SMART-MR
Interreg Europe

European Union
European Regional
Development Fund

2nd Workshop

Creating a mobility plan

Inventory

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INTRODUCTION:

Inventory is an in-depth analysis on four specific topics that will be dealt with on workshops is central to the SMART-MR project. With each inventory we wish to share experiences on existing 'state of the art' of sustainable mobility measures in metropolitan regions, increase awareness on good practices and build capacities of partners' staff. The second inventory deals with creating a mobility plan and through it we want to achieve two goals:

- to enable the discussion and exchange of experience regarding creating a mobility plan among partners;
- to provide methods and tools for partners to engage in creating a mobility plan.

This inventory is structured in four sections in order to achieve the above-mentioned goals:

A. **Open questions on creating a mobility plan**: a set of 'open questions' intended for regions about procedures, opinions and practices on creating a mobility plan.
B. **Data monitoring and other tools for managing and updating an actual mobility plan:** questionnaire about an actual local or regional mobility plan or any other transport policy adopted in the last 10 years.
C. **Good/Bad practice presentation**: detailed presentation of the procedures adopted in creating a mobility plan in your respective region/municipality.
D. ***Current experiences***: short presentation of your mobility plan design/development processes, methodology and results.

In this way we gathered valuable and unbiased information that will be used for the preparation of the 2nd workshop organized in Rome in March 2017.

LJUBLJANA

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. **Which local authorities are in charge of mobility planning?**
   In Slovenia there are two levels of government – national and local (municipal). The regional level does not have original jurisdiction. In addition to planning at the national level, municipalities are only responsible for part of planning at the local level (municipal roads, urban/city public transport…). Municipalities can plan together but it is not practical (operational and procedural) and is usually not implemented (with few exceptions).
2. **Please describe the cooperation among the authorities in the field of mobility on a local and regional level.**
   Regions do not have original jurisdiction and can only assist municipalities in planning to seek common solutions and quality integration. Besides participation and integration of municipalities' there is also crucial cooperation with stakeholders at the national level, with spatial planning, system managers, professional and general public which is easier achievable through regional cooperation.
3. **Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?**
   The Operational Programme for the Implementation of the EU Cohesion Policy in the Period 2014-2020 is an implementing document setting out how EUR 3.2 billion of support provided under the European Regional Development Fund (ERDF), the European Social Fund (ESF) and the Cohesion Fund will be spent in the 2014-2020 period. The document, which identifies investment priorities that will be eligible for support in the next seven year period, builds upon the Europe 2020 Strategy and its targets and complies with the Fund specific requirements. The underlying objective of the document is to ensure economic, social and territorial cohesion. The operational Programme provides measures for sustainable mobility only within urban areas. In the chapter Infrastructure development and promotion of sustainable mobility all concrete measures are focused on two separate instruments: building new roads and improving railway infrastructure.
   Law on balanced regional development determines who the decision-making bodies in the region are and who represents a professional body of development in the region. The Act/Law also defines a Regional Development Programme as a key development document related to the financial period and its subordinate implementing document Agreement for the development of the region. Despite the legal definition of regional integration, some of the instruments due to the absence of original jurisdiction and income are not implemented in practise. Current legislation recognizes also the implementation spatial planning at the regional level, but the instrument is not in use due to its complexity.
4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**
   Mobility planning at the local level is carried out within the preparation of municipal spatial acts for which the law prescribes the precise procedures for the preparation and the necessary expert basis. At national level, till recently strategic mobility planning was carried through the Spatial Development Strategy of Slovenia; detailed implementation planning was implemented by sectors in a relatively narrow circle. In year 2015 the Government adopted the Transport Development Strategy in the Republic of Slovenia. This is a strategic document, defining future measures on the area of road, railway, air and maritime transport,

including public transport and measures for obtaining sustainable mobility. The Strategy thus includes 29 measures for railways, 37 for roads, 22 for public passenger transport and sustainable mobility, 14 for water transport (maritime and inland waterways) and 6 measures for aviation.
Also a new instrument is introduced lately for using of cohesion EU funds called SUMP (Sustainable Urban Mobility Plan). SUMP has precise procedures for the preparation and content of the document.

5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**
   Except for mobility planning within the preparation of municipal spatial plans, other mobility development plans are not directly linked to other plans. There are some spatial directions and other sectors directions which are taking into account, but not with joint planning for better coping with the challenges. The problem of disintegration is particularly evident in the state sectoral plans.
   Regional mobility development concept and SUMPs, which are prepared at the local level (municipalities) take in full account spatial situation and mobility needs, but does not direct the spatial development and other spatial activities in the area.
6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**
   Local SUMP follows a strict procedure of preparation, which is divided into 3 main parts: status report, definition of vision and goals and a proposal of a set of measures. Within each phase there is a strong emphasis on involving the public and key stakeholders through public discussions, workshops, interviews, surveys ... It is essential that the public and key stakeholders create their own strategy, experts are only for help and directions. Regional mobility development strategy was based on similar principles; even thought for its preparation there is no prescribed formal process of preparation and adoption of the document.
   SUMP at the local level is confirmed by the Municipality (City) councils, key regional documents are confirmed by the Council of the Region (26 mayors LUR) and LUR Development Council (64 members from the local community, economy and NGOs).
7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**
   In the project "Expert guidelines for the regulation of regional public transport" (2009), which have been the only comprehensive study on the regional level so far (answers on next questions mostly relate to this document), the main purpose is the regulation and the establishment of quality public passenger transport (PPT) in the Ljubljana Urban Region by 2027. The goals are:

- establishing a system of high-speed bus routes, running in dedicated yellow lanes, which would link inter-modal interchange points with adjacent car parks in the gravitational centre of the region;
- establishment of P & R sites in the region;
- a new organisational structure (to be introduced gradually in stages).

The main objectives (by 2027) are:

- a rise in trips made by PPT in region by more than 50 %;
- a rise in the number of passenger kilometres travelled by PPT by 35 %;
- a share of PPT in the modal split will rise from 10 % to 14 % (2 % are passengers from P & R sites).

8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

The traditional approach of forecasting ("what if") with predictable scenarios is used. Six scenarios, whose performances were checked by traffic models, were produced. The scenarios were shaped iteratively on the basis of the various elements of the PPT systems, such as accommodation in space, technologies and prerequisites for attaining their performance, and options for integrating urban and regional PPTs.

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**
   Public and private transport companies are in the preparation process of the document defined as key stakeholders. Through public discussions, workshops, interviews and surveys their views, needs and suggestions are obtained. They do not have formal role in confirming the document.
10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**
    The plan predicts the establishment of a high-speed railway track between Passenger Centre in Ljubljana and Jože Pučnik Airport. However, this track was later not included in the Resolution on Transport Policy of the Republic of Slovenia. The plan also predicts the Ljubljanica River a navigable waterway.
11. **How does the planning process interact with the research of new forms of mobility?**
    Among new forms of mobility, the planning process has a strong emphasis on the P & R scheme (park and ride). The scheme has some variants: the 'park and bike' scheme found at certain locations involves parking a private car and renting a bicycle to continue the trip. And there is a 'park and pool' scheme involving car-pooling i.e. one or more drivers arrive in their own cars and continue the travel sharing one of their cars.
    All of these forms are complementary and inter-connected, and therefore they need long-term planning and direction.
12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**
    In 2013, ten years after last survey on travel behaviour, a new survey was carried out. Members of approximately 2000 households from the survey area were questioned on the following main topics: ownership of vehicles, number of daily trips, trip purposes, means of transportation, time spent etc.
    The data collected enable a detailed overview of travel behaviour in the Municipality of Ljubljana and the Ljubljana Urban Region. They can serve as a statistical basis for the implementation of new transport and mobility policy measures and the monitoring of results. The survey was ordered by the Municipality of Ljubljana, but the results can also serve for mobility planning on the regional level, as households from the region, not just the city of Ljubljana, were surveyed.
    The report should be available for public, but it is not accessible on the internet yet.
13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**
    An estimate of the revenue from the new system for the starting year 2008 and the final year 2027 was made. Appurtenant costs for respective years were estimated. A cash flow analysis was made and the current net value of the system was calculated. The system's revenue is based on estimated revenue from the existing system in 2008 translated to the proposed new system.
14. **How are the mobility and transport needs from the industrial areas taken into account?**
    At the local and regional level in mobility planning major employers and business representatives are included in process as key stakeholders. Through public discussions, workshops, interviews and surveys

their views, needs and suggestions are obtained. They do not have formal decision making in the preparation process of document.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**
    In the study, a form of ex-ante evaluation was used. Assessing and evaluating the development scenarios was made by multi-criteria analysis. Objectives attainment was measured against selected and weighted criteria, whereby we can obtain a unitary assessment of objectives attainment for individual projects and also a benchmark for comparisons within a group of projects. Using DEX, a qualitative multi-criteria modeling methodology, supported by the DEXi software tool, a range of selected criteria was united and their significance in the assessment process concerning the choice among different scenarios was assigned. Ex-post evaluation and monitoring was not used.
16. **How are mobility plans funded?**
    Mobility planning in municipalities is financed primarily from municipal budgets and is a mandatory part of spatial planning. Lately, the state allocates part of the EU funds for the preparation of local SUMPs (which are not statutory document for municipalities, but will be mandatory for cohesion funds). Financing mobility plans is not defined, but in practice municipalities are willing to co-finance the preparation of documents if EU funding is provided.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Self-evaluation of the local/regional mobility plan, if there is one, or of any other local mobility plan (such as: sustainable mobility plan, congestion charge plan, transport infrastructure plan, public transport plan, parking schemes...).

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Name of the plan: Expert guidelines for the regulation of regional public transport*

* it is not a typical mobility plan, but it is the only existing document on the regional level in Ljubljana urban region so far, which can be at least partly comparable to other mobility plans

Goals: regulation and establishment of quality PPT in the Ljubljana Urban Region

Time-frame: by 2027

Responsible: Regional Coordinating Body for PPT, later transformed into a Regional Agency for PPT

Targets: a rise in trips made by PPT in Ljubljana Urban Region by more than 50 %

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

Travel behaviour of people in Ljubljana Urban Region is measured by surveys. The first one was carried out in 2003, the second (the latest) in 2013. Members of approximately 2000 households from the survey area (Municipality of Ljubljana + Ljubljana Urban Region) were questioned on the following main topics: ownership of vehicles, number of daily trips, trip purposes, means of transportation, time spent etc.

At the Statistical Office of the Republic of Slovenia, there is also data from Population Census 2002. Within the census, a survey about travel behaviour was performed, and modal split at the level of each settlement is available. However, this data is old and there was no follow-up survey carried out.

Traffic flows on motorways and main roads are estimated by traffic counters. This data is available only for national roads, not the municipal ones.

Data about flows of freight is only collected at the national level.

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**
   For public transport, the most reliable and cheap option is data from electronic ticketing. For private means of transport, the most useful instrument are surveys and traffic counters.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**
   There is no regular modelling of transport flows at the regional level. So far, modelling was performed in the Expert Guidelines. In the study, the traffic model was devised on the basis of the latest updates of data for the following areas:
   - demographic data,
   - socio-economic data,
   - transport data,
   - other.

   The traffic model used is a four-step model and allows precise traffic analyses, including the re-distribution of journeys, induced traffic and choice of means of transport. The passenger traffic model comprises 770 zones internally and in the outer area. The internal part comprises the area within LUR and the fringe zones. Traffic flows in the outer area are assigned by a synthetic 4-step traffic model developed within the framework of the task 'Project for the comprehensive development of the third development axis area'. The model was calibrated on the existing situation with the use of the data collected. The traffic model of internal passenger traffic is a synthetic, simultaneous and four-step model. It was devised with the VISEVA software tool.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**
   This problem is tackled with establishing P & R schemes alongside the arterial roads of urban centres. Although P & R scheme still requires a use of car, it is suitable for the less dense populated and dispersed outskirts of the region, where public transport cannot be efficiently organised. The construction of 23 P & R is planned until 2020.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**
   This issue is not relevant in the plan.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

A new survey of travel behaviour in Ljubljana and its urban region can potentially serve as a statistical basis for the implementation of new transport and mobility policy measures and the monitoring of results. However, this data has not been used yet for improving the mobility plan on the regional level. It is potentially available to the public, but only as aggregated, non-individual data.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: The forming of the Regional Coordinating Body for public passenger transport	Name: Lack of strategy for inter-urban and local bus routes
Context: Expert guidelines for the regulation of regional public transport	Context: Expert guidelines for the regulation of regional public transport
Main authorities and stakeholders involved: - mayors of selected municipalities - bus operators - Slovenian Railways - Regional Development Agency of the Ljubljana Urban Region (an administrative and technical support)	Main authorities and stakeholders involved: - bus operators - Regional Coordinating Body for public passenger transport - municipalities - Republic of Slovenia
Web links: http://www.rralur.si/en/node/52	Web links: http://www.ljubljana.si/file/1101099/jpp_brochure_ang.pdf
Why is the practice considered as 'good'? Because it is an important milestone on the field of regional mobility planning from the organisational point of view. It is a political body, which will coordinate development of public passenger transport in Ljubljana Urban Region, presenting region in negotiations with the state, bus operators, neighbouring regions and other stakeholders.	Why is the practice considered as 'bad'? A study does not consider important aspects of public transport, such as driving frequency and quality of service of secondary bus lines, which are connected to high-speed lines. No improvement of current situation and network is predicted. A proposed network does not consider any tangential lines, which would connect suburban centres. There is too much emphasis on P & R schemes, which can also weaken local bus routes, because it encourages people to use a car instead of a local bus.

D) CURRENT EXPERIENCES

- **Has your organization already been involved in a mobility planning process?**

In the past RRA LUR prepared concept for projects for planning the development of mobility in the region, ensured their co-financing (EU funds and municipalities) and lead and coordinate the entire process of preparing documents at the regional level.
In preparing SUMPs (Sustainable Urban Mobility Plan) at the local level RRA LUR and ZRC SAZU work with some municipalities as external contractors.

- **Were you directly involved in the activities or did you engage an external expert?**

RRA LUR itself implemented procedures for the preparation of documents and the whole process of involving the public and key stakeholders. When it was needed (for transport modelling, designing ...) we included also external experts.
ZRC SAZU was directly involved in the activities as experts for cycling and public transport.

- **What kind of methodology did you use?**

In the preparation of Regional mobility development concept RRA LUR prepared the methodology and included in the process all key stakeholders, general and professional public and policy-makers for maximizing the legitimacy of the documents and the applicability of the results.
Procedures for the preparation of local SUMP were set up by the state and there is a great emphasis on public participation and involving key stakeholders into the process.

- **Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?**

In the context of the preparation of Regional mobility development concept it has been designed "core project group" which included representatives of the state, local communities, transport companies and professional experts. The Core project group regularly monitored work of drafters of document and guided the further steps to achieve the set goals. The group has contributed significantly to the success of the project and as a good practice was also implemented in other projects.

- **Are there any actual results/actions due to the mobility plan?**

Regional mobility development concept is even without a formal role main driver for the development of further measures and promotes the development of sustainable mobility in the local communities, region and state. Based on set of measures national operational program was integrated, some projects preparation began (P+R), local activates were stimulated and there were change in the attitude of the state in the field of sustainable mobility in the preparation of development documents for the next financial perspective

- **Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?**

How do other partners plan mobility?
What is the relationship between mobility planning at the national level, regional level and local level?
How are individual sectors coordinated with each other and how are they coordinated with lower levels (state - region - municipalities)?
How is mobility planning linked with spatial planning, development planning and how with finances planning?

OSLO AND AKERSHUS

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

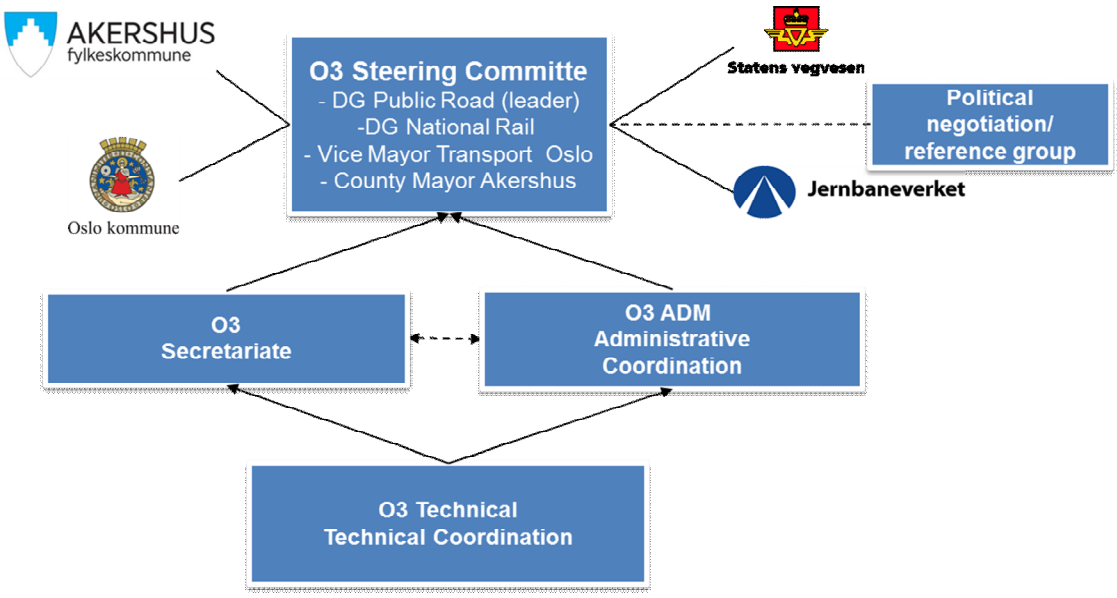
1. Which local authorities are in charge of mobility planning?

In Akershus the County council is responsible for the mobility planning in the region, the municipalities are responsible for land use planning. In Oslo (both a municipality and a county) The Agency for Urban Environment is responsible. Ruter, the public transport provider (which is owned by Oslo (60%) and Akershus (40%), also do mobility planning.

2. Please describe the cooperation among the authorities in the field of mobility on a local and regional level.

Regional plan for transport and land use in Oslo and Akershus (RP-ATP) (formal). The development of the regional transport and land use plan was done with involvement of local and regional level both in Akershus and The city of Oslo. The public transport provider and national rail and road administration are also involved in making the plan.

There is a financial cooperation between Oslo and Akershus in the Oslo package 3, where founds are allocated from the toll ring to investments in both infrastructure and funding public transport. The Action program for the Oslo package 3 is a premise for mobility planning in the region in prioritizing which projects gets financing when.



3. **Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?**
   The Planning law sets a general framework for planning process, including participation and requirements for regular updating. The Municipality law sets regulations for updating transport plans.
   There was a unique decision in national parliament to start the regional plan for land use and transport in the capital area.
4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**
   The Planning law sets a general framework for planning process, including participation and requirements for regular updating. The Municipality law sets regulations for updating transport plans.
   There is a mismatch between the legislation requirements and the formal organisation of the regional level in the capital area. There is no correlation between the political level and the geography of the RP-ATP.
5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**
   The central government has given guidelines for coordination of spatial planning and transport planning. This means that the authorities in charge of both spatial planning and mobility planning needs to take in to account each other's objectives.
   In Oslo the municipal master plan is the most important planning document, and when making this document the authorities in charge of spatial planning have a broad participation process, including among others The Agency for Urban Environment. In this way the master plan (and its development areas) is a natural premise for mobility planning.
   There are no formalised connections, however in making mobility analyses for the regions of Akershus there is a process to overcome this gap.

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**
   The main objectives in a local mobility plan are usually the same as in the National Transport Plan. There is no general local mobility plan in Oslo yet, but there are different sector plans, e.g. a plan for the cycling network, a plan of measures to reduce delays for tram and bus, and a plan to upgrade the tram lines before buying new trams. The objectives in these plans are often set by the local politicians. A walking strategy with an action plan is also in progress. The national walking strategy (made by the Norwegian Public Roads Administration in 2012) has a goal of at least 50 local walking strategies before 2017.
   The creation of the land use and transport plan (RP-ATP) was originally a national governed process with participation of local level, both political and administration. The regional level then owned the proses, with participation of the municipalities and the state, before the plan was finalized and put to political vote on the regional level.
7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**
   The most common objective in recent mobility plans in urban areas is that all growth in transport of people is to be done by public transport, cycling and walking (the zero growth objective). This is also an objective in the municipal master plan for Oslo and for the transport plan In Akershus.

The cycling plan in Oslo has an objective of 25% cyclists in 2025 (compared to 8% in 2013). (The draft version had an objective of 16%, but after the election and with a new political leadership this was changed to 25%).

Both in Akershus and Oslo there is an objective to improve the navigability for public transport, in Akershus this objective is mainly for buses, in Oslo it also applies to trams.

8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

   There was use of alternative scenarios for future development, both predictions based on the current situation and based in impact assessment studies were used.

   Historically a continuous growth in car transport has been used as a basis for mobility planning in Norway, but in recent years there has been a shift towards setting objectives for zero growth or a reduction in growth. The most common transport models have not been following this development, and this is a problem for transport planners.

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**

   The process is not formalized. There was a wide participation process in the RP-ATP, where both public transport and freight had representation in work groups.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**

    The transport to and from the airport is an integrated part of RP-ATP, the fjord is a part of the public transport system. The freight system is only part of the plan on a strategic level, but is an integrated part of the national transport plan.

11. **How does the planning process interact with the research of new forms of mobility?**

    In very limited extent. But the public transport provider Ruter have a strategic plan where this is touched.

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

    There is a common formal body, PROSAM, that collect data, both from road transport and public transport in the Oslo area. The cooperation to establish better traffic forecasts in the region started in 1987, and the participants are The City of Oslo, Akershus County Council, Norwegian Public Roads Administration, Directorate of Public Roads, The Norwegian National Rail Administration, The Norwegian State Railways, and Ruter (the public transport provider in Oslo and Akershus). The data is mainly public (http://www.prosam.org/rapporter/) .

13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**

    In the RP-ATP the options were selected based on impact assessment.

14. **How are the mobility and transport needs from the industrial areas taken into account?**

    In the RP-ATP the needs and consequences of the freight industry and logistic areas are taken into account on a strategic level.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**

    Ex-ante: impact assessment

Ex-post: in development – required by the plan. Indicators are developed to measure the development.

16. **How are mobility plans funded?**
    Mobility plans are funded as a part of ordinary budgets for The City of Oslo and the Akershus County Council.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Regional Plan for Land Use and Transport in Oslo and Akershus (RP-ATP)
Goals: (Regarding transportation) The transport system will, in a rational way, connect the multi nodal region together, with the rest of the country and other countries. The transport system will be efficient, environmental friendly, with accessibility for all people, and with the need for car transport at a minimum.
Time frame: 2015-2030 (with a perspective towards 2050)
Responsibles: Authorities at all levels must facilitate the desirable development by supporting the principles of the plan.
Targets: The growth in transport of people should be by public transport, walking and cycling.

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**
   There is a steering group that collect and analyse data from all transport mode authorities, PROSAM. There is also a web page connected so Akershus county council that shows data for the region. The statistical bank shows data connected to work trips by corridor in to Oslo from Akershus, modal split ect.

   A national travel habit survey is done every four years, the capital region have an extended sample for this survey 2013-14. Several target and special analysis have been done from this sample from 2014 in connection to the creation of the regional plan.
   http://www.prosam.org/
   http://statistikk.akershus-fk.no/webview/
   (Unfortunately not translated to English)
2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**
   Counting points on roads, data from the toll ring, national traveling survey (every four years), and surveys on traveling habits on local business level.
   All the passenger data collected by the public transport companies.
3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**
   In the regional transport model for Oslo and Akershus, we have trip matrixes (Tramod-city). These matrixes are used to model traffic in the city. Trips are divided into 5 different travel purposes:
   - Travel to work
   - Work related / service
   - Leisure
   - Private
   - Pick up /deliveries

The aim for using the model is as a tool for planning purposes. It is a typical macro model, using EMME software.
There is a discussion on the possibility to allow heavy transport/freight in the reserved lanes for public transport (busses) on the freeways. Instruments to evaluate the interaction between transport of people and freight would be useful in making such decisions.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**
   The public transport provider Ruter is concerned with this in their strategic planning. It also a subject for debate whether there should be a more flexible solution in areas with low population density.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**
   Accessebility is a general foundation for the creation of the plan, but is not debated as a specific topic. The general legislation ensures that there is a level of accessibility in planning new transport nodes.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**
   Different transport models are used both in development and assessment of mobility plans. The tool is selected based on the issue at hand. Data is also selected and presented to shed light on local challenges.
   On a whole most but not all data is available for public use. However public, the data is sometimes not easy to access.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: Mobility analysis for the regions of Akershus	Name: Removing car parking in Thereses street
Context: To connect local areal plans and regional	Context: After many years of buses and trams not keeping their time schedule the politicians in Oslo decided that a plan of measures to reduce delays for tram and bus should be implemented. One of these measures was to remove the possibility to park cars in Thereses street, a narrow street with two important tram lines, and cars parked at both sides of the street. Cars parked in the tram tracks were responsible for delays for over 13 000 passengers on a daily basis. The measure did increase the speed as intended, but people in the area were not happy with the removal of parking space.
Main authorities and stakeholders involved: National rail and road authority, public transport provider Ruter, municipalities in Akershus, additional departments within the County council.	Main authorities and stakeholders involved: The Agency for Urban Environment, (the public transport provider Ruter and their tram operator), people using the tram, people living and doing business in the area.
Web links:	Web links: http://kraftpakke.no/ http://kraftpakke.no/tiltak/thereses-gate-fjerne-gateparkering-for-a-unnga-driftsstans-og-forsinkelser-for-trikken/?comingFrom=38 (In Norwegian)
Why is the practice considered as 'good'? The proses where participation have been a big part in development, it has contributed to better understanding between local and regional planners. It is also a tool for municipalities to look beyond their borders with regard to transport planning. It has also stimulated municipalities to start creating mobility plans on their own.	Why is the practice considered as 'bad'? In relation to reducing delays for the tram the measure was a success. But the communication with people living and doing business in the area was not good. Their needs were not taken into account before removing the parking space, and there was no initial plan for what the leftover space could be used for. This project became a negative thing for the locals, something that could have been avoided if the project had been adjusted to their needs from the start.

D) CURRENT EXPERIENCES

1. **Has your organization already been involved in a mobility planning process?**
   Yes, the regional plan for transport and land use (RP-ATP).
   Akershus county Council is currently finalizing a mobility analysis for the four regions in Akershus county. They will create the foundations for further planning and investment. They are to be a common tool for the regional level and municipalities.

2. **Were you directly involved in the activities or did you engage an external expert?**
   The mobility analysis was created by the county council in cooperation with the road authorities and public transport company. The municipalities contributed to the proses.

3. **What kind of methodology did you use?**
   Collected and presented many different kinds of local data.

4. **Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?**
   The implementation of the plan is in progress. The evaluation is also connected to creation of indicators.

5. **Are there any actual results/actions due to the mobility plan?**
   The proses of developing the regional plan has stimulated the municipalities to plan for more densification in regional towns and around transport nodes in Akershus.
   The mobility analysis for the regions of Akershus are a direct product from the mobility plan.

6. **Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?**
   How to connect the mobility plan to a wider set of local goals and needs.
   How to communicate the good practices in a way that is easy to access and understand.

GÖTEBORG

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

An initial remark. No *regional mobility plan has been made in the Gothenburg Metropolitan Region. At local level some attempts have been made. We define a mobility plan as a plan containing all different modes of transport, flow of motions/transportation and including the function the flows has. Therefore it is possible to make targets for mobility and strategically decide how functional demands should result in actual supply of transport opportunities and what transport mode should be used. Also including modes of distribution of goods and services. Even though GR has made not made a regional mobility plan previously a strategic transportation plan was made 1999. This was an ambitious plan taking every mode of transport into consideration. The plan was the start of successive action plans involving national infrastructure plans and regional transport plans. And specific plans for public transport, goods and rail plans. GR has a political mandate to review and update the 1999 plan.*

1. **Which local authorities are in charge of mobility planning?**

The Swedish planning system is based on multi-level governance which means that at the national, regional and local level they all have assignments within the field of mobility planning from their perspectives.
The national level is responsible for the long-term planning of the transport system which includes roads, rail, maritime and air traffic. The regional level, region of Västra Götaland (VGR), is assigned to work with regional development and infrastructure coordination and owns Västtrafik (The Public Transport provider) that is responsible for public transport in form of buses, trams, trains and ferries. GR is the regional planning authority and is assigned, by the municipalities within its geographical territory, to coordinate all regional infrastructure concerning the whole region or more than two municipalities. The local level, represented by the municipalities, has exclusive planning power in land-use and the local traffic planning.
The mobility planning at the regional level is moving towards a more holistic approach as mentioned above. No regional Mobility plan has as yet been implemented.
In Sweden there is no formalized mobility planning. No regional mobility plans have been made. The Skåne Region Is in the process of developing a Regional Mobility plan.
On the local level mobility plans for specific areas are quite common, such as parts of a neighbourhood, companies, schools etc. Local Municipalities have started using Sustainable Urban mobility Plans (SUMP) methodology.
Kungälv Municipality are in the process of addressing the topic. Transport plan or Mobility plan or SUMP?
Kungälv will benefit from the discussions held at the Workshop in Rome.

2. **Please describe the cooperation among the authorities in the field of mobility on a local and regional level.**

As described in answer 1, all the different levels are involved within the field of mobility. Since there is no formalized process for mobility planning this requires flexible and inclusive planning terms for the stakeholders in the different levels in order to make it work. The cooperation is mainly build on good will but is also forced because the levels are depended on each other and therefore must work together. As a consequence the cooperation mostly deal with transport planning and results in infrastructure investment plans and transport supply plans for each mode of transport. The cooperation is usually in terms of networks that the stakeholders facilitate.

3. **Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?**

No. The development that follows on our regional policy instrument is unregulated and based on informal cooperation between the parties.

4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**

There is no legislation around mobility planning, but several different laws and national policy documents that regulate planning in general.

Nationally: There is no general legislation to guide mobility planning or planning on a national level. However, the national government together with Trafikverket (Swedish Transport Administration) regularly makes a national plan for infrastructure investments. These plans are based on the set targets for transport and infrastructure. The plans are made for a 12 year period and are updated every 4 years.

The target of the national political transport policies are to safeguard a cost/benefit effective och long term sustainable supply of transport for the public and for the business sektor in all parts of the country. In addition the government has also decided on functional targets for securing accessibility, safety, environment and heath within transport planning.

There is also a regional plans for infrastructure for each large region of Sweden, together with the regional authority. In west Sweden this is VGR. There regional plans are based on the national political transport policies. These are updated every 4 years.

Regionally: There is no general legislation to guide mobility planning or planning on a regional level. Some regions (like ours) have been appointed from the national level with the task of making a regional plan, and to be the consultative body for national and regional plans.

Locally: The national act of planning and building (PBL) regulates the planning quite thoroughly on the local level, in the municipalities, which naturally also affects mobility planning. PBL states that each municipality must have a Comprehensive plan (ÖP), that describes current and planned land use in the municipality. This document must be revised ("tested for actuality") ones in each mandate period, e.g. every 4 years. The Comprehensive plan is not legally binding, but it is nonetheless an important instrument in when locating new housing and industrial areas as well as infrastructure. PBL also prescribes the municipalities to do Local plans (DP) for each new development. These have impact on mobility planning through regulating the amount of parking, width of streets, and ensuring the space to place bus stops and bike parking.

5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**

There are no formal connections between different kinds of planning, for example mobility and spatial planning. The absence of a mutual understanding has been identified as a shortage by different stakeholders. For example, when spatial planning is made without having taken in to consideration how a neighborhood is supposed to be supported by public transport. There are however, several initiatives made to handle these kinds of transdisciplinary issues.

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**

The local municipality Kungälv are making a plan for handling traffic and transport within its territory. For this task a work group with competencies from the Planning department, dealing with housing and traffic, has been established. To broaden the work referrals are made to a group technicians from various departments including Education, Water & wastewater, Exploitation and development, Industry, Environment and Climate, Health, Property and Publicly financed transport services. A steering group has been established with the heads of various

departments. Suggestions from the work group will after referrals be considered by the steering group for political decisions on the municipal assembly level.

7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**

The considerations the local mobility plan is based upon are:
VGR:s vision, Kungälvs Municipality Vision 2040 including the comprehensive plan for Kungälv, Kungälv Municipal Political strategic targets for reducing impacts on the environment and the Climate, K2020 A Long-term Strategy for Public Transport in the Göteborg Region, The Structural Illustration for the Gothenburg region.
This means that the local mobility plan has inputs regarding the regional targets on sustainability and modal split. The objective of the local mobility plan is to respond the regional policies and create the plan for the local implementation.

8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

Planning in the Gothenburg region is in the process of shifting from traditional forecasting approach using prognostics models, to a multi-level steering model (Regional Governance). This planning model use political policy documents and/or political ambitions to set targets. For this purpose, back casting models has been used to create an understanding what modal split is necessary for public transport (at least 40% market share) while deploying mobility in accordance with sustainable development. Multi-level steering model also means that each organisation will function under its own leadership with visions, targets and strategies but will through a common regional understanding act in a way that will benefit the common interest. Multi-level steering planning model can also be referred to as a soft planning model.
All stakeholder has not yet moved to this way of thinking. For example is Trafikverket (Swedish Transport Administration) using a planning model for calculating cost/benefits in new development of infrastructure. This model, called SAMPERS, gives hard facts based on prognosis on future development.
At the same time the political ambition is to reduce the dependency on individual car use and create fossil free mobility by 2030. This creates problems in agreeing on common goals and setting targets for development. By creating a regional mobility plan these different approaches regarding regional development should be resolved.
At a local level various modelling tools, such as micro simulations, are in use for optimizing traffic flows in relation to road capacity. Both in existing infrastructure in case of redevelopments and for totally new infrastructure projects.
Various modelling tools are in use giving the status of traffic situation and as a prognostic tool helping the public optimising the daily commute. As an example the www.trafiken.nu combines Public Transport, individual car use and bike. Thus enabling the user to compare different modes of travelling whilst seeking an optimal journey.

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**

Västtrafik is the public transport company in the region/county of Västra Götaland and is responsible for public transport services including buses, trams, trains and ferries. Västtrafik is assigned by the region of Västra Götaland (VGR) to assist the municipalities in the early stages of the planning process (detailed plans). Västtrafik should also review detailed plans and provide suggestions and guidelines to support the political ambitions of local level through a regional perspective.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**

The Region Västra Götaland has done a regional system analysis for the transport sector. In this work the objective has been to find transport modes that need to be given prioritized functions. The conclusion of the study is that priority functions can be divided up into priority functions for transport of persons and for transport of goods.
The priority functions for transport of goods are e.g. accessibility to the port of Göteborg both regarding access to the Port by rail and specified routes for land based shipments.
A priority function for transport of persons is e.g. the general accessibility to the airport.
The system analysis for the transport system focus, firstly, on how transport can be done in a sustainable and appropriate manor. Secondly is to find strategies to achieve the priority functions and the strategies how to obtain different kind of solutions according to the "4-steps-principle". The 4-step-principle is used by Trafikverket (Swedish Transport Administration) to guide planners in choosing the most sustainable solution when facing different scenarios. The first step is "think before you act/what if" - do you need the current transport or can you choose different and more sustainable choice of transport. The strategies assume that a transport will take place, there is no strategy for avoiding a transport. The second step is to optimize the current capacity. The Third step is to reconstruct "can small physical adjustments be sufficient". Fourth step is new construction or major restructuring of current situation.

11. **How does the planning process interact with the research of new forms of mobility?**

There is no formalized interaction between planning and research. Interaction takes place on a project basis, and thus differs a lot between different municipalities and regions and over time. A current example from our region is Volvo's cooperation with the city of Gothenburg regarding autonomous vehicles in the project "DriveMe", where the impact of autonomous vehicles on spatial planning is one part of the project.
GR Is also involved in trans disciplinary projects combining researchers and practitioners within the Mistra Urban Future platform. One example is "WISE" well-being in sustainable cities. Various studies has been made such as

- Low carbon transitions for Gothenburg: potentials and well-being consequences
- Radical policies: well-being effects of congestion charges
- Decision models for executing sustainable transitions in the transport sector
- Re-defining urban progress
- Work-time innovations

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

Extensive work has been carried out by the city of Gothenburg, Västtrafik (The Regional Public Transport provider) and Trafikverket (Swedish Transport Administration) to synchronize relevant databases. The objective is to share data between the different organisations. One example is that news regarding traffic incidents is shared disregarding if it is related to road, rail, sea or public/private transport sector. The information is open for information providers such as newspapers, radio, TV but can not be considered as open data.
Input of data is collected from traditional tube counters counting number and type of vehicles on a specific road. Also more advanced systems such as flooting car data is collected via cameras placed over the roads. The cameras used in the Congestion Tax System also collects data about each specific vehicle. The data collected is aggregated so that specific personal data is not shared.
For passengers in the Public Transport sector three different systems are in place. The ticketing system provides information about travelling behaviour, Personal counting system measuring number of passengers on buses and trains while boarding or leaving.

Overall surveys are periodically collected on both national and regional level collecting behavioural data, where to and where from, purpose of journey and mode of transport.

13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**

The options that are proposed, through various ways, depending on which level that holds the initiative. Despite that, there are two authorities that have the formal responsibility for the final decisions being made. On the national level it is the Swedish Transport Administration and on the regional level it is the region of Västra Götaland (VGR). The process is similar for both authorities and is based on a bottom –up governance. The local level requirements , in terms of mobility, are coordinated through the regional level (for the region of Västra Götaland is also through the four region associations of local authorities) before they reach the national level.
During the whole process there are a number of factors that affect the final options such as: political agreements, policy documents, financial aspects for example a municipality's ambition to provide advance payment, national laws and regulations etc.

14. **How are the mobility and transport needs from the industrial areas taken into account?**

In local spatial planning, the mobility needs from external industrial areas are generally covered through car roads and generous amounts of (free) parking. As long as these areas are of the type far from the city center, wide spread and sparsely populated, this is probably the most rational way of solving the mobility needs.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**

By choice ex-ante evaluation will be used in forthcoming mobility plans

16. **How are mobility plans funded?**

Mobility plans are generally directly financed over the budget with tax money. The municipality level has direct taxation. The VGR level is also financed through direct taxation. GR is indirectly funded by local municipality taxation.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Name of proposed plan; "The Transport Strategy for the Gothenburg Region including the hinterland".
The goals are, with an overview on all modes of transport, to provide good transport solutions and related infrastructure. The objectives are to balance the positive sides of improved infrastructure investments, such as better connectivity and prosperity, with the negatives, such as environmental impacts and financial constraints. The Transport Strategy also focus heavily on an increase of Public Transport solutions. The Transport Strategy is co-created between all responsible organizations of transport, i.e. Road, Rail, Maritime and Air. GR and its regional political board has approved the strategy 3rd of December 1999.
The Transport Strategy (TS) has acted as a baseline from where new strategies and policies been developed. This strategy is not a proper mobility plan but as it has had such an important influence it is the plan of choice.

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

There is no data collected specifically in relation to the chosen plan -TS. However, there are other plans and strategies which are derived from the chosen plan. In these documents there are projects where data collection and follow-ups are made. Many project have specific targets that are measurable and can therefore be collected and updated. Data can be of both qualitative and quantitative nature.

Data is collected by The Swedish Transport Administration both on the major roads, as traffic flow data and by surveys, as behavior and travel, on an individual level. Traffic flow data is collected continually at specific points while the travel surveys are made periodically.
There is also individual based data regarding commuting to work place. This data does however not include mode of transport. Or other type of travel i.e travel to shops, services or to study. Sweden has up to 1990 collected census data. After that statistics rely on collecting data thru different data registries. This is collected at the Swedish statistical bureau (SCB).
On local or regional level other statistical mobility data is collected i.e school catchment areas.

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**

For public transports Västtrafik (Public Transport provider) has electronic check-in when validating your ticket and a customer counting system. The customer counting system is installed on several trains and busses and will count everyone entering the vehicle. (Some owners of period cards are not willing to validate their card at every journey).
For private transports there are e.g floating car data and passage of vehicle on a chosen spot using counting tubes.
The Swedish Transport Administration has a traffic data system called “Tindra”. Even more data is collected at the national bureau Transport Analysis.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**

The Swedish Transport Administration use a computer program called SAMPERS to create investment based forecasts regarding cost of fossil fuels, private income, future taxations on mobility, technical development and so on. SAMPERS use algorithms and assumptions to calculate a probable future situation. SAMPERS is used to make cost/benefit analysis and to compare alternatives when making infrastructure investments. SAMPERS is also used to modelling future traffic demands.
The modelling has been criticized to give the result of a forecasted increase of private car ownership and as a consequence a need for developing more road capacity. While, at the same time the national ambitions are to create, a fossil free/not depending on fossil fuels, mobility by 2030.
The Swedish Transport Administration is also using SAMGODS for modelling freight in a similar manor.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**

VGR has made a specialised study addressing this issue. By developing guidelines for public transport in rural and smaller urban areas Traffic supply program was complemented. The study also providing municipalities and residents a clearer picture of which service offering that could be expected in the long term in different places around the Västra Götaland.
Regional traffic supply program for Västra Götaland describes the long-term development of public transport in the county. The overall goal is to increase the public transport market share.. One of the strategies to achieve this is to offer a basic range of travel opportunities in rural and small urban areas.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**

Issues related to accessibility is not taken into account more than in a very general manner. In lately developed strategies and plans these questions are handled in a more extensive way. For example connected to the strategy for public transport where there is a separate strategy handling people with disabilities in a traffic supply program.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

Extensive work has been carried out by the city of Gothenburg, Västtrafik (The Regional Public Transport provider) and Trafikverket (Swedish Transport Administration) to synchronize relevant databases. The objective is to share data between the different organizations. One example is that news regarding traffic incidents is shared disregarding if it is related to road, rail, sea or public/private transport sector. The information is open for information providers such as newspapers, radio, TV but can not be considered as open data.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
West Swedish Agreement	Prioritization of road networks based on functionality
Context: The West Swedish Agreement is a series of infrastructure initiatives for trains, buses, trams, bicycles and cars stretching to around 2026 which will contribute to positive and sustainable growth in West Sweden. These initiatives will make it easier to get around, will lead to better and more attractive public transport, more reliable transport for business and industry and expanded commuting services for everyone living, working or studying throughout West Sweden. And a good environment. The Agreement is funding projects until 2026 but the Congestion Tax will run until 2035.	The road network is called Functional priority road networks and provides a comprehensive planning method for the roads where it is important to preserve and increase the availability of prioritization of actions under the four-step principle. How roads should be handled in various stages of planning and trade-offs between different interests. The aim is to identify the roads that are most important for accessibility both regionally and nationally. Parallel to the designation, a manual is developed that describes a common approach to the prioritised roads to ensure availability in a coordinated and strategic manner. To agree on a priority road network focusing on accessibility creates a number of added value. The priority road network will be used as a basis for planning in future planning processes. By pointing out pathways, with a focus on accessibility, and to agree on its main features, we have a good basis for various activities and projects.

Main authorities and stakeholders involved: Swedish Transport Administration, City of Gothenburg, Region Halland, Västra Götalandsregionen, Västtrafik and GR	Main authorities and stakeholders involved: Swedish Transport Administration, City of Gothenburg, Region Halland, Västra Götalandsregionen, Västtrafik and GR
Web links: http://www.trafikverket.se/nara-dig/Vastra-gotaland/Vastsvenska-paketet/ http://www.youtube.com/watch?v=r7P4PO5JG8I&list=PL0C23461A63FCED5F&index=9&feature=plpp_video https://www.youtube.com/watch?v=V6hgFrtGrGc&list=PL0D26CCF30BCFA619&index=2	Web links: Swedish only http://www.trafikverket.se/for-dig-i-branschen/Planera-och-utreda/samhallsplanering/funktionellt-prioriterat-vagnat/
Why is the practice considered as 'good'? The agreement is based on a planning model we call Regional Consultations. Can also be referred as Soft Planing. Five different Consultations Rounds has taken place between 2001 and 2013 dealing with regional issues such as collaboration, goals and strategies regarding regional development. Stakeholders in these Consultations has been the13 local political assemblies and the Council of GR. The Consultations created a common regional understanding between the stakeholders and this resulted in political regional agreements. Based on these agreements the West Swedish Agreement was made also involving other regional and national stakeholders. As the Agreement involves not only infrastructure investments in both Rail and Road it also included investments in capacity enhancing investments such as Bus lanes, Park and Ride, longer platforms at train stations and hubs. The investments included in the agreement is focusing on moving mobility by car to mobility by public transport. By partly using Congestion Tax for funding a strong incentive for the shift was created. The Agreement also Includs soft measures such as Mobility Management.	Trafikverkets (Swedish Transport Administration) intention with the prioritization of road network based on functionality is not bad but our criticism is that the accessibility to the road network only focuses on lorries, buses and cars. The accessibility for other modes of transports (i. e. rail transports) and users (i. e. cyclists and pedestrians) are not accounted for. After all the road network is only one part of the transport system.

D) CURRENT EXPERIENCES

Has your organization already been involved in a mobility planning process?

Yes. See the Good Practice. The practice is not a standard mobility plan as it is not following a methodology but it has many of the same objectives.

Were you directly involved in the activities or did you engage an external expert?

GR is directly involved in all parts of setting up the West Swedish Agreement. Negotiation-Formulating projects to be included -Planning the Congestion Tax System-Initial project- Coordinating major projects-Evaluation.

GR has taken part as one stakeholder in the Political steering group, Management Team, Coordination Team and all work groups.

GRs contribution has had focus on the overall objectives of the West Swedish Agreement such as regional development according to the policy document "Sustainable Growth – goals and strategies focusing on regional structure". One of the targets for this policy is regional enlargement as a strategy for better matching in the labor market. The West Swedish Agreement can therefore be seen as the strategy for realizing the policy document.

What kind of methodology did you use?

The negotiation of the West Swedish Agreement was done as a negotiation between National and regional/local stakeholders. This means that the method used is "We decide and We commit to invest".

Step 1. Political agreement based on a broad understanding of targets and major projects that should be included in the funding limited to 34 billion Swedish Kronor over a period of 15 years.

Step 2. Evaluation and design of the Congestion Tax. The Congestion tax revenues will fund investments It has also the objective to reduce congestion and fulfill environmental targets.

Step 3. Continual evaluation regarding development of the situation of congestion. The level of the Congestion Tax will follow inflation.

Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?

The implementation of the Congestion Tax influence on congestion and traffic flows are continually evaluated. The set infrastructure investments are analyzed in relation to impact on the overall traffic system. Both during development of the projects, regarding Mobility Management during building, and the effects after it is finished.

Are there any actual results/actions due to the mobility plan?

The Agreement is under implementation. All infrastructure investments will be concluded in 2026. The Congestion Tax is expected to carry on until 2034.

Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?

One key question is how to change the mind set of regional stakeholders, politicians, planers and the public from thinking of mobility as something that always can be solved by using a car.

The preferred and more abstract mind set is how mobility can be part of solving the problem of how to obtain the benefits located elsewhere in an effective manor by taking into account issues such as cost, affordability, inclusivity, environmentally and so on. Mobility that also is resilient and that combine sustainability.

HELSINKI

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. Which local authorities are in charge of mobility planning?

Mobility planning takes place on several levels in Finland. There are drawn up regional transport system plans, municipalities' own mobility plans, strategies, and plans on sustainable and safe transport.

National level: The MAL Agreement on Land use, housing and transport of large urban regions includes several strategic measures aiming at comprehensive development of urban transport and mobility.

Regional level: The Helsinki-Uusimaa Regional Council (HURC) coordinates transport planning in the Uusimaa region (26 municipalities).

Helsinki Regional Transport Authority (HSL), who is in charge of preparing the Helsinki Region Transport System Plan (HLJ), is responsible for planning on regional level in Helsinki metropolitan area. The Helsinki Region Transport System plan includes the 14 municipalities of the region.

Municipal level: HLJ-Plan is considered as a regional mobility plan, and it steers the mobility planning of the cities and municipalities. Most of the municipalities are using HLJ-plan as their SUMP. Cities are able to prepare their own local mobility plans. For example, Helsinki has started to prepare their SUMP as a local plan in addition to HLJ-Plan.

2. Please describe the cooperation among the authorities in the field of mobility on a local and regional level.

HSL is responsible for preparing a regional transport system plan (HLJ), and of the work related to it. The work is steered by Helsinki Metropolitan Region Advisory Board for Land use, Housing and Transportation (MAL Advisory Board) and the HLJ-committee. These bodies consists of

- the representatives of the seven member municipalities of HSL and
- representatives of KUUMA-region (Central-Uusimaa region, 7 municipalities)
- representatives of state level transport and environmental authorities: The Finnish Transport Agency, Helsinki-Uusimaa Regional Council (HURC) and the Centre for Economic Development, Transport and the Environment in Uusimaa (ELY-Centre). The HURC is a key member, as it coordinates the Helsinki region and the Uusimaa region (26 municipalities) broader transport planning.
- The Ministry of Transport and Communications and the Ministry of Environment.

The HLJ process includes preparing a framework program for the planning process, which describes the process and includes its points of emphasis. A decision on the framework program is made by the Helsinki Region Cooperation Assembly (HSYK), which is the cooperation body of the leading elected officials of fourteen municipalities in the Helsinki region and the Executive Board of HSL

3. Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?

National level:

In Finland, the Land Use and Building Act steers land-use planning including transport. In addition, there are two other relevant laws in Finland concerning transport planning: the law of environmental impact assessment and the law of the assessment of the impacts of plans and programs (SEA). According to the SEA Act, Helsinki Region Transport System Plan (HLJ) is a plan, which requires this impact assessment and participation process. MAL Agreement, HLJ and city level land-use plans also comply with the National Land-use Objectives set by the Ministry of Environment.

Regional level:
According to the Regional Development Act, transport system planning is the responsibility of the Regional Councils, with the exception of Helsinki region, where the task is assigned to HSL. HLJ-Plan is integrated with the Regional Land Use Plan of the Helsinki-Uusimaa Region.
The preparation of the Helsinki Region Transport System Plan is based on the Act on Cooperation Between Municipalities in the Helsinki Metropolitan Area in Waste Management and Public Transport (829/2009). According to the Act, the municipalities in the metropolitan area collaborate on transport system and public transport planning. This act applies to transport system planning in Helsinki Metropolitan Area (4 cities) but the HLJ-Plan is prepared for the Helsinki Region (14 municipalities) in voluntary co-operation. According to HSL-agreement, the tasks of the authority has to be organized and managed productively, economically and cost-effectively so that the set of values are customer orientation and interaction with users and municipalities
City level:
The planning processes in cities do not need to be extremely strict, as long as they are consistent with the state level goals, which are set to guide the planning and implementation of land-use and transportation and also HLJ-Plan. On a city level, politicians decide on city-specific goals regarding, for example, strategies.

4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**

National level: Land-use planning that includes transport planning are steered by the Land Use and Building Act. The law of environmental impact assessment and the law of the assessment of the impacts of plans and programs (SEA). According to all these a land use plan has certain steps: 1) setting targets and planning participation and impact assessment, 2) draft of the plan and 3) plan proposal. With regards to land use planning, the Land Use and Building Act defines the interaction procedure, impact assessment and the steps of the planning process, but makes no mention of the schedule.
Regional level:
MAL process, which was first carried out during the previous HLJ round, is recurrent and goes hand in hand with the HLJ process. The aim of the MAL (Land use, housing, transportation) process is to prepare a regional MAL Agreement, which forms the basis for HLJ plan. HLJ plan is partly built on the MAL vision and goals. This goes in four year periods and we have the second process going on. (The first was 2011-2015). While the HSL law includes the preparation of HLJ, it does not specify the stages of the process, or mention the four-year-cyclicality. In practice the schedule is directed by the City Council's council term. The SEA Act defines in part the steps of the HLJ process, as it requires extensive inclusivity and impact assessment from the HLJ work.
City level: On a city level Helsinki has its own political instruments, specific strategies and planning documents (e.g. cycling promotion program, city logistics action plan, parking policy and smart traffic plan). Also their schedule is partly directed by the City Council's council term.

5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**

In Helsinki region the mobility planning process is very formalised and closely connected to the planning process on land use and housing. On a regional level the official forums for cooperation in the HLJ planning process are

- Helsinki Region Cooperation Assembly (HSYK),
- regional MAL (Land use, housing, transportation) Advisory board and
- HLJ-Committee, where key actors such as ministries, Finnish Transport Agency, ELY-Centre, municipal level policy makers, key officials and experts in different transport themes, are represented. (See 1st inventory)

The committees meet regularly approximately four times a year. Transport system planning is carried out in close cooperation with housing and land-use planning sectors in all levels of planning. MAL process on land use, housing, transportation, which was first carried out during the previous HLJ round, is recurrent and goes hand in hand with the HLJ process. The aim of the MAL process is to prepare a regional MAL Agreement, which forms the basis for HLJ plan. HLJ plan is partly built on the MAL vision and goals.
Also tThematic planning work takes place with various partners in cyclically recurring meetings (e.g. regional expert groups related to logistics and cycling). They provide guidelines to HLJ work and by doing so, to city level planning as well.
The different departments of HSL are key partners in transport system planning. For example, the Department of Public Transport is a strong actor and feeds the residents´ response into the process. The department of Customership and Marketing organizes mobility management and also participates in projects which promote walking and cycling.
The business sector has been involved in the planning process, but its participation will be emphasized more in the future.
On a city level, land use and transport planning are covered by the same department and the planning processes are intertwined. Other stakeholders have the opportunity to influence the plans through the referral procedure. The approval process follows the city's normal decision making formula.

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**

Regional level:
Shared objectives are set as a part of the HLJ process through the interaction procedure defined by the SEA Act). HLJ 2015 objectives are based on the HLJ 2015 framework program and MAL vision and objectives. They have been approved by HSYK and HLJ committee as basis for the HLJ plan.
An extensive referral procedure among the actors of the region was also carried out regarding the HLJ objectives. The objectives and draft plan are circulated to comments to local and regional authorities and to other organizations. Formal consultations, seminars for policy makers and general public as well as cooperation meetings are arranged in different stages of the planning process, also in selecting objectives. As the HLJ planning is strategic, the involvement with citizens is less intense than what is recommended for a SUMP, as the main focus groups in the HLJ planning process are officials and elected officials, representatives of industry, and other organizations, NGOs including. However also citizens are given the possibility to comment on the plan and its objectives, for example via web page of the plan.
As basis for setting the objectives, outlooks on current state and the future scenarios were also prepared as a part of planning process. These outlooks identify strengths, weaknesses, opportunities and threats related to changes in the operating environment. The aforementioned HSL barometer and the study on travel profiles also served as basis for setting the objectives. The objectives are also based strongly on extensive research data collected on e.g. existing mobility, land use, and other research projects conducted under the planning process.
City level:
The city level planning processes are carried out within the city, where an internal steering-group is assigned, if needed. The objectives are ultimately chosen by the City Planning Committee and, when necessary, by the City Board and City Council. The scale of the plan determines on which level the decision making takes place.

7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**

The goals of HLJ 2015 emphasize the accessibility of the region, flow of traffic as well as social, economic and ecological sustainability. They are based on objectives of the HLJ framework program and MAL Agreement.

The objectives of the HLJ framework program are:

- Strengthening the effectiveness and strategic robustness of the transport system plan;
- smooth coordination of land use and transport,
- reduction of traffic volume and
- clarification of both traffic related policy choices and the roles of different modes of transport.

MAL objectives included in the HLJ 2015 plan involve:

- Creating a highly accessible region through sustainable modes of transport,
- reducing the need for mobility and
- increasing eco-efficiency of the transport system.

Targets for accessibility and fluency of transport are also set in the HLJ 2015 plan:

- Travel and transport chains to both near and far are smooth and reliable;
- the competitiveness of public transport is improved;
- cycling is an attractive and effortless option;
- travel times are predictable and congestion is under control;
- walking paths and environment operate on pedestrians' terms.

In addition to this, targets for social, economic and environmental sustainability and responsibility have been set in the HLJ 2015 plan:

- Mobility is safe with every mode of transport;
- different user needs are considered in the various options provided for every day mobility;
- choosing healthy and responsible modes of transport has been made easy;
- the negative effects of transport on the environment are reduced;
- the transport system is further developed cost-effectively.

It is likely, that in the upcoming planning process of MAL 2019, the targets will be detailed more and can include e.g. modal split levels of sustainable modes of transport.

For its own planning processes, the city of Helsinki has also set some more specific targets. For example in the cycling development plan, a target has been set to raise the share of cycling to 15% of the modal split by 2020.

8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

Both approaches are included in the planning process, but stronger emphasis is on "what to" approach. As a basis for the regional land-use plan prepared by Helsinki-Uusimaa Regional Council, several structural models were compared and estimated. Out of them, the most economical and ecological structure was chosen as a basis for regional development. The plan is based on so called finger model relying on rail transport. Transport planning and land use planning in cities follow this regional plan.

The key objectives have been chosen based on the current-state and future scenarios, and the supporting SWOT-analysis, carried in the HLJ work. This is in accordance with the regional vision presented in the MAL Agreement. Population and workplace projections, prepared in cooperation with the land-use plan, were utilized when analysing the directions of growth in the HLJ 2015. As a basis for the impact assessments, five projection options for the time periods of 2025-2040 and 2040-2050 were carried out.

With the Helsinki City Plan, including city level land-use and transport planning, the fastest growth projection is being prepared for. The different scenarios/projections are also being considered in the project specific plans of the city. Target-oriented planning is becoming more common.

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**

HSL, the party responsible for the planning, is a public sector operator. Another public sector operator involved in the planning process is HKL, who manages metro and tram transport.

As the bus transport operator in the region is chosen through a recurrent competitive bidding, the operator changes. Other than through the statutory planning procedure, where they have the opportunity to issue statements in the different stages of planning in the HLJ process, these operators are not heavily involved in the planning process.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**

Helsinki Region Transport System Planning process includes examining transport links to the region's harbours and the Helsinki-Vantaa airport. One key to fluent transport connections also to and from the airport and harbours is a well-functioning Helsinki Region Transport system altogether. As a result of the HLJ planning process, the Ring Rail Line, a train connection to the Helsinki-Vantaa airport, has been built (opened 2015). Road and rail connections to the Vuosaari Harbour have also been included in the planning process.

In Helsinki's land-use and transport planning, the links that need to be developed, are discovered. To ensure functioning traffic and freight connections through the means of transport planning, The Port of Helsinki is involved in the planning process as a stakeholder.

11. **How does the planning process interact with the research of new forms of mobility?**

Both research and changes in mobility are taken into account in the current-state and future outlooks and the extensive stakeholder cooperation of the HLJ plan. As a part of the HLJ process, separate reports on various themes are also ordered from consultants to support the planning. Also mobility research studies that are made in the Region to investigate the mobility trends of inhabitants include questions on new forms of mobility.

As a part of the planning process, Helsinki is actively observing trends and changes in mobility. Helsinki aims at enabling the development of new modes of transport (e.g. MaaS, electric charging stations, the strategy on electric transport, the charging station alignment).

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

Data is collected widely on e.g. road traffic volumes and vehicle performances. On public transport, data is collected through the electric travel card system regarding e.g. numbers of passengers on trains, buses and trams. As basis for transport planning, an extensive mobility survey is also carried out every few years. Data is collected via questionnaires and nowadays also electrically. Use of sensor data is also increasing.

Some of the information is available to the public as open data. Databases including personal data, like some of the travel card data, are not published as open data. Even though stop-based passenger count collected by HSL is travel card data, it includes no identifiable personal data.

Regional Helsinki Region Infoshare website holds a lot of mobility related data, such as park and ride facilities, traffic accidents, cycling barometer and the results of a pedestrian survey. This data is available to both general public and developers.

HSL collaborates with developers and opens interfaces to e.g. MaaS pilots according to need.

The city of Helsinki uses its own data as well as HSL's data. The city has electric counting stations for bikes and cars, and carries out manual counting of bikes and pedestrians. Some of the counting stations are changed every year.

13. How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?

Impact assessments based on traffic forecast models have been carried out throughout the entire drafting process of the HLJ plan. They have been utilized in the formulation of the development strategy and in the prioritization of the measures in the HLJ draft.

Population and workplace projections, prepared together with the land-use plan, were utilized when analysing the directions of growth in the HLJ 2015. Five projection options, which went through an extensive evaluation process, were carried out for the time periods of 2025-2040 and 2040-2050.

The next steps of further developing the preliminary basic strategy of HLJ into a HLJ draft were an assessment of rail projects and sensitivity analyses of various essential measures (e.g. land-use densification, pricing, integrated public transport area, price level of public transport and car ownership).

Next, a preliminary draft and a rough description of the comparison option were drawn.

Cost estimates are made regarding the spearhead projects of the HLJ plan. Suggestions on the division of cost between the state and the municipalities are based on these estimates. In accordance with the SEA act, HLJ process involves an extensive impact assessment. The themes of the assessment were: impacts on accessibility and community structure (SAVU-tool); impacts on mobility and transport; impacts on the fluent flow of road and street networks; impacts on the environment and safety, and impacts on socio-economic effectiveness.

In accordance with the Land Use and Building act, plans made on the City of Helsinki –level include extensive impact assessments. In transport planning, impact assessments are mainly carried out on a project level; cost-benefit analyses, comprehensive economic assessments and business impact analyses are carried out on individual projects. The projects must also be in accordance with the EIA act.

14. How are the mobility and transport needs from the industrial areas taken into account?

Logistics, planned together with the actors of the sector, is a part of HLJ.

In the City of Helsinki master plan process, different types of land-use areas, such as industrial areas, are determined. Traffic is coordinated with land-use planning. Heavy traffic is directed to specific routes, and is prohibited from driving in certain directions. (For example truck traffic from West harbour to the Western highway). In Helsinki, vehicles larger than 12 meters are prohibited from the inner city.

15. Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?

HSL has a variety of models for the use of ex-ante evaluation, it is one of the key elements in estimating the effects of the plan, e.g. Emme model, an accessibility model, extensive expert analysis. The monitoring data made by municipalities is collected and combined to cover the region and also HSL collects monitoring data in some cases. Expost evaluation is made on the biggest transport system changes, e.g. the West-Metro, Ring Rail Line, the renewing of the public transport ticketing and zone system. Finding out the impacts of such transport system changes include a variety of both before and after studies.

The city of Helsinki uses both ex-ante evaluation and ex-post monitoring. Prior analysis includes computer-based traffic modelling. The costs and benefits of different options are also explored and the comprehensive economic impacts analysed.

Some ex-post evaluation is carried out, but perhaps not enough.

Monitoring is mainly basic traffic counting. There is also an annual review on the progress in reaching the objectives of different programs and strategies.

16. How are mobility plans funded?

The work done on the HLJ transport system plan is a part of the basic operations of HSL, and is therefore funded through financial contributions from the municipalities and ticket revenues. The spearhead projects and other measures introduced in HLJ are co-financed by the state and the municipalities.

The HLJ plan is funded by the seven owner municipalities of HSL in their municipal shares, the other 7 municipalities that are not owners of HSL also fund the making of the plan in relation to the number of inhabitants. The state pays for 50% of costs in regard to fees of consultants used in the making of the plan.

The city of Helsinki funds planning and its own projects. The spearhead projects of Helsinki may be funded by the state, if the projects are considered to produce benefits to the society on a larger scale. (For example the large scale cross-traffic project, Jokeri Light Rail Line, in Helsinki and Espoo). The City of Helsinki conducts a 10-year investment program, were all the projects are listed. It is updated annually and included in the political decision-making process. The maximum budged is determined by the City Council. HKL contributes financially to tram and metro projects.

ELY-centre and municipalities fund smaller scale regional measures.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Name: Helsinki Region Transport System Plan 2015 (HLJ2015)

Goals: The goals of HLJ 2015 emphasize the accessibility of the region, flow of traffic as well as social, economic and ecological sustainability. The five policy statements of HLJ 2015 are: The funding of the transport system is strengthened; The service level of sustainable modes of transport is improved; Information and steering tools are effectively utilized; The needs of logistics and flow of road traffic are catered to, and results are achieved by effective measures.

Time-frame: HLJ2015: 2015-2050

Responsibles: HSL (Helsinki Region Transport) is responsible for preparing HLJ-plan. The work is steered by the HLJ-Committee including representatives from the state and each of HSL´s 7 member municipalities and from Central-Uusimaa Region (KUUMA-region).

Targets: Whole transport system, transport modes, the most important infrastructure development projects on the region

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

The data used in regional transport planning comes from several organisations, but HSY brings together most of the regional administrative data by combining the basic registers of four cities into a common data bank, where the data is stored as spatial information to be used by planners and developers. The municipality level data on workplaces, commuting statistics etc. are delivered by Statistics Finland. HSL produces a lot of information, like travel card data from users and The Extensive Traffic Survey which is conducted in 3-5 years. On the main roads, the traffic data is collected with automatic calculators, of which the Finnish Transport Agency is responsible. The cities carry out traffic counting on street networks both with automatic calculators (cars and bikes) and manually (pedestrians). The information is used as basis for the models. The numbers of cyclists are studied throughout the

entire year, and certain dates are used in reporting to illustrate the development. Mover flows are analysed both with censors and through the travel card data. Mobile data regarding the mobility of people can also be purchased from mobile operators.

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**

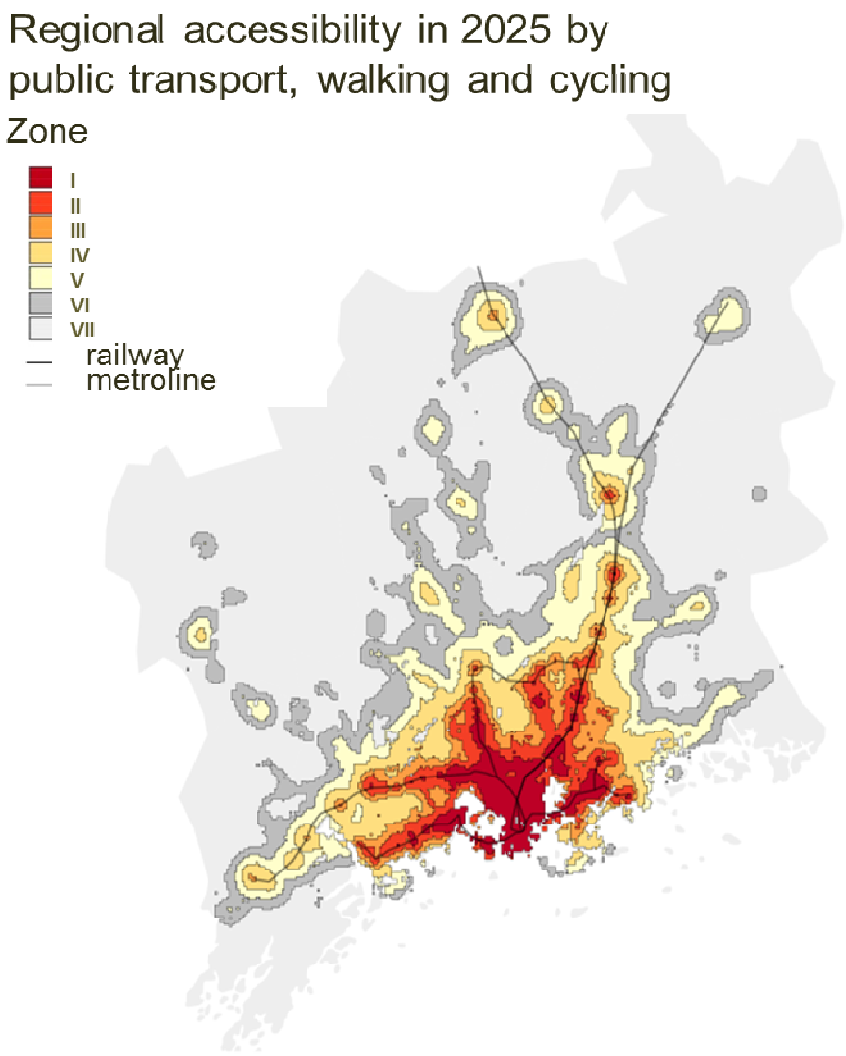
Research data is needed to support transport system planning. In addition to surveys related directly to public transport, e.g. passenger satisfaction surveys (all year round, cover over 20,000 passengers annually), the international BEST survey, number of passengers, one-off surveys from various topics etc., HSL conducts various types of studies and surveys. These include e.g. origin-destination surveys and pedestrian and bicycle traffic studies, as well as monitors traffic volumes and speeds and trends in the modal split and car ownership.

Travel card data, though the problem is, that using the travel card reader is not mandatory on trams or trains. Automatic calculators and censors are also very useful. The City of Helsinki has had encouraging experiences of carrying out manual and automatic counts; the development process has been long and the results have been good.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**

Modelling is used in all transport planning. The HLJ process utilizes HELMET –model (EMME –program), with which the transport network and the residential and business areas connected to it can be represented.

With this model, it is possible to model the entire transport network in a way, where changes in residential areas induce consequent changes in traffic. In addition to HELMET –model, the City of Helsinki also utilises two other models. One of them is DYNAMET –model, where the inner city road network is modelled and used to examine, how the traffic is divided between different routes. It is more precise than the HELMET –model. The third model is microsimulation model VISSIM, where the parameters and actual constraints (e.g. traffic lights) of the road network and intersections are user-definable. In addition to the EMME model HSL uses Accessibility models, that are mathematical models that describe how accessible the region is by sustainable transport modes (see picture).



4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**

One focus of the MAL planning process is intensifying regional land use. HSL's line network planning aims at planning the public transport lines in a way, where they cover the greatest possible proportion of the population, and manage to serve sparsely populated areas as well. Service frequency is often lower. Regional land use planning, supported by transport planning, aims at densification and completion of areas.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**

Accessibility is one of the starting points in all planning. A low-floor structure has been brought into use with trains, buses and trams. Some seats have also been specifically reserved for e.g. elderly passengers. Public transport tickets are financially supported by the cities (about 50%), and different groups (e.g. students) have different pricing.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

Traffic surveys and traffic forecast models are important tools in transport system planning. The surveys provide extensive observation data that is then used to produce basic key figures for the movement of people and goods. The key figures include, for example, total numbers of journeys and goods deliveries as well as the modal shares of the different modes of transport in the region. The data is also used for traffic forecast models. Traffic forecast models are needed for the assessment of the impacts of land use and transport system development on traffic, for example, for predicting changes in traffic volumes and their impacts in different points of the transport network. The Extensive Traffic Survey conducted in 2007-2008 produced basic data on the movement of people in the Helsinki region commuting area. The data was used for producing the key figures and forecasts needed. In 2012-2013, the traffic survey dealing with passenger transport was updated in the 14 Helsinki region municipalities, and representative data was collected on goods transport. The most geographically central parts of the traffic forecast models were updated on the basis of the new data.Data is open to all authorities. HSL has a data bank on mobility related information, which is increased and updated. While all the information is theoretically available, IT problems caused by the use of different types of information systems may restrict the use of the information in the cities.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: The City of Helsinki: In transport system planning the priorities are; walking, cycling, public transport, freight transport and cars in this order. The order forms the basis for all planning.	Name: Planning and implementation of the West metro. The project is largely carried out by a limited company (Ltd.), who does not follow a publicity principle. The lack of publicity of the planning and decision-making documents makes monitoring more complicated.
Context: All transport planning	Context: The goals of the HLJ plan are too general, which means the evaluation of the results is more qualitative than quantitative. This problem will be focused in the MAL 2019 planning process and numerical target levels will probably be set at least to some extent.
Main authorities and stakeholders involved: The City Council has approved this planning principle, making it valid and binding to all city departments and sectors, including the budget. For example a big budget has been granted for developing cycling, and objectives have been achieved.	Main authorities and stakeholders involved: West Metro Company and the Board of West Metro Company
Web links:	Web links: http://www.lansimetro.fi/en/home.html
Why is the practice considered as 'good'? The position and progress of sustainable modes of transportation is ensured through political will.	Why is the practice considered as 'bad'? The delay in West metro project has been published incoherently and the main reasons of the delay are not available for the decision makers and the general public. The problems and risks were told the main stakeholders too late.

D) CURRENT EXPERIENCES

Has your organization already been involved in a mobility planning process?

HSY: HSY takes part in the HLJ work by being partly responsible of the MAL –monitoring, by contributing to impact assessments on different themes (including air quality and health and climate change), and by being a part of the MAL board.

HSL: A new HLJ round is just about to start.

The City of Helsinki: is involved in drafting the HLJ plan and is currently working on SUMP.

Were you directly involved in the activities or did you engage an external expert?

HSL: HLJ plan is to a large extent HSL's own preparatory work. Consultants are used for background studies, impact assessments and the arrangement of interactive events.

The City of Helsinki: SUMP is carried out as its own project. It is a combination drawn from existing and approved plans and strategies, and is based on the HLJ plan.

What kind of methodology did you use?

The land use, housing and transport system plan, that will be finished in 2019, is a process in which interaction with different parties and different focus groups is a key element. Studies will be made on The main elements include including concrete measures on short-term and increasing resilience on long-term planning. A main starting point for the planning is the need to cut down the greenhouse gas emissions of transport by (at least) 39%.

The central studies of the making of the next HLJ (MAL 2019) plan will include:

- a study on "Objectives, measures, and results of the transport system: what has been done in the past years and how procedures could be further developed
- a networked region: nodes and the public transport trunk network – what kind of cost-effective alternatives can be found to develop land use and public transport in interaction
- a networked region: jobs, services and logistics outside nodes
- the new phenomena, services and technologies of transport
- The emission reduction target measures of the Helsinki region by 2030 – how to meet the targets set

Also, the plan for interaction and communication is under preparation and will be finished in the beginning of 2017 In addition to the traditional ways of interaction: seminars, meetings, websites, questionnaires, social media will be utilised more and gaming as a means of participations will be studied and a possible pilot will be done.

The City of Helsinki: A normal planning process is always carried out against the back drop of transport modelling. The process is also strongly connected to land use planning, i.e. master plan and other planning work and particularly housing. SUMP process is about to start, and methods are yet to be decided.

Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?

The City of Helsinki: The objectives of the plan are annually reviewed and a mid-term review is drawn. SUMP is still in preparation stage.

Are there any actual results/actions due to the mobility plan?

The City of Helsinki: A development plan on cycling has been drawn and measures have been carried out using the money from the budget.

Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?

BUDAPEST

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. **Which local authorities are in charge of mobility planning?**

   There is no state regulation for mobility planning in Hungary. The mobility management is organized at two levels country wide: national government (represented by the relevant ministry, NFM) manages regional transport, while local municipalities are managing local transport. The regional level has no relevance in Hungary in the field of transportation planning.

   In Budapest the district municipalities have little responsibilities in mobility planning, which is mainly the task of the Municipality of the city of Budapest. The municipality established BKK Centre for Budapest Transport as a transport authority in order to integrate and manage local transportation. BKK is responsible for the mobility strategy of the city, orders public transport services, sells and controls tickets, manages transport development projects. The relation between the Municipality of the City of Budapest and BKK is regulated by a task assignment and PSO contract. The Balázs Mór Plan (BMT) is the first sustainable urban mobility plan of Budapest. The plan was prepared for the Municipality of the city of Budapest by BKK based on the authorisation and programme of Mayor István Tarlós. The key concept of BMT is the integration, it reflects the development of Budapest and its urban area in line with the approved urban development plans.

2. **Please describe the cooperation among the authorities in the field of mobility on a local and regional level.**

   Budapest itself has 23 district municipalities plus the Budapest Capital municipality as a separate body, which acts besides them. These bodies have to work together with the surrounding settlements municipalities, which is quite a big challenge of cooperation. The public transport organizing tasks belong to the Capital municipality.

   Based on the transformation of the transport governance system of Budapest which began in 2010, all transport development actions are integrated in a consistent, well-coordinated form, separated from the owner, control and service operator levels, within the framework of BKK. The transport system of the metropolitan area is operated separately, but there is a certain level of coordination.

3. **Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?**

   The following documents are available:

   - National Development and Regional Development Concept (OFTK, 2014)
   - Pest County Regional Development Concept (PMTFK, 2013)
   - National Transport Strategy (NKS, 2014)
   - National Railway Development Concept (OVK, 2014)
   - National Environmental Protection Programme (NKP, 2014)
   - Budapest Regional Development Concept (BTFK)
   - Budapest Danube Area Utilisation Concept
   - Budapest Tomorrow and the Day after Tomorrow (The Cultural Capital of the Danube)
   - Budapest Track-Bound Vehicle Strategy 2013–2027 (2013)

Out of the listed documents, the Budapest and Pest County Regional Development Concepts contained several joint proposals for the development of the capital city region, which are priorities among the objectives of the Balázs Mór Plan.

4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**
   There is no overall legislation to ensure each step of mobility planning, but the National Integrated Transport Development Operational Program has set the condition for EU supported projects to be financed to have an approved SUMP. The General Assembly of the Municipality of the city of Budapest has approved the SUMP's objectives in 2015 and decided to continue the planning process with the project evaluation and developing the monitoring system.

5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**
   There is no formalized board among the authorities in charge of mobility planning, but BKK has planned to start a periodical discussion next year in frame of SUMP planning. The spatial planning has formalized, legislated cooperation on each level of planning (citizens, authorities, institutions).
   An important strategic task of mobility planning is to ensure harmonisation with regional policies. For this purpose, transport conditions in the metropolitan area of Budapest are defined in the Budapest 2030 long term urban development concept and the Budapest Urban Planning Regulations in harmony with their functions. As a sample of connection between spatial planning and mobility planning, BMT is based on the city development strategy of Budapest, integrating it's aims and goals.

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**
   BMT underwent public and institutional consultation along the lines of a predetermined communication plan that defined the tools, scheduling, and tasks of maintaining contact with the affected social groups. During the course of the institutional and public consultation, the city's residents played an important role; in addition, the opinions of social and civil organizations, transport service providers, research and education institutions, and official bodies were also of prominent significance. During the course of planning, it was important to ensure that the affected parties be provided the possibility of participating in planning and receive information on its method. The information and the BMT consultation material was distributed for commenting to more than 200 institutions and organizations, and a website was then prepared to directly receive comments submitted by the public. Electronic publication played the part of calling attention to the possibility of participation, providing information on the importance of the objectives, providing a brief introduction to the project, and receiving comments made by the public. The information on the details of public consultation was made available on a continuously updated newsfeed on the Plan website.
   The success of the public consultation is proven by numbers: 1200 comments were submitted regarding the Plan and transportation of Budapest in a total of 272 written opinions. A technical workgroup evaluated the opinions. The majority of the opinions contained constructive, supplementary recommendations. The technical workgroup ordered and evaluated all comments, on the basis of which it defined recommendations for amending the Plan.

During the course of institutional consultation, separate meetings were held with each of the players affected by transport development in Budapest in the interest of consulting on the recommended changes. The General Assembly of Budapest decided on approving the recommendations and continuing planning. As a result of the recommendations that arose during public consultation, several measures were added to the BMT and numerous measures were supplemented or clarified.
The objectives and measures of BMT was approved by the General Assembly of Budapest Capital in 2015.

7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**

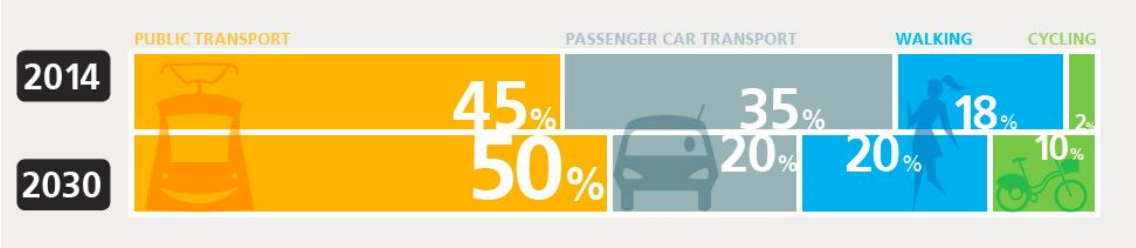
GENERAL GOAL OF TRANSPORT:

The transport system of Budapest should improve the competitiveness of Budapest and its region and contribute to a sustainable, liveable, attractive and healthy urban environment.

THE SPECIFIC OBJECTIVES OF TRANSPORT DEVELOPMENT:

I. LIVEABLE URBAN ENVIRONMENT: transport development, integrated into urban development by influencing transport needs and mode selection, reducing environmental pollution and enhancing equal opportunities
II. SAFE, RELIABLE AND DYNAMIC TRANSPORT: the integrated development of transport modes through efficient organisation, stable financing and target-oriented development
III. COOPERATION IN REGIONAL CONNECTIONS: regional integration of Budapest with the help of a transport system that supports regional cooperation and strengthens economic competitiveness

The goals of modal split:



8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

When BKK have planned the BMT the new mobility plan of Budapest we gave up the old "predict and provide" planning policy and we had decided to approach from a holistic point of view. The BMT is an example of the new trend of "aim and manage" strategy making methodology.

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**

The BMT consultation material was distributed for commenting to more than 200 institutions and organizations. Most of them were active and took the opportunity to give comments and suggestions. The main actors including local and regional PT operator companies were asked for discuss their comments on different forums, but the process was not formalized.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**
    The airport accessibility and ship transport issues are integrated in BMT. BKK have different measures developing the airport connections, and the public transport on river Danube.

11. **How does the planning process interact with the research of new forms of mobility?**
    The planning process is open for new ideas and projects in accordance with the general objectives and certain measures like car and bike sharing as part of the sharing economy.

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**
    The last representative, large-sample survey was conducted in Budapest in 2004., and since 2014 there are regular 4 yearly medium size household surveys as a part of the maintenance of the macroscopic transport model of Budapest. A decade-long deficit was eliminated by the new macroscopic traffic model in 2015, prepared with the support of the European Union for Budapest and its metropolitan area to analyse the impacts of certain transport development projects and to compare development options in Budapest according to uniform criteria. During the elaboration of the model to be owned by the municipality, complex traffic surveys covering the whole region is also being conducted, for the first time in ten years, to define travel habits, mobility decision- making mechanisms and Budapest traffic volumes.
    The integrated traffic model and the related continuous traffic monitoring will assist the review of the development concepts of Budapest and the surrounding area as well as the evaluation of new projects.
    The data of the model is opened, available for planners and experts.

13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**
    The important work of evaluation of planned and implemented measures will be the next step of mobility planning in 2017. BKK has planned to work out all project evaluation belonging to the measures of BMT. We call this part of SUMP planning “project level”, and starting to make cost-benefit analysis for all projects.

14. **How are the mobility and transport needs from the industrial areas taken into account?**
    The SUMP of Budapest have several measures for developing city logistics such as
    - Environmentally friendly technologies in freight transport
    - Territorial and time-based regulations of logistics services, city logistics tasks
    - Developing an intelligent city-logistic network

    There are regular consultations between the transport authority and the industrial sector, where suggestions are considered and if possible built into the mobility concepts.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**

The ex-ante evaluation of the Balázs Mór Plan followed the development of the plan from the BKRFT review process in 2009 to its completion, then to the establishment of revised goals and objectives. The current objectives of the Balázs Mór Plan were identified gradually, and rely on the previously completed professional studies, their lessons, international experience and recommendations, and mostly on the special and unique geographic, social, institutional, etc. conditions of Budapest.

The ex-ante evaluation reflects international experience according to which, although an evaluation process has important key points, it is not practical to complete the whole procedure by rigidly sticking to a particular procedure. Instead, the evaluation must be adapted to the type and conditions of the particular plan. The analysis of the existing situation in the BMT also pointed out that even though transport and its current status in Hungary and, more specifically, in Budapest depend a great deal on external circumstances, the extent to which the specific framework conditions were assessed and taken into account in the previous planning processes and their efficiency within the available room for manoeuvre are at least equally as important. With the key problems identified on the basis of the analysis of the existing situation, the authors of the BMT pointed out fragmentation, regulatory inadequacies and distorted fund allocation, the alteration of which is mainly in the hands of the professionals and can be eliminated by improving their approach and their work while, as a paradox, the essence of those steps is cooperation with others, the abandoning of a unilateral professional approach, the understanding and acknowledgement of more complex objectives and the serving of common inter-professional objectives.

Consequently, on the basis of the analysis of the existing situation, the BMT determined the objectives of the transport-specific strategy as three integration endeavours focusing on the urban development objectives of the Capital. The ex-ante evaluation showed that the three types of integration, i.e., integration within transport, integration with urban development and integration of the Budapest region, can provide effective responses to the set of key problems relating to fragmentation and isolation. The BMT defines clear objectives for each integration area, always aiming at a liveable urban environment, safe and reliable transport services, and cooperation-based regional connections.

16. How are mobility plans funded?

The volume 1, strategic level of BMT is funded by the Municipality of the City of Budapest, the volume 2, project evaluation and programming level is funded be by the European Union as this part of the planning is very expensive and the Municipality had no budget for finishing the plan.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Balázs Mór Plan is the first SUMP based transport development strategy of Budapest. It has undergone a comprehensive public consultation. It is based on the urban development vision of Budapest, it sets transport development aims and objectives until 2030. The keyword is integration and the four main priority areas are: "more connections, attractive vehicles, better services, efficient governance".

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

   Traffic data is collected through several channels:

   - Loop detectors (on roads and dedicated cycle roads)
   - Infrared sensors on trams (IRMA)
   - Automated passenger counting on buses (based on total weight)
   - Yearly manual traffic counting (over 100 cross-sections, 6 vehicle categories)
   - Yearly manual passenger counting (Suburban rail and buses, urban buses, trams, metros, trolleys)
   - Regular household surveys in every four years, and specific household surveys between the regular ones.

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**

   To acquire a complete picture about the traffic demands in Budapest, all of the data sources mentioned in B1 above mentioned data sources are necessary. In addition, we are continuously widening our traffic counting palette, in autumn 2016 six bicycle counting loops have been installed on important cyclist routes.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**

   BKK has a macroscopic transport model for the whole city and the agglomeration, which is updated in every year based on the traffic counting data. The model is in PTV Visum format. (The demand model is in MS Excel with Visual basic)

   It includes the agglomeration of Budapest as well, with all of the bus and train lines.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**

   Not all urban transport needs can be served effectively by scheduled services, especially in new residential areas with low population density. In such places, the alternative for individual motorised transport is a demand-driven passenger transportation public service (Telebus) or the extension of the existing scheduled transport services in space or time (extended travel time or route length of the line). The current service is reviewed and extended on an ongoing basis. Other solutions are P+R and B+R facilities

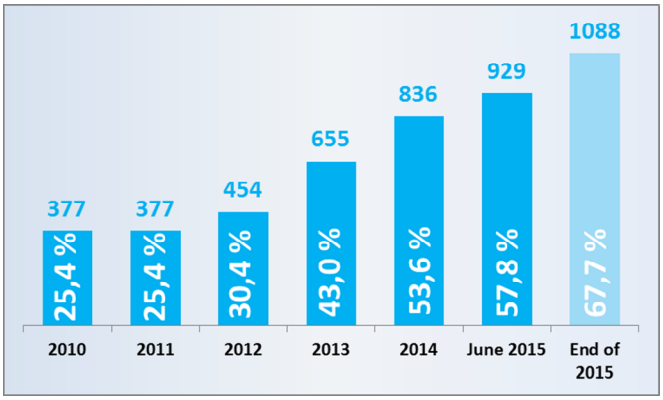
formerly built and currently being developed to serve low density areas, as well as there are considerations made to introduce shared mobility solutions, such as carsharing in the city as well.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**

Providing low floor vehicles for people with reduced mobility is an important objective of BMT. Until 2020 50% of the trams, 33% of the suburban rails and 100% of the buses will provide services with low floor.
Since 2010 the following low floor vehicles had ben procured, which clearly demonstrates, that the ambitious goal of the plan is achievable.

- 35+12 new trams (CAF) – 8% of the entire fleet
- 20 solo and 16 articulated new trolley buses (SOLARIS) – 26% of the entire fleet
- 20 new electric midi buses serving Castle Hill area (Modulo)
- 330 new and 200 second-hand low-floor buses incl.28 hybrid (VOLVO) and 49 CNG (Van Hool) buses

The share of low floor vehicles in the bus fleet has been increased from 25,4% to 67,7% between 2010 and December 2015.



Metro line M4 (launched in 2014) is completely accessible for passengers with reduced mobility. All of the stations have elevators and guides for blind people.

For visually impaired people, a remote controller is available for the on-street public transport information boards, which enables the loudspeakers to give timetable information by voice. The outfit of pedestrian areas are equipped with tactile pavement, lowered pavement edges and thus made accessible friendly, which is beneficiary not only for disabled people, but all of us.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans?** Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?
The available traffic data is used to improve the mobility plan.
Results of manual traffic counting are available for the public after the completion of a query. Automated bicycle counters data is available online with a daily updated data. The Origin-destination data of MOL Bubi (the public bike sharing system in Budapest) is also available for the public in real time. In the future it is planned that all traffic related information will be publicly available through a website.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: Development of MOL Bubi public bike sharing system	Name: Reconstruction of Határ út bus and tram terminus.
Context: After a preparatory process the system has been launched to the public in September 2014. As a part of the preparation cycling friendly measures have been implemented in the city centre. Since the establishment, due to the success the network has been extended twice. The present number of docking stations are 112 and the number of bicycles are 1200. 	Context: The Municipality of the City of Budapest decided to reconstruct the bus and tram terminus as Határ út, a suburban intermodal node. The construction was planned to include the demolishment of the outdated and ugly kiosks on the square, to establish an aesthetically well designed public space. Because of lack of time, preparation work was not properly done, some permissions failed for the demolishment of kiosks, and the result was a nicely rebuilt square with the remaining kiosks. 
Main authorities and stakeholders involved: • Municipality of the City of Budapest • Districts • BKK Centre for Budapest Transport • Nextbike • Közbringa Ltd. (maintenance and distribution) • MOL (Branding sponsor and promotion)	Main authorities and stakeholders involved: • Municipality of the City of Budapest • Districts • BKK Centre for Budapest Transport • private kiosk holders
Web links: https://molbubi.bkk.hu/	Web links: http://www.bkk.hu/2015/04/megujul-a-hatar-uti-autobusz-vegallomas-es-kornyeke/
Why is the practice considered as 'good'? The result of the fruitful cooperation is a new innovative mode of transport.	Why is the practice considered as 'bad'? Because of the short deadlines, the preparation of the project was not possible to done properly.

D) CURRENT EXPERIENCES

Has your organization already been involved in a mobility planning process?

One of the main tasks of BKK, as the mobility manager of Budapest, is to plan the mobility of Budapest.

Were you directly involved in the activities or did you engage an external expert?

The 1st phase of the development of BMT (strategic level) was worked out with internal experts. The 2nd phase (project evaluation and programming) is a much bigger work, where we use external consultants among our staff as well.

What kind of methodology did you use?

BKK uses the SUMP methodology, which was worked out in 2013 based on the EU SUMP Guide.

Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?

This is the first SUMP planning period in Budapest, and the evaluation is yet to be done. Until now goals were set in a project level and evaluation was made on supportive level, with little influence onto the planning process. SUMP will change this with guiding the whole process through a circle.

Are there any actual results/actions due to the mobility plan?

According to the SUMP circle, currently volume 1 is being revised, volume 2 is being prepared, as step 3 formerly started projects are being realized (the development of tramline network, bikesharing and carsharing programs and other public transport measures as well) and future projects are being prepared (planned) as well as step 4 monitoring and evaluation will be made after finishing the methodology.

Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?

What kind of method is used for project and measure evaluation at other partner cities?
Who is the responsible organization for monitoring and evaluating the results of the SUMP?

ROME

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. Which local authorities are in charge of mobility planning?

There are many different mobility plans depending on level: regional, metropolitan or local. This means that specific laws give to the Region, Metropolitan Area, and Municipalities the responsibility for mobility planning. The Regional Transport Plan in the Lazio Region has its own law, no. 30/1998. The Metropolitan City of Capital Rome draws up the metropolitan area mobility plan (*piano di bacino*). At the city level, for the Municipality of Rome, there are the Mobility Policies Department and the Mobility Agency (RSM).

2. Please describe the cooperation among the authorities in the field of mobility on a local and regional level.

The mobility priorities, for national infrastructures and transport services, are defined by the competent Minister. The Region promotes consultations with the public in order to provide and gather information on transport needs. The information is disseminated on a website. Meetings are organised to discuss the main issues of the plan in different phases of elaboration. In the occasion of the drafting of the Regional mobility plan with reference to the re-organisation of the railway services, a consultation with the Municipality takes place. In addition, for what concerns both the planning of infrastructures within the SUMP and the VAS (*Valutazione Ambientale Strategica* – Strategic Environmental Evaluation) document definition, coordination between Region, Metropolitan Area and Municipality of Rome happens.

3. Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?

The elaboration of the plan is not regulated. The policy documents are about objectives and main measures.

At the Municipality of Rome level:

- National low “Rules of the road” - The Urban Mobility Masterplan (PGTU) is the strategic tool used by the City Administration to plan middle-term actions on traffic and mobility. The PGTU focuses on maximum accessibility, livability, social inclusion, competitiveness, environmental sustainability and equity.
- Law n° n.340 /24 November 2000 that establishes Urban Mobility Plans (PUM) - The Urban Mobility Plan (PUM) is the tool that defines and provides guidelines for the implementation of new infrastructures at a smaller scale on a mid-term basis.
- Decree of the Municipal Council of Rome n°18 approved the 12/2/2008- The General Urban Plan (PRG), defines the mobility system according to the PGTU through the integration with the general Urban planning policies.
- The Sustainable Urban Mobility Plan SUMP is a strategic planning tool acting on a mid-long term (10 years); at present Rome has not yet adopted a SUMP, since the national guidelines have to be defined in a Legislative decree not yet issued, within the National Low n.124/2015, that rules the public administrations.
- Strategic Sustainable Mobility Plan (PSMS), it lays down the mid and long –term strategies of mobility, these include: update of the PGTU and its implementation process (detailed local mobility plans), the PUM and the rules for the interventions on the mobility infrastructures.

4. **Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?**
   Law no. 30/1998 regulates the Plan's adoption. (1) The plan is published in the Regional Official Gazette (BUR). (2) All interested parties may submit written comments to the Region within 30 days. (3) After this deadline, the President of the Region calls a special regional conference for a joint examination of the Plan. (4) The Regional Council examines the proposals and observations arising during and after the conference, prepares a new version of the Plan, and votes to adopt the Plan. (5) The Regional Transport Plan adopted by the Regional Council is published in BUR and takes effect from the day following that of its publication.

Regional level, affecting the city level planning:

- The Regional Territorial Landscape Plan adopted by the Regional Council acts n. 556 of 25/07/2007 and n. 1025 of 21/12/2007, according to the provisions of the Regional Landscape Law n. 24/98 regulating the procedures for landscape management;
- The Territorial Landscape Plans of the Municipality of Rome, established by the Regional Law n. 24/98 and structured in districts and sub-scopes with regard to the protection of marine coastal areas, coastlines of lakes, public water courses, parks and natural reserves, areas of archaeological interest, maintenance works on villas, parks and historical gardens, safeguard of the views;
- The Regional General Territorial Plan defines the general and specific objectives of the regional policies for the territory, of the programmes and sectorial plan with territorial relevance, as well as the intervention of regional interest. These objectives are a programmatic frame of reference for territorial policies of Provinces, Metropolitan Cities, Municipalities and other local authorities and for their programmes and sectorial plans;
- Plan for air quality improvement approved with Lazio Region Council resolution n. 66 of 10/12/2009.

City Level planning:

- The General Urban Masterplan (PGTU) and the following plans that are built upon it:
  - The Road Safety tri- annual Programme
  - The Municipal plan for Road Safety (2011-2020)
  - The master Plan for cycling mobility
  - The Urban Freight Distribution Plan
  - The General Urban Plan (PRG).

- Categorisation of the regional territory according to the air quality (defined by the Regional Council resolution n. 767 of 01/08/2003) identifying the highly critical municipalities for which are to be defined Action Plans, particularly for the Municipalities of Rome and Frosinone
- Acoustic categorisation of the territory of the Municipality of Rome approved by the City Council resolution n. 12 of 29/01/2004. The categorisation includes n. 44 charts articulated by municipal district and n. 1 overall chart, implementing technical standards (City Council Resolution n. 60 of 23/07/2002 and n. 12 of 29/01/2004), descriptive annexes, technical report of the above resolutions;
- Acoustic categorisation of the road infrastructure adopted by the City Council Resolution n. 93 of 15/10/2009 that adopts the acoustic emission limit values set by the Decree of the President of the Republic n. 142 of 20/03/2004.

- The Municipal Plan for noise pollution remediation, which started to be implemented by the Environment Department since the beginning of 2010, that has to be approved by the Municipal Council.

5. **Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?**

The director of mobility and spatial planning are the same. The others are independent departments.

Different plans can change the total mobility demand, the origins and destinations, the modal split. They could influence the traffic flow producing congestion on the networks.

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**

There are no formal connections, but meetings are held with the executives responsible for the different plans to show them the plans and verify how to converge.

The elaboration of the PGTU has been based on the "bottom-up" participation process. This has involved both citizens and stakeholders that gave their valuable contribution to the decision making process.

The main aim was to identify the priorities and the specific interventions perceived as a priority.

The procedure took place according to:

- A preliminary analysis of urban mobility, in order to identify the critical issues
- A continuous "dialogue" with the stakeholders that helped implement a multi-criteria analysis;
- A demoscopic analysis to collect the stakeholders suggestions;

The City Council takes the final decision.

7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**

The regional Plan is related to people and freight. The main general objectives are sustainability, efficiency, and safety. There are specific objectives for each transport system:

<u>Goals for sustainable transport</u>

- Reduce greenhouse gas emissions
- Protect environmental quality
- Drastically reduce dependence on oil
- Limit the growth of congestion without reducing the number of trips, but rather with demand management and improved utilization of infrastructure.
- Halve the use of 'conventional-fuel' in urban transport by 2030 and eliminate it by 2050.
- Zero CO2 emissions by 2030 in urban distribution.
- Halve road fatalities by 2020, to approach 2050 target of zero victims.

<u>Economic goals</u>

- To implement technological innovations to promote efficiency, productivity, and employment in the sector.
- To facilitate the development of high-tech start-ups with public spending.

<u>Public transport</u>

- The objective is fully accessible and integrated services, of high quality and reliability, highly innovative, totally safe and environmentally friendly.

- Provide services in a public or private system that promotes and organises competition and that values efficiency, quality, and cost, clearly separating programming from the management, from the manager controller.
- Improve Mobility and Accessibility
- Enhance Cost-Effectiveness of Transit Service

Railway system

- The rail network must provide adequate capacity to handle the expected increases in passengers and goods traffic.
- The growth of rail traffic will be encouraged by demand-side management measures.
- The integration of services should be ensured at regional and metropolitan level.
- The challenge for the urban areas consists in guaranteeing the sustainability of the Transport System both in terms of environmental protection (CO2 emissions, air and acoustic pollution), competitiveness and social inclusion.
- These are some of the specific objectives of the PGTU:
- Reach 2% of bicycle daily use within 2 years (currently 0,6%), reach 4% in town and 10% in the city center within 5 years;
- Increase by 20% public transport speed through the deployment of new reserved lanes and priority traffic light path;
- Increase by 20% public transport users;
- 50% reduction of road fatalities by 2020 to comply with the EU directives;
- 30 km/h zones in each municipality within the next two years. Progressively enlarge the "environmental islands" zone outside the city center allowing the circulation of only low emission vehicles.

8. Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?

The regional Plan uses the second approach. At urban level, both the approaches are used according to the kind of planning: long, medium or short term, and according to the objectives.

9. How are public and private transport companies involved in the planning process? Is this process formalized?

The Region promotes consultations with public and private transport companies in order to provide information on the development of the Plan and gather information on the transport situation (e.g. demand, supply, costs). The information on the Plan is disseminated through a web site. Meetings are organised to discuss the main issues of the plan in different phases of elaboration. The process is not formalised until the final phase of adoption of the Plan (see point 4).

The private and Public Transport Companies are involved in the urban planning process, according to the V.A.S. document (*Valutazione Ambientale Strategica*) which integrates the PGTU.

There are three kind of stakeholders that must be involved in the "structured dialogue":

- Institutions (Municipality, Metropolitan Areas, Region)
- Associations that represent both the citizens and the "Industry" (Unions, representatives of enterprises and workers) and other specific city users groups (pedestrians, cyclists, disabled etc);
- Special attention is given to the LPT, by involving the PT operators and the infrastructures managers, they all contribute to the decision making process.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**

Airport system and Port system are specific parts of the regional plan, which analyses the present characteristics and quality of demand, supply and services and accessibility conditions and defines measures for the short, medium, and long term.

11. **How does the planning process interact with the research of new forms of mobility?**

The Research Centre of Transport and Logistics – Sapienza University has charge of the regional plan. The Centre has conducted different research projects on new forms of mobility. The most important applications of the plan are ITS (Intelligent Transport Systems) in the short to medium term and driverless vehicles in the long term. According to the PGTU, to CIVITAS Guidelines and to the PUMS guidelines in the City of Rome new forms of mobility are encouraged: car sharing, electric mobility, cycling (new infrastructures).

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

The Region provides a periodic collection of demand and supply data from different sources, mainly public administrations and transport operators and the data are available to the public.

Data on different traffic flows are detected and collected in the TMC (traffic Management Centre) of Rome mobility Agency. Data where possible are published in an "open" format. A data base of different types of traffic flows is set: TPL, cars, motorbikes, that are shared among all the authorities.

13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**

The regional plan uses general evaluation based on multicriteria analysis and specific formalized procedures for environment assessment called VAS. All the measures proposed in the regional plan before implementation should have a cost-benefit analysis. Actually urban data on mobility are forecasted with specific models.

The PUMS will provide the tools and resourced to monitor the impacts ex-post. However, cost/benefit analyses to define economic and transport indicators are carried out.

14. **How are the mobility and transport needs from the industrial areas taken into account?**

There is a specific part of the regional plan dedicated to Logistics.

In the case of the City of Rome a cooperation with the private sector has been established especially in the Freight Distribution field. Specific surveys provide information on the current situation. The common task of the private and the public sector in this case consists in optimizing the distribution of goods in the last mile section, in the most efficient, cost effective and sustainable way. RSM manages the Mobility managers network, which largely includes the private sector; supports the sustainable mobility measures (e.g. cycling). The Municipality of Rome has supported the implementation of the "free flow" car sharing, managed by private firms.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**

The ex-ante evaluation is a multicriteria analysis, and the ex-post will examine the results of the implementations, discriminating among the trends and determining the correctness and quality of the implementations.

The PGTU expects to implement a Dashboard to evaluate each component of the mobility system. Ex ante, data should feed the system that will produce the estimate of the indicators.

16. How are mobility plans funded?

The regional plan is funded by the regional agency. The measures are funded mainly by the structural funds, the state, the public and private operators, and the region. The urban plans have structural funds through the Regional Multi-annual programmes, Funds of the Ministry of Environment and of the Ministry of Infrastructures and Transport.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Self-evaluation of the local/regional mobility plan, if there is one, or of any other local mobility plan (such as: sustainable mobility plan, congestion charge plan, transport infrastructure plan, public transport plan, parking schemes...).

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

Regional Plan of Mobility, Transport and Logistics

The goals are described in point A7.

The time frame is short, medium and long term up to 2040.

The responsible is AREMOL a Regional Agency for Mobility.

Passengers and freight, rail network, road network, bicycle network, airports, ports, public transport, logistics, urban systems.

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

The Mobility Agency of Rome, the public transport operator, airport operators, and port authorities.

Real time and historical data on Mobility are collected in the TMC of the Mobility Agency. Data concerning periodic surveys on mobility (based on interviews, focus groups, customer satisfaction Analysis) are collected within the Agency Data warehouse and used to feed models. The Statistics Department of the Metropolitan City of Capital Rome process 3 kind of data about traffic and commuting:

a. Data from statistic source.
   1. Data about population, settlement's patterns, enterprises, etc., used to elaborate theoretical and scenario models.
   2. Origin/destination matrix about all the transfers (home/wok, home/school, etc.) regarding the transport means used, the travel time, their aims, and so on, starting from last national census data;
   3. Big municipalities data from ISTAT (National Statistical Institute), regarding infrastructural transport data (amount, travel times, road accidents) used to study urban mobility.

b. Administrative source data
   1. School commuting data, collected by Statistics Department by means of surveys and utilized to reconstruct commuting fluxes and to test complex statistics models (i.e. symmetrical models);

2. Archimede Project, Database that using a cross-check data, personal with social security, might allow to build new commuting matrices.

c. Big Data

The Metropolitan City of Capital Rome gather every day data about traffic flows from few local roads, about the kind of vehicles, speeds and direction.

2. What are, in your experience, the most useful instruments to collect data related to public and private means of transport?

Electronic ticket check in and check out for public transport; cameras on the roads for private transport; monitoring, automatic data collection and surveys.

3. Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?

The instruments are simulation software, based on mathematical models, such as TransCAD. TransCAD is a Geographic Information System (GIS) designed specifically to store, display, manage, and analyse transport data. TransCAD combines GIS and transport modelling capabilities in a single integrated platform. TransCAD can be used for all modes of transportation, at any scale or level of detail. TransCAD provides:

- A powerful GIS engine with special extensions for transport;
- Mapping, visualization, and analysis tools designed for transport applications;
- Application modules for routing, travel demand forecasting, public transit, logistics, site location, and territory management.

RSM uses specific models. These are based on offer/supply data and include the multimodality option on different types of vehicles (PTW, cars, Lorries).

4. How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?

The regional plan identifies the WDA with two methods:

1 Size, population, and mobility characteristics of whole municipality;
2 Spatial characteristics of the municipality's residential areas (for example: sparse or dense).

A cluster analysis grouped the municipalities according to a cluster analysis based on spatial characteristics of residential areas. Each cluster includes municipalities with similar characteristics. For the cluster with priority non-conventional transport modes that can be used efficiently in the WDA were selected, such as: Car-sharing and car-pooling; Shared taxis; Demand-responsive transport (DRT); Flexible transport services (FTS). Urban planning of PT in these areas has considered a different approach. In some cases DRT have been experimented, in general bus lines with reduced number of vehicles but with a precise timetable have been implemented.

5. How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taking into account?

All public transport must be accessible; this is an objective for all the local authorities and operators. Through specific LPT subscriptions/tickets for people with disabilities and financial difficulties and the elderly. Also the

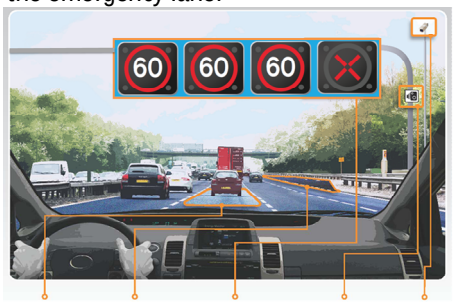
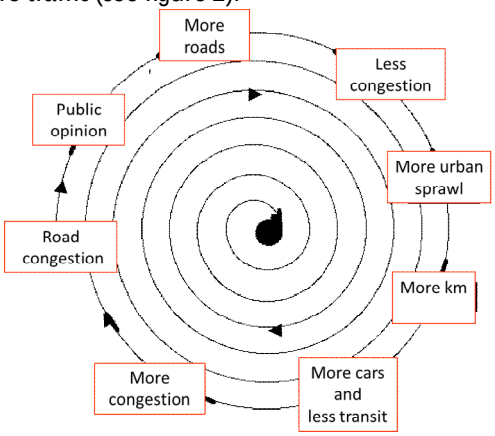
buses are equipped with devices for people with disabilities. Specific home to school transport for disabled is available.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

There are several sources and methods. The National Institute of Statistics conducts a census every 10 years with questions about work and school trips. The transport operators have information on demand and supply collected with interviewers or automatically. Sometimes the agency collects data with telephone interviews or count on the transport nodes or in some section of traffic flows. Data are used to fine-tune the strategic and the mid-term planning. Data are shared in particular with the Municipality Department of Mobility. Simulations on the mid-term period (10 years) on the street graph are performed.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: the Plan looks mainly at the details, at the management, not at the big new civil engineering infrastructures.	Name: to respond to traffic congestion and growing traffic with more than before. So the answer is to build more roads.
Context: Regional Plan	Context: Regional Plan
Main authorities and stakeholders involved: Region, municipalities and transport operators	Main authorities and stakeholders involved: Region, municipalities and infrastructure builders
Web links: www.pianomobilitalazio.it	Web links: www.pianomobilitalazio.it
Why is the practice considered as 'good'? Because the devil is in the details. It can optimise the use of the existing resources, minimising impacts and preserving land. For example the use of ITS. Figure 1 shows how to increase the capacity of a road reducing the speed and using the emergency lane.  Coil Emergency area VMS Speed control Camera Figure 1 An example of speed and lanes control	Why is the practice considered as 'bad'? Because building more roads generally in a metropolitan area means more sprawl, then more houses in the rural areas with low density, more cars because the public transport provides poor service with low density and more traffic (see figure 2).  Figure 2 The black hole of road investments
Good practice	**Bad practice**
Name: LTZ (Limited Traffic Zone) – linked to the PGTU	
Context:Areas of the city with specific needs to ban/reduce traffic flows and increase the PT supply.	
Main authorities and stakeholders involved: Mobility Dept, RSM, ATAC, city boroughs.	
Web links: www.agenziamobilita.roma.it www.muovi.roma.it	
Why is the practice considered as 'good'? It is well accepted, technology supporting it is reliable, and the impacts on traffic are good. The measure will be extended to a larger areas. This measure has favoured the implementation of other "soft" measures, such as the active mobility and the "environmental zones"	

D) CURRENT EXPERIENCES

1. **Has your organization already been involved in a mobility planning process?**
   Yes, according to the above list of planning tools. The Lazio Region is preparing a new Mobility, Transport and Logistics Plan (PRMTL); the Metropolitan City of Capital Rome has drawn up a local mobility plan for passengers and freight, Basin plan (*Piano di bacino*); the Municipality of Rome has done several version of urban mobility plans; the mobility Agency is also involved in the definition of the SUMP for Rome.
2. **Were you directly involved in the activities or did you engage an external expert?**
   All the local public Bodies are directly involved and for some specific aspects are supported by external experts.
3. **What kind of methodology did you use?**
   The Lazio Region used the back-casting approach – "what to" – with a vision of future and a desirable scenario, while the Mobility Agency of Rome used "what if" approach.
   The work for the preparation of the Basin Plan of the Province of Rome was organized in three phases, corresponding to a related report:
   - "The Framework of Reference" which outlines the predictions of the general and sectorial planning instruments, demographic and socio-economic structure of the Province of Rome.
   - "The analysis" more properly about transport, related to the request and the supply of transport and primarily collective transport. The use of models developed for the Plan, has allowed to identify the interrelation between supply and demand;
   - "The Plan Proposals" which list the actions proposed on the basis of the result from the previous analysis.
4. **Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?**
   The Lazio Region made an evaluation of the results, which are converging with the goals, and so not much influenced the planning. The Metropolitan City of Capital Rome set goals and actions, but haven't caught a feedback. The actions related to the PGTU are monitored ex-post and in case fine-tuned accordingly to achieve the expected goals.
5. **Are there any actual results/actions due to the mobility plan?**
   Some transport operators are paying more attention to their interventions on Regional Plan.
   Here follow some examples from urban plan:
   - The extension of the LTZ to the "Rail Ring Road", which is in the pre-testing phase right now.
   - The PT network is being rationalised according to the guidelines of the PGTU.
   - The supply of Car Sharing has notably increased in the past two years.
   - A Road Safety monitoring centre has been established in the Mobility Agency.
6. **Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?**
   The methodology, the simulation software, the vision of future, the implementation, the evaluation and monitoring phase, the data available.

PORTO

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. Which local authorities are in charge of mobility planning?

At national level there is no formal legal obligation for local authorities to implement a mobility planning or a Mobility and Transport Plans (PMT) as we call them. Nevertheless, the Institute for Transport and Mobility (IMT) developed a national strategy for the approach of accessibility, transport and mobility, and their relation with land use planning, designated as Mobility Package.
The recommendation is that the local authorities in charge of the mobility plan are the municipalities with more than 50.000 inhabitants and the ones that are district capital. The mobility plan may as well be developed by metropolitan areas or the intermunicipal communities.
Furthermore, the European regional funding framework (2014-2020) limits the support for urban mobility measures to those developed in the framework of sustainable urban mobility action plans (PAMUS). As an outcome of this, several mobility plans have recently been launched by metropolitan areas or the intermunicipal communities.

2. Please describe the cooperation among the authorities in the field of mobility on a local and regional level.

A Mobility and Transport Plan is a planning tool that defines the overall strategy for intervention in the organization of accessibility and mobility management. It can be:
- Intermunicipal or metropolitan, if it is understood that the current dynamics, or that are intended to foster within a framework of regional development, are such as to make the development of a Regional (or Metropolitan) Mobility Plan advantageous;
- In the municipal scope, resulting the Mobility Plan in an Action Program of the municipality with respect to mobility management.

The decision on the territorial coverage of the Plan, intermunicipal or municipal, does not invalidate that, although studying its territory as a whole, it is possible to define the deepening of actions in certain areas (urban agglomerations, urban expansion territories, density, etc.) or specific themes (eg, flexible transport solutions, logistics, circulation and parking, transport interfaces).

The Metropolitan Area of Porto worked with the municipalities of the region to create a sustainable urban mobility action plan, it includes municipal actions and others that have a metropolitan scope.

The main metropolitan actions are related with ticketing and communication. There are also actions in special fields, like car sharing, bike sharing and flexible transport solutions among others.

With the propose to define the coordination, management and monitoring of the common issues related with the public transport in the metropolitan region, the municipalities and the Metropolitan Area of Porto sign the Inter-administrative contract between the Porto Metropolitan Area and each one of the 17 municipalities that belong to this metropolitan area.

3. Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?

Several documents oriented the development of our regional policy instrument and our mobility plan. Some of them are:

- **PNPOT** - National Territorial Planning Program, defines the conceptual framework for planning policy and the development model for the country.
- **PROT-N** – Regional Territorial Planning Program, defines regional development model after the PNPOT.
- **Commitment to Green Growth** - is an instrument of strategic orientation that aims to guide the process of development of Portugal in a sustainability perspective, defining ten main intervention areas, one of them is the transports.
- **PETI3+** - Strategic Plan for Transport and Infrastructure (2014-2020), sets out the guiding principles of the infrastructures and transport sector, a set of structural reforms to be implemented by the 2014-2020 horizon.
- **Pacote da Mobilidade** - a national strategy for the approach of accessibility, transport and mobility, and their relation with land use planning.
- **Partnership Agreement** - **Portugal 2020** – a set of operational programs which articulate several policy instruments for regional development support. For our metropolitan region NORTE 2020 plays a major role.

4. Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?

In 2011 the Institute for Transport and Mobility (IMT),developed a national strategy for the approach of accessibility, transport and mobility, and their relation with land use planning, designated as **Mobility Package**, including:

- National Directives for Mobility - which set the national strategy for mobility and the appropriate instruments to put in place;
- Guide for the development of Mobility and Transport Plans (PMT, the name adopted for SUMP), supports technically the development of PMT, defining contents and methodologies;
- Guide for the development of Mobility Plans for Companies and Poles (large- and medium-sized trips generators and attracters);
- Technical and Thematic brochures on sustainable mobility and SUMP/PMT;
- Guidance on accessibility, mobility and transport issues in land use planning instruments at municipal level.

The National Directives were proposed to be adopted as a Ministers Council Resolution in 2012, but it wasn't published.

As we refer above the European regional funding framework (2014-2020) limits the support for urban mobility measures to those developed in the framework of sustainable urban mobility action plans (PAMUS). Subsequently the Regional Operational Programmes indicate the Portuguese Mobility Package as the reference. So, the mobility package is been followed by all metropolitan areas and intermunicipal communities and several municipalities.

5. Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?

No, there aren´t any formalised connections of which we are aware, but the main authority in charge for the different plans in a territory is usually the same – the Municipality.

6. How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?

One of the most important aspects in the selection and organization of the objectives in local mobility plans has been the available financial instruments to support its action. In our metropolitan region the Operational Programme North 2020 in the framework of the Partnership Agreement – Portugal 2020 plays a major role.

The main focus of the local mobility plan is the public transport. In our metropolitan region, the Metropolitan Area of Porto try to involve the public and private operators and the municipalities to agree in common solutions. Anyway in majority of the actions, the finally decision comes from the elected Municipal Council where the action is developed.

7. What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).

The aim is to promote environmental and energy-sustainable mobility within a broader framework of decarbonisation of social and economic activities and reinforce cities as areas of integration and articulation of public policies and as regional development anchors.

Mainly thru the:

- Increment of the soft modes (bicycle and pedestrian), through the construction of cycle paths or footpaths (excluding those that have leisure purposes as the main objective);
- Strengthening multimodal integration for public urban public passenger transport by improving integrated ticketing solutions;
- Improvement of the network of collective public urban transport interfaces, paying particular attention to the quality of the service provided, its accessibility to pedestrians and bicycles, its functional organization and its urban insertion in the territory, with a view to strengthening the use of public transport and such non-motorized soft modes;
- Structuring of high-demand urban corridors, in particular by prioritizing access to infrastructure by public transport and soft modes, in particular by creating specific "on-site" corridors;
- Adoption of real-time user information systems;
- Development and acquisition of equipment for management and information systems of innovative and experimental transport solutions suitable for articulation between urban territories and low population density areas, including flexible transport solutions using less polluting forms of energy.

8. Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?

More like a hybrid version with desirable and predict scenarios.

9. How are public and private transport companies involved in the planning process? Is this process formalized?

The public and private transport companies are involved in the planning process.
The cooperation between private companies is formalised by a Protocol sign between Metropolitan Area of Porto and ANTROP, the Association of the private companies of public transport, with the aim to stimulate the development of a technical collaboration for cooperation in research and knowledge sharing in the planning of future mobility solutions.
The cooperation with public transports is not formalised but the Metropolitan Area of Porto has regular contacts with the public transport operators.

10. In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?

The links with the sea transports is a national competence for logistic and for people is made by private transports.
To the airport we have the metro and buses.

11. How does the planning process interact with the research of new forms of mobility?

All the known forms of mobility are considered in the planning process, although for some of those we don't have specified actions planned.

12. Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?

There are some data collected about the traffic flows in national roads and few municipalities also have it. Between the metropolitan area and the municipalities there are some exchange of data. The data isn't available for the public as open data.

13. How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?

The options proposed are evaluated mainly by cost-benefit analysis, the benefices are in line with the results that we intend to achieved (see question 7), so in line with our political instrument (North 2020). There is an impact assessment accordingly with the demands of our political instrument.

14. How are the mobility and transport needs from the industrial areas taken into account?

The National Mobility Package includes a guide for the development of Mobility Plans for Companies and Poles (large- and medium-sized trips generators and attracters) which is being followed in a few cases. The needs of the industrial areas should be analyzed in terms of the municipal plans. In fact they aren't yet a high priority in this stage of development of our strategic planning process.

15. Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?

Yes. The planning process include a diagnostic of the existing situation, are defined the objectives and indicators and then it's monitored and after a certain period has passed should be made an ex-post evaluation.

The monitoring is prepared by establishing a set of indicators to enable:
- measuring the progress of the actual implementation of the proposed actions and monitoring implementation, especially through supply indicators;
- provide information on the effect of the actions implemented (Monitoring of impacts / results, mainly through demand indicators);
- assess the contribution of the actions implemented to the objectives of the plan (Monitoring the achievement of objectives).

The management and the support to decision is made by drawing up monitoring reports that identify the need to develop corrective measures, making it possible to strengthen or adapt actions that are not being effective or are not meeting the defined objectives. The monitoring thus allows intervening on the content of the mobility plan without waiting for the evaluation in the framework of the revision of the plan.

16. How are mobility plans funded?

The elaboration of local mobility plans is funded by the national Energy Efficiency Fund or local public budget, but the majority of the actions are funded by structural funds (mainly ERDF).

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

The **Action Plan for Sustainable Urban Mobility in the Metropolitan region of Porto (PAMUS)** is developed by the Metropolitan Area of Porto in partnership with the 17 municipalities that belong to the region. The PAMUS lists a series of measures and actions that will make it possible to promote more sustainable travel modes with effective impact on reducing emissions of polluting gases into the atmosphere. The PAMUS aims to promote the use of healthy and sustainable modes of travelling, like cycling and walking; improve the attractiveness of public transport and increase their utilization rates; balance the allocation of public space to various modes of transport; promote public transport as element of social cohesion; provide public space with accessibility; create passenger interfaces; use of ICT in logistics management. It would be develop until 2020.

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

   In the metropolitan area of Porto, at the service of citizens and companies, a number of mobility and transport systems and services are available that collected and update data.

   SIA – Sistema Intermodal Andante, is the name of transport ticketing system in metropolitan region and has been adopted by the main public and private passenger transport operators. Currently, Andante is a ship card that enables to collect data from the circulation of people in public transport system (Metro, train and bus) to a data center.

   In the municipality of Porto there are several traffic counters that are able to collected data about vehicular traffic.

   Via Verde, the electronic toll system, with an extensive implementation at national level, collects data from the vehicular traffic.

   The Institute for Transport and Mobility (IMT) collects national motorways network traffic, making it public available on a trimestral basis.

   (http://www.imtt.pt/sites/IMTT/Portugues/InfraestruturasRodoviarias/RedeRodoviaria/Paginas/Relatorios.aspx)

   INE, Institute National of Statistics, releases data on the various modes of transport — by railway; passenger and goods transport by road; sea and coastal water transport; air transport — from the economic and business perspective, as well as from the point of view of indicators on roads, traffic accidents and vehicles.

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**

   New technologies offer new ways of collecting data, particularly through smart phones and vehicles equipped with navigation and diagnostic technologies, but serious privacy-related issues have been raised.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**

   No.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**

   In metropolitan region of Porto we have identified the weak-demand areas and it's scheduled to 2017 the study of flexible transport solutions that in articulation with the regular transport of passengers are able to answer to the necessities of the weak-demand areas.

   We have specific legislation, Dec.-law n.º 60/2016 de 8 de September, that defines flexible transport, as public passenger transport service operated in a manner adapted to the needs of users, allowing for the flexibility of at least one of the following dimensions of the service: itineraries, timetables, stops and typology of vehicles.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**

   For people with financial difficulties there are monthly passes with discounted fares accordingly with the income, there are also discount fares for students and for older people (65 years or more).

   For people with disabilities, there isn't yet a common policy for all public transport operators. The main operator in Porto metropolitan region in public passengers transport by road, which is a public entity and operates mainly in Porto city with links to the surrounding municipalities, has adopted the following measures:

   - Allow the entrance of wheelchairs by using buses equipped with automatic ramp and reserved place with seatbelt for the wheelchair. This network of buses is complementary to the metro and train network (which have also access to the wheelchairs), in order to maximize the mobility offered. The automatic ramp is also used to allow all the persons with reduced mobility.
   - All buses have audiovisual information for destination notification, line number and next stop. Luminous signs and electronic displays are also integrated into the operation of the bus. With this information system, the blind, the visually impaired, and the deaf can easily navigate and travel peacefully, just like any citizen.

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

   We are currently organizing the databases so that we can take advantage of the different sources of information, especially coming from Andante (our ticketing system in the metropolitan region). In parallel we are developing a Mobility Observatory that will have a set of indicators available to the public in early 2017.

   There are no forecast of the availably of the information as open data.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

<table>
<tr><th>Good practice</th><th>Bad practice</th></tr>
<tr><td>Name:
<u>Action Plan for Sustainable Urban Mobility in the Metropolitan region of Porto (PAMUS AMP)</u></td><td>Name:
<u>Action Plan for Sustainable Urban Mobility in the Metropolitan region of Porto (PAMUS AMP)</u></td></tr>
<tr><td colspan="2">Context:

The PAMUS AMP was financed by our Regional Operational Programme with the aim to frame the financial support that the Municipalities intend to apply for their Regional Operational Program for the accomplishment of the typologies of action within the scope of investment priority:
“Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures.”

Accordingly to the call for proposals the elaboration of this action plan should be done in 4 months.</td></tr>
<tr><td colspan="2">Main authorities and stakeholders involved:

The 17 municipalities of metropolitan area of Porto
The Metropolitan Area of Porto</td></tr>
<tr><td colspan="2">Web links:
http://portal.amp.pt/media/documents/2016/12/06/relatorio_final_pamus_amp_MuztgqN.pdf
(document in Portuguese)
Web links:</td></tr>
<tr><td>Why is the practice considered as ‘good’?
We considered a good practice because of the quality of the participation of the municipalities and the Metropolitan Area of Porto, working together with a short timeframe, agreeing in common solutions and sharing practices and ideas between them with a common goal. Several inputs and recommendations from the regional and national authorities – AG NORTE 2020 and Institute for Transport and Mobility (IMT) – where also incorporated in the final report.</td><td>Why is the practice considered as ‘bad’?
The period of 4 months imposed by the finance programme resulted in the following negative aspects:
- A poor inventory;
- A lack of involvement of important stakeholders like the transport operators, universities, national entities with responsibilities in transports.
- There wasn’t any participation of the general public or their representatives.</td></tr>
</table>

D) CURRENT EXPERIENCES

Has your organization already been involved in a mobility planning process?

Yes, the PAMUS AMP (Action Plan for Sustainable Urban Mobility in the Metropolitan region of Porto)

Were you directly involved in the activities or did you engage an external expert?

We engage an external expert but we followed closely the whole process, making important contributions.

What kind of methodology did you use?

As we had a very short time frame we followed a very simple and traditional methodology: a diagnostic with SWOT analysis, elaboration of possible scenarios and after that an evaluation with an action plan.

Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?

The actions that were considered in PAMUS, were the ones that are align with the objectives of the polity instrument North 2020.

Are there any actual results/actions due to the mobility plan?

All the municipalities and the Metropolitan Area are starting know some of the actions that were approved, but there aren't in this moment any results.

Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?

The influence of the European community programs and structural funds in the strategy of the mobility plane.

BARCELONA

A) OPEN QUESTIONS ON CREATING A MOBILITY PLAN

1. Which local authorities are in charge of mobility planning?

- Municipalities, Metropolitan Area (AMB), Mobility Transport Authority (ATM)

2. Please describe the cooperation among the authorities in the field of mobility on a local and regional level.

- AMB and DIBA (province government) are cooperating to fund and to lead technically the local SUMPs. ATM is in charge of approving the SUMPs, once the municipalities have approved them themselves. ATM checks if the Catalan Mobility Law (9/2003) is well considered in the SUMPs.
- On the other hand, AMB is responsible for the Metropolitan Urban Mobility Plan (PMMU), but is still going on (proposals have to be discussed and defined during 2017-2018).
- Finally, ATM is also responsible for the Master Mobility Plan (PDM), the 2nd is now with its implementation (PDM 2013-2018).

3. Are there any policy documents or legislation that ensure or regulate the development process in your regional policy instrument?

- Catalan Mobility Law 9/2003
- National Mobility Directives (DNM)
- Master Mobility Plan (PDM 2013-2018)

4. Are there any policy documents or legislation that ensure or regulate each step of mobility planning or planning in general? Is a periodical update of plans established by law?

- Catalan Mobility Law 9/2003. Every 6 years the SUMPs have to be reviewed.

5. Are there any formalised connections among the authorities in charge of mobility planning and other kind of planning (spatial, industrial, etc.)? How could these plans affect the mobility plan?

- Decret 344/2006 comes from the Catalan Mobility Law 9/2003 and it's meant to regulate the mobility at new planning areas. Its aim is that is that new planning areas take care but also pay for the public transport provision, bike and foot paths (not just making sure the car can get there).
- SUMPs have to analyse the mobility at local industrial areas

6. **How is the process that leads to the selection of the local mobility plan objectives organized? Who participates to it and who finally decides?**

    - Catalan Mobility Law 9/2003 and Master Mobility Plan already establish mobility goals, but then local politicians and technicians, and together with a participatory process, define their local objectives for their municipality.

7. **What kind of objectives are there in plans? Please give some examples of objectives (amount of sustainable modes in modal split, etc.).**

    - General goals are: efficient mobility, equal mobility, sustainable mobility, safe mobility.
    - Barcelona SUMP (2013-2018) intends to reduce car modal split in 21%.
    - Metropolitan SUMP, PMMU (2015-2021): public transport from 22,7% to 25%, bicycle from 1,6% to 3%, NOx and PM -17%.

8. **Does the planning process use the traditional approach of forecasting "what if" with predictable scenarios or the back casting approach "what to" with a vision of future and a desirable scenario or some hybrid version?**

    - For the Metropolitan SUMP we would like to use the approach 'what to' (defining proposals to reach the desired objectives).

9. **How are public and private transport companies involved in the planning process? Is this process formalized?**

    - It's not formalized. Generally they participate during the general participatory processes.

10. **In which way and to what extent does mobility planning take into account links with airports and rivers or sea transport in your area?**

    - Regional planning (Master Mobility Plan from ATM) is taking into account airport and Sea-short-shipping possibilities.
    - Metropolitan SUMP takes in consideration both harbour and airport.

11. **How does the planning process interact with the research of new forms of mobility?**

    - The research of new forms of mobility is usually not very well developed at the planning documents. But new forms of mobility are being confronted with local regulations at the day-to-day and they do need an adaptation (for instance in Barcelona, with all the different 'personal mobility vehicles').

12. **Is there any collected data about the different types of traffic flows? How is the data used to create mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**

    - There are mobility surveys every year at the Metropolitan region. The information is available in an aggregated way (by municipalities, by AMB...), but it's not available in open data.
    - Operators facilitate the demand flows to the public bodies in charge of mobility, but it's not available in open data.

13. **How are the options proposed in the mobility plan evaluated (benchmarks, cost-benefit analysis and/or other tools)? Is there any impact assessment in mobility plans?**

    - There is a tool created from the Catalan Government, responsible for air quality and for strategic environmental assessment. The tool intends to relate the different measures with their environmental impacts.
    - There is another multimodal modelling tool that is being created nowadays by AMB to relate the Metropolitan SUMP goals and the proposals needed to reach them.

14. **How are the mobility and transport needs from the industrial areas taken into account?**

    - SUMPs have to analyse mobility in local industrial areas. But generally these mobility needs are not very well solved.
    - There is a different tool coming from the Catalan Mobility Law 9/2003 called 'specific mobility plan', related to industrial areas. Many of them in ATM region have developed a mobility plan.

15. **Does the planning process use ex-ante evaluation and ex-post and monitoring? What methods are used?**

    - Indicators sets are defined in each SUMP, providing the current data and foreseeing the future data for each scenario.
    - Some of the indicators are already provided by the DNM and the PDM.
    - For the Metropolitan SUMP a multimodal modelling system is being defined to adjust the proposals until the goals are reached.

16. **How are mobility plans funded?**

    - Regional governments (DIBA and AMB) are paying for 50% of the plan (in AMB region, DIBA pays 50% and AMB the other 50%, so municipalities are not paying anything).
    - AMB funds 100% of the Metropolitan SUMP.

B) DATA MONITORING AND OTHER TOOLS FOR MANAGING AND UPDATING AN ACTUAL MOBILITY PLAN

Self-evaluation of the local/regional mobility plan, if there is one, or of any other local mobility plan (such as: sustainable mobility plan, congestion charge plan, transport infrastructure plan, public transport plan, parking schemes...).

Name of the plan, goals, time-frame, responsible, targets (in 5 sentences):

1. **Where and how is the most significant data about vehicular traffic, transport networks and flows of people and freight (i.e. workhouse trips, trips inside/outside the city, modal split, etc.) collected and updated in your territory?**

    - Mobility surveys in AMB / ATM region are once a year. Public transport data is collected every day, data is published once a month. Vehicular traffic data depends on the manager (interurban roads are published once a year approx., while urban data depends on each municipality).

2. **What are, in your experience, the most useful instruments to collect data related to public and private means of transport?**

    - Automatic counting systems, such as traffic counting devices for vehicles and wifi – mobile systems to detect different speeds (modes), together with surveys and personal comments.

3. **Are there any instruments of mobility planning to evaluate the interaction between transport flows of people and freight? Has mathematical modelling of transport systems through the application of computer software been used? Can you describe the model used?**

    - A new modelling system is being developed for the Metropolitan SUMP but it's not analysing specifically the interaction between transport flows of people and freight.

4. **How the problem of weak-demand areas (i.e. internal areas with low population density) has been taken into account?**

    - Low demand areas in AMB have been analysed to check the possibility of implementing demand responsive transport, profiting the metropolitan taxi system (instead of the ordinary buses, less efficient for these areas).
    - About bus stops on-demand, there was a pilot in el Prat de Llobregat 3 years ago and it worked well, so the initial pilot is now totally implemented.

5. **How the issues related to the accessibility (people with disabilities and in financial difficulty) of public transport are taken into account?**

    - Some public transport networks in AMB are 100% accessible (FGC train, TMB bus), or almost (metro is around 85%). But still some interurban bus lines and Renfe train are not accessible at all.

- About financial situation, people over 65 years old with low income can travel for free or with a discount (depending on the income), as well as all kids until 16 years old can travel for free, both in the nearest area (zone 1). Unemployed people can have a 3 months travelling card for the whole ATM region for the price of just 1 zone (of 6).

6. **How is data collected about different types of traffic flows analysed? Is it used to improve mobility plans? Is it shared among all the authorities in charge of mobility? Is it available to the public as open data?**
    - There are mobility surveys every year at the ATM region. The information is available in an aggregated way (by municipalities, by AMB...), but it's not available in open data.
    - Operators facilitate the demand flows to the public bodies in charge of mobility, but it's not available in open data.

C) GOOD/BAD PRACTICE PRESENTATION

Please, give a good and a bad example of a mobility planning process. Describe shortly the reasons for being a good/bad practice. You can include links and pictures (max 1 page).

Good practice	**Bad practice**
Name: Barcelona SUMP	Name: METROPOLITAN MOBILITY REGULATIONS
Context: Barcelona municipality has planned 2 SUMPs, the 2nd one 2013-2018. 4 main goals: efficient, equal, sustainable and safe mobility	Context: Barcelona Metropolitan area contains different municipalities next to each other, performing a continuous urban territory. From AMB there has been the proposal to create different regulations in order to make mobility rules easier to understand (parking policy, cycling policy, car-sharing policy, etc.).
Main authorities and stakeholders involved: Pacte per la Mobilitat, more than 100 stakeholders http://mobilitat.ajuntament.barcelona.cat/ca/pacte-per-la-mobilitat/que-es-el-pacte	
Web links: http://mobilitat.ajuntament.barcelona.cat/ca/pla-de-mobilitat-urbana/presentacio	Web links:
Why is the practice considered as 'good'? Wide participatory process and all the political parties accepted the SUMP excepting one quite minor in Barcelona (PP)	Why is the practice considered as 'bad'? To be useful these regulations should be approved by the 36 municipalities, but the follow-up of the action has been not considered.

Good practice	Bad practice
Name: Decret 344/2006, generated mobility studies	Name: Decret 344/2006, generated mobility studies
Context: Catalan Mobility Law 9/2003 considers the need to regulate the way new planning areas are being developed, to oblige the urban developing instruments to take into account sustainable mobility (walking, cycling, and public transport). In 2006 a methodology was developed and since then all the planning instruments in Catalonia have to provide the infrastructure for walking and cycling and pay during 10 years the cost of the new public transport services.	
Main authorities and stakeholders involved: Catalan Government, ATM, municipalities, land and urban planners, mobility planners.	
Web links: http://dogc.gencat.cat/ca/pdogc_canals_interns/pdogc_resultats_fitxa/?action=fitxa&mode=single&documentId=462370&language=ca_ES	
Why is the practice considered as 'good'? For the 1st time the planning process in Catalonia obliges to takes into consideration cycling, walking and public transportation to reach the new land areas. Common methodology and common evaluation (ATM is in charge of deciding whether the proposals are good enough or not).	Why is the practice considered as 'bad'? Once the generated mobility study has been approved, the following of the actions does not depend anymore on the mobility public bodies.

D) CURRENT EXPERIENCES

Has your organization already been involved in a mobility planning process?

- AMB is right now at the planning process of the Metropolitan Urban Mobility Plan (PMMU), at the phase of setting the goals and starting to discuss and define the actions and indicators.

Were you directly involved in the activities or did you engage an external expert?

- Both. External experts have been developing different contents, but AMB technicians are working together with them as well (collaborating and reviewing the documents).

What kind of methodology did you use?

- Our PMMU departs from the different local SUMPs but then works from a more regional view, intending to solve the interurban mobility problems that are not possible to confront from each municipality in an individual way.
- Once the strategic goals are set, the multimodal modelling tool will evaluate the relation between different proposals and the goals. Proposals will be adjust once and once more in order to reach the goals.

Were the results of the planning procedure evaluated in comparison with set goals? If so, how do the evaluations influence the planning process?

- N/A

Are there any actual results/actions due to the mobility plan?

- N/A

Do you have any special question regarding the mobility planning, to be discussed in detail at the workshop?

- How to fund the interurban actions?