a PT.*

7. What experiences from workshop 4 do you want to bring to the next workshop? The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)  
*We understand both concepts – urban station communities and low carbon urban areas as related and both should be regarded from the same perspective – providing the highest possible living conditions for inhabitants and at the same time cause the minimum environmental damages. Thus all the contributions in this direction are welcome.*

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory Rome*

Workshop in Ytterby – (11/13 December 2017)

## Transit Oriented Development

### Inventory

Background objectives to the inventory of **Transit Oriented Development** and to the workshop held in Kungälv with case study Ytterby.

- A. **Open questions on creating Transit Oriented Development:** a set of 'open questions' intended for regions about procedures, opinions and practices.
- B. **Data monitoring and other tools for managing and updating Transit Oriented Development** **Questions – Metropolitan City of Rome**

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **B) Open questions on creating transit oriented development**

16 In your region, does transport corridors play a special role in spatial planning?

The new Regional Plan on Mobility, Transport and Logistics (PRMTL) has an Urban System part dedicated to multimodal transport facilities (MTF) located on rail transport corridors.

The transport corridors play a special role in the mobility system of the Metropolitan General Territorial Plan (PTPG). The Public Transport Corridors are protected routes reserved to public transport with these functions:

- Integrate the railway system;
- Facilitate tangential and radial connections;
- Create connections with hubs;
- Create protected routes for LPT.

Transport corridors represent a crucial point for the journeys of the commuters toward the city center and the planning activity takes into consideration such point defining public transport and cycling corridors.

In the new Land-use Plan of the city of Rome (PRG), designed in 2008, all the new central places provided in the large suburban areas have been located around regional train stations, to help reducing the functional concentration and the access of the suburban areas to the main urban functions (more services and jobs opportunities), to increase their social integration and regeneration.

- 17 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

The Urban System in PRTML has indicated that the new developments must be near the MTF along the transport corridors that are the main intermodal centres.

The Metropolitan General Territorial Plan subordinates the settlement development to the infrastructure accessibility, facilitating residences, services and workplaces near the hubs.

In the past for sure the housing and provision of services/businesses were already present and at a later stage transport corridors were planned and implemented. Within the new General Urban Plan the vision is changed and (at least in theory) there is an integration between land use and transport planning.

- 18 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

The Region has several areas of new developments with low density, weak transport demand, and poor public transport. The PRTML indicates the rail stations on transport corridors with multimodal transport hub functions as the centre of new developments aimed at increasing residential, commercial, and industrial density.

The Metropolitan General Territorial Plan promotes the railway stations role to achieve a balanced polycentric web of urban settlements.

Rome Municipality is planning and funding new Intermodal Hubs and for some of them is planned to implement connected services and business activities.

Besides there are some proposals for promoting Urban Regeneration Projects (following now the new rules of Regeneration Law recently approved by the Lazio Region) in the areas around the regional train stations, by improving accessibility and sustainable mobility.

19 How would you define the concept of an urban station community (USC) in your region?

A USC is a social group of up to 100,000 people whose members reside around a station no more than 2–3 km away, sharing common interests in the station as a mean to connect with the rest of the region, and in the commercial and industrial activities around the stations. Attention should focus on community-building goals instead of solely on mobility objectives. The perspectives should be broadened so that transport is one of the component and not the only driver of community goals.

Moreover all the city Hubs should have integrated some activities to attract city users as information points, café, cycling repairing, etc. and in such a way as to increase the security of the area.

20 Which local organizations work to develop urban station communities?

The Lazio Region gives the priorities to realise the corridors of public transport. The Metropolitan City of Rome Capital (MCRC) identifies possible layout and makes the feasibility study (study of urban and environmental integration and transport modalities) for each of these corridors.

Main responsible organizations are the municipality with the planners, the local public transport companies, railway networks and private operators.

Local bodies at different levels such as: Municipalities (Transport/Urban/Environmental departments), Districts authorities (boroughs) and Local NGOs (Coordinamento Roma Ciclabile – CRC, etc.

21 Is the public involved in the work? And how?

Not enough at the moment. Some stations are completely isolated, some have residents nearby, in which case they can participate in meetings and conferences and through a web site.

At local level, the public is involved by planning, design, and improvement of projects and through the participation processes of local NGO.

The Coordinamento Roma Ciclabile – CRC had some contacts with the previous Administration of Rome Capital, but with no results. It is trying to share the Proposal again now, through the Consulta per la sicurezza stradale e la mobilità dolce, by the Mobility Agency of Rome (RSM).

22 Do you work actively, from a regional perspective, to develop local station communities?

Professor Filippi is the coordinator of the PRTML and, together with his staff, is elaborating a strategy and a methodology to develop local station communities. The Coordinamento Roma Ciclabile – CRC participates to the design of the PRMTL with regard to the bike mobility side.

23 What methodology is used?

The methodology is based on the following steps:

- strong public-private partnerships responsible for integrated transport and land-use planning;
- regional incentives to cooperate at the regional level on corridors and station developments;
- early and sustained communication of the transit-oriented areas indicated in the plan to increase chances of better land-use decisions;
- incorporation of transit considerations during the development review process of the municipalities;
- use of guidelines for transport impact analysis for site development and costs-benefits analysis for implementing transit oriented development projects.

24 Who initiates a TOD in your region (or using alternative method mentioned above)?

The only initiative of TOD is planned in PRMTL.

25 Which are the main barriers/constraints for using the TOD methodology

The lack of well-defined responsible institutions and clear incentives. The existing interests on different areas. The weakness of public transport in the urban area of Rome. The car-oriented culture of the population. The potential illegal (unplanned) conditions of the settlements that could become TOD.

26 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

The main driver is the reduction of the use of the car, less congestion and pollution, in favour of public and active transport. The other driver is the reduction in the consumption of rural soil. Then there is increasing accessibility to services, commercial activities, and work places, cheaper alternatives, but with good services.

27 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

Regional mobility plan: this is the main instrument to govern, plan, and implement the TOD on a large scale

- 28 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?

The plan should be integrated not only with housing, transport, and infrastructure, but also with the commercial and industrial activities, and with services. A compact development of all these functions and activities invites more walking and bicycling – not only to access rail stops but also for -neighbourhood shopping and socialising.

- 29 How many green areas are in the urban station community in ha / total area?

The compact development within a radius of 1 km with extensive rural area outside reduces the need for green areas in a TOD. A good provision is about 30% of total area.

- 30 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?

- a. What population density and population volume do your urban station communities have?

166 inhabitants/ha, 50,000 inhabitants

- b. To what extent/distance do these stations include. Total area in hectare?

1 km, 300 ha

- c. What kind of services are available in these urban stations communities?

Mainly commercial, business, hotel, but also public

- d. Is commuter parking made available at the station?

Yes.

- e. Describe the public transport that feed the station and what frequency there is in the regional public transport system?



The station has two feeder buses with a frequency of 4/h each

- f. How green (park, forest etc) is the urban station community in hectare/total area?

Inside the 1 km radius is  $45/300 = 0.15$

- g. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

3

- h. Are there any other modal split calculations?

The traffic evaluations have used, on the side of caution, 80% of work trips by car and 100% for all other trips from home.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

Regional Plan for Mobility, Transport, and Logistics (PRMTL)

7. What are the objectives of the plan in regards to land use?

- area available for development within a radius of 800 m from a Railway station or important transport node;
- public services and commercial activities essential for everyday life not more than 500 m away on foot and 2000 m by bicycle;
- the number of residents and employees, scheduled for the new development within a radius of 800 m from the station, sufficient to approach the target of 10,000 vehicle-km (VKM) on average by a family in a year with its own car(s).

8. What time frame has the plan?

Long term

9. Who has the legal responsibility for the plan?

Lazio Region

10. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

The residential population target is 50,000, the workplaces around 110.000.

11. Is density used as a target for the plan?

Indirectly, yes; the maximum population density should be near to 250 inhabitants/ha.

12. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?

This part is still in progress.

### C) Good examples/bad examples

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
Name: Tiburtina Station new developments	Name: P.d.Z. B38 Muratella Variante Bis
Context: North quadrant of Rome, inside the ring road. Between two neighbourhoods, Pietralata and Nomentano.	Context: West quadrant of Rome, inside the ring road. The New Urban Plan of Rome envisages important developments in this area, which is expected to become a strong attraction for top-level services and functions.
Main authorities and stakeholders involved: Rome municipality, Italian Railways (RFI)	Main authorities and stakeholders involved: Rome municipality, Lazio Region and Developer Consortium
Web links: <a href="http://www.fsnews.it/cms-file/allegati/fsnews/Tiburtina_Presentazione.pdf">http://www.fsnews.it/cms-file/allegati/fsnews/Tiburtina_Presentazione.pdf</a>	Web links: <a href="http://www.urbanistica.comune.roma.it/images/uo_opere/partec_pianizona/pdz_B38_elabA.pdf">http://www.urbanistica.comune.roma.it/images/uo_opere/partec_pianizona/pdz_B38_elabA.pdf</a>
Why is the practice considered as 'good'? The development is a large investment of more than €1 billion, partially funded by private investors. It complements the residential area with new functions. It required significant improvement of the railways and the station. The modal split with high demand will be 45% on public transport between bus, metro, and rail. The area is crossed by pedestrian and bicycle pathways that link the new development with the railway station.	Why is the practice considered as 'bad'? The development increases the density, the services, and work places. But there are two main failures: 1. The transport plan is focused on roads and much less on rail; 2. The internal organisation of roads in the TOD has very little interest in active modes of transport (walking and cycling).

## **D) Current experience**

1. Has your organization implemented an urban station development plan?

Yes, Centre for studies on Transport and Logistics (CTL) participates in a group for a new stadium in Rome.

2. Were the activities carried out with the help of external expertise or internal?

All the plan and design activities were carried out by a private group with internal and external expertise.

What stakeholders were involved?

Local communities, institutions, investors, regulatory agencies, transport companies, private associations.

3. What methodology was used?

The impact of the new development on the area from different points of view: urban and transport planning, geological and hydraulic, landscape, safety and security.

4. What objectives and targets were set up for the planning?

The economic and environment sustainability, the modal split 50% between road and rail, the balance between the pre-existing residential area and the new developments focused on a shopping mall, business district and stadium.

5. Has an evaluation been conducted and set in relation to set goals and objectives?

The main evaluation was related to the transport system.

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

We know mostly about the US experience, which is very well documented, but very little in EU or other places, such as Asia. It would be interesting to know some correlations between density, size, land use, income, number of cars owned, quality of public transport, of walking and bicycling, modal split.

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory Budapest*

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **C) Open questions on creating transit oriented development**

#### **31 In your region, does transport corridors play a special role in spatial planning?**

Yes, the different transport corridors have special attractive role in spatial planning and urban developments. The development of Budapest's transportation system must ensure simultaneously the satisfaction of needs at a:

- European,
- national,
- and a regional

level, but it must first of all promote its own intentions of urban development coordinating them with an appropriate urban development concept.

#### **32 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?**

Yes, the Budapest 2030 Long-Term Urban Development Concept (adopted by the General Assembly in April 2013) is a comprehensive planning document that envisages the capital city's long-term development for over ten years taking into account its urban characteristics. It gives priority for the developments beside transport corridors and states that Transportation must not be developed for its own sake. Transportation has to work simultaneously on its infrastructure, and its services, and through offering access to areas of different utilities, and functions, the infrastructure of the transportation system fundamentally affects people's choice of dwelling place, and business site, which ultimately leads to the need of changing the utilization of space.

**33 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?**

Over the past two decades the Capital's population dropped by approximately 15%, while the agglomeration grew (almost 300,000 people moved out of the city mainly to areas of the agglomeration within Pest county), thus a much higher need for transportation was resulted. Actually, this trend seems to have reversed, but there is still a high rate of commuters. The Budapest 2030 Long-Term Urban Development Concept has the focus on preserving the existing assets, on their appropriate utilization and quality improvement. Instead of construction targeting the ecologically, highly valuable, irreplaceable lands, the primary target areas of development for residential, economic and green area purposes should be the inner reserves of the city. A mixed-use, compact urban land utilization and network system is to be developed, whilst respecting the natural and built environment along with the individual city character worthy of preservation. Budapest transport constraints need to be reduced, to relieve some of the burdens imposed on the busiest parts of the city. The objective is to create a solid, functioning and compact urban land utilization system where the complex and diverse activities coexist, land use causing conflicts diminishes and more varied utilization results in fast access options, a "city of small distances" and in the appreciation of neighborhood units located in a residential or workplace environment. Adequate intensity and varied land utilization promote the realization of the principle of "small distances": if the venues of everyday life are close, they can be accessed without having recourse to motorized traffic, thus the opportunities for biking and walking improve.

**34 How would you define the concept of an urban station community in your region?**

The urban station community should find compact forms of land utilization and infrastructure development, to focus the developments on areas with an established infrastructure, instead of creating completely new ones. Consequently, the "recycling" of the brownfield sites along the existing transport corridors are the primary interest of Budapest.



### **35 Which local organizations work to develop urban station communities?**

The Municipality of the City of Budapest and the Districts with the support of the Hungarian State and private sector work to develop urban station communities.

### **36 Is the public involved in the work? And how?**

The cooperation of the public, municipalities, economic and civil actors is important for spatial and urban development according to common objectives that reflect the common interests of all actors, using coordinated development tools. In the course of the preparation of different development plans, numerous professional and public consultation sessions were held with district, metropolitan area and county (local) governments, professional and non-governmental organizations, interest groups and authorities. The conditions of cooperation were defined in separate agreements with several NGOs. All comments and proposals were evaluated and utilized.

### **37 Do you work actively, from a regional perspective, to develop local station communities?**

The regional functions of Budapest can be felt with different intensity in different impact areas. Partnership, cooperation and the planning of the future (with different contents) is interpreted and organized between the city and its region at three levels:

- Between Budapest and the towns belonging to the Budapest economic area in order to create a single Budapest economic area of regional significance,
- Between Budapest and Pest county: in order to achieve coordinated development at regional level and effectively manage the agglomeration problems
- Between the external districts of the capital city and the neighboring settlements of the agglomeration: to resolve development and regulation tasks between districts and settlements and to initiate common integrated development programs.

### **38 What methodology is used?**

Depending the project scale and ideas the municipalities use different communication and partnership.

### **39 Who initiates a TOD in your region (or using alternative method mentioned above)?**

The Municipality of the City of Budapest initiates the discussions about the new development ideas.

### **40 Which are the main barriers/constraints for using the TOD methodology**

The political acceptance of the TOD methodology can be critical. Also, the economical background is important when a new urban development project starts.

### **41 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?**

The main driver can also be the political acceptance and the pressure of the market.

### **42 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!**

- Participatory transport planning
- Regional mobility plan
- Low-emission logistics planning

The participatory transport planning is an important tool, which we found fundamental. During the course of planning, it is important to ensure that the affected parties are provided with the possibility of participating in planning and receive information on the entire method.

**43 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?**

Ideally, the different areas should work together. The spatial planning and its cooperation cannot take place without coordination, which is based on legal and institutional conditions that are required for it.

**44 How many green areas are in the urban station community in ha / total area?**

The general spatial plan of Budapest does not define urban station communities, thus we have no data to summarize the green areas.

The “BudaPart” development (more detailed data will be shown later) has the total area of 54 ha, with the surface of water 11 ha, and the rate of the green area is 45%.

**45 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?**

- i. What population density and population volume do your urban station communities have?

According to the BudaPart project (which is actually not in the region, but within the city of Budapest), the planned population around 10 000 – 11 000 inhabitants and the workers/users of the working area and services.

- j. To what extent/distance do these stations include. Total area in hectare?

The stops of public transport are planned within walking distance. The total area is 54 ha.

- k. What kind of services are available in these urban stations communities?

Restaurants and sport services are available within the park area and after the housing and office developments will be realized trade and basic education functions are also planned to develop.

- l. Is commuter parking made available at the station?

No, according to the near city centre location the P+R is not necessary.

- m. Describe the public transport that feed the station and what frequency there is in the regional public transport system?

Although, the area is next to a railway it has no direct connection. It is a long term plan to develop the rail accessibility near to the area. Two years ago a new tramline was established which is reaching 3 of the four metro lines and will establish the connection to the regional railway station and a further metro line in 2018. It is also planned to extend the tram network next to the area to give direct connection to the city centre. Actually, there are bus lines next to the site, but they do not provide the best access for the users of the park.

- n. How green (park, forest etc) is the urban station community in hectare/total area?

The planned rate on the building sites is 20 – 30 %, but as the whole area is around a park the planned green rate for the total development is 45%.

- o. How much walking and cycle possibilities are there?  
Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

As the development is under construction, we have no data for the modal split. The strategic plan aims the next generally for Budapest:



p. Are there any other modal split calculations?

There are not yet any further modal split calculations.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

BudaPart project

<http://www.budapart.hu/hu/projekt-bemutatasa>

### **13. What are the objectives of the plan in regards to land use?**

It is planned a dense, compact urban land utilization with mixed use development, high rate of green and good connections to the city centre and the region.

### **14. What time frame has the plan?**

The development is planned to finish in 10 years.

### **15. Who has the legal responsibility for the plan?**

The Master plan was developed by the private owner of the site. The municipalities (XI. District and the Municipality of the city of Budapest) are the responsible for the spatial planning. The plans of the transport network, like tram extension was conducted by BKK Centre for Budapest Transport.

### **16. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?**

Not yet known.

### **17. Is density used as a target for the plan?**

Yes, according to the Budapest 2030 Long-Term Urban Development Concept.

**18. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?**

No, thanks to the brownfield site this development does not increase the urban sprawl. We have no data or evaluation in regional level.

**C) Good examples/bad examples**

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
Name: <b>BudaPart projekt</b>	Name: <b>Tópark Ingatlankomplexum</b>
Context: A complex and mixed use development in the city. The core element is the park which is already functioning as a citypark	Context: A complex mixed development without connection to the existing city functions. The key attractive element is a small lake and the park around.
Main authorities and stakeholders involved: Municipalities: Municipality of the city of Budapest XI. District Transport authorities	Main authorities and stakeholders involved: Municipality of Batorbágy Transport authorities
Web links: <a href="http://www.budapart.hu/hu/projekt-bemutatasa">http://www.budapart.hu/hu/projekt-bemutatasa</a>	Web links: <a href="http://topark.hu/">http://topark.hu/</a>
Why is the practice considered as 'good'? Increases the density of the city. Uses brownfield sites Uses the existing transport network. Accelerates tram network developments. The bay and the park is part of the city.	Why is the practice considered as 'bad'? Urban sprawl. Greenfield housing development. The main transport access is the motorway. Does not indicate public transport development. The lake and the park is not used by the city.

## **D) Current experience**

### **1. Has your organization implemented a urban station development plan?**

No, BKK is a transport organizing authority and is responsible for the transport developments of the capital.

### **2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?**

Both, during the period of project planning there were external and internal expertise involved. For example the Master plan was carried out by a Danish architect company. The involvement of different stakeholders is part of every change of spatial and urban development planning process.

### **3. What methodology was used?**

Formal and informal forums, media, social media were used.

### **4. What objectives and targets were set up for the planning?**

The main objective was to create a dense and mixed use housing area with good transport connection and livable green areas near to the city centre.

### **5. Has an evaluation been conducted and set in relation to set goals and objectives?**

Not known.

### **6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?**

When is it acceptable to develop new and dense towns/communities on greenfields without considering them a form of urban sprawl?



**7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)**

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory Barcelona*

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **D) Open questions on creating transit oriented development**

**46** In your region, does transport corridors play a special role in spatial planning?

The Metropolitan General Plan (PGM) is the existing and current urban regulation framework in Barcelona's metropolitan area and dates back to 1976. Although it represented an important milestone and was key to the development of the metropolis, it might lack some transdisciplinary approaches, especially on issues such as Transit Oriented Development (TOD).

After that Plan, however, we find some urban planning projects that link public transport and urban development. One of the most relevant ones was a group of urban projects carried out by the city of Barcelona under the umbrella of the 'New Downtowns' strategic plan in 1987, prior to Barcelona Olympic Games in 1992.

Full urban planning TOD can only be found in the Barcelona Metropolitan Territorial Plan (2010) that links urban development and mobility infrastructures, and analyses developments through corridors. TOD is also a main item of the Metropolitan Urban Master Plan (PDU), currently under development.

**47** Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

Mobility law in Catalonia (9/2003) and its development (Generated Mobility Studies for new Developments, Decree 344/2006) have the aim to promote access to new locations by means different to private cars. For instance, a new development area should be located within a distance of 800m to a train station.

**48** Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

In Barcelona metropolitan area most of people (more than 2/3) live concentrated in continuous and compact urban areas. But where we find low density areas, there is the plan to create new shared services (medical services, school, bus stops, small shops...) to allow a walking-distance and avoid the use of cars.

**49 How would you define the concept of an urban station community in your region?**

In Barcelona we don't generally use this concept. We understand it means creating new developments including many different services around train stations.

**50 Which local organizations work to develop urban station communities?**

Some municipalities such as el Prat de Llobregat and Barcelona, and regional governments (metropolitan and Catalan governments) have in mind somehow developing urban station communities.

On the other hand, some strategic plans are considering to create important hubs with P+R (even the automobile company SEAT), but as far as we are concerned there are no other local organizations working to develop such projects.

**51 Is the public involved in the work? And how?**

Not systematically, but each project and urban development has its own public participation process. In the case of La Sagrera project (explained later as a good practice), for instance, there is a team formed by the municipality, rail infrastructure managers, neighbours and public transport associations, to define the different activities and urban space around La Sagrera train station.

**52 Do you work actively, from a regional perspective, to develop local station communities?**

From AMB we are developing the PDU, and also working with different projects of P+R in our 36 municipalities.

**53 What methodology is used?**

There is not a TOD specific methodology; the aim is to avoid unnecessary trips by combining the mixed- uses (typical in Barcelona region). So it is about creating new services near housing areas but also densifying developed areas.

**54 Who initiates a TOD in your region (or using alternative method mentioned above)?**

In our region AMB urban and mobility planners are working together to define the PDU developments

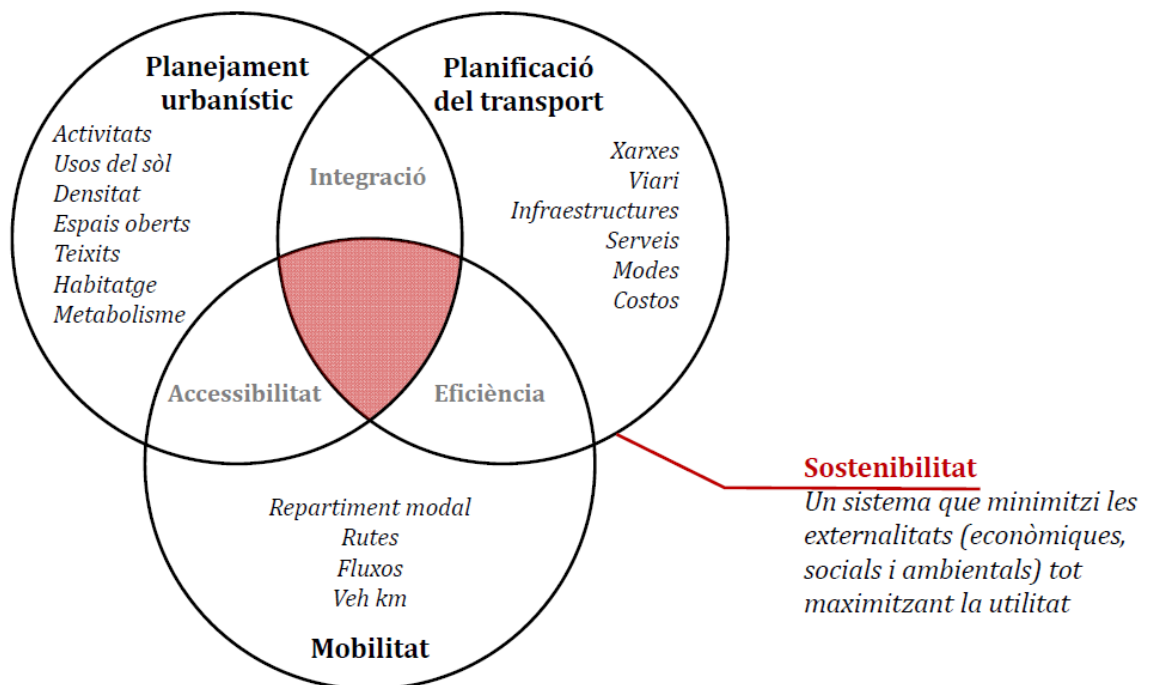
**55 Which are the main barriers/constraints for using the TOD methodology**

- The lack of a proper train network and its developments (depending from Catalan and Spanish governments).

- Traditional urban planning focusses on getting everywhere by car. Nowadays, Barcelona is building residential buildings without car-parking, but this is against the current planning policy from 1976 (General Metropolitan Plan), that obliges to create car parks for any use. The new planning policy (PDU) will be ready in a few years.

56 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

PDU is based on integration, accessibility, efficiency and sustainability, as the right combination of urban planning, transport planning and mobility planning:



57 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

- **Participation in transport planning:** sometimes it may be interesting to test the actions as a pilot, and afterwards let people discuss and decide.
- **Regional mobility plan:** regional urban plans and mobility plans should work together in order to be really oriented to TOD.
- **Low-emission logistics planning**

58 In developing an urban station community is housing, transport and infrastructure planning done separately or in combination?

Since Decree 344/2006 any new urban development must include the necessary public transport and infrastructure to connect by bike or on foot to the existing developments (or to a train station).

59 How many green areas are in the urban station community in ha / total area?

At our planning developments green areas must represent at least 10% of the total developing area.

60 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities.

For us this concept of 'urban station community' is not very suitable (our area is much compact and with use mixture). We could only mention specific projects that would fit somehow with this concept, but it's not our natural urban planning developing system.

- q. What population density and population volume do your urban station communities have?
- r. To what extent/distance do these stations include. Total area in hectare?
- s. What kind of services are available in these urban stations communities?
- t. Is commuter parking made available at the station?
- u. Describe the public transport that feed the station and what frequency there is in the regional public transport system?
- v. How green (park, forest etc.) is the urban station community in hectare/total area?

- w. How much walking and cycle possibilities are there?  
Modal split? Rate possibilities from 1 to 10 as 10 being perfect!
- x. Are there any other modal split calculations?

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

Nowadays, the Area Metropolitana de Barcelona (AMB) is drafting a new **Metropolitan Master Plan: El Pla Director Urbanístic (PDU)**. This plan will represent a breakthrough of the existing urban regulations and it aims at guiding the future urban strategies and developments. It is expected to be ready by 2021 and will have a time scope of 30 years.

PDU is committed to TOD developments and integrates many different study fields and disciplines in the planning process. Many different urban indicators are being developed with the purpose of evaluating the existing scenario, supporting decision making, and assessing the application of future strategies and actions. Among them, public transport accessibility measures (Recio et al, 2017) play a central role in the PDU drafting process. These accessibility measures are not only combined with urban form factors (e.g. density, mixture of uses) but also with socioeconomic indicators characteristic of each urban fabric. The objective is to embed PT accessibility at all stages of urban planning.

Website: <http://www.amb.cat/en/web/territori/urbanisme/pdu>

19. What are the objectives of the plan in regards to land use?

Mixt and densify land use.

20. What time frame has the plan?

30 years

21. Who has the legal responsibility for the plan?

Barcelona Metropolitan Area

22. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

PDU has several indicators, monitoring the pre and post conditions is crucial

23. Is density used as a target for the plan?

Yes, though Barcelona is already very dense in some areas we want more density in some other areas in order to improve the public services and to avoid the car dependence.

24. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?

PDU works to avoid urban sprawl, so it focusses on densification. There is of course impact assessment plan and several indicators

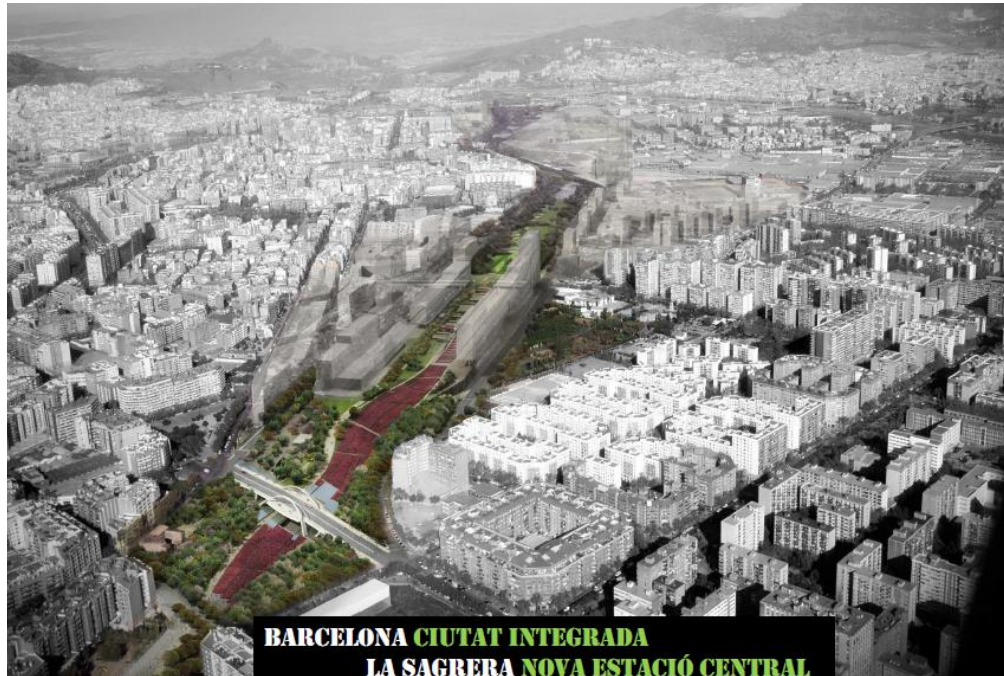


### C) Good examples/bad examples

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
<p>Name:</p> <p>La Sagrera high speed station (under development)</p>	<p>Name:</p> <p>22@ (under development)</p>
<p>Context:</p> <p>The future station La Sagrera, in Barcelona city (northern part) combines a new (train and metro) station with new housing, commercial, offices and public places (both green and offices).</p>	<p>Context:</p> <p>Transforming old industrial area in the middle of the city (Poblenou district) into a technological area (from 22a to 22@). The 22@ development has been, in general, a very good plan by combining offices, social housing and local services, but it has failed to provide good access with public transport. Many new buildings have now empty underground car-parks (they were supposed to be managed by PPPs), while people access mainly by not enough public transport services and by bike.</p>
<p>Main authorities and stakeholders involved:</p> <p>Barcelona city council, ADIF and RENFE (train Infrastructure and operating Companies) and Catalan government.</p>	<p>Main authorities and stakeholders involved:</p> <p>Barcelona city council</p>
<p>Web links: <a href="http://www.barcelonasagrera.com/">http://www.barcelonasagrera.com/</a></p>	<p>Web links: <a href="http://www.22barcelona.com/">http://www.22barcelona.com/</a></p>
<p>Why is the practice considered as 'good'?</p> <p>La Sagrera is creating a new pole near Barcelona city center, along a typical car corridor (La Meridiana), densifying an abandoned area and at the same time connecting the existing neighbourhoods.</p>	<p>Why is the practice considered as 'bad'?</p> <p>At a distance of 2 km from Barcelona city centre, and from year 2000, it should not be possible to plan developments based on car parks. Only a new tramline 'tramBesos' was set up by 2004, but it does not connect the 22@ to the city centre.</p>

More about the good practice:



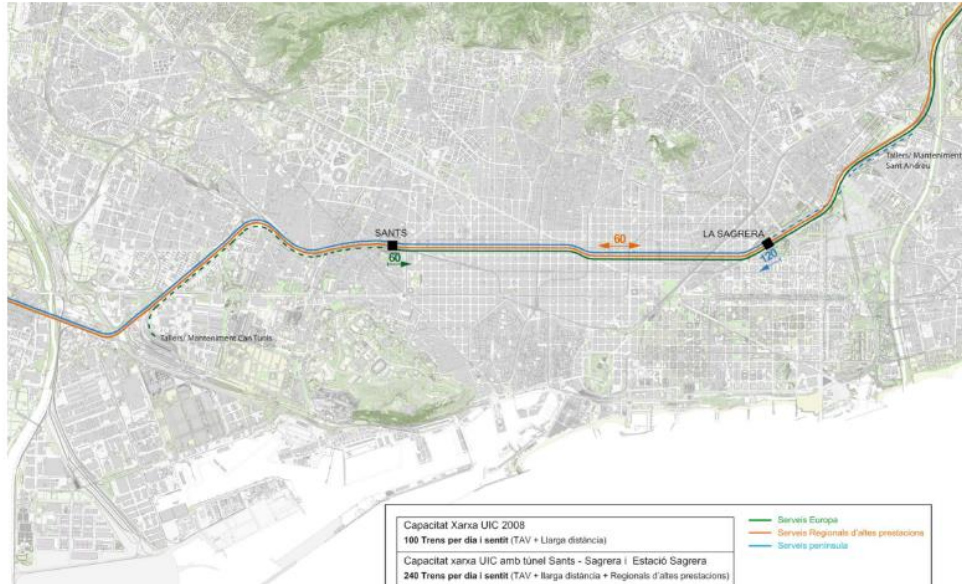
## **1\_ LA GRAN ESCALA INFRAESTRUCTURA I CIUTAT**

El nivell de la infraestructura tindrà la seva  
contrapartida en l'àmbit urbà



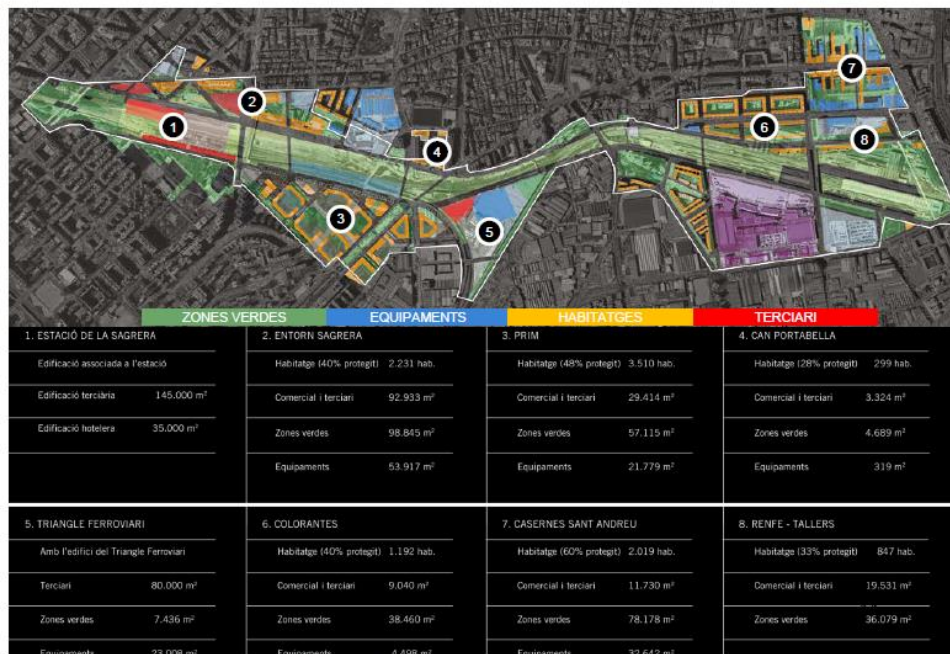
## 2\_ LES XARXES LA LÍNIA D'ALTA VELOCITAT

El sistema d'alta velocitat tindrà dues estacions connectades per un nou túnel (ja construït) per atendre els serveis peninsulars (Sagrada) i serveis europeus (Sants). Cada estació està directament connectada a un àrea de manteniment.



## 6\_ UNA NOVA CIUTAT SECTORS DE DESENVOLUPAMENT

L'operació es divideix en sectors. La majoria del sòl és públic i serà transferit a BSAV per transformar-ho, vendre-ho i pagar les cobertures.



### D) Current experience

1. Has your organization implemented an urban station development plan?

No

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

3. What methodology was used?

4. What objectives and targets were set up for the planning?

5. Has an evaluation been conducted and set in relation to set goals and objectives?

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory Porto*

Workshop in Ytterby – (11/13 December 2017)

## Transit Oriented Development

### Inventory

Background objectives to the inventory of **Transit Oriented Development** and to the workshop held in Kungälv with case study Ytterby.

- C. **Open questions on creating Transit Oriented Development:** a set of 'open questions' intended for regions about procedures, opinions and practices.
- D. **Data monitoring and other tools for managing and updating Transit Oriented Development**
- E. **Good/Bad practice presentation:** detailed presentation of the procedures adopted in creating **Transit Oriented Development** in your respective region/municipality.
- F. **Current experiences:** short presentation of your **Transit Oriented Development** design/development processes, methodology and results.

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **E) Open questions on creating transit oriented development**

61 In your region, does transport corridors play a special role in spatial planning?

The Metro corridors in our region play a special role in spatial planning.

62 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

Not really.

63 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

There are some examples of transport hubs that were designed to densify the settlements, like the Station of Porto Campanhã, that we are going to describe on good practices and the Espinho Station.

Espinho Station used to divide the center of Espinho City in two areas. The Station was relocated to the underground, for one hand enables the trains to go faster and for other hand aloud the development of new settlements above the station and join the two city zones.

64 How would you define the concept of an urban station community in your region?

We didn't have the concept for an urban station community, never the less we try to adopt the concept to our reality.

Improving the stations, so they are friendly places to walk thru, with commercial establishment, improving the links to the adjacent areas.

65 Which local organizations work to develop urban station communities?

The ones which have competences to do it are the municipalities in partnership with the transport operators.

66 Is the public involved in the work? And how?

Not really. The municipalities have been increasing the public participation in their plans, however there haven't been especial participation in specific projects.

67 Do you work actively, from a regional perspective, to develop local station communities?

No.

68 What methodology is used?

Not applied.

69 Who initiates a TOD in your region (or using alternative method mentioned above)?

We don't have knowledge of the application of TOD in our region, but the entities that have the competence are usually the municipalities.

70 Which are the main barriers/constraints for using the TOD methodology

As we don't have any experience using the TOD methodology we aren't able to answered this question.

71 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?



The political decisions. The people are complete dependent of the private cars, so the politicians have to change the way they develop the cities, giving more priority to public transport and soft modes and restring the access of private cars.

72 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

- Participation in transport planning
- Regional mobility plan
- Low-emission logistics planning

All of the workshops are important and compete for the TOD methodology, nevertheless we think the TOD should be object of a specific workshop.

73 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?

In combination. We think that is not possible to implant this kind of project without considering the relation between this variables.

74 How many green areas are in the urban station community in ha / total area?

We don't have any definition of the concept of urban station community.

75 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?

As we say above we don't have any experience with urban station community.

- y. What population density and population volume do your urban station communities have?

Not applied in our case.

- z. To what extent/distance do these stations include. Total area in hectare?

Not applied in our case.

- aa. What kind of services are available in these urban stations communities?

Not applied in our case.

- bb. Is commuter parking made available at the station?

Not applied in our case.

- cc. Describe the public transport that feed the station and what frequency there is in the regional public transport system?

Not applied in our case.

- dd. How green (park, forest etc) is the urban station community in hectare/total area?

Not applied in our case.

- ee. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

Not applied in our case.

- ff. Are there any other modal split calculations?

Not applied in our case.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

### **Campanhã Intermodal Terminal Project– development around railway station**

25. What are the objectives of the plan in regards to land use?

- Construction of an articulated green structure with the green structure of the city

The project aims at preserving and strengthening the ecological and environmental components, ensuring the protection and enhancement of relevant heritage and landscape elements, protection of areas of greater biophysical sensitivity and promotion of leisure and recreation systems.

- Creation of a pedestrian and cycling network

To promote the expansion of smooth mobility in the territory, through the rehabilitation of existing pedestrian paths or the creation of new ones and the formalization of a cycling network, anchored in the eastern ecopist of the city.

- Improvement of the conditions of internal mobility, with the adjacent zones and with the center of the city

Promotion of the improvement of the conditions of internal mobility and with the adjacent zones, promoting the improvement of the conditions in all the main routes and establishing new road routes, creating a greater permeability, shorten distances, be generators of comfort and structure new urban blocks.

- Requalification of public space, infrastructures, equipment and notable buildings

To promote the requalification of public space, infrastructures and equipment and valorization and eventual re-functionalization of notable buildings existing in the territory, in a reasonable state of conservation and with constructive typologies that allow to receive new uses.

The project aims at the requalification of the public space associated to the main roads of the intervention area and the rehabilitation of the relevant housing complexes and buildings that mark periods of the city's history.

26. What time frame has the plan?

The plan start 3 years ago and will be implement during 10 years, starting in 2018.

27. Who has the legal responsibility for the plan?

Porto Municipality

28. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

We reinforce the idea that this project wasn't design to be an urban station community, but only a local plan that show the development around the railway station.

29. Is density used as a target for the plan?

The plan is oriented to the development of this area of the city, improving the quality of the environment and housing but hasn't any especial orientation in terms of density.


30. Does the population of the urban station community increase through urban sprawl or through densification? Is this something

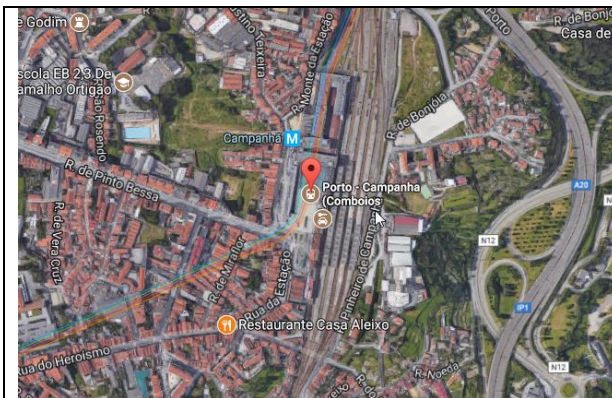
that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?

In this moment we don't have enough data to answer this question, we will try to answer as soon as possible.

### C) Good examples/bad examples

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
<p><b>Name:</b> Rehabilitation Operation of Campanhã-Station</p> <p><b>Context:</b> The territory of implementation is characterized by a chaotic dispersion in that the various urban elements, landscaping and infrastructures fragment in a disorderly and without any logical or visible relationship. The land available for construction of the Campanhã Intermodal Terminal (CIT), is an expectant spot and a physical metaphor of urban degradation and the social abandonment of the East of the City. Struck by the rout circular around Porto, and strongly characterized by presence of railway tracks, the location is characterize by discontinuity of the town. The terrain is morphological and topographic dispersion, without clear functions or relations, becoming an imperceptible site and almost uninhabitable. Functionally difficult and extremely complicated.</p> <p><b>The plan:</b> Campanhã Intermodal Terminal Project and all the rehabilitation zone around this part of the city intends to generate a qualified territory, of excellence, to live, work and enjoy nature, in an area that today plays a central role in the organization of the metropolitan area and in the articulation between the center and the periphery, that affirms itself as a new and qualified pole of development of the City and Region.</p> <p><b>Now:</b></p>	<p><b>Name:</b> Trofa Station</p> <p><b>Context:</b> Located on the outskirts of the city, it was built with the purpose of serving as an interface - train / metro / regional bus. The connection to the city is ensured by the taxi service, the regional buses and they also have a car park. The location is in a rural area, characterized by single family residences and very low density of services. We can highlight the existence of a hospital at 1 km and an important professional training center at 500 meters.</p> 



After:



Main authorities and stakeholders involved:  
Municipality of Porto  
Infrastructures of Portugal  
Metropolitan Area of Porto  
TIP (entity responsible for the intermodal ticket system)  
ANTROP (association of the private bus operators)  
railway users  
subway users  
bus users  
residents

Main authorities and stakeholders involved:  
Municipality of Trofa  
Infrastructure of Portugal

Web links:  
<http://www.porto.pt/assets/misc/img/noticias/MOBILIDADE/2017/Concurso%20Intermodal%20Campanha%20Relat%C3%A3o%20Proposta%20Vencedora.pdf>

Web links:

Why is the practice considered as 'good'?

Is considered a good practice, not only for the role in the sustainability of urban mobility that the intermodal station will allow but also for the integration with the urban rehabilitation of the area.

Why is the practice considered as 'bad'?

From the point of view of the Urban Station Community concept, the Trofa Station isn't a good practice, as it did not take the opportunity to densify the territory around the

In fact, the implementation of the proposed territorial strategy foresees the promotion of five strategic axes: (i) economic activity, (ii) sustainable mobility, (iii) qualification of the urban environment, (iv) environmental sustainability, and (v) social inclusion and active citizenship, based on the implementation of a portfolio of structuring projects, which are assumed as key initiatives for the generation of new dynamics of urban regeneration in the eastern part of the city of Porto.

station, promoting housing and the implementation of trade, services and other establishments. But we should point that Trofa Station was implement with the objective to be an interface.



## **D) Current experience**

1. Has your organization implemented a urban station development plan?

No.

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

3. What methodology was used?

4. What objectives and targets were set up for the planning?

5. Has an evaluation been conducted and set in relation to set goals and objectives?

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

We are interest to know the experiences of all the partners related with the TOD methodology and the implementation of urban station community to evaluate the interest and opportunity of the application in our region.

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)

# 4<sup>th</sup> Workshop

## Transit Oriented Development

*Inventory OSLO + Akkershus*

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **F) Open questions on creating transit oriented development**

76 In your region, does transport corridors play a special role in spatial planning?

Yes, there are three corridors: vest, south and east. All with at least 2 railway lines. The transport corridors were the starting point of the Regional Plan for Land Use and Transport in Oslo and Akershus. The three corridors together are named “The City Band”, and is a prioritized area of growth. Existing cities and villages within the band is where most of the population growth should be centered. Approximately 75 % of the inhabitants in Oslo and Akershus lives in “The City Band today, but it is a potential to densify the area. There is nothing like a fourth corridor because that is the forest.

77 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

Yes, there are many policy documents regarding housing and services/business. The most important is “The regional plan for land use and transport for Oslo and Akershus” (ATP). There has also been developed a “Regional plan for Innovation in Oslo and Akershus”. The plan for innovation is based on the spatial development that is outlined in the regional plan for land use and transport.

78 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

Yes, there is a regional plan covering Oslo and Akershus counties. This is a land use and transport plan. There is also a plan called Oslo-Navet (fra nav til nettverk) (The Oslo hub (from hub to network)), which is a transport plan in more detail based on the regional plan.

In the regional land use and transport plan there is outlined a strategy for growth. In addition the densification around the transport nodes and corridors within the city band, there are regional cities and municipality centers that is said to densify according to the ATP. The regional cities and municipality centers are prioritized growth areas.

The densification demand is differentiated on the current size and function of the municipality center. In a municipality within the city band with a regional city 90 % of new housing is to be established in the regional city.

The ATP states a goal for how future growth in the municipalities should be. Population growth and densification is to happen in areas with good public transport, and preferably with walking distance for most daily needs.

79 How would you define the concept of an urban station community in your region?

The regional plan has pointed out important stations at different levels. It is not pointed out only based on population but on distances to closest center, hinterland and importance for jobs, services and administration. Four different levels: Oslo city, regional town, local town and local place.

The densification demand is differentiated on the current size and function of the municipality center. In a municipality within the city band with a regional city 90 % of new housing is to be established in the regional city.

The ATP states a goal for how future growth in the municipalities should be. Population growth and densification is to happen in areas with good public transport, and preferably with walking distance for most daily needs.

80 Which local organizations work to develop urban station communities?

The county, the municipality, the railroad authorities, the road authority, the local public transport company.

81 Is the public involved in the work? And how?

The Norwegian Planning and Building Act regulate public participation in planning processes. A planning proposal is to be put up for public scrutiny for a defined period of time. The proposal is sent directly to official actors and NGOs that are affected by the proposal, the public is notified in the local newspaper, usually online. The proposal should also be available for the public in the planning office or another public place. It is open for everyone to send a written comment during the consultation process.

In some cases the public are invited to workshops etc., but this is not regulated by law.

82 Do you work actively, from a regional perspective, to develop local station communities?

Yes, the regional plan with its action program is the basis for the collaboration between Oslo and Akershus with regard to developing local station communities. The municipalities are the planning authority, and should do their land use planning according to the regional plan. The county gives their opinion to the municipal plans based on the content of the regional plan.

83 What methodology is used?

The land use planning is based on the plans mentioned earlier. The regional plan covering Oslo and Akershus counties is an area and transport plan. There is also a plan called the "Oslo NAV", which is a transport plan in more detail, based on the regional plan. The municipality is usually the main responsible entity. The methodology is based on cooperation between different authorities and public participation.

84 Who initiates a TOD in your region (or using alternative method mentioned above)?

According to the planning and building act the Norwegian government shall prepare a document with national expectations regarding regional and municipal planning every fourth year. It is among other things expected that the municipalities ensure high utilization of the space around public transport hubs, facilitate greater use of cycling and walking in daily life, and ensure continuous pedestrian and bicycle routes of high quality. It is also expected that the potential for densification and transformation is exploited before new areas are developed.

The preparation of the Regional Plan for Land Use and Transport in Oslo and Akershus also follows by law, and is approved by the City council in Oslo and by the County Council of Akershus. The plan points out the prioritized growth areas, and the municipalities are obliged to follow up on this in their land use planning.

Usually it is the municipality, but it may also be the counties, the railway authority or road authority.

85 Which are the main barriers/constraints for using the TOD methodology .

All planning is time consuming and expensive. We are not of the opinion that there are some main barriers/constraints in particular, it is more a question of what are the main goals of the planning and then find a suitable methodology.

- 86 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

In Norway it is more common to own than to rent your own home. Over the last few years the housing prices in Oslo have sky rocketed. This means that many cannot afford to buy a place to live within the borders of Oslo. But the biggest labour market in the region is in the capital, and to live with good access to it is attractive. The combination of population growth in the region and restrictive measures on car use has made TOD more relevant.

- 87 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

We would like to highlight perspectives related to regional mobility planning as the most important in the TOD workshop. A regional mobility plan is an important tool to make strategic infrastructure investments. These investments cannot be seen as detached from land use planning, and the region needs to focus on densifying the communities who has the greatest potential for climate neutral travels.

- 88 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?

If it is a plan for a larger area it is never planned separately. For smaller areas the planners will look into the challenges and the needs in the area before deciding if the planning should be done separately or in combination.

- 89 How many green areas are in the urban station community in ha / total area?

This is difficult to answer on a general basis, but in the area zoning plan for Skøyen 7, 9 hectare (out of 120, 5 hectare) is green area. The ambition of the plan is 13,1 hectare green

area. The green areas are mostly in connection with rivers/the historic lines of rivers, and the sea front.

90 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?

gg. What population density and population volume do your urban station communities have?

We have chosen to focus Skøyen in this Inventory, even though it is on the outskirts of central Oslo, and not a station community as defined in the attachment. The reason for this is the character of the area, historically not a residential area, that despite the good railway connection have problems with traffic congestion.

The area has relatively few inhabitants today, but the proposed plan for the area has an ambition of 16 800 inhabitants and 32 300 workplaces (compared to 300 and 21 600). The area has a busy train station, and it is also plans to establish a station on a new metro line here.

The population density today is 2900 per square kilometer, while the ambition is 16 000.

hh. To what extent/distance do these stations include. Total area in hectare?

The area included in the land use plan for Skøyen is approximately 120,5 hectare.

ii. What kind of services are available in these urban stations communities?

Skøyen is a community with a high degree of services (cafes, resturants, food stores, clothing stores, fitness



center, hair dresser), the plan is to make the services even more diverse with schools, more kindergartens, sport arenas and cultural arenas.

jj. Is commuter parking made available at the station?

There is a huge amount of private parking garages at Skøyen, but no public parking (other than street parking).

kk. Describe the public transport that feed the station and what frequency there is in the regional public transport system?

It is an extremely good transport hub with a combination of regional and local buses, train and tram. A metro, with connection to a different part of the city than the train is under planning, and the densification strategy is a result of this.

ll. How green (park, forest etc) is the urban station community in hectare/total area?

Total area of the plan is 120, 5 hectare. 7, 9 hectare is green area. The ambition of the plan is 13,1 hectare green area.

mm. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

The walking possibility is rather high. The bicycling needs improvement because the lack of separate bicycling lanes.

In Oslo 28 % of daily travels are done by foot, and 7% by bicycle (numbers from 2015). There are calculations (using RTM23+) saying that 18% of daily travels at Skøyen are done by foot, and 5% are done by bicycle.

nn. Are there any other modal split calculations?

The same calculations say that 39% of daily travels at Skøyen are done by public transport, and 37% is done by car. The numbers for Oslo as a whole is 21% and 45%.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

### **Area zoning plan for Skøyen**

31. What are the objectives of the plan in regards to land use?

Concentrate and transform land use, and make Skøyen a 24-hour city.

Access to the sea.

A reduction in car use to make room for attractive public spaces.

Improve walking and bicycling facilities

Make a compact public transport hub

32. What time frame has the plan?

The time frame of the plan is 2030.

33. Who has the legal responsibility for the plan?

Oslo municipality.

34. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

It is a monitoring of the the region as such. This involves the station, but also the car traffic, bicycling and inhabitants in the area.

35. Is density used as a target for the plan?

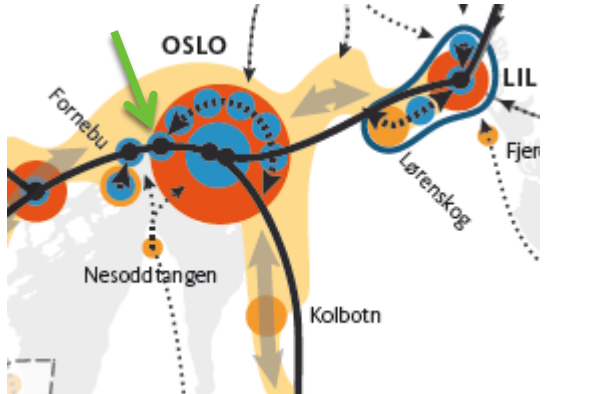
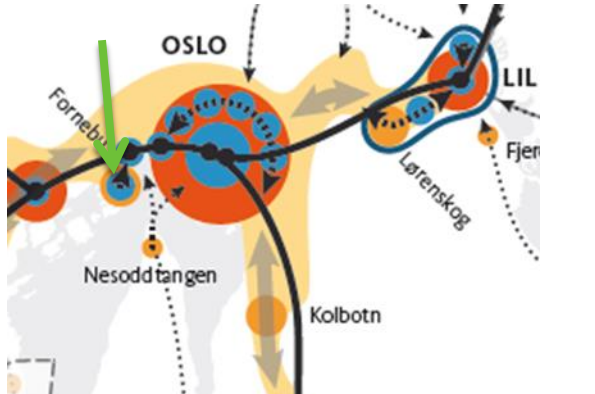
To transform and increase the density is a central part of the plan. Particularly to increase the density close to the railway station.

36. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?

The population is increasing due to densification. The importance of the station is likewise increasing. The effectiveness of the station and the hub (a new station on the metro) will off course increase the influence- area of the station. There will not be any increase due to urban sprawl.

**C) Good examples/bad examples**

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
<p>Name: Area zoning plan for Skøyen</p>	<p>Name: The development of Fornebu</p>
<p>Context: A part of the the regional plan for area and transport in Oslo and Akershus (Skøyen is where the green arrow is pointing).</p>	<p>Context: The area is a part of the the regional plan for area and transport in Oslo and Akershus (Fornebu is where the green arrow is pointing).</p>
 <p>The map shows the Oslo region with various stations and areas labeled: OSLO, Fornebu, Nesoddtangen, Kolbotn, Lørenskog, Fjer, and LIL. A green arrow points to Skøyen, which is a new metro station stop on the line connecting Fornebu to the city center.</p>	 <p>The map shows the Oslo region with various stations and areas labeled: OSLO, Fornebu, Nesoddtangen, Kolbotn, Lørenskog, Fjer, and LIL. A green arrow points to Fornebu, which was the main airport in the Oslo area.</p>
<p>The new metro line connecting Fornebu to the city center of Oslo will have a stop at Skøyen. The area will therefore be even more attractive as a residential and working area.</p>	<p>It is a peninsula in the municipality of Bærum, close to the border of Oslo. Up to the end of the 1990s Fornebu was the main airport in the Oslo area. When the main airport got a new location it was decided that it should be transformed to a residential and business area.</p>
<p>Main authorities and stakeholders involved: Municipality of Oslo, Ruter (Public transport company), Road Authority, Railway Authority</p>	<p>Main authorities and stakeholders involved: Municipality of Bærum Ruter (Public transport company), Road Authority, Railway Authority</p>
<p>Web links:</p>	<p>Web links:</p>
<p>Why is the practice considered as 'good'? The area zoning plan (recently at public hearing) follows up on the regional plan. It sees the building of a new metro station in close connection with</p>	<p>Why is the practice considered as 'bad'? The plan had unclear goals (or maybe old at the time of implementation), slow implementation, low density, and a car based development.</p>

other modes of public transport to optimize the hub. The plan also has an ambitious densification scheme, which means that approx. 16 000 inhabitants can live within 500 – 1000 meters from the railway and metro. The plan also aims at reducing car traffic in/through the area, and opening up the city to the fjord.

There was as part of the original plan a **sequence determination** for development. The former airport area was meant to develop housing, business and other functions alongside the development of transport infrastructure. The new metro line was the core of developing at the scale that was set in the plan. The housing and business was however developed long before the transport system was in place. And now there are problems with both private cars and public busses at rushhour.

## **D) Current experience**

1. Has your organization implemented a urban station development plan?

The City of Oslo has, but The Agency for Urban Environment is not the planning authority. The County of Akershus do not have the planning authority regarding land use planning.

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

Mainly with internal expertise in cooperation with other stakeholders/municipal bodies. Some tasks, like traffic analyses, is usually done by external expertise.

3. What methodology was used?

Comprehensive planning and public participation.

4. What objectives and targets were set up for the planning?

Usually increased density, improved public transport, better walking and bicycling conditions, and more/better green areas.

5. Has an evaluation been conducted and set in relation to set goals and objectives?

There has not been evaluation as such. But when making the plan the municipalities are committed to take the goals and the objectives of the regional plan into account.

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)

# 4<sup>th</sup> Workshop

## Transit Oriented Development

### *Inventory Helsinki*

## Questions

In the inventory of the conditions for developing a urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### **A) Open questions on creating transit oriented development**

- 1 In your region, does transport corridors play a special role in spatial planning?

In Helsinki region we have about 80 stations and the transport system is strongly based on trunk services, which are mostly rail roads. There are new big rail investments. there are new major rail transport investments in the Helsinki region (Ring rail, West metro and Jokeri Light rail) that offer a new foundation and potential for developing station communities.

Nowadays there is a strategic view and political will in the region to infill urban structure along railways with target of efficient and carbon neutral urban structure. Land use, housing and transportation are now in combined planning process and it will help the developing process.

We also have an economic target to develop transport corridors as a growth corridors, like the national level Helsinki-Tampere-Seinäjoki -corridor. Also in the latest Helsinki City plan Urban boulevards are the key issue, as well as new Jokeri 1 & Jokeri 2 light rail lines.





Picture 1. There are about 80 stations in Helsinki region and the transport system is based on trunk lines. (Map: HSY)

- 2 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

Yes, the planning principle of infilling the urban structure along the railways has been included in all planning levels: in National land use guidelines, Helsinki-Uusimaa Regional Plan and also the Master plans of the Cities.

According to the Programme of Government, the Ministry of Economic Affairs and Employment, supports competitiveness based on metropolitan regions', growth corridors' and different areas' own strengths, for example, by developing contract-based cooperation with the central government. So called Growth Agreement has been made for railway corridor Helsinki-Tampere-Seinäjoki including the smaller station

communities. Station areas are also mentioned in regional agreements.

Helsinki Region Land Use Plan for 2050 (approved 2015) is a voluntary, strategic plan for developing the regional urban structure and includes the criteria for developing different kind of areas. It steers municipalities to develop their centers and station communities. Its goal is to prioritize the development areas of urban structure and strong emphasis is on existing centers and station communities. It includes the road map for implementation.

Station communities are strongly exposed in the latest Helsinki City Strategy 2017-2021 “The most functional city in the world”, and also in the City plan. Also cities of Espoo and Vantaa foster development of station areas in their city plans.

- 3 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

One of the planning guidelines in Master/City Plans is to focus infilling of urban structure on station areas.

For example in the new City Plan of Helsinki, all the stations are defined as city centers. The volume of construction is expressed as block density. The planning guideline is that centers have to be more dense than surrounding areas.

- 4 How would you define the concept of an urban station community in your region?

This concept isn't that strong in Finland yet. Compared to a number of other European cities (eg Copenhagen, Stockholm, London), the station areas in Helsinki are not so densely constructed, and in their immediate vicinity there are no services nearby. Even the relatively large residential and work areas are mostly only covered stops.

In Finland TOD-based planning proceeds often on the terms of the transport sector and we do not have a strong emphasis

on the development of the *community* yet. It is a coming trend on this decade. For example all the capital cities have recognized the needs and possibilities to developed station communities.

In HSY's, HSL's and Helsinki-Uusimaa Regional Council's joint project, ELIAS - (Living station communities, 2015-2016), one goal was to raise discussion of defining concept and to find the best definition to Helsinki region. Still mostly used is a spatial definition of station area, not functional or communal. Normally used definition is 1 km buffer from the station in Helsinki metropolitan region.

Helsinki Region Transport (HSL) had a SOLMU-project (NODE) in 2016, in which they defined different levels of interchange stations into three different categories.

- 5 In Helsinki City Plan there is an aim of mixed land use, hybrid buildings, easy access by bike and foot in developing station communities. Which local organizations work to develop urban station communities?

In station areas there is a large amount of operators due to fragmented land owning. Cities are the main developers through planning processes. Finnish Transport Agency (FTA) owns parts of the station areas (like rail paths, peers), local railway company VR Group Ltd is also an active developer as well as Senate Properties (government owned property developer) and other land owners.

Helsinki Region Transport (HSL) has its SOLMU-project (sc. NODE-project) to improve the main interchange stations and transit areas as a part of fluent travel chains.

City of Helsinki does strategic planning and detail plans, housing production. Helsinki has a so called Neighbourhood Project, which goal is to develop the suburbs. It also has activities on station communities (mostly concentrating on quality of public spaces, green areas, art projects etc.).

Senaatti, the state owned real estate developer is also active on station areas.

6 Is the public involved in the work? And how?

The general public is involved in developing through normal participation process in land use planning. The Neighbourhood project makes different kind of participation actions in their development areas, of which some are station areas.

In addition to planning processes, there is also active discussion in different kinds of groups in social media.

Private sector is also involved as entrepreneurs, as well as associations.

Also neighborhood associations are active in some station areas like in Myyrmäki, Vantaa, where it has contributed to the comfort of the station area, for example in adding wall paintings etc.

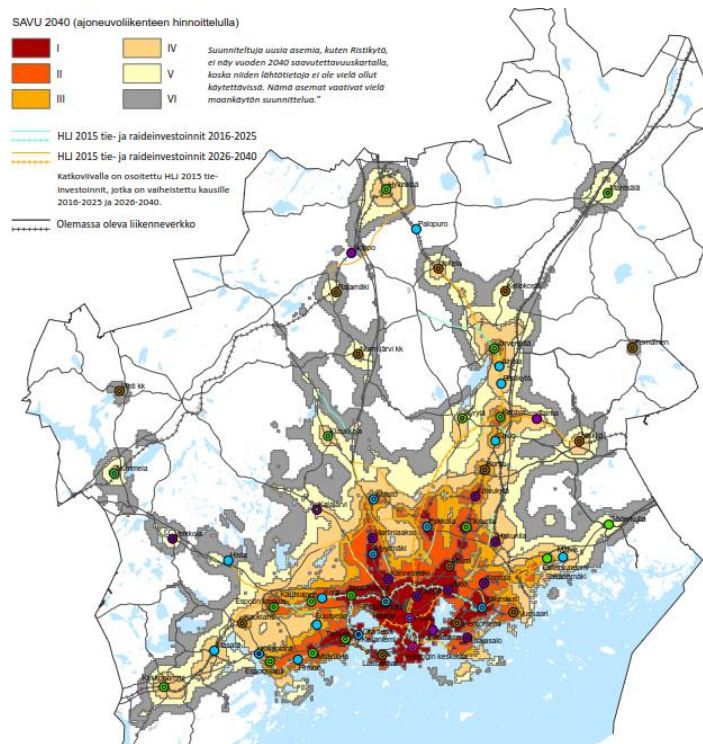
7 Do you work actively, from a regional perspective, to develop local station communities?

Yes, HSY is a partner in SMART-MR -project developing low carbon station areas. We have created a wide development network with local authorities to improve awareness and possibilities to promote the development of station communities.

Cities and municipalities are active in land use planning in several train, metro and light rail stations.

8 What methodology is used?

Helsinki region land use plan for 2050 there is a definition of land use zones (primarily developed and supplemented), a prioritization of developed areas and station communities and also projections for inhabitants and jobs. It includes planning principles for different zones.



Picture 2. The strategic regional land use plan for 2050 combines accessibility, transport investments and development hierarchy for centers and station communities. (Map: Helsinki-Uusimaa Regional Council)

TOD-method is nowadays being used by the cities and municipalities. It is applied in different ways in the planning processes of different station areas, depending on its current urban structure.

Part of SMART-MR -project, HSY will develop a Low Carbon District -concept for station areas including principles for land use and transport planning, circular economy, businesses and safety environment.

City of Helsinki has an active role in informing detail plan processes, which includes quite often negotiations with entrepreneurs and associations, finding partners (for example in development of public space), checking needs for public services, collecting data and public opinions etc.

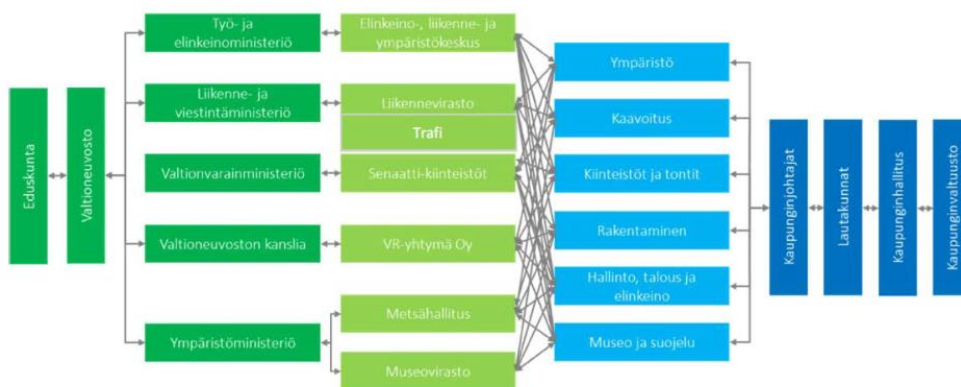
9 Who initiates a TOD in your region (or using alternative method mentioned above)?

Municipalities and cities as a part of planning process. They have the executive power.

Usually city of Helsinki has active role, sometimes land owners (Senaatti or S-group for example).

10 Which are the main barriers/constraints for using the TOD methodology

A large number of organizations and operators as participants in developing processes. (Picture) Authorities are able to reasonably coordinate the development process but there are some difficulties (overlapping work and still some gaps).



Picture 3. Relations between the state parties in station development projects.

Private land owners will or lack of will to develop their properties. Land ownership is also very fragmented.

Finding funding for the projects. Covering rail roads and metro stations is very expensive in Finland and it is hard to find investors.

Protection regulations eg old stations and station parks.

Participation processes can be difficult in dense station areas.

- 11 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

The strong steering by land policy and political decisions behind it. In all levels of planning, developing of station areas is involved.

In addition to accessibility and political decisions, for example agglomeration benefits, housing market and taking benefits of infrastructure (vs. new investments).

One problem is that real estate investors and developers are more interested on new station areas than existing ones, which are declining if the cities are not effectively developing them.

- 12 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

- Participation in transport planning
- Regional mobility plan
- Low-emission logistics planning

In general, the structure of workshops, short presentations and the opening of best practices in workshops are desirable.

Some examples which was found useful are:

- Bottom-up participation methods for planning processes
- Lazio Regional Plan
  - it uses the concept of accessibility in the new developments, supporting the location

- near the railway stations (locational efficiency) with certified sustainability (e.g. LEED), including 'Transport Impact Analysis', and following the best practice (e.g. Transit Oriented Development).
- Among the most useful measures (during the implementation phase), the following were mentioned:
    - Set up of limited traffic zones and increase the cost of parking areas (Oslo is experimenting a 'no parking area' in the city centre, after lending users portable bikes to promote bus transport; Ljubljana set up pedestrian and bike zones in the city centre),
    - Improve quality of public transport together with intermodal parking areas outside the
    - city centre or out of town
    - Participants agreed on the importance of focusing on modal integration as well as
    - on reducing soil consumption, through, for example, the construction of parking slots with permeable materials.
    - Stakeholder participation in the Plan for Mobility, Transport, and Logistics for the Lazio Region was achieved through an innovative approach based on online crowdsourcing.
  - Participation process in planning the cycling network in Barcelona region

13 In developing a urban station community is housing, transport and infrastructure planning done separately or in combination?



In combination – transport planning needs housing and planning information. In Finnish cities and municipalities, land use planning and transport planning departments work closely together. Decisions of big investments in infrastructure are also political.

The technical boundary conditions for rail engineering have been taken into account in planning and also capacity.

Planning periods will be shown in the third part of Helsinki City Plan, the “Action plan”.

- 14 How many green areas are in the urban station community in ha / total area?

Protecting green connections/links to recreation areas and parks nearby is part of the goals of the plans, otherwise the number of green areas varies by station area. It also depends to how densely each station is being built. The general planning view is to prioritize housing and workplaces within 1 km buffer and just have the connections to larger green areas further away from stations.

Helsinki City Plan and other city plans includes Green structure and green connections. In the future it will be more important to focus on quality, usability and accessibility of green areas.

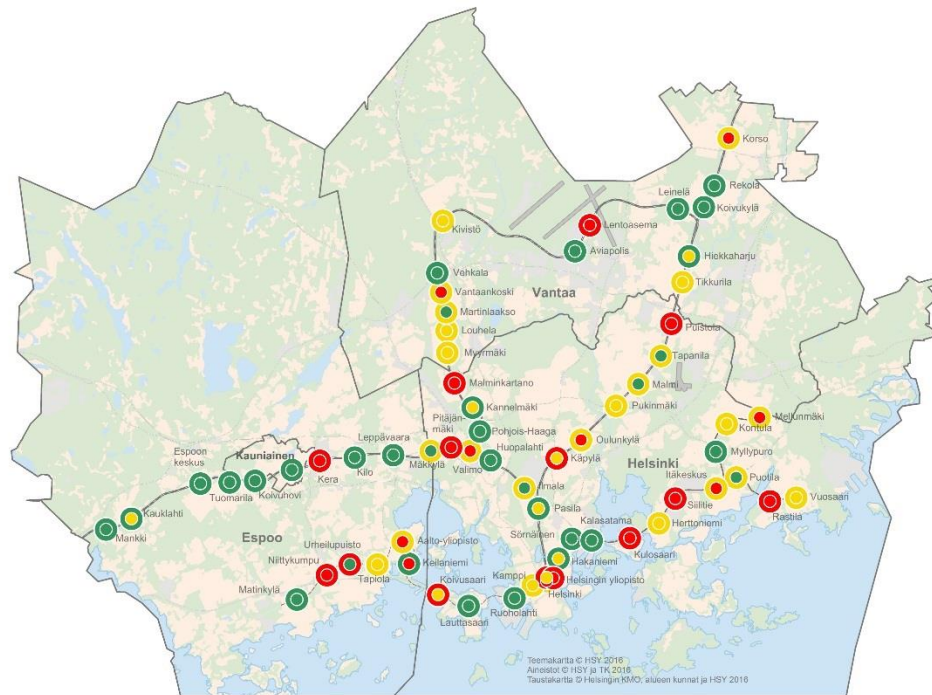
- 15 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached). With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?
- a. What population density and population volume do your urban station communities have?

In Helsinki region we have the spatial data of population and population density which can be examined also at station districts.

Depends on station, in city centre, the densities are high and in Helsinki region, within smaller stations, they can be low. There are also few stations, which are profiled as working areas (like Valimo and airport). Amount of inhabitants varies (1 km buffer) from 11 inhabitants (airport) to 40 908 in Sörnäinen (metrostation) and Helsinki city center 21 426 (railway station). The average of all stations is 10 017 inhabitants.

Population density (inhabitants/km<sup>2</sup>, 1 km buffer) varies from 3,5 (airport) to 13574 in Sörnäinen and 7 368 in Helsinki city center.

HSY also monitors the development of potential railway commuters in combining amount of population and jobs around station area with 600 m and 1 km buffers (picture). This monitoring is for capital region.



Picture 4. The development of potential railway users (inhabitants and jobs) within stations (600 m and 1 km buffers) in 2008 - 2014. Green = growth is higher than the average for the region, Yellow = growth is lower than the average for the region, Red = no growth (Map: HSY)

- b. To what extent/distance do these stations include. Total area in hectare?

HSY and Helsinki Region Transport HSL are both using one kilometer radius buffer from the station in analysis and research. Also 600 meter radius has been used. Cities also use 300 m and 700 m distances from station in their planning.

HSY has also prepared station areas spatial analysis with pedestrian and bike lane network including both time distance and metric distance from the station. This analysis forms different kind of sphere of influence.

- c. What kind of services are available in these urban stations communities?

Depends on station. Some of them, the biggest interchange stations, have a lot of services, but there is still many “cold stations” with no services at all. Typical services are kiosks, but in bigger stations there are also shops and even shopping centres. Service level is also connected to location in urban structure and population densities.

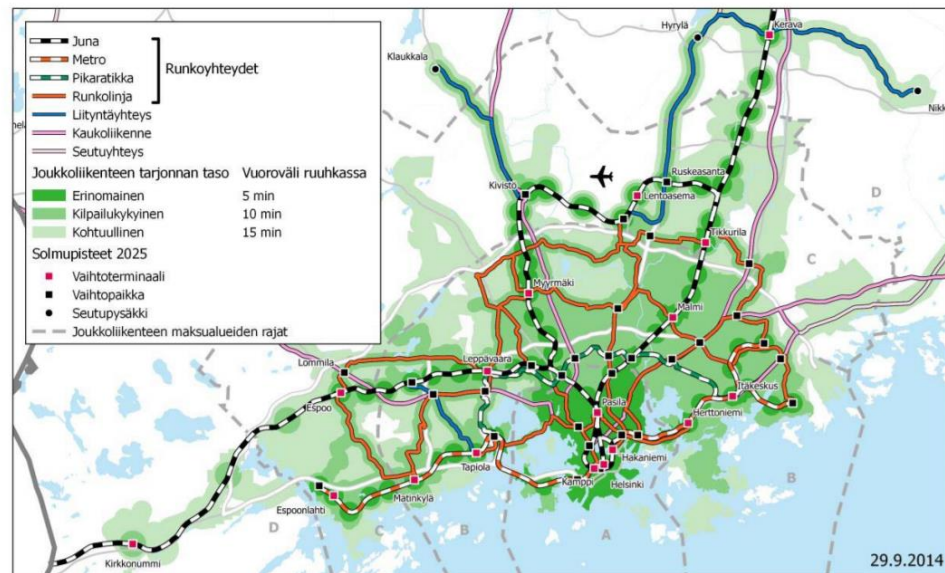
- d. Is commuter parking made available at the station?

Yes, most of the stations have at least a small parking possibility for commuters. In Helsinki region there is a strategy and action plan for developing the park and ride system. Most of the P&R places to develop are in station areas. In the action plan there is a goal to add P&R places within the most important regional P&R places. Also a research of bike parking potential within public transportation stops was just published.

- e. Describe the public transport that feed the station and what frequency there is in the regional public transport system?

Helsinki region has a public transport system based on strong trunk transport services, which are mostly rail roads. The feed to stations is mainly arranged as bus services from the district around the station, also some service lines. Cycling network is being developed and there is a strategy and targets for P&R places in interchange stations.

There are regional public transport planning guidelines, which determines the service level to be provided on transport links between different types of areas and district centers in the region area and the center of Helsinki.



Picture 5. Trunk network, main nodes and service level in 2025. Green color describes the target in the service level of public transport (5, 10 and 15 min)(Map: HSL)

There is a hierarchy in station network in Helsinki region. In the important interchange terminals the train feed is higher, for example 12-15 trains per hour. Then there are medium sized interchange stations with for example 5-8 trains per hour. In smaller stations, like in centres of municipalities, that are located far from metropolis, train feed is for example 1-2 trains per hour within rush time and 5-6 trains per day.

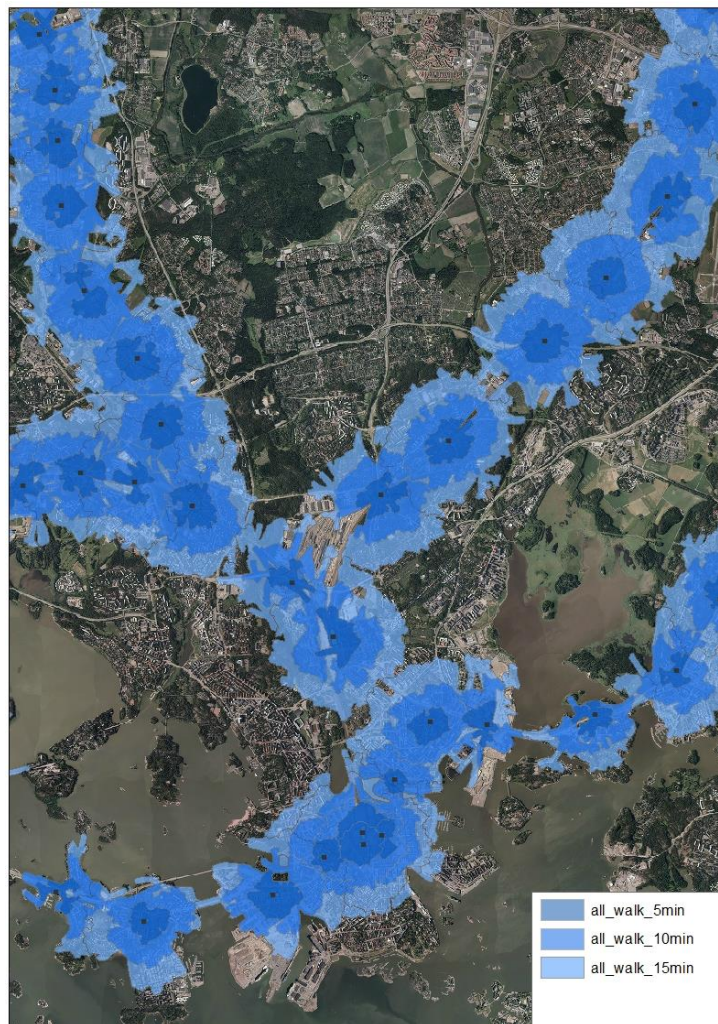
- f. How green (park, forest etc) is the urban station community in hectare/total area?

Depends on station area.

- g. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

The walking and cycling possibilities are mainly quite good. There is much to develop in bike parking within station areas. In Helsinki region there has been made a

GIS-analysis of time and length distances based on pedestrian and bike lane network. It shows that the network is comprehensive near city centre but it differs a lot in stations further away from the city centre. It depends on the land use of station area, how densely it has been built. (picture)



Picture 6. Time distance (walking) from station through walkways and cycle paths (Map: HSY)

There is no information of modal split on separate station areas. It describes the situation in the whole region. It

could be calculated as HSL has the statistics of modal split on feeder transportation services to stations, amount of train users of every station (from travel card) and also the amounts of P&R places for bicycles and cars and their occupancy rate.

- h. Are there any other modal split calculations?

There are some city level and regional calculations of modal split.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community.

Component Master Plan of Kera

1. What are the objectives of the plan in regards to land use?

The targets of Kera component master plan is to provide a sustainable, energy-efficient, multifaceted, urban and distinctive area that relies on rail transport and other good transport connections. The goal is that some of the area would be a close urban pedestrian area and the narrower streets traditionally used in Espoo.

The accessibility of the station through walking and cycling networks has been a key factor in Kera's vision since the beginning. A "20-minute city" vision means that jobs and services would be as close as possible to residents, the urban structure would be mixed and urban.

The new pedestrian centre in the vicinity of Kera station will feature high-density, effectively designed developments allowing residents easy access to shops and other important amenities

both on foot and by bike. As Kera will be a densely built area, it will take residents just 20 minutes to cover the distance from the residential areas to the centre on foot. Cyclists will be able to reach Leppävaara and Kauniainen, Tapiola and Espoo Centre in the same amount of time. Overall, Kera will be both easy to get to and easy to get around. It will also be possible to reach the entire Helsinki metropolitan area by train. Under the plans, the area is due to provide housing for at least 14,000 residents along with some 10,000 jobs.

2. What time frame has the plan?

2030

3. Who has the legal responsibility for the plan?

City of Espoo

4. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

Development will be measured and monitored annually.

5. Is density used as a target for the plan?

For the planning of the Espoo urban rail, it has been appropriate to provide for an urban and compact district in Kera. HSL's planning principles has been a guide to dimensioning the number of residents and workplaces in the area. At the beginning of the planning process, various density options were studied.

6. Alongside efficiency, the idea that the center of Kera will be carried out with high quality. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?



The densification of urban structure and specially station communities is a target on national, regional and city level in planning. There is also urban sprawl happening in Helsinki region but the cities are doing their best in densifying the existing urban structure and station areas.

The plans have their own evaluation system within planning process and the impacts to urban structure are normally evaluated.

The regional evaluation process is prepared as a part of regional planning process in Helsinki-Uusimaa regional council. The regional land use plan has a few structural models which are evaluated.


The cities are monitoring the development of urban structure and population density.

This is also evaluated by HSY's climate indicators as one of the key indicators measures the potential for railway commuters, combining inhabitants and jobs in station areas and comparing the growth to regional average. This has been made as a GIS analysis.

### C) Good examples/bad examples

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

Good practice	Bad practice
Name: The development of Tikkurila station community in Vantaa	Developing a center of Siuntio municipality
Context: Tikkurila is one of the city centers in Vantaa. The center part of it used to be a little bit west from the station, by one of the main streets, Kielotie. Station area was not very densely built. Station was a so called cold	Context: Siuntio is a large municipality west from metropolitan region. It has a long coastline and also a rail connection from the center in northern part of municipality (Helsinki-Turku rail line). There is a lot of urban sprawl, most of it situated near coastline.

<p>station with only ticket office and kiosk as services. Train feed was high as it is situated along the main rail line, so the potential was high. There was a detailed plan for the area but it wasn't densely planned. City of Vantaa started a development and planning project and created a plan frame where the possibilities of infilling was examined very carefully. The rail company (VR), Finnish Transportation Agency (FTA) and city of Vantaa made a joint contract for planning and construction of a new station hub. It contained a new covered terminal for the rail lines, large shopping center with office buildings and also multi-storey car park for offices and P&amp;R. Within a planning participation process city found real estate investors and building companies and managed to infill the area between station and previous Kielotie central area. Now Tikkurila is one of the most desirable area in Vantaa and housing prices have risen there.</p>	<p>Municipality has tried to develop center of it with no success. A couple of years ago the train connection was nearly stopped due to a low number of users. Most of the residents commute by car to the capital region.</p>
<p>Main authorities and stakeholders involved:</p> <p>City of Vantaa Finnish Transportation Agency (FTA) VR Group Ltd Real estate investors</p>	<p>Main authorities and stakeholders involved:</p> <p>Municipality of Siuntio</p>
<p>Web links: <a href="http://www.vantaa.fi/asuminen_ja_ymparisto/kaa_voitus_ja_maankaytto/suuralueet_ja_kaupunginos_at/tikkurila/tikkurilan_keskusta">http://www.vantaa.fi/asuminen_ja_ymparisto/kaa_voitus_ja_maankaytto/suuralueet_ja_kaupunginos_at/tikkurila/tikkurilan_keskusta</a> (in Finnish)</p>	<p>Web links:</p>
<p>Why is the practice considered as 'good'?</p> <p>It is an example of good infilling of urban structure in station area with successful planning process and co-operation to develop station community.</p>  <p>New station hub (Photo: Dixi)</p>	<p>Why is the practice considered as 'bad'?</p> <p>Lack of political will and land use strategy to develop centers instead of urban sprawl. The fragmented structure will affect a lot of costs in arranging services and emissions.</p>

## **D) Current experience**

1. Has your organization implemented a urban station development plan?

No, but HSY is preparing, as a part of SMART-MR project, a Low Carbon District -concept for station areas for assistance for the planners and city developers to produce carbon neutral urban structure, specially on station areas.

The water department of HSY is in cooperation with cities developing also station areas.

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

The process is going on, it will be prepared in co-operation with cities, specially with planning department and environmental department. Also external expertise will be used to assist in developing the concept.

3. What methodology was used?

It will be developed during the process.

4. What objectives and targets were set up for the planning?

The concept will include the targets of carbon neutrality in different sectors: land use, housing, transportation, water management, waste management and circular economy and also services including low carbon economy.

5. Has an evaluation been conducted and set in relation to set goals and objectives?

Not yet.

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

How is TOD used in different levels of planning? is there any connection between TOD and SUMP?

Guidelines for land use and urban structure infilling in different kind of stations.

How to develop walkability?

Park and ride guidelines, where and how much (it can be left also to Helsinki workshop)

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)

The potential of conceptualize the target densities on different kind of station areas for our LCD concept to be used as a part of planning processes.

## 20171212

### Workshop Exercise 1

Presentation of report on density

- Can a set figure for density be generic? Discussion for and against during the workshop with the purpose of supporting a conclusion ... arguments for and against.

### Workshop Exercise 2

Presentation of local masterplan of Ytterby

- Dialogue process with stakeholders regarding densification of Ytterby. Discussion about results.

Study visit Ytterby

### Workshop Exercise 3

Check with the reality. Dialogue with local and regional stakeholders. Municipal representatives, county administrative board, transport administration, public transport etc.

## 20171213

### Workshop Exercise 4

What consequences will an increase in the density have for a urban station community based on the experience gained of the Ytterby case? What happens if the density cannot be achieved? Can the intentions of the structure illustration be met? Does the TOD work as a method in densification of an existing urban station communities?

# 4<sup>th</sup> Workshop

# Transit Oriented Development

## *Inventory GR*

## Questions

In the inventory of the conditions for developing an urban station community the SMART-MR Partners should draw on the experience gained at the previous workshops and from planning expertise gained in their own metropolitan region.

### B) Open questions on creating transit oriented development

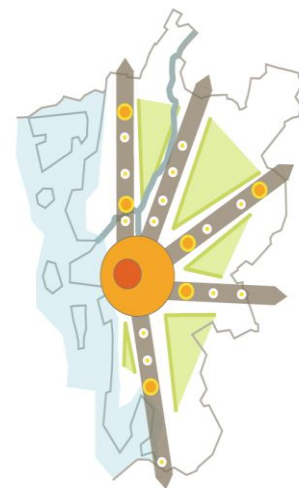
- 16 In your region, does transport corridors play a special role in spatial planning?

Regional level; Yes, developing the transport corridors, in the structural illustration, is one of the important elements in developing the region. Gothenburg is not part of a poly-centric megaregion. This is mainly due to few neighboring bigger cities and long distances. Gothenburg is also increasingly more important as the workplace for the inhabitants in the hinterland. This means that Gothenburg region has a mono-centric structure. The transport corridor, and especially the station communities, needs higher density to enable more sustainable mobility.

On the local level, it is the municipality that develops the hubs and the station communities as part of a regional agreement.

- 17 Is there any policy documents that fosters housing and provision of services/businesses along the transport corridors?

Regional level; The regional policy documents, “Sustainable growth, goals and strategies focusing on regional structure” and “Structural illustration for the Gothenburg Region” sets out regional agreements between the local municipalities. The documents incorporate goals and guidelines for where housing and services should be located. The regional Public Transport program K2020 exemplifies the strategies regarding mobility and housing locations. The regional trading strategy is an agreement of joint responsibility for a sustainable regional trade structure. The regional trading strategy is indicative in the work



of achieving a balanced trade development in the Gothenburg region.

Local level; Kungälv Municipality has at the local level described in their master plan that development in the station communities should be from the center and outwards and along the main transport corridors. The municipality has also adopted two policy documents in support, Program on Sustainability and a Plan for Transport.

- 18 Are there any attempts to densify the settlements and if yes - is there any particular focus on transport corridors or hubs in your region?

Regional level; Yes, GR has an ongoing project focusing on “Urban station communities”. The aim is to, together with stakeholders such as municipalities, Academia, Public Transport providers, County administration, Developers and architects, within a workshop methodology, explore difficulties and solutions when developing communities close to rail services.

Within the projects there are various projects and activities initiated to increase knowledge about the complexity in planning near station locations and create conditions for development of station communities. Planning in corridors is a central aspect of the process.

Local level; Yes. In the municipal masterplan describes the necessity to locate new development of housing and services centrally in station communities and where there is access to Public Transport.

- 19 How would you define the concept of an urban station community in your region?

Regional level; During an “Urban Station Community” workshop the participants were asked about images for an urban station community. They answered that the structure should be high in density, where people can move around and where there is a mix of functions usually represented urban areas.



There should also be a strong connection between the station and the city/center, no matter the actual size of the community. The station should function as a hub and be a clear meeting point in the city/community center. The station should also be connected to different modes of transport including public transport and therefore have the function of a travel hub rather than simply a train station. The highest density should be close to the station and with at further distance from the station, a lower density could be allowed.

20 Which local organizations work to develop urban station communities?

The local municipality.

21 Is the public involved in the work? And how?

Local level; At the local level, there it is mandatory within the spatial planning regulation for a local masterplan to have a public consultation. How this is achieved can vary according to the situation. The municipality has a policy that when working with minor or not so sensitive plans they will be subjected to written consultation from stakeholders. But regarding any major plans there will be a dialogue process or hearing with the local inhabitants and stakeholders.

22 Do you work actively, from a regional perspective, to develop local station communities?

Regional level; Yes, for example through the knowledge process in the “Urban station communities”. The stakeholders involved in the project is practitioners from the municipalities together with academia.

23 What methodology is used?

Regional level; The Urban station community is project based, and there is a strong focus on co-creation and co-production between practitioners and academics.

GR is also leading a project where the goal is to develop a GIS-based technology platform to complement the structure illustration and test how different location alternatives in the region affect the climate. The tool will be used in spatial planning decisions on the local municipalities level in order to include a reduced impact on climate and energy issues.

24 Who initiates a TOD in your region (or using alternative method mentioned above)?

The local municipality.

25 Which are the main barriers/constraints for using the TOD methodology

We can identify several barriers and constraints for using the TOD methodology in the Göteborg region – most of which concern conflict of interest or conflicting goals:

There are organizational barriers between the different planning organizations – housing, infrastructure and public transport – who are situated on different local and regional levels, and have separate planning horizons and separate planning goals, which makes co-planning difficult. The county administration, that has the role to make sure that local plans follows the national laws and agenda, can sometimes find it a struggle to balance the goals of various sectors and local/region development plans. This is often considered a problem.

There are often mental barriers for both citizens and planners, as well as for politicians when densifying an area. Densification will imply the need of behavior change when it comes to mobility and this is something present residents may be willing to do. Planning a structure based on walking, cycling and public transport is not the norm for smaller communities. And political decisions are always a difficult balance between what is best for the local vs the regional/national/global community, and between short term effects vs long term effects.

The physical constraints are of course many:

- Geographical conditions, including climate change effects

- Infrastructure capacity
- Existing structures
- Air quality
- Noise pollution
- Etc

26 Which are the main drivers of TOD (accessibility, market, political decisions, cheaper alternative to more central regional locations, etc.)?

All of these!

27 What experience from previous three workshops do you want to highlight as important in the TOD workshop? Please exemplify!

- Participation in transport planning
- Regional mobility plan
- Low-emission logistics planning

GR would like to include the participatory planning aspect from workshop 1 in the forthcoming workshop.

28 In developing an urban station community is housing, transport and infrastructure planning done separately or in combination?

Local level; In the local masterplan, all knowledge regarding transport and housing will be considered.

29 How many green areas are in the urban station community in ha / total area?

Local level; In the Ytterby station community the green area within 1 km radius from the station approximately 130 ha out of total 314 ha. i.e 41%

30 As a knowledge base for WS4, a study on population density in the urban station community has been conducted. (Attached).

With this study as a starting point, we would like to ask if there are additional experiences in your regional work with urban station communities?

- i. What population density and population volume do your urban station communities have?

Regional level; The station communities has a density of between 5-20 inhabitants per Ha. The figures are shown in the map below. The calculations are made for the community rather than number of inhabitants within 1 km radius from the station.

Local level; Ytterby station community has 6 200 inhabitants. And 8 000 and in total when counting inhabitants and number of workers in in the community.

- j. To what extent/distance do these stations include. Total area in hectare?

Local level; Ytterby has 314 ha within the radius of 1 km.

- k. What kind of services are available in these urban stations communities?

Local level; In Ytterby station community there is public services such as school, sports hall, library, surgery and old age housing facilities. Private enterprises such as a supermarket, smaller department store, hair dresser, Restaurant etc.

- l. Is commuter parking made available at the station?

Regional level; All railway stations has PR facilities for cars and bikes. The number of spaces varies.

Local level; Ytterby stations community has 220 P&R spaces including a few electric charging spaces.

- m. Describe the public transport that feed the station and what frequency there is in the regional public transport system?

Local level; In the Ytterby station community is one of the main Public Transport Hubs located within the Municipality. It is the only hub that has both bus and train connections.

- The bus station has 3 local routes and 2 express routes. It also serves additional 10 bus routes designated for transportation of kids to school.
- The train connection between Ytterby and Gothenburg has a frequency of 2 trains an hour during peak and 1 train at off peak.
- In addition, 2 bus routes via Kungälv to Gothenburg with a frequency of 3 buses in peak hour, and 2 off peak. Last service at midnight.
- Between Ytterby and Kungälv there is 4 local bus routes with a frequency of between 4 and 6 buses at peak hour and 2 of peak. Last bus at midnight. Between Ytterby and the hinterland there is additional 2 bus routes with approximately 2 buses in peak hour and 1 bus off peak. Last bus at 11 pm.

- n. How green (park, forest etc) is the urban station community in hectare/total area?

Local level; In the Ytterby station community the green area within 1 km radius from the station approximately 130 ha out of total 314 ha. i.e 41%

- o. How much walking and cycle possibilities are there? Modal split? Rate possibilities from 1 to 10 as 10 being perfect!

Local level; Presently there are many combined bicycle and walking tracks (GC). These tracks are 3 meter wide and shared space. And the bicyclists travel both directions. All pavements for pedestrians are 0,75-1,25 meters wide.

An estimate for the quality of the access Ytterby station for bicycle and walking are 4-6.

All GC tracks has lightning, some has signs and some two level crossings. As we are in Sweden, some tracks get prioritised snow clearing.

p. Are there any other modal split calculations?

No.

## **B) Data monitoring and other tools for Transit Oriented Development**

Self-evaluation of Transit Oriented Development projects, if there is one, or of any other local plan/projects that can show how development around railway stations are conducted.

**Name of the plan/project or** case where there is development of an urban station community. Kungälv municipality local master plan for the Ytterby agglomeration.

7. What are the objectives of the plan in regards to land use?

Local level; The local master plan has set out an ambition to optimize land use using density, sustainable mobility and quality of life as strategies.

8. What time frame has the plan?

18 months for the completing the plan. 5 years to finalize the development.

9. Who has the legal responsibility for the plan?

The Kungälv Municipality.

10. How is the development of the urban station community monitored in terms of population, employees, housing and workplaces?

The master plan is monitored in terms of number of housing units are being planned and built. Regarding mobility there is no current monitoring. But work has been initiated.

11. Is density used as a target for the plan?

In the local masterplan, there has not been a stipulated fixed density figure. But as SMART-MR and the municipality has co-financed the study "Sustainable density in Station Communities" aug 2017 the results will be considered for implementation in future work.

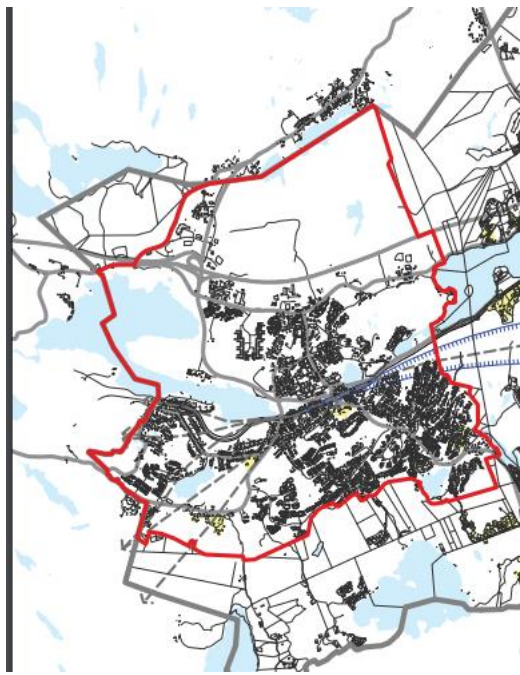
12. Does the population of the urban station community increase through urban sprawl or through densification? Is this something that is evaluated in your region? If so, is the evaluation part of an impact assessment plan? What indicators are used to assess the development?

Regional level; Yes, population increase through urban sprawl. GR evaluates the urban sprawl on a regional level. The municipality will when possible act in accordance with the agreements made on the regional level. It is also important to take note to the fact that local Politian's has an important influence on local planning.

Local level; The Municipality is currently not using density to monitoring development.

**C) Good examples/bad examples**

Give examples of good and bad example on good and bad development plans of a urban station community (any kind of plan that is related to development of the station area. Briefly describe why the examples are good or bad. Please exemplify with links or images (Max 1 page)

<b>Good practice</b>	<b>Bad practice</b>
<p>Name: Mölnlycke station community, Local Master Plan</p>	<p>Name: Jonsered station community</p>
<p>Context: The Mölnlycke Community has a long history as a station community. Large parts of the area are built as single housing estates but in recent years the ambition is to follow the regional agreements made within the GR structural illustration. This means that the station community of Mölnlycke should be subject of densification. Areas outside of 1 km from the station should only be developed if Public Transport Is present. The development is regulated in local detailed plans, within the red marking In the map below, and should follow the incentives made in the master plan.</p>	<p>Context: The Jonsered community was formed in the mid-1900<sup>th</sup> century as one of the first villages in Sweden to get a rail connection, 1856. The local industrial community thrived on both having water power and closeness to Gothenburg. <a href="https://commons.wikimedia.org/wiki/File:Jonsereds_fabriker_september_2013_02.jpg">https://commons.wikimedia.org/wiki/File:Jonsereds_fabriker_september_2013_02.jpg</a> <a href="https://commons.wikimedia.org/wiki/File:Jonsereds_station_oktober_2013.jpg">https://commons.wikimedia.org/wiki/File:Jonsereds_station_oktober_2013.jpg</a></p>
	<p>Jonsered is now a village with only a few local job opportunities and dependent on commuting, mainly to Gothenburg some 15 km away.</p> <p>To re-establish work places in the old factory buildings a rail stop was re-opened in 2003.</p> <p>A lot of exploitable land is available around the station area as heavy industry has closed down.</p> <p>The local municipality, Partille, opened up a local masterplan to enable more housing and services in Jonsered. In the obligatory referral of the plan the local inhabitants demonstrated against the plans that was considered insensitive to the history of the community. Jonsered has long standing traditions and the master plan suggested a new access road over the field where the local celebrate midsummers eve. This resulted in a total rejection of the plan!</p>
<p>A study was done a couple of years ago that analysed the present situation and introduced</p>	



<p>urban qualities as part of the development strategies. The strategies visualized how urban service categories can be increased in terms of numbers and diversity, accessibility to green areas could be enhanced and how a low speed street network could be interconnected.</p>	
<p>Main authorities and stakeholders involved:</p> <p>The local municipality of Härryda</p>	<p>Main authorities and stakeholders involved:</p> <p>The local municipality of Partille.</p>
<p>Web links: <a href="http://www.spacescape.se/wp-content/uploads/2015/05/projektrapport_molnlycke_130425.pdf">http://www.spacescape.se/wp-content/uploads/2015/05/projektrapport_molnlycke_130425.pdf</a></p>	<p>Web links: <a href="https://www.partille.se/bygga-bo-miljo/samhallsplanering/detaljplanering/pagaende-detaljplaner/bostader-kontor-och-verksamheter-vid-jonsereds-fabriker/">https://www.partille.se/bygga-bo-miljo/samhallsplanering/detaljplanering/pagaende-detaljplaner/bostader-kontor-och-verksamheter-vid-jonsereds-fabriker/</a></p>
<p>Why is the practice considered as 'good'?</p> <p>By using a vision for how the community should ideally be developed, the municipality has used different analysis and policy recommendations to realise a now thriving urban station community. In the Catch MR project central "Mölnlycke was described as a success story in the Gothenburg region. Most notably, the case can be construed as an example of how pull factors (attraction) can be leveraged through long-term, consistent planning. Local politicians and planners have been confident that the area is an attractive place for people to live in and for developers to build in. Thus, they have not found it necessary to introduce "push"(don't develop here) factors, which might jeopardize the steady long-term growth."</p> <p><a href="http://www.mistraurbanfutures.org/sites/mistraurbanfutures.org/files/station_community_transitions_-_a_matter_of_push_or_pull_urbana_stationssamhallen.pdf">http://www.mistraurbanfutures.org/sites/mistraurbanfutures.org/files/station_community_transitions_-_a_matter_of_push_or_pull_urbana_stationssamhallen.pdf</a></p>	<p>Why is the practice considered as 'bad'?</p> <p>The local master plan is considered 'bad' as it had a poor understanding of the opinion of the residents. To come to terms the situation a fresh start was made and a participatory planning process initiated. Together with residents of Jonsered, planners, developers etc jointly described what the core values are in Jonsered and that should be protected. Some of these core values are; Power from the river, Not car oriented, We, History/tradition.</p> <p>Now the new process has the potential of resulting in a dense and attractive station community that is more considerate to local traditions. So the example goes from bad to good practice!</p>

## **D) Current experience**

1. Has your organization implemented an urban station development plan?

No

2. Were the activities carried out with the help of external expertise or internal? What stakeholders were involved?

3. What methodology was used?

4. What objectives and targets were set up for the planning?

5. Has an evaluation been conducted and set in relation to set goals and objectives?

6. Does your organization have questions about the development of urban station communities that you would like to be discussed at the forthcoming workshop?

Yes, the methodology of using guidelines for density in station community planning as described in the study “Sustainable density in station communities”.

7. What experiences from workshop 4 do you want to bring to the next workshop. The question will be distributed under WS 4 and will complement the inventory. (Answered after workshop 4)