

SULP POLICY DOCUMENT FUNCTIONAL URBAN AREA OF BRESCIA

Deliverable D.T3.2.4







Table of Contents

1. THE SULPITER PROJECT	2
2. THE SULP POLICY DOCUMENT	4
3. TRANSPORT POLICIES - STATE OF THE ART ANALYSIS	5
4. URBAN FREIGHT TRANSPORT - STATE OF THE ART ANALYSIS	9
5. SULP'S SPECIFIC OBJECTIVES	12
6. MEASURES VS. DEMANDS	15
7. LAYOUT OF MEASURES	19
8. ROAD-MAP FOR IMPLEMENTING THE MEASURES	22
9. EVALUATION OF IMPACTS	32
10. ROLE OF THE STAKEHOLDERS' INVOLVEMENT	34
11. MAIN STEPS FOR THE ADAPTATION OF THE SULP	37
12. APPLICATION AND MONITORING	38
13. PROMOTION AND COMMUNICATION PLAN	40
14. ANNEXES	41
14.1. ANNEX 1: FUAS TRANSPORT POLICIES STATE OF THE ART ANALYSIS	41
14.2. ANNEX 2: TRANSNATIONAL REPORT ON UNDERSTANDING FREIGHT BEHAVIOURS AND IMPACTS IN	
SULPITER FUAs	41
14.3. ANNEX 3: D.T1.2.5B OPERATIVE METHODOLOGY FOR THE STRATIFICATION OF BRESCIA FUA	41





1. The SULPiTER project

Transport is the second largest energy-consuming sector, with 32% of share of final energy consumption. Therefore it is necessary to consider the White Paper (2011) of the European Commission, which sets 10 goals for a competitive and resource-efficient transport, two of which are specific for urban areas: "Halve the use of 'conventionally-fuelled' vehicles in urban transport by 2030, phase them out by 2050" and "Achieve essentially CO_2 -free city logistics by 2030 - in major urban centres." Paris climate agreement (2015) - the world's first comprehensive climate agreement - has an important role also in the logistic sector, if we look into the aims of it: "Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development". Recognising the important role Sustainable Urban Mobility Plans can play, European Commission proposed in its Action Plan on Urban Mobility of 2009 to accelerate the take-up of Sustainable Urban Mobility Plans in Europe by providing guidance material, promoting best practice exchange, and supporting educational activities for urban mobility professionals.

To fully understand possibilities of mitigating urban freight flows and of solving the problem holistically, we would need to tackle urban freight on the level of entire supply chain (including enterprises' strategies) and from the perspective of Functional Urban Areas (FUA). By the definition, FUA consists of the city and its commuting zone. FUA is identified with a polycentric core, and the hinterlands identified on commuting data, including all settlements from where at least 15% of the workers commute to any of the core settlement(s) (OECD, 2016).

The project SULPiTER (Sustainable Urban Logistics PlannIng To Enhance Regional freight transport) was developed to support policy makers in improving their understanding of the FUA freight phenomena in energy and environmental perspective, enhancing their capacity in urban freight mobility planning in order to develop and adopt Sustainable Urban Logistics Plans - SULPs. The project focused on several FUAs in Central Europe, namely Bologna, Budapest, Poznan, Brescia, Stuttgart, Maribor and Rijeka, whose authorities were involved in the project as fully-fledged partners.

SULPiTER designed and developed a tool aimed at estimating the freight demand generated by the economic activities in the FUA represented by the project partners. SULPiTER tackled urban freight in the FUAs, taking into consideration the functional transport and economic relations between inner urban centres (limited territorial target of public regulations) and surrounding urban territories, as well as the functional transport and economic relations. The SULPiTER tool was intended to be a decision support system for policy makers to facilitate the process of elaboration of alternative city logistics scenarios.

The project, began in June 2016, implemented a first phase of analysis of the freight transport and related impacts in Brescia FUA, structured in four steps:

- Analysis of socio-economic characteristics of Brescia FUA;
- Interviews to commercial activities (shops, restaurants, etc.);
- Interviews to transport and logistics operators;
- Analysis of traffic flows on existing data and recordings along beltways.

After a first phase of analysis, the structuring of governance in Brescia FUA, with involvement of the stakeholders through participatory process inside the Freight Quality Partnership FQP was implemented. During the FQP meetings, Brescia Mobilità and Brescia Municipality (SULPiTER associated partner) with the stakeholders, defined main topics of interest for public and private actors involved in freight transport and logistics in Brescia area. More details on FQP will follow in one of the chapters of the present document.





The last phase of the project allowed the definition of a shared methodology for the elaboration of the SULP, thanks to results obtained in the first two phases, both in Brescia FUA and other Functional Urban Areas involved in the project.





2. The SULP Policy Document

The SULP of Brescia FUA is a document that, as indicated in the SUMP (Sustainable Urban Mobility Plan) approved in February 2018, defines the actions Brescia Municipality should undertake in the sector of city logistics within 2030, a year European Commission defined as the objective of "Urban distribution of carbon-free goods", namely zero direct emissions of carbon dioxide (CO2). The document has the ambition to represent the planning tool for a supra-municipal area (functional urban area) in definition of objectives, strategies and actions for the improvement, in terms of environmental sustainability, of the goods transport and distribution in Brescia FUA.

The SULP must therefore be considered as a specific plan for the management of city logistics processes, for the design of solutions with a medium-term time horizon, and as an instrument aimed at:

- Definition of common vision, needs and priority lines;
- Design of a set of appropriate measures / solutions / services;
- Reduction of atmospheric and noise pollution, and energy consumption;
- Creation of a consensus among the stakeholders;
- Definition of a roadmap for possible institutional adoption.

The approach used in the elaboration of SULP followed the 2014 Eltis guidelines for the development of SUMP, and the Guidelines for the Urban Logistics published by Lombardy Region in November 2013. This document was written by Brescia Mobilità S.p.A. with the external support of ALOT S.r.l. and under the supervision of the Municipality of Brescia, following the indications and methodology of the SULPiTER project (CE222), co-financed by the European Territorial Cooperation Program Interreg Central Europe 2014-2020.





3. Transport policies - state of the art analysis

Existing policies and planning documents dealing with transport and logistics that provide an overview of the transport policies' state of the art in Brescia FUA, are mainly divided into three types: 1) Guidelines; 2) Spatial planning documents; 3) Strategic documents.

- 1. With regard to the Guidelines, called also technical documents, which embed the **strategic and policy principles** for a general reference framework, three main ones have been delivered by the national and regional Public Authorities:
 - Ministerial Directive for URBAN MOBILITY PLAN editing; delivered by the Ministry of Infrastructures and Transport, provide the guidelines for Peripheral Public Administrations (Provinces, Aggregations of Municipalities and Municipalities), for the effective Urban Mobility Plans. The Plan also provides instructions for the interaction with other institutional actors on the basis of goals, strategies, priorities and proposition, driven by the in-depth technical-economic analyses according to common standards. The adoption of indications contained in the Ministerial Directive on Urban Mobility Plans by the local Public Administration is a pre-requisite to obtain funding from the national public authority in specific transport topics, proving that the local frame of interventions meets the government's general objectives. De facto, funding will be no longer "for specific public works", but "for specific mobility goals".
 - **Regional Guidelines for the recharging infrastructure of electric vehicles;** delivered by the Mobility and Transport department of the Lombardy Region that adopts European and national guidelines (National Infrastructure Plan for Recharging Electric Powered Vehicles) and declines them in detailed actions for regional and local context. The Regional Guidelines are in line with the European and national regulatory environment, promote actions for the development of electric mobility. The guidelines illustrate the general principles to be followed in the design of the recharging infrastructure networks for electric mobility, as well as the technical options to be selected according to the installations' typology, in order to enable both public and private access recharge in a synergic and functional framework.
 - **Regional Guidelines for Urban Logistics**. Urban logistics in Lombardy region has been tackled with an integrated approach and through the establishment of a regional working tables on freight flows as space for shared work and comparison. The working table brings together main public stakeholders and private actors in the field of transport and logistics, defining a program of actions and interventions, and one of the interventions is the urban logistics. From a careful examination of the status quo of the goods distribution in Lombard municipalities, the territorial and temporal fragmentation of the measures regulating the goods deliveries comes out, together with the consequent difficulties of the transport and logistics operators to carry out the distribution efficiently, in respect of the air pollution and congestion regulations. The regional guidelines are Lombardy Region's response to the requests made by the private operators at the working table, to direct and support the municipalities (in full respect of their autonomy) to pay more attention in terms of quality rather than quantity of the legislation produced.
- 2. With reference to the second type of the policy documents, spatial planning documents have to be outlined as the cornerstone of the territorial government. These documents preceded the development of the Sustainable Urban Mobility Plan in Brescia, thus are also the reference for the SULP. These three documents set the **fundamental territorial limitations** for the upcoming transport & logistics policies, which must adapt to the spatial planning documents locally delivered, without changes in directions contained in it.
 - **Provincial Coordination Area Territorial Plan;** according to Regional Law n. 12, the PTCP's competencies concern:





- $\circ~$ The objectives of economic-social development at a provincial scale, combined with forecasts of the sectoral plans;
- The indication of qualitative elements on a provincial or supra-municipal scale, for municipal planning and minimum content on subjects of over-municipal interest that have to be included in the plan document (the plan of the rules and the services plan);
- The general program of the major infrastructures related to the mobility system and the environmental and landscape integration;
- Coordination of the plans of municipalities, including compensatory or financial forms, possibly aimed at promoting the association between municipalities;
- The definition of the areas for agricultural activity of strategic interest, criteria for the identification of the agricultural areas on a municipal scale and the relative standards of valorisation, use and protection;
- The hydrogeological structure of the territory;
- \circ The protection of landscapes, in coordination with regional plan for landscape;
- The identification of territorial spheres for which the definition of actions of coordination aimed at the implementation of inter-municipal territorial equalization.
- There are some PTCP's assumptions that become prescriptive and prevailing for other public administration levels:
 - The forecasts for the protection of environmental and landscape assets;
 - The indication of the location of the first and second level mobility infrastructure;
 - The identification of agricultural areas preceding the PGT approval;
 - The indication for areas subject to protection or classification of hydrogeological and seismic risk, and priority investment for consolidation, but only in cases where sectoral legislation and programming assign the competence in matter with prevailing effectiveness to Brescia Province.
- **Territory Government Plan;** the urban planning tool with the purpose to define the structure of the entire municipal territory through:
 - The general framework of urban planning (*documento di piano*);
 - The plan of infrastructures and public services that the municipality needs (*piano dei servizi*);
 - The definition of the destination of each municipal area (*piano delle regole*).
- Extra urban provincial traffic plan (PTVE); with its elaboration, the Provinces ensure the adoption of traffic plans for the extra-urban roads in order to improve conditions of traffic and road safety, reduce noise and atmospheric pollution and increase energy savings, in accordance with urban planning instruments and transport plans in force and with respect of environmental values. The elements that characterize PTVE respond to the principles of sustainability, aiming at rationalizing the use of current resources through the optimum management of existing infrastructures, in fact the plan does not focus on new infrastructures. PTVE includes the analysis of the state of facts of the analytical framework (characteristics of the infrastructures and functional classification of roads, transport demand, roadway criticality) and the elaboration of a mathematical model for the traffic simulation.





- 3. The policy documents in Brescia FUA, which express more explicitly city's strategic indications, measures and actions to be undertaken in the field of mobility, transport& logistics, and must be taken into consideration, are:
 - **Regional Plan for Mobility and Transport (RPTM);** which represents an integrated planning tool of great importance because it constitutes the system of mobility relationships based upon demand and supply, compares them to the layout of existing infrastructures, and identifies the integrated planning requirements of infrastructural networks and transport services.
 - **SUMP of the city of Brescia;** which includes also the indication of the administration programming mandate 2013-2018, contains a strategic vision for the metropolitan area of Brescia, whose Public Authority coordinates all the components of the mobility system, with goals and strategy, defined and measurable in the SUMP.

The set of the above listed policy documents is quite complex, but part of well-integrated policy context that has to be kept in consideration while developing any kind of mobility policy, included the SULP. It fully reflects and adopts all the strategic directions deriving from the European Union. When each policy document with its specific characterization is analysed in details, elements of great strategic interest, peculiar to the Brescia territory and local context are identified and among them, the following stand out:

- The focus on the efficiency of the logistics system in order to support the competitiveness of the territory and its economy: strong incentives to rationalize the system and to connect it with external areas (Italy, EU, world) through the identification of infrastructures planning criteria, the definition of transport networks hierarchy, and the creation of logistic nodes in specialized areas;
- The strong pressure on the improvement of air quality standards in the Po Valley context, which is one of the places with the worst air quality in the whole EU: promotion of alternative ways of moving including the replacement of public and private fleets with electric vehicles or alternative fuels;
- The great attention to the involvement of the stakeholders in order to find solutions for the conflicting interests. In the field of urban logistics, the regional guidelines pay particular attention to the theme of conflict of interests, clarifying that the initiatives introduced by the municipalities for the improvement of air standards, noise reduction and congestion, must be applied proportionally (verifying the costs and benefits for all the stakeholders), gradually (giving the right time to the operators of the urban distribution to adapt) and where possible in coordination with different cities public administrations (giving the possibility to standardize procedures when the last mile distribution affects several cities, to the private operators).

Brescia FUA context analysis shows areas of policy and regulation not fully covered by the current regulation/policies, thus they become natural fields for the application of the SULP:

- The local documents (SUMP, PTCP, PGT) have placed great emphasis on people transport issues up to now, thus the SULP elaboration would cover large thematic areas linked to the local flows of goods that the previous documents have treated without too much in-depth coverage;
- The guiding criteria for the construction of the infrastructures are primarily linked to passenger transport and to the main freight routes at supra-municipal level (e.g. the identification of logistic nodes at the intersection of the primary freight lines with the railway lines). The SULP elaboration should enforce the current criteria, adding new ones related to the distribution of the last mile. This way the identification of the logistics nodes would become even more effective for the local distribution;
- There are many shared issues by both passenger and freight transport identified and regulated by the current documents (e.g. access to the city centre of commercial vehicles). SULP elaboration





will have to face these issues all over again, but it will bring added value, also compared to other Lombard cities and their stakeholders' requests, which will be brought together at Freight Quality Partnership works in SULPITER, as also defined by the regional guidelines on urban logistics.

The SULP will also refer to the Eco - Logis¹ experience, an innovative city freight shipping service jointly developed and implemented by BreMob and Consorzio Brescia Mercati, to decrease the entry of heavy vehicles in the historical centre with the use of environmentally friendly vehicles having zero impact. The service is run through a logistic platform located in the Brescia Fruit Market, where couriers deliver their freight before entering in the city centre. Once at the facility, the goods are organised using an information system that optimises the deliveries in the centre. This organisation allows the service to cover the last mile of the freight transport chain, using only environmentally friendly vehicles. Replacing polluting transport vehicles with electric vehicles with zero environmental impact, Eco - Logis adds to substantially reduction of pollutants and harmful emissions, restoring Brescia as one of European sustainable and liveable cities. The SULP will reconsider the Eco - Logis business model trying to expand the service to make it more competitive, e.g. extending it beyond the boundaries of Brescia city.

^{1&}lt;u>www.Eco - logis.it</u>





4. Urban Freight Transport - state of the art analysis

Brescia FUA and its borders were defined with Brescia city as FUA's centre surrounded by all neighbouring cities forming the first urban belt (15 small-medium municipalities).



Abitanti	sup. (km2)
196.690	90
10.877	18
13.495	18
11.476	26
9.301	8
4.688	6
5.251	13
8.816	9
10.966	7
9.583	9
16.638	25
4.936	7
4.616	5
15.685	19
7.473	6
10.893	27
341.384	293
	Abitanti 196.690 10.877 13.495 11.476 9.301 4.688 5.251 8.816 10.966 9.583 16.638 4.936 4.616 15.685 7.473 10.893 341.384

The map above shows Brescia **FUA borders, with** 341.384 inhabitants along a surface of 293 KM2; According to Chamber of Commerce's data the total number of relevant productive activities in the FUA of Brescia is 18.750; the most relevant for urban freight flows are:

- 7.191 for distributive flow of city logistics;
- 3.275 for industrial flows;

Furthermore, there are 585 logistic and transport operators located in the FUA, and 189 not located in the FUA, but operating with transport& logistics activities in it. Many of these operators are not relevant for the urban distributive flows, thus the list of most relevant was shorted to 56 operators.

According to the analysis reported in the annex, the total **quantity of goods relevant for the urban distribution** in the FUA amounts to about 910 tons per day, which counts to more or less 3000 deliveries daily.

The most relevant supply chain for transported loads is the B2B that manages 60% of total (545 tons per day), while the second is "horeca and foodstuff" up to 37% of total (little more than 335 tons per day); the other three chains add up only to 3% in terms of weight.

The areas of greatest attraction (half of the freight flows considered are directed in the city centre) are with the highest density of shops, in particular:

• The city centre, which attracts more than 18% of the total;

• The areas of Poncarale - Flero, which from the analysed data, present a large number of both commercial and wholesaler shops and attract more than 13% of the total amount of freight flows;





• The areas with zip code 25124 and 25125, south of the historical city centre, which totalize 11% and 9% of total attraction.

The most important supply chain in terms of deliveries is "horeca and foodstuff" (75% of the total number). The deliveries related to this supply chain are higher due to very limited average weight.

The total number of **vehicles involved** in the estimated urban distribution of goods is 709 vehicles per day; 81% light commercial vehicle, 19% a medium-sized vehicle. The prevailing type of vehicle is diesel fuelled, generally with high quality level of emissions standards; the most frequent is EURO5. More than 25% of the vehicles adopts alternative fuels; generally, methane, in a few cases LNG, e-vans present only in Eco-Logis - the municipality's logistics operator - and has been adopted by other operators.

The average number of stops for each delivery round is just over 4. Distribution takes place mainly in the morning; the following graph shows the distribution per supply chain per **delivery hour**:



The main peak is during the morning between 9 and 12, and it includes the 48% of all daily deliveries. There is also a second peak (during the afternoon) around 15.30, but it is less that the half compared to the morning one.

The distribution process is generally managed by the suppliers (DDP 94.9%); while less than 5% of the supply process is managed by the shop (EXW 4.7%; Off Truck 0.4%). The share of supplying process managed by third party provider is 60%, while the "own account" managed by suppliers is 35%, and the shop keepers "own account" is just 5%. The share changes depend on different supply chains as per following chart.

Transport service share	1. Home accessories	2. Articles for persons	3. Horeca& foodstuff	4. Car repair	5. B2B
Shop own account (%)	0,0%	3,5%	5,5%	13,0%	15,3%
Suppliers own account (%)	25,0%	11,0%	60,5%	22,5%	24,7%
Third party (%)	75,0%	85,5%	34,0%	64,5%	60,0%



The average number of daily deliveries per shops is 1.04, The 44% of the shops has one or more deliveries per day, while the 56% has less than one per day (2 average deliveries per week).

With reference to the load unit, three main types may be highlighted:

- Box (36.2%);
- Carton box (29.1%);
- Pallet (17.8%).

For the remaining load units, (17.3%) many deliveries are without a specific load unit (groupage) and in some cases with specialized load unit (e.g. demijohn or bread basket, etc.).

The Delivery time is very short: 57% less than 10'; 36% from 10' to 20'; 7% more than 20'.

The number of load per delivery is highly variable: minimum 3.6 - maximum 29.5 - average 8.6.

The Point of delivery: 42% private area; 36% on street regular parking; 12% illegal parking or double lane; 10% public loading bay. There is a problem related to point of delivery into the LTZ better specified after.

Over 35% of shops make deliveries to the final customer; those deliveries are more frequently carried out by "own account" (62%), but there is a substantial quota carried out by third party operators (38%), in particular in B2B supply chain. The average number of stops for each delivery round to the final customer is 4.22, of which however, about half are outside the FUA. The average number of packages delivered is about 7.5; the weights and dimensions are on average reduced compared to those received.

Emerging problems:

1. There is a lack in loading and unloading cargo bays planning, especially in LTZ (city centre). In general, the spaces dedicated to loading and unloading activities are not enough, in many cases in areas where they are not necessary. Besides loading/unloading, areas are always occupied by residents' private cars and there is no control from traffic wardens.

2. The regulation for the LTZ access is too rigid: time slots are too narrow, access and parking costs too high. Shops/commercial activities' logistics needs are not taken enough into consideration/ planning. The shopkeepers have to sustain big costs for vehicle entering and parking in LTZ because there is lack of specific arrangements.

3. The shopkeepers' business model is characterized by low or total absence of stocks, and have a continuous supplying process to match the customers' requests. The consequence on the distribution model is high flows intensity of couriers. The cost reduction is main driver of this process thus, except for specialized network (e.g. "Ad Hoc" for car repair), the handling quality level is very low.





5. SULP's specific objectives

The SULPITER project enabled the definition of a vision for the SULP of Brescia, through a first phase of qualitative and quantitative analysis and then with a participatory process involving the main stakeholders in the Freight Quality Partnership. The vision contained in the present SULP guarantees the achievement of the objective of "Urban distribution of goods with zero direct emissions of carbon dioxide (CO2)" in 2030, indicated inside European Commission's White Paper on Transport. It safeguards the EC's objective by developing a system of goods transport and urban logistics in the FUA of Brescia that takes into account the needs of all stakeholders and the rapid changes dictated by the evolution of the market and technologies.

In Brescia FUA, problems of freight transport are mainly linked to two specific issues that, even though require different intervention methods, are basically linked to heavy traffic and industrial logistics, and require a shared management based on the rules of urban logistics (historic centre and surrounding areas).

The first area of intervention is linked to the current persistent presence of heavy vehicles along the primary urban road network, due to the existence of important industrial centres (e.g. the IVECO area, the area of Alfa Acciai and the industrial area of via Girelli).

Moreover, the fact that the urban intermodal railway terminal called "la piccola velocità" will probably become one of the main freight terminals of the entire Lombardy Region, with a high intermodal potential and with the need to plan measures related to an increase in flows in that area, has to be considered.

The measures related to this issue will therefore be linked to the development of the intermodal terminal, which will however not be operational before 2021.

In order to obtain a logistics plan, which does not have to be completely revised in a short-time period, it is fundamental to take into account the impacts of the intermodal terminal development in medium and long-term period, to date still with little impacts on local traffic, but will grow considerably in the coming years.

The second area of intervention is linked to the criticality of urban freight traffic, which represents a rapidly evolving sector due to different elements (e.g. the need to have a zero-emission city centre and to adopt non-polluting vehicles for urban transport).

A further element to be taken into consideration while outlining the specific objectives of the SULP, is information emerged during the working tables of the Freight Quality Partnership.

The local authorities' governance in the field of urban logistics is traditionally not an easy task. Public Authoroties have few resources to influence the behaviour of private operators and their interest in maximizing efficiency in "last mile" deliveries, thus defining rules and efficient strategic directions is increasingly problematic.

One of the actions that have positive impacts on the improvement of the sustainability of goods delivery services, certainly inexpensive but efficient as demonstrated in past and in other similar contexts, is the management of access regulations to Limited Traffic Zone LTZ or in pedestrian areas. The actions refers to identification of a wider "low emission" area compared to the existing one, leaving the organization of deliveries to private operators, and this "regulatory" approach, as emerged in the SULPiTER project, requires a dialogue with private operators in order to achieve shared solutions.

To meet the critical issues related to the delivery of goods in urban areas, measures are drafted for the second area of interventions aimed at:

• A development of the zero-emission delivery model, currently tested and implemented only with the Eco-Logis service, inside the historic centre and in few other areas of the FUA of Brescia;





- A coordinated approach based on the rules for the freight transport in the city centre, shared with operators and related to a revision of access windows and methods, and parking areas location for goods deliveries;
- A limited access to the city centre of Brescia for the most polluting vehicles (starting from diesel vehicles), through a planning shared with the operators;
- A diffusion, where possible, of goods pick-up/delivery points (locker boxes) for a self-service, with the main role of the public authorities in identification of location for delivery points to be implemented by private operators.

The Functional Urban Area of Brescia, based on problems divided into two main areas of intervention, has identified several specific objectives for the transport and logistics sector, and they could be defined as follows:

- **Specific objective 1** Reduce road congestion by increasing the accessibility of the freight transport to the city, through a better integration between industrial and commercial areas and freight terminal/ redeveloped interchange points. To achieve this first objective, it will be important to coordinate and harmonize at city/ functional area levels, a series of transport measures that ensure the reduction of the existing traffic congestion and handle the increasing traffic in the upcoming years due to the development of La Piccola Velocità freight terminal. Besides the infrastructural interventions of the road network already planned in support of future development of the terminal, measures capable to support the intermodality and the use of the terminal by the operators, should be also implemented.
- **Specific objective 2** Improve the competitiveness of the freight transport system in Brescia FUA, with a higher load factor of freight vehicles and a greater efficiency in logistics. One of the problems on which public authority should work, highlighted by the operators interviewed during the first phase, is the difficulty to partially or fully load the vehicles used for deliveries, thus the impossibility to reach the necessary optimization. The current load factor negatively affects the number of trips operators must take and the numbers of vehicles used, based on the characteristics of the commercial activities' distribution and in the case of the historic centre the limited access time windows for deliveries.
- **Specific objective 3** Improve the citizens' quality of life by reducing pollution in Brescia FUA, favouring a gradual transition from polluting to reduced (or zero) environmental impacts vehicles used in the goods delivery in the city centre. The transition to a carbon free logistics must necessarily be done gradually but constantly, shifting from polluting vehicles to vehicles with low or no impacts, with an introduction of carbon-free solutions such as electric vehicles, cargo bikes or last mile delivery on foot with carts. The challenge is to implement a series of measures and incentives that maintain the efficiency of the logistics system linked to deliveries in FUA's central areas reducing congestion and pollution.

The **strategies** contained inside the SULP of the FUA of Brescia are based on information collected during the initial analysis phase of the SULPITER project, and are transversal for the achievement of the specific objectives listed above. They can be summarized in the following three macro-areas of intervention:

- An increasingly marked **promotion of intermodality**, mainly regarding the industrial flows and development progress of intermodal terminal La Piccola Velocità, through indications on possible organizational and management procedures and supporting policies for scenarios of the area development as a stimulus for the terminal area growth.
- A gradual but constant **shift** over time **towards sustainable urban distribution** with the use of **low/ non-impact transport vehicles** for the delivery of goods.
- A redevelopment of Brescia FUA historic centre, thanks to shared measures that guarantee a gradual but steady reduction of negative impacts of the goods delivery over time, until the total cancellation of emissions caused by logistics sector in the city centre by 2030. The measures





that guarantee a gradual access closure to the city centre of polluting vehicles should be harmonized and shared with the operators, to have them respected by everyone.

In order to achieve all the specific objectives through the implementation of the indicated strategies, a constant dialogue with stakeholders is needed, not only to make everyone understand and respect the rules, but also to encourage new initiatives shared among public and private sector actors.





6. Measures vs. demands

After the analysis performed in the SULPiTER project and taking into account the main points of interest highlighted in the FQP process, the FUA of Brescia identified 9 main measures to be implemented in the next years and that will be better described in the following 2 chapters. Hereunder you can find the list of identified measures with a short explanation on the reason why each measure was selected and then an indication on the Brescia FUA's area in which each described measure should be implemented.

Measure 1 - The intermodal terminal La Piccola Velocità: infrastructural upgrading and development of innovative services

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Urban planning - infrastructures	The development of the intermodal terminal, located in the heart of Brescia Functional Urban Area, will impact the measures to be implemented for the urban distribution and in general for the goods transport in the area in medium/ long-term period.	Area of Intermodal Terminal La Piccola Velocità

Measure 2: Freight routes

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Regulation - technologies	The measure avoids the conflicts between goods transport and people mobility; increases the average speed for both categories and reduces emissions due to lower congestion. Promotes road safety and helps transport operators to reach their destinations more easily.	Connection area between the terminal La Piccola Velocità, the industrial area and main road network nodes.

Measure 3: Spatial planning for logistics

Type of measure Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
---	---





Measure to accompany the development of the terminal	Termina	La Piccola	Velocità
La Piccola Velocità.	area an	d Consorzio	Mercati
Creation of synergies with what already exists (Eco ·	S.p.A. ar	ea	
Logis service at Consortium Brescia Mercati)			
	Measure to accompany the development of the terminal La Piccola Velocità. Creation of synergies with what already exists (Eco - Logis service at Consortium Brescia Mercati)	Measure to accompany the development of the terminal Terminal La Piccola Velocità. area an Creation of synergies with what already exists (Eco - Logis service at Consortium Brescia Mercati)	Measure to accompany the development of the terminal Terminal La Piccola La Piccola Velocità. area and Consorzio Creation of synergies with what already exists (Eco - Logis service at Consortium Brescia Mercati)

Measure 4: Use of vehicles with low (or zero) environmental impact for goods transport

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Regulation - Infrastructures - Energy	The goal of zeroing polluting emissions for urban logistics will have to go through the adoption of less polluting vehicles (up to zero impact) for the transportation and delivery of goods in the city.	Brescia city centre and first urban belt/FUA

Measure 5: Goods delivery points

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Urban planning - Infrastructure	The measure proved to be of specific interest during the FQP meetings and can be a good response to changes in logistics system linked to e-commerce.	Several FUA areas

Measure 6: Identification of Proximity Logistics Spaces (PLS)

Type of measure Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
---	---





۔ Urban planning - ۱ Infrastructures - services I	The measure turned out to be of interest as it is necessary for the introduction of deliveries with cargo bikes, trolleys or e-vehicles, a less impacting alternatives (for the traffic congestion and order inside city centre).	FUA surrounding historic centre
---	--	---------------------------------

Measure 7: Planning for a gradual introduction of access restrictions to the city centre

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Regulation - Urban planning	The measure is of primary importance, not only to decrease pollution from logistics in the urban area, but also for successful implementation of other measures identified in SULP	City centre

Measure 8: Reorganization of loading/ unloading areas in the city centre

Type of measure	Reason for the selection of the measure	Territorial area of the Brescia FUA interested by the measure
Regulation - services - infrastructures	The measure comes from FQP debate and is important to pursue the redevelopment strategy of the historic centre	FUA centre

Measure 9: Permanent Freight Quality Partnership

Territorial area of the Brescia FUA interested by the measure





Regulation - Service	The measure is essential for solution of many of the problems identified in different SULPiTER phases. In general, FQP instrument seems to be the most useful tool to guarantee a constant dialogue between public and private sector actors.	FUA
----------------------	---	-----





7. Layout of measures

Measure 1 - The intermodal terminal La Piccola Velocità: infrastructural upgrading and development of innovative services

Description of the measure

Located in the city centre inside the freight centre, the terminal currently has inside the part owned by RFI, four railway tracks with a total length of 1800 meters and connects Brescia to Monaco, Singen, Rotterdam and Ede.

The redevelopment project aims to turn the terminal into a cardinal intermodal terminal of eastern Lombardy, with the goal - once fully operational - to move 198,000 containers and swap bodies from Brescia, traveling by rail rather than by truck.

The idea behind the intervention is to double the goods handling from the first operational year (currently dropped below 200,000 tons) to get - at full capacity - to 5 million tons per year. The terminal should operate 24 hours a day from Monday to Saturday (excluding holidays), with five transhipable railway tracks (able to load trains over 750 meters) and three other support railway tracks. Operations should be implemented using three electric cranes, replacing diesel (polluting) cranes.

The new terminal "La Piccola Velocità" represents an important opportunity for Brescia FUA as far as railway traffic growth is regarded, expected in the next decade in the north-west Italy, thanks to the increase of infrastructure capacity along the Alpine railway and the completion of the high-speed / high capacity Milan-Verona-Venice line.

The shift from roads to railways is a strategic choice for the future of Brescia as a node connected to the main freight routes, in order to ensure the competitiveness of local industry in European and global context.

Measure 2: Freight routes

Description of the measure

For the first phase of the terminal development, which foresees infrastructural upgrading of the railway network connected to the terminal, specific routes for goods delivery should be identified. This measure could be a part of the traffic regulation action limiting the conflicts between freight transport and people mobility, and should be applied in the area connecting the terminal to fruit and vegetable market (southwest of FUA's first urban belt) and to the city centre and the entrance of highway and beltway.

The overall objective of this measure is to improve the efficiency of the freight transport by providing routes and signs for the access to the intermodal terminal area and other industrial areas. This should allow an increase in the average speed of commercial and private vehicles and a reduction in congestion.

Measure 3: Spatial planning for logistics

Description of the measure

The type of measure focuses on identifying and "booking" spaces/ areas for logistic purposes. It may concern the conversion of specific areas for logistics purposes with changes in the use destinations. The goal is to increase the efficiency of freight transport in the territorial context of reference. Different types of reserved areas can be used for different logistical purposes. For example, a small area could host an urban distribution centre; reserving areas along the canals or near railways could increase accessibility to multimodal transport solutions. The strategic allocation of the logistic areas within a functional urban area can influence modal choices, even in a wider regional and interregional perspective.





Measure 4: Use of vehicles with low (or zero) environmental impact for goods transport

Description of the measure

The main objective of the measure is to promote sustainable and low-emission goods delivery services in urban and metropolitan areas, expanding the use of "clean" vehicles in current LTZ of Brescia centre and beyond. Ideally, the replacement of polluting vehicles should take place not only with LNG or electric vehicles, but where possible, with the introduction of cargo bikes or carts for deliveries on foot.

In order to gradually shift the methods of goods delivery inside urban areas towards an increasingly agile and less/zero polluting vehicles, supporting measures have to be implemented, starting with a consolidation centre (already present at Brescia Mercati Consortium) or micro-consolidation centres (for example Proximity Logistics Areas close to historic centre), and a gradual introduction of increasingly stringent constraints that gradually prohibit the access to the city of polluting vehicles used for goods delivery.

This type of measure can be included in a regional or local system of subsidies for the purchase of vehicles with low (or zero) pollutant impact (this may specifically relate to commercial fleets). It can also represent (in addition to a mobility measure) part of an energy and environmental policy, or an economic policy that promotes industrial sectors and services related to "green" mobility.

With regard to financing of green/ clean vehicles acquisition, the cost is itself a political decision, which is often adopted at national rather than at local level, and certainly is higher than for the other types of measures described in the SULP.

The private transport operators that participated in the Freight Quality Partnership meetings expressed their availability to invest in a greener/ cleaner fleet over time, provided that the costs are sustained within a reference framework containing clear rules that allow investments planning over medium to long-term period.

If, as mentioned above, a policy of incentive for deliveries with LNG or electric vehicles may not be easily implemented due to fleet investment costs, certainly the simplest policy implementation is linked to the support of cargo bikes use for the last mile deliveries inside historic centre.

The types of vehicles that can be used are constantly evolving, but can be summarized mainly in:

- Bicycles;
- Cargo bikes;
- Cargo tricycles;
- Cargo quadricycles.

Measure 5: Goods delivery points

Description of the measure

The points for goods delivery are structures based on the idea of lockers used in the e-commerce market, places for goods delivery and collection, which enable operators to concentrate operations and reduce management costs. The creation of delivery points/ multi-operator lockers where transport operator can leave the goods, cutting the distance and polluting emissions, using an alternative to direct delivery, should be foreseen.

This measure was of particular interest to many of trade association representatives that took part in the FQP process. Solutions such as locker boxes (latest-generation automatic dispensers always open, which





allow goods/ documents collection and delivery 24 hours a day) distributed in different areas of the city, have been spreading with private e-commerce, where customer is autonomous for the final withdrawal.

Many companies located in Brescia FUA got offers from large e-commerce operators to be part of the network of micro-distribution centres. These delivery points can be identified in public areas and can be used as centres to collect small goods, as well as real logistic areas next to urban areas (feasibility of last distribution of goods on trolleys, electric vehicles and cargo bikes has to be evaluated).

Measure 6: Identification of Proximity Logistics Spaces (PLS)

Description of the measure

Currently service called Eco-Logis is running in Brescia city and it delivers goods in historic centre using methane or electric vehicles. However, a system of last mile deliveries with cargo bikes or trolleys handled on foot, still lacks. If the area of Brescia fruit and vegetable market, where the Eco-Logis service is currently located, is considered too far from the historic centre for cargo bikes delivery, a low impact/ ad hoc solution (both economic and infrastructural) for the city centre could be the implementation of one (or more than one) Proximity Logistic Space (PLS).

PLSs are in fact small areas or structures where goods are transhipped from one vehicle to another. These areas are micro-consolidation centres and are generally located near urban areas, thus commercial vehicles can avoid entering the urban area and the last part of the route is covered by ecologic vehicles supplied at PLS or simply by walking handling the carts.

The PLS measure supports the planning of gradual introduction of restrictions of the access of polluting vehicles to the city centre, foreseen in Brescia SULP.

The implementation of PLSs is a relatively simple operation, as does not require wide areas or particular infrastructures: a road surface area equivalent to the parking space of few vehicles could be used as the reference structure for the goods delivery, or existing underground parking areas, adjacent to (or even within) the LTZ can be used with final delivery safely done using cargo bikes and special carts handled on foot.

Measure 7: Planning for a gradual introduction of access restrictions to the city centre

Description of the measure

Lombardy Region, through the Agreement Program for the implementation of measures on air quality in the Po Valley, foresees " traffic limitation from October 1 to March 31 each year, from Monday to Friday, from 8.30 until 18.30, with essential exceptions, for private and commercial vehicles of category N1, N2 and N3 with diesel fuel, and of lower or equal Euro 3 category".

The limitation is extended to Euro 4 category by October 1 2020 and to Euro 5 by October 1 2025, and applies primarily in urban areas of municipalities with a population of more than 30,000 inhabitants.

This measure is essential in the achievement of a zero-carbon urban logistics system and access rules to LTZ.

Measure 8: Reorganization of loading/ unloading areas in the city centre

Description of the measure.





The measure aims at redesign of loading bays with development of areas with insufficient parking spaces, and implementation of services for operators, such as recharging electric systems, surveillance systems, deterrent systems for illegal parking, possibility of booking loading bays, etc.

This measure aims to address the problem connected to the loading/ unloading of goods, which came out during interviews both with commercial activities and transport operators, and afterwards during the FQP meetings.

Measure 9: Permanent Freight Quality Partnership

Description of the measure

The Freight Quality Partnership (FQP) is a local forum that aims to promote cooperation between private operators and public authorities, where stakeholders discuss jointly about possible interventions to be implemented in the urban distribution of goods.

The FQP measure is a tool that can guarantee a constant dialogue between different actors involved in the decision-making process, and in the implementation of solutions for the improvement of logistics system in Brescia FUA.

8. Road-map for implementing the measures

Measure 1 - The intermodal terminal La Piccola Velocità: infrastructural upgrading and development of innovative services

Roadmap for the implementation of the measure

The intermodal terminal development strategy has been already defined in detail and it provides a twostage evolution for the accessibility of the vehicles, with particular attention on avoiding negative impacts on congestion and on facilitating conditions for a lower impact in terms of pollution.

The first phase is imminent, while the second is closely connected to the current composition of new productive activities in the area, thus the second phase can only be outlined in the SULP.

In the first phase, the upgrade of the existing road network and the access to the terminal via Orzinuovi and via Oddino Pietra/ via Varese, are planned.

In the second phase, further measures will be implemented to strengthen the infrastructures, if new productive industrial and logistic activities are set up in currently disused areas surrounding the terminal, with a significant increase in the transport demand.

In the second phase a new access to the terminal, parallel to via Orzinuovi is planned. It will allow the connection with the main roads (highway and south ring beltway), and the use of the existing road access to fruit and vegetable market.





Moreover, considering the proximity of the terminal "La Piccola Velocità" to Brescia urban centre and taking into account the development program of the intermodal area, a construction of a consolidation centre inside the terminal has to be evaluated.

The implementation of this measure is a long-term process that should be thoroughly planned. A consolidation centre, in order to be functional, must be supported by other measures that modify the conditions of goods delivery in the city (for example a specific regulation aimed at limiting the access to the city centre and promotional campaigns for the use of the goods consolidation centre).

Possible problems and obstacles in the development/ implementation of the measure.

Although the terminal development plan is defined, the past experiences shown the arise of several problems due to delays in intervention of different stakeholders involved. It will therefore be fundamental, on the one hand, take into considerations requests of all the parties directly (and possibly indirectly) involved, and on the other hand have a development plan shared among private and public bodies involved, in order to respect defined planning time.

Expected benefits: the infrastructural enhancement and development of innovative services of the terminal La Piccola Velocità will mainly aim at:

- Development of the intermodal terminal with positive economic impacts for the whole FUA;
- Regulation of expected increase in freight traffic flows with a neutral impact on traffic congestion and a substantial reduction in pollutant emissions.

Measure 2: Freight routes

Roadmap for the implementation of the measure

The application of the road signs dedicated to goods traffic could be planned and then installed in specific points along the primary urban road network, in support to the upgrade of the existing road network and access from via Orzinuovi and from via Oddino Pietra/ via Varese to the terminal area. A study on the application of such signs along the other streets of the city network, will be evaluated in the coming years, if there will be an actual need linked to the development of the terminal.





Possible problems and obstacles in the development of the measure

The transport network of a city and the location of industrial and logistics areas play a fundamental role in successful implementation of the measure, as they determine the goods transport patterns and possible conflicts with private mobility.

In addition to the definition of good transport routes, the authorities must put in place a reliable guidance system (including up-to-date and reliable information) to put drivers in a position to comply with the regulatory framework.

Expected benefits

The purpose of the measure is to avoid conflicts between users of goods transport and people's private mobility; in addition, the average speed is expected to increase for both categories (passengers' mobility and freight transport) and the emissions are expected to decrease due to lower congestion. Furthermore, this type of measure favours road safety, helping transport operators to reach their destinations more easily.

Measure 3: Spatial planning for logistics

Roadmap for the implementation of the measure

This measure may relate to the development of the terminal La Piccola Velocità, in particular in its second phase, with the establishment of new industrial, logistic and productive activities. As said, the terminal area has been already dedicated to the intermodal terminal and private operators, and in the second phase, the efficiency of freight transport could be increased with an urban distribution centre located inside the terminal. This measure, if applied, could greatly enter in synergy with the existing Eco - Logis platform inside Brescia fruit and vegetable market, adjacent to the terminal. Dedicating an area for the goods consolidation inside the railway terminal could further increase the accessibility to the intermodal transport area and could contribute to the increase in the market share of the zero-emission goods delivery solution already activated by the Eco-Logis service.

Any increase in the market share of the Eco-Logis service, promoted by Brescia Mobilità, would automatically increase the load factor for goods deliveries in a wider area and the use of low-emission, electric vehicles.

The service is currently available through a logistic platform located in Brescia fruit and vegetable market, where the couriers deliver their goods before entering into the city centre. The goods are organized with an information system that optimizes deliveries and this organization allows the service to cover the last mile of the freight transport chain using environmentally friendly vehicles.







Eco-Logis city-logistics platform and intermodal rail terminal "La piccola velocità" next to the Brescia FUA center

The possibility of an effective interaction between the two platforms would allow to expand the FUA area dedicated exclusively to the south-east area logistics. Agreements with private companies (industrial, commercial activities, retailers and private operators) could be an opportunity to have short delivery times for small vehicles with low environmental impacts. Transporting goods from the logistics area to the city centre LTZ in between 6 and 15 minutes, to the industrial area of Via Girelli in 5 minutes, to the industrial area of Alfa Acciai (southeast) and to Iveco area (north) in 10 minutes, and to Flero - Poncarale shopping centre in 15 minutes.

Possible problems and obstacles in the development of the measure

The allocation of logistics areas within a territorial context is a complex activity. The problem relates to urban planning and logistic development, both influencing successful strategic positioning of a convenient logistics area, with a broader perspective than administrative boundaries of the city's influence. The space scarcity can be an obstacle, and for the areas dedicated to modal transfer, the presence of a transport demand suitable for modal transfer is a problem.

Expected benefits

A strategic allocation of logistics areas should improve logistics efficiency. At the same time, a rational and systematic choice of logistics areas allows to develop scale economies in logistics activities, avoiding the so-called "logistics sprawl" and allowing the concentration of goods handling/ movement inside the intermodal terminal. This way, economies of scale are obtained and the fragmentation of logistic settlements on the territory of the functional urban area are reduced.

This measure also promotes multimodal transport and creates environmental benefits, related to both Brescia FUA and wider regional and interregional areas, considering multimodal transport services are efficient over long distances.

Measure 4: Use of vehicles with low (or zero) environmental impact for goods transport

Roadmap for the implementation of the measure





This measure is closely linked to the idea that in Brescia, as in many other Italian and European cities, a gradual but increasingly incisive limitation of the circulation of polluting vehicles is planned (diesel euro 3, euro 4 and euro 5 by 2030), to pursue the objective of reducing the polluting emissions caused by urban traffic, together with the set of measures outlined in Brescia SUMP.

The courier representatives that participated in the FQP meetings work already with a "green" perspective, sharing the idea of getting ready to make deliveries only with sustainable vehicles (currently methane, following with hybrid vehicles and increasingly in a medium-long term period with e-vehicles), provided that there are clear and shared rules that allow access to LTZ only to vehicles with low environmental impact.

Possible problems and obstacles in the development of the measure

As far as possible application area for this type of measure is regarded (e.g. LTZ), there are no specific problems, except for the need to apply the systems, which in most cases have been already put in place. Obviously the operations of logistics operators, such as their investments in green fleets and a participatory process in the preparation of the measures, such as FQP where private companies and public authorities cooperate, can facilitate the acceptance and guarantee the success of the measure. In terms of subsidies for the purchase of green vehicles, there are no major obstacles, assuming the availability of funds. Regarding the infrastructural dimension, the main problem is the definition of business cases to ensure the sustainability of the investment.

Expected benefits

Reduction of polluting emissions is the main advantage of this measure. Clearly, the benefits in the increase of e-vehicles share generates further advantage compared to other type of vehicles (e.g. methane), and ensures the substantial reduction of noise pollution.

Finally, measures related to subsidies for the purchase of non-polluting vehicles have the advantage of increasing the spread of green transport among freight transport operators.

Measure 5: Goods delivery points

Roadmap for the implementation of the measure

The change in delivery methods of the goods implies an important activity of involving all the players in the distribution chain (commercial activities, transport operators), and also of the citizens in the event that the delivery points are combined with the functionality already tested for the e-commerce market. This activity is also necessary to identify the commodity chains and the types of goods best suited to this distribution model, as some may be characterized by large volumes and / or weights (especially wholesale trade) or by special conservation regimes and transport (perishable products) which would therefore require special arrangements for more complicated management.

The availability of the areas is another issue of primary importance. Their size is not of fundamental importance, while their accessibility is because the vehicles should be able to stop as close as possible to the areas, and location in transit areas is strategic.

The implementation of the measure cannot disregard the involvement of transport and logistics operators because they are directly interested in the potential of the new service, and they know well where these new points of aggregation of deliveries could have significant impacts.

The participatory process will therefore focus on determining the operating methods of the delivery points and afterwards on the areas where this service should be located. The planning of the service and its activation should be implemented by 2025, in order to achieve fully operational service by 2030. Meanwhile, the municipal authorities will have to promote the initiative continuously involving stakeholders and getting in direct contact transport operators with commercial activities, such as shopkeepers.





Possible problems and obstacles in the development of the measure

The main problems in the implementation of this measure could be related to bad positioning of delivery points, in not enough strategic and quite uncomfortable areas, which on the one hand do not encourage their use and on the other can even be harmful in terms of increased emissions, if operators and traders are forced to significantly change their routes to reach the areas of goods collection/ delivery. Furthermore, constant dialogue is fundamental, from the very first design phase of the service, among private operators and public authorities, not only for the identification of areas, but also to ensure their proper management.

Expected benefits

The expected benefits in the implementation of this measure can be summarized mainly in the reduction of distances for commercial vehicles and in a reduction of delivery time. Moreover, if the delivery points are strategically positioned on the major routes, without substantial changes along the routes of operators and traders, the reduction of polluting emissions will certainly be guaranteed.

Measure 6: Identification of Proximity Logistics Spaces (PLS)

Roadmap for the implementation of the measure

For the implementation of this measure, the public authority should find an agreement with a private operator (to manage the service), which in exchange the availability of public areas - granted, if necessary, free from charges or at low prices provided that objectives are achieved - provide the service with ecologic vehicles and possibly perform other services, such as maintenance of urban areas, squares or surrounding green areas.

The creation of PLS could also be an opportunity to activate new services for the citizens, such as goods delivery points of e-commerce market (another measure described in the SULP of Brescia) and/ or the collection points of the reverse logistics products (used batteries, cardboard packaging, used oil, etc.).

In the coming years, it could be possible to activate voluntary pilot projects, which could provide information useful in the activation of new PLSs. The guidelines on their activation could be disseminated by the municipal authority, in order to facilitate the settlement of other companies that want to offer the same service in similar contexts.

Possible problems and obstacles in the development of the measure

Possible problems in the implementation of this measure could be caused by the lack of implementation of city logistics measures strictly related to PLSs, first of all the gradual extension of constraints currently related to LTZ, to a wider area, a gradual restriction of the access to historic centre for vehicles with certain characteristics. A constant dialogue with stakeholders in the FQP forums/ meetings will also be fundamental to understand the main critical issues and overcome the main obstacles that will arise in the implementation of the measure.

Expected benefits

- Reduction of operators' delivery times thus greater productivity, thanks to the possibility of avoiding the access to the historic city centre, generally characterized by road congestion.
- Reduction of congestion and polluting emissions, reduction in number of vehicles entering historic centre, thus reduction of negative impacts on congestion and polluting emissions.
- Possibility of replenishing commercial activities in pedestrian areas using vehicles less dangerous for pedestrian mobility.
- Availability of cargo bikes and carts for deliveries in even less accessible areas, such as pedestrian area, reducing at the same time the need to park the vehicles near the commercial activities. The PLSs are therefore a measure supporting the development of pedestrian areas.





• For the future development, the possibility for transport operators to deliver goods without having an access permit in restricted traffic areas, dropping the goods in the SLPs. Not all transport operators could bear the cost/ investment for new/ non-polluting vehicle.

Measure 7: Planning for a gradual introduction of access restrictions to the city centre

Roadmap for the implementation of the measure

The indications contained in the Agreement Programme are considered by stakeholders involved in the FQP, as starting point for the inevitable shift from the most polluting vehicles towards new vehicles and fleets, even commercial ones owned by freight transport operators and city logistics service providers.

The measure will take into account many aspects, including primarily a revision of the access times to historic centre for goods delivery, with the aim of determining the timing of adoption of new access rules to Brescia LTZ, in order to achieve the objectives of environmental sustainability foreseen by EU by 2030.

In line with indications contained in Brescia SUMP, inside LTZ and in Zone of Special Urban Relevance (ZPRU) in future, a low emission zone can be identified, where environmental efficiencies of deliveries are monitored, with actions such as excluding polluting vehicles and/ or controlling loading factors of the vehicles.

As far as LTZ in historic centre is concerned, Brescia SUMP confirms its important function, which has allowed over the years, in agreement with the overall implemented policies in mobility sector, to decrease traffic inside some of the most prestigious areas in the city, anticipating in some cases, pedestrianisation policies and accompanying urban redevelopment projects.

Looking ahead, the Plan foresees a gradual expansion of LTZ perimeter, starting with areas best served in parking and public transport. In any case, for the main access routes to historic centre intervention of overall urban redevelopment and regeneration must be implemented, such as identification of pedestrian paths (and, where possible, cycle paths) well-sized compared to current and potential traffic flows.

Brescia SUMP includes also an extension of ZPRU to historic centre and to all surrounding districts.

Moreover, during the FQP meetings, private operators and trade associations expressed their availability to accept the introduction of increasingly stringent bans for diesel vehicles, as long as access timetable is revised. In fact, during the FQP debates, stakeholders outlined the need to discuss new planning with operators, because current system of access to LTZ in limited time windows creates problems, not allowing an optimization in vehicles load factor/ use and widening simultaneously use of a higher number of vehicles.

The measure must be implemented according to following methods:

- Gradual prohibition of access to vehicles (on the basis of EURO class) with incentives for green vehicles, especially for diesel and fuel vehicles.
- Extension of LTZ rules to a larger area of the city centre (long term in synergy with other topics in SUMP).
- Review of LTZ access timetables, according to the peak hours of private traffic, in order to reduce the overall traffic in the urban area. Moreover, the possibility for electric vehicles to circulate always is an additional incentive to use these vehicles.

Other elements on which we can act to implement the measure:

- Permits;
- Incentives.

Possible problems and obstacles in the development of the measure





The introduction of this measure must be coordinated with the main stakeholders, primarily with commercial activities, in order to have it implemented with the widest possible consensus. Moreover, in order to avoid problems that could have negative repercussions on the Public Authorities, a gradual implementation can be foreseen first in few "pilot" areas of the historic centre, and then extend it to other areas, once first experiments are accepted.

Expected benefits

One of the first benefits is the reduction of direct CO2 emissions, polluting atmospheric gases and noise pollution, shifting from more to less polluting vehicles circulating in the city centre and improving liveability of the urban area. The revision of access schedules and modalities on the one hand will provide an incentive to speed up the renewal process of the vehicle fleet, and on the other will allow the management of supplying process avoiding high concentrations in a few time slots.

Finally, the need to use electric vehicles from now to 2030, could push transport operators to use alternative services for delivery in urban centres (e.g. Eco-Logis), whose performances are much more efficient in terms of utilization of loading factors and reducing the number of vehicles entering LTZ. It is therefore possible to foresee, among several possible scenarios linked to this measure, a gradual transformation of goods delivery points, which will be identified in real proximity logistics areas, adjacent to LTZ or pedestrian areas, where operators will access not only with electric vehicles, but also with cargo bikes.

Measure 8: Reorganization of loading/ unloading areas in the city centre

Road-map for the implementation of the measure

The participatory process will be useful to Brescia Municipality to define which solutions implement for the loading/ unloading areas, among following possible options:

- Dynamic use parking areas: the functionality of these parking areas varies according to the needs during the day/night time, generally they do not have a different functionality during the night time, when operators do not use them simply because they do not perform overnight deliveries, thus represent unused surfaces for about ten hours a day, and consequently incentive illegal parking of private vehicles. A system with rigid regulation hinders also an optimized use of these areas, which are the more "productive" the more occupied. It would be ideal to identify lay-bys areas with multi-purpose functionality according to hourly/ periodic needs of private mobility and freight transport.
- Redesign of parking areas and service implementation: re-mapping of current lay-bys, elimination of loading/unloading areas currently not easily accessible and introduction of recharging columns for electric vehicles, installation of deterrent systems for illegal parking, surveillance systems and slides for handling vehicles.
- Loading/ unloading areas booking system: a possible solution to problems due to planning, which currently is incoherent with the needs of commercial activities, and always occupied/taken by private vehicles, with little control by the authorities in charge. Offer the possibility to book the areas with App Mobile or ITS systems, optimizing their use and improving the planning activity of freight operators.

Possible problems and obstacles in the development of the measure

An efficient review of loading/ unloading areas must go together with strict punishment of illegal actions, such as parking of private vehicles, and with contrast towards incorrect use of vehicles transporting goods on commercial activities own account, with the risk of implementing measures not acceptable by operators, commercial activities and citizens. Certainly, to mitigate possible negative effects (in terms of consent) deriving from the implementation of this measure, a participated process with stakeholders and a gradual





implementation, initially in some pilot areas, are decisive elements for the successful implementation of the measure.

Expected benefits

- Reduction of loading/ unloading time;
- Better usability of infrastructures;
- Reduction of traffic congestion in the city centre;
- Reduction of breaking of the road rules.

Measure 9: Permanent Freight Quality Partnership

Roadmap for the implementation of the measure

The Freight Quality Partnership can be structured in different ways, according to the territorial context, needs and development phase of the policies adopted for the freight transport sector. The FQPs can, for example, concentrate on a particular commercial sector, refer to a particular distribution method and be temporary or stable. Considering the advantages that can be obtained with the FQP and low costs of its setup and maintenance, it is advisable that at least one stable FQP is established and involves distribution representative companies, industrial sectors and Public Authorities/ policy-makers in transport and logistics sector, thus giving continuity to the participation process on which SULP was drafted.

The implementation can be very rapid as it is only necessary to define the issues to be discussed in deep, based on which, stakeholders will be selected, and then the work program will be established, together with logistics details (venue and frequency of the meetings).

The ability to maintain a permanent FQP in Brescia, with at least twice a year meetings, even after the closure of the SULPiTER project, will allow:

- To verify the most suitable modalities for the experimentation of the measures identified in the SULP;
- To monitor the implementation of the measures, verify any deviations and identify possible correction with respect to what was defined in the initial phase;
- To jointly monitor selected KPI parameters/ values defined in the planning phase;
- To take into account new elements that were unknown at the time of SULP drafting;
- To organize meetings on specific topics identified as essential to respond to the evolutions of the transport and delivery systems of goods (e.g. e-commerce);
- To promptly communicate the results achieved through the implementation of the measures;
- To jointly tackle some points for example the dynamics linked to the development of the terminal La Piccola Velocità still not defined with certainty at the time of SULP drafting;
- To check and analyse cases similar to ones in Brescia FUA, to define shared solutions for possible problems, understanding how other companies/ cities have faced and resolved them.
- To update, if necessary, the SULP.

Possible problems and obstacles in the development of the measure

The main problem linked to the implementation of the measure is given by difficulties of the public decisionmaker to organize the meetings in a constant manner, keeping stakeholders' interest alive and defining an agenda able to stimulate the discussion among public and private actors every time. It would be ideal to involve each time different speakers and organize different activities (e.g. site visits) that enable the participants to understand how in other situations certain problems have been addressed and solved.

Expected benefits





The main expected benefit is the establishment of a win-win model, where both community and private operators' interests are safeguarded, with reduction of negative externalities and improvement of productivity conditions. Moreover, the FQP can ensure a constant monitoring of the implementation of the measures, and if a problem occurs in the implementation, the adoption of corrective measures shared by the stakeholders. The more participated the approach in the identification of solutions related to logistics, the more the perception of the topics will be changed in the public opinion, which currently sees the city logistics and in general the transport of goods in urban areas only and exclusively as a problem.





9. Evaluation of impacts

Brescia Functional Urban Area used the SULPITER decision support system tool throughout the preparation, collection and elaboration of data and freight transport estimation, including the assessment of Brescia city logistics scenarios, which was a fundamental step for the SULP elaboration and involvement of stakeholders in the Freight Quality Partnership (FQP). In particular, the tool was used in the initial phase with the definition of FUA (zone 1/core Brescia city and zone 2/15 small medium neighbouring municipalities around Brescia). Once defined the FUA, BreMob used the tool in the collection of data on freight flows from/to/in FUA Brescia, from the commercial activities for the representation of current freight flows in the FUA. Commercial activities (shops) were interviewed (303 interviews achieved) using the webtool, which was used also while interviewing freight transport operators for the completion and cross-check of data (20 interviews achieved). The data on commercial activities inside the FUA was provided by Brescia Chamber of Commerce, with selection of the most relevant activities in terms of urban area freight flows, the most interesting supply chain according to the list of relevant ATECO code, zoning of the FUA aggregating postal codes and with coherent "commercial/distributive" structure. Once the collection of data on commercial freight flows was finalized, freight demand and supply modelling followed, elaborating data achieved through origin/ destination matrices. In this elaboration, data from traffic flows analysis (traffic count with video recordings, desk count along two main orbital roads and analysis of data available from Brescia Province related to 47 counting points) were included. These data provided information on quantities of freight flows, vehicles used in transport (number, type). O/D analysis was followed by LSI calculation for the "before" scenario, while post was weighted/ re-calibrated in the FQP, using the Multi-stakeholders Multi Criteria Decision Analysis tool, aggregating normalized values of indicators into a unique index. Based on the specific choices of Brescia FUA, its Logistics Sustainability Index was calculated. This phase was an exante assessment of the Urban Freight Transport scenarios and involved as said, the calculation of the LSI providing aggregate performance index of the overall freight related activities in Brescia FUA with seven impact areas; economy and energy, environment, transport and mobility and society; policy and measure maturity, social acceptance and user uptake.

FUA Brescia, thanks to the use of the tool and the activities related to the characterization of the FUA, collection and analysis of data on freight flows, modeling and ex-ante evaluation of Urban Freight Transport (UFT) scenarios (LSI calculation), obtained complete and comprehensive framework of the freight transport inside FUA (both in the city centre and surrounding areas). Having had a direct contact with commercial activities and transport operators, it also gained a deep insight on how they perceive the logistics inside the FUA, with special attention on issues and problems they daily deal with, and possible measures. The analysis of data collected from commercial activities and transport operators gave a complete picture on the average number of suppliers per shop (less than 20), distribution in FUA (greatly variable) and its management (generally by suppliers), number of suppliers and their management (third party - 60%, own account supplier - 35%, own account shop keepers - 5%). It provided new data on daily distribution (peak between 9 am and 12 pm for 48% of deliveries), average number of daily deliveries/shops (1.04), numbers of delivery per day/shop (44% 1 or more per day, 56% less than 1), loading units (Box 36.2%, Carton box 29.1%, Pallet 17.8%) and delivery time (57% less than 10'; 36% from 10' to 20'; 7% more than 20'). All these data gave a clear picture of the freight phenomena in Brescia and were of fundamental importance to draw future scenarios, set up the FQP and developthe Sustainable Urban Logistics Plan. The SULP in combination with the Sustainable Urban Mobility Plan (SUMP) will improve the logistics not only in Brescia city centre (SUMP's focus), but also in neighbouring municipalities. All this is made possible thanks to the use of the SULPITER tool, used as support in logistics policy making, providing sound and clear picture based on current flows and taking into account real problems operators face on daily basis, with an eye on topics important for a wider/ general well-being of citizens.

The modelling was based on three model sub-systems and estimated 1. quantity O-D matrices by transport type, 2. delivery O-D matrices, and 3. vehicle O-D matrices according to delivery departure time and vehicle





type. The model in Brescia FUA allowed stakeholders to take into account the influence of the economic characteristics of a traffic zone on attracted freight traffic, the localization of freight centres and vehicles type. Logistics sustainability index completed all three steps assessing the performance of urban logistics solutions, policies and measures, combining stakeholders' interest further discussed during the FQP meetings and developed in the SULP. The sustainability of the results and the evaluation of impacts will be guaranteed in particular by future SHs' meetings in the FQP, and in general by a wider involvement of SHs in these meetings (the interest shown to jointly discuss on wider level about issues/measures in transport). In case of Brescia, SHs involved are public/private/ signatory and non-signatory administrations and institutions, from city centre and FUA, and to them the analysis was described in details (tool's functions) generating interest in results and in continuing working/building up on the results obtained in the SULPiTER to improve the logistics sustainability. The same tool could be applied in the municipalities' contexts outside FUA (at provincial level), providing new/ updating existing data.





10. Role of the stakeholders' involvement

The main objective of the implementation of a Freight Quality Partnership in Brescia was to allow the Municipality of Brescia, responsible for the SULP development and for its mainstreaming in the SUMP in cooperation with Brescia Mobilità, to acquire consent among the main logistics stakeholders (public and private) in the implementation of urban logistics measures in the FUA of Brescia.

The process of involving target participants of the FQP followed the methodology developed by the SULPiTER project, with the final aim to gain commitment from the different stakeholders through the following actions:

- To inform stakeholders and to give them the possibility to understand problems and possible solutions related to freight logistics in the wide area represented by the FUA.
- To have a periodic consultation process in order to receive feedbacks on results of performed analysis and on possible alternative solutions proposed, with the possibility to motivate debate on specific topics.
- To cooperate, enabling stakeholders to positively influence the adoption of efficient measures and reaching common agreed solutions.
- To empower, with a process of strengthening of stakeholders' capacity through their involvement and collaboration.

The mapping of the stakeholders to be involved in the FQP was done by Brescia Mobilità, identifying the major or minor level of influence and representativeness of different types of stakeholders and finally identifying 4 different degrees of involvement:



Three categories of stakeholders have been identified for the Brescia FQP:

- 24 Public stakeholders, in the specific:
 - Lombardy Region,





- Province of Brescia,
- 16 Municipalities of the FUA,
- Other Municipalities oft he Provincial area of Brescia outside the FUA but with relevant freight flows fort he FUA.
- Private possible signing actors of the FQP agreement
 - Infrastructure's managers;
 - Trade and business unions.
 - Other private actors: this category includes merchandisers, merchants, aritisans and major traffic attractors who can only be involved in "plenary" communication events.

Schedule and main contents of the FQP meetings performed during the SULPiTER project:

Event	Stakeholders' categories	Date
Preliminary FQP forum	Public	05/12/2017
First plenary workshop: focus on SULP	Public Private	03/10/2018
2 round tables for discussion among public and private subjects	Public Private	30/10/2018 18/12/2018
Final event	Public Private	March 2019

Main contents of the FQP meetings performed during the SULPITER project were the following:

- Definition of problems / barriers to traffic and urban logistics (as perceived by participants);
- Definition of the objectives of the SULP, starting from what emerged in the phase of analysis illustrated to the FQP participants and taking into account the interests of the participants of the FQP;
- Definition of shared solution to reach the goals of the SULP, considering in the specific:
 - How to support an enhancement of the solutions (E.g. Eco-Logis) already present in the FUA to favor a "green" logistics;
 - How to improve the situation of traffic and congestion related to industrial flows, taking into account the future scenarios and elements (e.g. terminal of La Piccola Velocità, e-commerce trend) that will inevitably impact on logistics in Brescia.
 - The possibility to define clear and lasting rules, shared by all the stakeholders and allowing private operators to make investments with a low degree of uncertainty on future scenarios.
 - \circ To set a clear governance system for the development of rules on logistics at FUA level.




- To define measures to regulate access to the historic centre, review areas for loading and unloading goods, revision and extension of the ZTL rules through shared solutions.
- To define measures and incentives for the use of non-polluting vehicles (electric, cargo bikes) for last-mile deliveries.

What emerged from the participatory process of the FQP was taken into account in the formulation of the measures proposed in this document, considering all the indications given by the participants in the meetings.

Hopefully, what was done through the project SULPiTER is the beginning of a shared path between the stakeholders entitled to discuss the main choices of industrial and urban logistics in Brescia.

Meetings with stakeholders highlighted that a constant dialogue and a system of shared rules to address the changes will be needed from now to the year 2030 for a transition to a more sustainable logistics, improving the quality of life in the FUA.





11. Main steps for the adaptation of the SULP

The work of analysis and comparison with the stakeholders carried out by Brescia Mobilità with the support of the Municipality of Brescia during SULPiTER project, is summarised in the present document that refers to the actions to be undertaken in the sector of urban logistics and completes the SUMP document as far as freight and logistics is regarded.

The SULP must be integrated in the official documentation of BreMob and Brescia Municipality in the first half of 2019, as a SUMP's chapter entirely dedicated to the freight transport and logistics, to ensure the implementation of all necessary measures to achieve the objectives set in the document in the coming years.





12. Application and monitoring

To implement the measures, the FQP process needs to be carried on after the end of the SULPiTER process in order to share with the stakeholders all necessary steps, starting from the first half of the year 2019 and defining time horizons to carry out the intermediate checks and monitoring phases.

The intermediate milestones for the monitoring, verification and any corrections in order to reach the goals contained in the SULP are 2020, 2025 and 2030, towards a "no impact" urban logistics at least in the FUA city centre.

As already stated in the SUMP of Brescia, the SULP states that many interventions foreseen by the plan, within a coherent scenario, can be only implemented gradually, and for some measures further planning stages with greater degree of details are required.

The SULP is a starting point to verify the feasibility of the measures indicated for the freight transport and logistics in the FUA, drawn up by Brescia Mobilità with the collaboration of the Municipality of Brescia and the FQP participants, based on the activities of the SULPITER project and on the definition of the initiatives to be implemented gradually over the years.

Together with the implementation of the measures, BreMob will define - according to the availability of data and to the efforts needed to collect the missing ones - a specific panel of KPI indicators to be monitored during the implementation period.

Monitoring target will be identified in year 2020 (initial phase of implementation), 2025 (intermediate phase) and 2030 (final phase of adoption of the measures).

Thematic area	Key Performance Indicator
	CO ₂ emissions (g/km)
	NO ₂ emissions (g/km)
Environment	PM ₁₀ emissions (g/km)
	CO concentration (g/m3)
	Noise level (dB)
	Total Energy consumption (kWh/year)
Energy	Energy efficiency (yearly kWh/sqm surface in warehousing)
	Fuel consumption per Km (metrics depending on vehicle type)
	Average number of km per trip (Km/Trip)
	Average number of km per vehicle (Km/Vehicle)
	Total distance travelled in urban area (Km per truck weight category or Km per vehicles Euro category type)
	Number of Empty runs (% of runs with load on total runs)
	Number of freight vehicles per category (weight and/or Euro) entering the urban area or a part of it (n.)
Transport	Time to complete a delivery route (minutes)
	Average time for loading/unloading (minutes)
	Number of loading/unloading areas (n.)
	Average vehicles speed per trip (minutes)
	Average vehicles load factor (% in weight or volume per Km)
	Quality of transport services (% of on time deliveries on total deliveries)
	Number of unauthorised parking in the urban area or in a part of it (n.)
	Quantity of logistics areas in the city or in a part of it (sqm)

Examples of KPIs which could be included in a logistics plan





Thematic area	Key Performance Indicator	
	Average deliveries per trip (n.)	
	Road occupancy by freight vehicles (% of surface at a given time)	
	Total delivery costs (€ per Km or Ton)	
Economy	Investment in clean energy networks and vehicles (\in)	
Economy	Value of goods lost for theft or damage (€ / year)	
	Average logistics costs on turnover (€)	
	Accidents involving freight vehicles (n.)	
Society	People killed or seriously injured in collisions involving freight vehicles (n.)	
	Percentage of businesses satisfied with traffic situation in the city (%)	

Source: Steer Davies Gleave's elaboration on multiple sources from SULPiTER's Deliverable D.T3.1.2 "SULP Benchmark analysis in EU and beyond"



13. Promotion and Communication Plan

Once the definitive measures to be implemented will be identified and structured with details related to the areas where the application should begin, the methods and the timing, it will be the task of Brescia Mobilità and of the Municipality of Brescia to carry out the promotion and communication of the Plan.

The promotion and communication plan of the SULP will be performed through:

- The FQP meetings of a permanent FQP, for the definition of all the details related to the measures implementation and monitoring;
- Through all the institutional means (website, coordinated image, social media, events dedicated to specific measures) to encourage an increase in the citizens' awareness on the solution that will be gradually adopted in the next years.

Beside the implementation of the FQP meetings during the SULP implementation, a communication strategy to inform citizens about the main decision taken by the FQP will be done with the implementation of SULP's activities, while the possibility to have a permanent FQP group with (at least) annual meetings will be important to monitor the implementation of the indicated measures in the following years after the SULP's approval.

BreMob will define a detailed communication plan once the final layout of indicated measures will be defined, following its communication strategies which are usually adopted for measures related to sustainable mobility.





14. Annexes

14.1. Annex 1: FUAs transport policies state of the art analysis

See attached annex D3.1.1 FUAs transport policies state of the art analysis

14.2. Annex 2: Transnational report on understanding freight behaviours and impacts in SULPiTER FUAs

See attached annex D.T1.2.5 FUA Report including SULPiTER tool feeding & calibration in Brescia

14.3. Annex 3: D.T1.2.5b Operative methodology for the stratification of Brescia FUA



WP T3 - D3.1.1 FUAs transport policies state of the art analysis

Policy collection and analysis

Version *Final* 02 2018







Table of Contents

1. SULPITER POLICY CONTEXT	3
2. EU POLICIES' STATE OF THE ART	5
2.1. CONFLICT AND SYNERGY	10
3. FUAS'POLICIES' STATE OF THE ART	20
3.1. FUA BOLOGNA	20
3.1.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	20
3.1.2. CONFLICT AND SYNERGY	21
3.1.3. COHERENCE ANALYSIS	24
3.2. FUA BRESCIA	25
3.2.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	25
3.2.2. CONFLICT AND SYNERGY	29
3.2.3. COHERENCE ANALYSIS	41
3.3. FUA MARIBOR	43
3.3.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	43
3.3.2. CONFLICT AND SYNERGY	45
3.3.3. COHERENCE ANALYSIS	50
3.4. FUA STUTTGART	51
3.4.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	51
3.4.2. CONFLICT AND SYNERGY	52
3.4.3. COHERENCE ANALYSIS	54
3.5. FUA RIJEKA	55
3.5.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	55
3.5.2. CONFLICT AND SYNERGY	56
3.5.3. COHERENCE ANALYSIS	62
3.6. FUA POZNAN	63
3.6.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	63
3.6.2. CONFLICT AND SYNERGY	65
3.6.3. COHERENCE ANALYSIS	72
3.7. BUDAPEST	73
3.7.1. TRANSPORT AND LOGISTICS POLICIES AND MAIN FEATURES	73
3.7.2. CONFLICT AND SYNERGY	75
3.7.3. COHERENCE ANALYSIS	82
4. CONCLUSIONS	83
5. ANNEXES	84
I - TEMPLATE FOR THE COLLECTION OF URBAN FREIGHT AND LOGISTICS POLICIES/PLANNING	85
II – QUESTIONAIRE FOR THE FUA OF BOLOGNA	93
II – QUESTIONAIRE FOR THE FUA OF BRESCIA	109
III – QUESTIONAIRE FOR THE FUA OF MARIBOR	159
IV – QUESTIONAIRE FOR THE FUA OF STUTTGART	172
V – QUESTIONAIRE FOR THE FUA OF RIJEKA	195
VI – QUESTIONAIRE FOR THE FUA OF POZNAN	214
VII – QUESTIONAIRE FOR THE FUA OF BUDAPEST	259









1. SULPiTER Policy context

People and goods' transport, with its 32% share of the final energy consumption is the second largest energy-using sector and according to the figures published by OECD, 20% of energy consumption is attributable to freight transport alone.

The European Commission leads the path towards CO2-free city logistics and to reach this goal set in a timeframe until 2030, a shift in the paradigm of policies is required. In order to have effective policies, policy makers have to take into consideration several aspects, such as functional transport and economic relations between inner urban centres and the surrounding urban territories, as well as functional transport and economic relations within FUAs. In order to effectively pursue SULPiTER's mission of support to policy makers in improvement of their understanding on FUAs' freight phenomena from energy and environmental perspective, and in their enhancement of the capacity in urban freight mobility planning, project partners included in their action the analysis of the status quo of urban freight and logistics policies from local to European context.

In SULPiTER project all participating Functional Urban Areas; Bologna, Budapest, Poznan, Brescia, Stuttgart, Maribor and Rijeka, have a different maturity of logistics and freight transport policies, which are developed and implemented with an interdisciplinary approach that involves different departments (e.g. transport, spatial planning, environment, energy, economy).

Thus, project partners collected their local/regional/national policies, forwarded them to the responsible partner Brescia Mobilità (PP06), who analysed its own and the ones received from other FUAs, integrated European level, and elaborated D3.1.1 in order to enable the partnership to achieve improved and/or adopted policies for freight transport in Central Europe FUAs.

The starting point for an improved policy making process was indeed the update (since the SULPiTER submission) of the status of acts, laws, policy & planning documents relevant to urban freight & logistics in each project partner's FUA, by an inter-departmental dialogue & a dialogue among Authorities of the same FUA. (D.T3.1.1)

To enable the responsible partner Brescia Mobilità (PP06) to collect data and information from each FUA, to analyse them and to draw up a transnational document that illustrates the state of the art of freight transport policies at local, regional, national and European level, each partner was asked to fill in a questionnaire (Annex I). The methodology used enabled Brescia Mobilità to analyse and cluster all the policies received and to compare them outlining topics and elements that link or differentiate one policy from another.

As accurately defined by the "EU guidelines - Developing Sustainable Urban Mobility Plan", the development and effective implementation of Sustainable Urban Mobility Plans (SUMP) and Sustainable Urban Logistics Plan (SULP), cannot overlook a careful analysis of the reference context, which in SULPITER case means the analysis of the logistics and transport context, with highlights on strategies, policies and actions that regulate urban





freight transport and logistics. D3.1.1 compares each SULPiTER FUA's regulatory status and quality, defined by FUA's Public Administrations, and completes the FUAs' framework with European context. Its result will help project partners to acknowledge the phase and standing points of its FUA's context compared to other FUAs and to European initiatives, related to the SULPs to be developed in SULPiTER.

The guidelines for the Sustainable Urban Mobility Plans elaboration, implementation and monitoring are provided in <u>ELTIS</u> report, while useful indications on how to develop, implement and monitor the Sustainable Urban Logistics Plans are provided in the ENCLOSE project. In each CE country, national and regional guidelines for urban freight transport and logistics are provided by the Ministries of Transport, and adopted by the local Public Administrations. With this document, SULPiTER partnership (1) identifies whether different urban freight and transport policies at local, regional and national level, in force in each FUA are, among them, consistent in terms of actions planned and coordinated between different policy makers; (2) identifies for each FUA if the policies share common strategic addresses and (3) highlights main constraints posed by the regulation and planning that precedes the development of the SULP.





2. EU policies' state of the art

This paragraph points out the milestones of the European policies on the Urban Mobility and Transport with particular reference to the freight flows. The transport system provides essential services to citizens, but at the same time the current transport system generates congestion and has huge impacts on the climate change and on people's health (air quality and road accidents).

The governance of transport system is a shared responsibility between European Union and Member States at several levels (National, regional and local), and the EU follows the subsidiarity principles which state that urban mobility is essentially a local responsibility, however EU has to support local authorities providing:

- Transport and logistics policy framework;
- Funding opportunities for projects on transport and logistics;
- Facilitation for exchanging experiences and best practices;
- Opportunities for raising awareness;
- Tools ready to be applied and support to apply them locally (e.g. SUMP and SULP).

The European policy framework can be drawn from the following documents:

- 1. EU Commission Green Paper "Towards a new culture for urban mobility"¹ (2007) together with the "Action Plan on urban mobility"² (2009);
- 2. EU Commission Transport white paper "Roadmap to a Single European Transport Area Towards a competitive and resource efficient transport system"³ (2011);
- 3. EU Commission "Urban Mobility Package" (2013);
- 4. EU Guidelines Developing Sustainable Urban Mobility Plan⁴;
- 5. EU Guidelines Developing Sustainable Urban Logistics Plan⁵.

The European Commission adopted the Green Paper "Towards a new culture for urban mobility" on 25th September 2007, and it sets a new European agenda for urban mobility. Although there are many differences among the cities, they all face the same problem: compatibility of the economic development and accessibility with the quality of citizens

¹ <u>http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52007DC0551</u>

² <u>http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52009DC0490</u>

³ <u>http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52011DC0144</u>

⁴ <u>http://www.eltis.org/sites/eltis/files/guidelines-developing-and-implementing-a-sump_final_web_jan2014b.pdf</u>

⁵ http://www.eltis.org/sites/eltis/files/trainingmaterials/enclose_d5_2_sulp_methodology_final_version_0.pdf





and inhabitants' life and environmental protection. The responsibilities to address five major challenges is left to local, regional and national public authorities:

- Towards free-flowing towns and cities;
- Towards greener towns and cities;
- Towards smarter urban transport;
- Towards accessible urban transport;
- Towards safe and secure urban transport.

The Green Paper created and reinforced a process on transport policies elaboration and implementation, inspired by the basic principles of the mid-term review (2001) of the White Paper "Roadmap to a Single European Transport Area - Towards a competitive and resource efficient transport system". The Action Plan enclosed in the Green Paper went through several consultations and examinations, and it currently identifies actions required for the achievement of the objectives embedded in both White and Green Papers.

The European Commission adopted a Roadmap (the White Paper) in 2011, with 40 concrete initiatives for the decade 2010-2020. The initiatives will lead to a more competitive transport system with increase in sustainable mobility, removal of major barriers in key areas, raise in growth and employment, reduction in dependence on imported oil and cut in carbon emissions in transport, to arrive by 2050 with cut of 60%.

The White Paper, which represents the first step towards a more sustainable transport in EU countries as basis of current indications released by the European Commission, analysed European mobility and transport system and outlined unsustainable criticalities in the long run. Among the obstacles that hinder the achievement of main objectives such as the integration of internal market, the presence of bottlenecks, an absolute dependence on oil with consequent high level of CO2 emissions, pollution and low energy efficiency, high level of congestion, the lack of intelligent mobility systems, which would maximize the efficient use of existing infrastructures.

European Commission and European countries have to work in synergy on several issues, excluding the reduction of mobility and transport activities, which is not viable as an option considering it is at the base of European society and economy. The White Paper comes up with the vision and strategies included in the list of 40 initiatives, to cut on the oil dependence of the transport and mobility system, without sacrificing efficiency and mobility of people and goods.

The following boxes contain few relevant extractions for urban transport and logistics from the White Paper 2011 - Annex I: list of initiatives, numbers 31, 32, 33 related to "Integrated Urban Mobility".





31. Urban Mobility Plans

- Establish procedures and financial support mechanisms at European level for preparing Urban Mobility Audits, as well as Urban Mobility Plans, and set up a European Urban Mobility Scoreboard based on common targets. Examine the possibility of a mandatory approach for cities of a certain size, according to national standards based on EU guidelines.
- Link regional development and cohesion funds to cities and regions that have submitted a current, and independently validated Urban Mobility Performance and Sustainability Audit certificate.
- Examine the possibility of a European support framework for a progressive implementation of Urban Mobility Plans in European cities.
- Integrate urban mobility in a possible Smart Cities Innovation Partnership.
- Encourage large employers to develop Corporate/Mobility Management Plans.

31. An EU framework for urban road user charging

 Develop a validated framework for urban road user charging and access restriction schemes and their applications, including a legal and validated operational and technical framework covering vehicle and infrastructure applications.

32. A strategy for near- 'zero-emission urban logistics' 2030

- Produce best practice guidelines to better monitor and manage urban freight flows (e.g. consolidation centres, size of vehicles in old centres, regulatory limitations, delivery windows, unused potential of transport by river).
- Define a strategy for moving towards 'zero-emission urban logistics', bringing together aspects of land planning, rail and river access, business practices and information, charging and vehicle technology standards.
- Promote joint public procurement for low emission vehicles in commercial fleets (delivery vans, taxis, buses

Source EU White Paper 2011.

In 2013, the European Commission delivered the Urban Mobility Package, as a follow-up of the White Paper, addressing initiatives 31, 32 and 33 from the White Paper, in order to reinforce its supporting measures in the area of urban transport with:

- Experiences exchange, show-cases of the best practices and cooperation;
- Targeted financial support;
- Research and Innovation on technical solutions for urban mobility challenges;
- Involvement of the Member States and enhancement of the international cooperation.



The central element of the Urban Mobility Package is its Communication on "Together towards competitive and resource efficient urban mobility"⁶, integrated with an annex that sets out the concept of Sustainable Urban Mobility Plans⁷, as well as four Staff Working Documents on:

- Urban logistics⁸;
- Urban access regulations⁹;
- Deployment of Intelligent Transport System solutions in urban areas¹⁰;
- Urban road safety¹¹.

According to the EU approach, the urban mobility is mainly a responsibility of local stakeholders, but to overcome local and regional fragmentations, it frames the urban mobility in a unique EU transport and mobility context with focus on crucial development of a single market for innovative urban mobility solutions. Thus, issues like common standards and specifications or joint procurement, have to be addressed according to shared indications. Besides the enforcement of a common policy EU framework, the EC supports local public authorities and private operators with specific tools from communication (exchange of experience and best practises, and raise awareness) to funds.

Among the support tools, Public Authorities can find the guidelines to develop and implement their Sustainable Urban Mobility Plan (SUMP) and Sustainable Urban Logistic Plan (SULP), which enable PAs to effectively develop, implement, monitor and evaluate the policies related to urban transport and mobility. The guidelines show the path to PAs on how to involve practitioners, experts, private and other public stakeholders in the process of planning the urban mobility through an innovative integrated approach, whose basic characteristics are:

- Long-term vision and clear implementation plan;
- Participatory approach;
- Balanced and integrated development of all transport modes;
- Horizontal and vertical integration of stakeholders;
- Assessment of current and future performance;
- Regular monitoring, review and reporting;

- ⁷ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/com%282013%29913-annex_en.pdf</u>
- ⁸ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/swd%282013%29524-communication.pdf</u>

⁶ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/com%282013%29913_en.pdf</u>

⁹ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/swd%282013%29526-communication.pdf</u>

¹⁰ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/swd%282013%29527-communication.pdf</u>

¹¹ <u>https://ec.europa.eu/transport/sites/transport/files/themes/urban/doc/ump/swd%282013%29525-communication.pdf</u>





• Consideration of external costs for all transport modes.

The chart below summarizes the key points of the innovative approach.

Traditional Transport Planning		Sustainable Urban Mobility Planning
Focus on traffic	+	Focus on people
Primary objectives: Traffic flow capacity and speed	-	Primary objectives: Accessibility and quality of life, as well as sustainability, economic viability, social equity, health and environmental quality
Modal-focussed	-	Balanced development of all relevant transport modes and shift towards cleaner and more sustain- able transport modes
Infrastructure focus	→	Integrated set of actions to achieve cost-effective solutions
Sectorial planning document	+	Sectorial planning document that is consistent and complementary to related policy areas (such as land use and spatial planning; social services; health; enforcement and policing; etc.)
Short- and medium-term delivery plan	→	Short- and medium-term delivery plan embedded in a long-term vision and strategy
Related to an administrative area	+	Related to a functioning area based on travel-to- work patterns
Domain of traffic engineers	+	Interdisciplinary planning teams
Planning by experts	+	Planning with the involvement of stakeholders using a transparent and participatory approach
Limited impact assessment	+	Regular monitoring and evaluation of impacts to inform a structured learning and improvement process

Figure2. SUMP innovative approach.

Source EU Guideline - developing SUMP 2014.

The guidelines support city stakeholders and decision-makers in the process of SUMP and/or SULP (definition, implementation, monitoring and evaluation phases), and in the interaction with stakeholders involved in freight transport at different levels (included private sector such as transport, logistics operators, commercial activities, associations, infrastructure managers, energy providers), both placed in a complex context of transport planning, in which disparate interests have to be harmonized.

The guidelines do not provide universal urban mobility solutions, but a best available method to be used in analysis, definition and selection of the possible measures and services, tailoring the approach for each specific local context needs.





2.1. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

	Main Goal	Specific Objects	Activity	Instruments
EU level Card				
Green Book (2007) and Action Plan	Formulate and EU policy on Urban Mobility; that presents	1. <u>Promoting integrated policies;</u> that will keep tighter several aspect of urban transport and mobility (infrastructures,	1 — Accelerating the take-up of sustainable urban mobility plans; and also introduce Urban Mobility dimension in SEAP	
(2009) an integrated approach that meets citizens' needs and introduces a now culture of urban	services, governance, strategic planning, environment and energy, etc.)	2 — Sustainable urban mobility and regional policy; share information about relationship between and about funding opportunity		
	Interview cuture of urbanmobility capable of3 - Transport for healthy urbanreconciling economicenvironments; EU commission will makedevelopment,partnership and synergies between publicaccessibility, quality ofhealth and urban transport policies			
life and environmental protection	2. <u>Focusing on citizens</u> ; with high quality, public transport (reliable, precise, with high information level, easy to access) with affordable prices	4 — Platform on passenger rights in urban public transport		
		5 — Improving accessibility for persons with reduced mobility		
		6 — Improving travel information		
			7 — Access to green zones	
			8 — Campaigns on sustainable mobility behaviour	

Figure 3. EU level card.





	9 — Energy-efficient driving as part of driving education
3. <u>Greening urban transport;</u> a coordinated action at EU level to promote new	10 — Research and demonstration projects for lower and zero emission vehicles
technologies for clean vehicles and alternative fuel	11 — Internet guide on clean and energy- efficient vehicles
	12 — Study on urban aspects of the internalisation of external costs; studies on the effectiveness of the systems that internalize the external costs of transport
	13 — Information exchange on urban pricing schemes
4. Strengthening funding	14 — Optimising existing funding sources
	15 — Analysing the needs for future funding
5. Sharing experience and knowledge	16 — Upgrading data and statistics
	17 — Setting up an urban mobility observatory
	18 — Contributing to international dialogue and information exchange





		6. <u>Optimising urban mobility</u> ; in order to have effective integration, interoperability and interconnection between different transport networks. This can facilitate modal shift towards more environmentally friendly modes of transport and efficient freight logistics	19 — Urban freight transport; EU commission will explain how to make better connection along long distance travel and to make more efficient "last mile" logistics 20 — Intelligent transport systems (ITS) for urban mobility; EU will assit in developing ITS in urban environment (e.g. e-ticketing and on-line payment; traffic management and infotraffic, etc.)	
Jrban Mobility backage	 A. Reinforce the support to EU cities for tackling urban mobility challenges, to ease a step-change to more sustainable approach to EU goals for a competitive and resource-efficient European transport system are met. b. Overcome fragmented approaches and develop the single 	1. <u>Promote the adoption of SUMP</u>	 1.1 Set up, in 2014, a European Platform on Sustainable Urban Mobility Plans to coordinate EU cooperation on developing the concept and tools further; provide a one-stop shop; and expand the present www.mobilityplans.eu website into a virtual knowledge and competence centre; 1.2 Support national, regional and local authorities to develop and implement Sustainable Urban Mobility Plans, including through funding instruments. 	 * www.eltis.org portal into a comprehensive knowledge and competence centre which will consolidate information on urban transport planning from across the EU + a EU platform for SUMP * URBACT III will continue to support exchange and capacity building between European cities
market for innovative urban mobility solutions by addressing issues like common standards and specifications or joint procurement.	2. <u>More action on Urban Logistics</u> ; more territorial planning for fright transport in urban area, develop incentives for private logistics operator to invest in clean technologies and solutions; adoption of good practise for interoperability and ITS	 2.1 Improve the dissemination and uptake of urban logistics best practice (2014); 2.2 Prepare, with experts, guidance documents that provide practical assistance on how to improve urban logistics performance, e.g. by developing delivery 	* CIVITAS2020 to fund R&D project on new mobility competitive solution and efficient on the resources point of view	





	and servicing plans, city logistics in access regulation schemes etc. (2014-2016);	* BESTFACT ¹³ and BESTLOG ¹⁴ to share best practise
	2.3 Facilitate procurement of clean vehicles used for urban logistics by reviewing the scope of the Clean Vehicle Portal ¹² (2015- 2016)	
3. <u>Smarter Urban Access Regulations and</u> <u>Road User Charging</u> ; There is currently a wide diversity of schemes being implemented across Europe and a better understanding of these different types of access regulations, their costs and impacts is needed. Making urban centres as accessible as possible requires making choices about the use of urban space. Urban vehicle access regulations can help optimise urban access, improve air quality and contribute to the goal of phasing out conventionally fuelled cars in cities by 2050.	 3.1 Foster an exchange with Member States and experts on urban access regulations across the Union, including their conceptual foundations, practical implementation, effectiveness and impacts; 3.2 Prepare, with stakeholders, non-binding guidance to help cities implement access regulation schemes effectively. 	

¹² www.cleanvehicle.eu

¹³ www.bestfact.net

¹⁴ www.bestlog.org





		4. <u>Coordinated Deployment of Urban</u> <u>Intelligent Transport Systems</u>	 4.1 Take forward work on supplementing the existing legislation on access to traffic and travel data; 4.2 Prepare specifications on Real-Time Traffic Information and Multimodal Information Services, as foreseen under the framework of the ITS Directive; 4.3 Facilitate the deployment of vehicle to vehicle and vehicle to infrastructure communication systems in urban areas. 	
		5. <u>Urban Road Safety</u> ; Additional effort to enhance urban road safety and protect in particular the vulnerable users from death and serious injury	5.1 Gather and disseminate good practice examples for road safety planning;5.2 Analyse measures for reducing the number of serious road traffic injuries in urban areas.	
Guide to develop SUMP	Help for cities to develop a long term strategy for urban mobility (SUMP), to improve the accessibility of urban areas, provide high quality and sustainable mobility	1. <u>Ensure all citizens are offered transport</u> options that enable access to key destinations and services	 Determine potential for a SULP 1.1 commit to overall sustainable principles 1.2 assess the impact of regional/national framework 1.3 conduct-self assessment 1.4 review availability of resources 1.5 define basic timeline 1.6 identify key actors 	 * self-assessment methodologies, internal meeting and review * peer review * quality management systems and labels * skill management plan * instruments of project management and open project planning (guidemaps project) * analysis of actor constellation by influence matrix





		* DISTILLATE Guide to Partnership Working
2. Improve safety and security	2. Define the development process and scope of the plan	* advanced project management tools (guidemap project)
	2.1 look beyond boundaries and responsibilities	* selected tools for different type of gathering and involvement
	2.2 strive for policy coordination and an integrated planning approach	* communication plan
	2.3 plan stakeholder and citizen involvement	
	2.4 agree on work plan and management arrangements	
3. <u>Reduce air and noise pollution,</u> <u>greenhouse gas emissions and energy</u> <u>consumption</u>	3. Analysis of mobility situations and scenarios development	* indicators for sustainable transport and planning
	3.1 Analysis of problem and solution preparation	* guidance on methodology for the baseline review in urban mobility
	3.2 Scenarios rationale development	* Transport Analysis Guidance website (www.dft.gov.uk/webtag/)
		* PROSPETCS Methodological Guidebook, designed for professionals, provides information on predicting impacts
		* overview of different type of modelling tools for different situation
		* risk and quality management strategy
		* work plan
4 Improve the efficiency and cost-	4. Common vision development	* establishment of a vision board
effectiveness of the transportation of persons and goods	4.1 develop a common vision of mobility and beyond	* interactive involvement tools
	4.2 actively inform the public	





5. Contribute to enhancing the	5. Set priorities and measurable target	* indicators
attractiveness and quality of the urban environment and urban design for the	5.1 identify the priorities for mobility	
benefits of citizens, the economy and	5.2 develop smart target and indicators	
society as a whole		
	6. Develop effective packages of measures	* Civitas matrix for solution vs challenges
	6.1 identity the most effective measures	* good practises database
	6.2 learn from other experiences	* documents with effective measures for
	6.3 consider best value for money	SUMP
	6.4 use synergies and create integrated package	* KONSULT knowledge base on sustainable land use and transport
	7. Agree on clear responsibilities and	* action plan
	budget allocation	* budget plan
	7.1 assign responsibilities and resources	
	7.2 prepare action plan and budget	
	8. Build monitoring and assessment into the plan	* Guidance tools and sources on monitoring and evaluation
	8.1 arrange for monitoring and evaluation	* monitoring target and indicator list
	9. Adopt SUMP	
	9.1 check the quality of the plan	
	9.2 adopt the plan	
	9.3 create ownership of the plan	
	10. Ensure proper management and communication	* work plan and management procedures (advance project management tool and
	10.1 manage plan implementation	techniques)
	10.2 inform and engage the citizen	* risk contingency plan





			10.3 check progress towards achieving the objectives	* evaluation report
			11. Learn the lesson	* ex-post evaluation procedure
			11.1 regular SUMP update	
			11.2 review achievements and analysis of success and failure	
			11.3 identification of new challenges for next SUMP generation	
Guide to develop The SULP main objective is to satisfy freight mobility needs of people and business in cities and their surroundings, in order to achieve a better quality of environment and of life.	1. Implementing more sustainable city logistics solutions to contribute to the reduction of traffic impacts in the historic centres. Providing more sustainable city logistics entails the objective of increasing the quality of life of the urban centre	E0: Setting the objective and target		
	achieve a betterality of environmentd of life.2. Increasing the competitiveness of the commerce and retail system and of	E1: Urban mobility scenario and priorities	* stakeholders' identification and involvement plan	
	The methodology aims to support city	sustainable city logistics. The definition of		* Focus group





stakeholders in the definition and choice of	business models enabling a substantial reduction of the operating costs				
the most suitable logistics services for the identified city requirements and the main mobility strategies (as defined in the SLIMP)	3. Improving the regulation for accessing the urban centre	E2: Analyse the logistics context and processes	* GIS tools and a user- friendly database to summarise and process all the collected information (desk based analysis)		
	4. support adoption/use of sustainable	E3: Setting requirements and logistics baseline	* Interviews with local stakeholders		
	vehicles		* On-field data collection		
,			* baseline calculation		
	5. adoption of ICT/technical solution to optimize (e.g. Fleet management) and integrate in a sustainable prospective	E4: Identified measures and services vs. requirements	* SWOT analysis		
			* meeting and focus group		
	logistic operation in urban context		* visit to best practise city		
		E5: Service design: develop a detailed analysis of each measure/service to allow the assessment of the overall sustainability in term of energy, environmental and economic efficiency			
		E6: Organisation, business model and contracting			
		E7: Assessment and impacts evaluation	* 4 phases evaluation process		
			a) definition of baseline scenario		
			 b) collection and analysis of environmental, energy, quality and efficiency data dealing with already implemented measures/services 		
			 c) Evaluation of the overall ex-ante scenario, including estimation of the impacts produced by the services/measures 		
			 d) Comparison between the ex- ante (existing measures and planned measures) and the baseline scenario 		





E8:	: roadmap di adopt the SULP	* implementation plan
E9: moi	: Responsibilities and implementation/ onitoring plan	* method, allowing the evaluation of the results obtained and eventually adjusting it
E10	0: Promotion and Communication Plan	* communication plan
		* communication network
Inte	egration with SULP	

Source EU, ALOT's elaboration 2017.





3. FUAs'policies' state of the art

3.1. FUA Bologna

3.1.1. Transport and logistics policies and main features

To understand the policy background in Emilia Romagna region, the following policy documents have to be considered:

- Two transport planning documents of the Municipality of Bologna, Mobility and Transport department:
 - a. <u>Master Plan of the Urban Traffic (PGTU)</u>. In line with directives of Minister of Transport, it aims at "improving traffic conditions and road safety, reducing noise and air pollution and achieving energy savings, in compliance with current urban planning instruments, with transport plans and having respect for environmental values";
 - b. <u>Plan for the distribution of goods in the city (MERCI BO2)</u>. It stimulates a reorganization process of logistics and urban distribution of goods, in order to reduce the urban distance covered by the freight transport vehicles, using eco-friendly vehicles for the delivery of the same transport services.
- Two transport planning documents of Emilia Romagna Region, Mobility and Transport department:
 - a. The Regional Map (Lorry Routes), which defines preferential routes for heavy vehicle flows, with indication of road signs, tunnels, bridge, maximum size and weight;
 - b. The Region strategy of coordination in urban logistics (Intercity coordination, part of the Sustainable mobility programme.
- Action of electric vehicles use for the delivery services of Bologna Agribusiness (CAAB), with particular regard on Limited Traffic Zone (LTZ) routes. The energy used to recharge the electric vehicles is provided by solar panels.





3.1.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Bologna. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Main Goal	Specific Objects	Activity	Instruments
Traffic governance into 2-4 year time horizon	Reduction of air pollution	Employment of new technologies (traffic supervisor) for the provision of information on mobility	
	Reduction of noise	Creation of new "environmental islands" and "30 km/h zones" throughout the city territory	
	Improve road safety	Extension of remote surveillance by Sirio, Rita and Stars, to ensure observance of road regulations	
	Save energy in the transport sector	Completion and extension of the Limited Traffic Zone (LTZ), avoiding cross-traffic	
	Improve road safety	Encouraging substitution of public and private vehicle stocks with eco-sustainable technology	
	Achieve wide sustainable accessibility into the city		
	Encourage a more eco-compatible stock of vehicles		
	Main Goal Traffic governance into 2-4 year time horizon	Main GoalSpecific ObjectsTraffic governance into 2-4 year time horizonReduction of air pollutionReduction of noiseImprove road safetyImprove road safetySave energy in the transport sectorImprove road safetyAchieve wide sustainable accessibility into the cityEncourage a more eco-compatible stock of vehiclesEncourage a more eco-compatible stock of vehicles	Main Goal Specific Objects Activity Traffic governance into 2-4 year time horizon Reduction of air pollution Employment of new technologies (traffic supervisor) for the provision of information on mobility Reduction of noise Creation of new "environmental islands" and "30 km/h zones" throughout the city territory Improve road safety Extension of remote surveillance by Sirio, Rita and Stars, to ensure observance of road regulations Save energy in the transport sector Completion and extension of the Limited Traffic Zone (LTZ), avoiding cross-traffic Improve road safety Encouraging substitution of public and private vehicle stocks with eco- sustainable technology Achieve wide sustainable accessibility into the city Encourage a more eco-compatible stock of vehicles

Figure 4. Bologna card.





MERCI BO2	Aim of this strategy is reduce the number of commercial vehicles and so congestion and traffic impacts. Promote the correct use of public spaces and therefore, the optimization of the commercial service through the experimentation of the booking of the loading/unloading bays Improvement of parking availability and creation of new rules of access to restricted traffic	Specialization of the loading/unloading bays	Use of the loading/unloading bays differentiated by type of permit and time limit
		Increase the number of eco-friendly vehicles	New rules aiming to enhance the development of eco-friendly vehicles (especially in the two restricted traffic
		Aggregation process of operators aimed at optimizing travel and loads in restricted traffic zone and a more correct use of the road	Possibility to use the lane of the public transport also for the commercial vehicles
Lorry Routes	To improve the correct choice of the routes of the heavy vehicles	To reduce the mileage of the heavy vehicle flows	Collection and standardization of the various roads lists from different archives
		To provide information about road sign, tunnels, bridge, maximum size and weight and their constrains	Creation of the network from many pieces of roads
			Updating and digital mapping





Intercity coordination	The strategy purpose is to improve the knowledge of the various experiments made in all cities with more than 50,000 inhabitants and to coordinate their actions in order to improve transport systems and to foster economic development.	To create a strategy to coordinate actions for an enhanced knowledge of urban goods practices between cities	Methodology for the survey for coordinated regional logistics policies
		To promote common programs	Identification of measures taken in cities to improve logistics activity and environmental effects
		To support local initiatives by regional funds	Analysis of urban logistics measures and their financing in all Emilia Romagna Region cities
		To make sure that the innovative practices implemented by some cities remain efficient in the long term	List of applicable measures according to the domains on intervention (consolidation of flows, organization logistics, innovation, training, services, management)
			Evaluation of the projects
E-van CAAB project	Reduction of the air pollution and GHG emission	Reduction of: CO concentration, SOx concentration, NOx concentration, VOC concentration, NH3 concentration, PM10 concentration and CO2 emission	Last mile delivery performed by electric vehicle, using energy provided by solar energy

Source CMBO data, ALOT's elaboration 2017.





3.1.3. Coherence analysis

The policies related to urban logistics in FUA Bologna show a high level of coherence, which derives from a long tradition of Emilia Romagna Region in promotion and coordination of the transport and mobility policies and related activities.

In fact, Emilia Romagna Region adopted a strategy of coordination between the main cities of the region, in order to ensure similar standards in different region's cities, sharing the best practise and funding different initiatives through cities and Region's cooperation projects.

The main common guidelines concern:

- 1. Enhancement of the use of new technologies for info-mobility and traffic control;
- 2. Incentive to replace old vehicle fleets with those having technologies with a lower environmental impact, such as electric vehicles and vans;
- 3. Rationalization of the planning of goods distribution in the city, identifying dedicated and regulated spaces for goods flows, especially in the limited traffic zone (LTZ).





3.2. FUA Brescia

3.2.1. Transport and logistics policies and main features

In FUA of Brescia, in order to fully understand its political and administrative context in which the SULP will be elaborated and implemented three planning documents and their interactions have to be taken into consideration.

The first ones are the technical documents (guidelines), which embed the **strategic and policy principles** for a general reference framework, delivered mainly by national and regional Public Authorities:

- Ministerial Directive for URBAN MOBILITY PLAN editing; delivered by the Ministry of Infrastructures and Transport, provide the guidelines for Peripheral Public Administrations (Provinces, Aggregations of Municipalities and Municipalities), for the effective Urban Mobility Plans. The Plan also provides instructions for the interaction with other with other institutional actors on the basis of goals, strategies, priorities and proposition, driven by the in-depth technical-economic analyses according to common standards. The adoption of indications contained in the Urban Mobility Plan by the local Public Administration is a pre-requisite to obtain funding from the national public authority in specific transport topics, proving that the local frame of interventions meets the government's general objectives. De facto, funding will be no longer "for specific public works", but "for specific mobility goals".
- Regional Guidelines for the recharging infrastructure of electric vehicle; delivered by the Mobility and Transport department of the Lombardy Region that adopts European and national guidelines (National Infrastructure Plan for Recharging Electric Powered Vehicles, and declines them in detailed actions for regional and local context. The Regional Guidelines are in line with the European and national regulatory environment, promote actions for the development of electric mobility. The guidelines illustrate the general principles to be followed in the design of the recharging infrastructure networks for electric mobility, as well as the technical options to be selected according to the installations' typology, in order to enable both public and private access recharge in a synergic and functional framework.
- **Regional Guidelines for Urban Logistics;**. Urban logistics in Lombardy region has been tackled with an integrated approach and through the establishment of a regional working tables on freight flows as space for shared work and comparison. The working table brings together main public stakeholders and private actors in the field of transport and logistics, defining a program of actions and interventions, and one of the interventions is the urban logistics.





From a careful examination of the status quo of the goods distribution in Lombard municipalities, the territorial and temporal fragmentation of the measures regulating the goods deliveries comes out, together with the consequent difficulties of the transport and logistics operators to carry out the distribution efficiently, in respect of the air pollution and congestion regulations. The regional guidelines are Lombardy Region's response to the requests made by the private operators at the working table, to direct and support the municipalities (in full respect of their autonomy) to pay more attention in terms of quality rather than quantity of the legislation produced.

The second ones that frame the policy environment, in which the SULP of Brescia FUA will be elaborated, are the main spatial planning documents as the cornerstone of the territorial government, which precede the development of SUMP and SULP, and set the **fundamental concrete territorial limitations** for the SULP.. SUMP and SULP must adapt to the spatial planning documents delivered locally, without changes of directions contained in it:

- **Provincial Coordination Area Territorial Plan;** according to Regional Law n. 12, the PTCP's competencies concern:
 - The objectives of economic-social development at a provincial scale, combined with forecasts of the sectoral plans;
 - The indication of qualitative elements on a provincial or supramunicipal scale, for municipal planning and minimum content on subjects of over-municipal interest that have to be included in the plan document (the plan of the rules and the services plan);
 - The general program of the major infrastructures related to the mobility system and the environmental and landscape integration;
 - Coordination of the plans of municipalities, including compensatory or financial forms, possibly aimed at promoting the association between municipalities;
 - The definition of the areas for agricultural activity of strategic interest, criteria for the identification of the agricultural areas on a municipal scale and the relative standards of valorisation, use and protection;
 - The hydrogeological structure of the territory;
 - The protection of landscapes, in coordination with regional plan for landscape;





- The identification of territorial spheres for which the definition of actions of coordination aimed at the implementation of intermunicipal territorial equalization.
- There are some PTCP's assumptions that become prescriptive and prevailing for other public administration levels:
 - The forecasts for the protection of environmental and landscape assets;
 - The indication of the location of the first and second level mobility infrastructure;
 - The identification of agricultural areas preceding the PGT approval;
 - The indication for areas subject to protection or classification of hydrogeological and seismic risk, and priority investment for consolidation, but only in cases where sectoral legislation and programming assign the competence in matter with prevailing effectiveness to Brescia Province.
- **Territory Government Plan;** the urban planning tool with the purpose to define the structure of the entire municipal territory through:
 - 1. The general framework of urban planning (*documento di piano*);
 - 2. The plan of infrastructures and public services that the municipality needs (*piano dei servizi*);
 - 3. The definition of the destination of each municipal area (*piano delle regole*).
- Extra urban provincial traffic plan (PTVE); with its elaboration, the Provinces ensure the adoption of traffic plans for the extra-urban roads in order to improve conditions of traffic and road safety, reduce noise and atmospheric pollution and increase energy savings, in accordance with urban planning instruments and transport plans in force and with respect of environmental values. The elements that characterize PTVE respond to the principles of sustainability, aiming at rationalizing the use of current resources through the optimum management of existing infrastructures, in fact the plan does not focus on new infrastructures. PTVE includes the analysis of the state of facts of the analytical framework (characteristics of the infrastructures and functional classification of roads, transport demand, roadway criticality) and the elaboration of a mathematical model for the traffic simulation.





The documents that express more explicitly the strategic indications, the measures and the actions to be undertaken in the field of mobility, and must be taken into consideration are:

- **Regional Plan for Mobility and Transport (RPTM);** which represents an integrated planning tool of great importance because it constitutes the system of mobility relationships based upon demand and supply, compares them to the layout of existing infrastructures, and identifies the integrated planning requirements of infrastructural networks and transport services.
- SUMP of the city of Brescia; which includes also the indication of the administration programming mandate 2013-2018, contains a strategic vision for the metropolitan area of Brescia, whose Public Authority coordinates all the components of the mobility system and has goals and strategy, defined and measurable in the SUMP.





3.2.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Brescia. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Brescia Card	Main Goal	Specific Objects	Activity	Instruments
Urban Mobility Plan directive	bility Allow Peripheral ve Administrations (Provinces, Aggregations of Municipalities and Municipalities) to deliver effective Urban Mobility Plans and fully play the role of proposition and interlocutor with other institutional subjects on the basis of goals, strategies and priorities motivated by in- depth technical-economic analyses, carried out on common standards.	Meet the needs of population mobility	Realization,maintenance,management or relative to any mod	of the public transport infrastructures
		Reduce the levels of atmospheric and acoustic pollution in compliance with international agreements, European Community and national legislation on polluting emissions	Realization, maintenance, management of road infrastructures, of local competence, with particular attention to the roadways to service modal interchange	
		Reduce energy consumption	Realization, maintenance management of the parking, with particular with regard to those of interchange	
		Increase the levels of transport and road traffic safety	Investments in new technologies	
		Minimize individual use of private car	Initiatives to increase and / or improve the fleet of vehicles;	
		Increase transport capacity	The government of transport and mobility demand	Mobility managers
		Increase the percentage of citizens transported by collective system, including car sharing, carpooling, collective taxi etc.	Actions for traffic control and regulation	Investments in info-mobility
		Reduce congestion phenomena in urban areas characterized by high traffic density	City logistics actions	
		Encourage the use of alternative means of transport with the lowest possible environmental impact		

Figure 5. Brescia card.




Regional Guideline for electro charging station	The objective of the Lombardy Region is to promote the development of a recharging network	Identify intervention areas according to a priority scheme	Activation of traffic / mobility analysis to define the localization choices. Number and location of the recharging infrastructure should be established in agreement with the local administrations and in accordance with the principles of the Mobility Plan and other existing related Plans for the Reference Area (such as SEAP).	
		enabling the circulation of electric and hybrid plug-in vehicles beyond the ability of the only night-time charging.	Enable as many services as possible with the same infrastructure	Define projects of infrastructuration involving large-scale areas (e.g. metropolitan city or FUA); the projects have to guarantee a coherent design between territories, and reduction of interoperability problems between different systems.
		The achievement of this goal goes through two phases: * The "pioneer" phase until 2020, with the aim of facilitating the first users to adopt electro mobility basic functions (charging for daily use, possibility to travel along the most important long routes). Support for private access recharge	Reduce barriers at entry to potential users	Municipalities neighboring and/or falling within the same area of transport influence (usually characterized by commuting flows) have to find agreement to coordinate in order to ensure easy "charging continuity" for users of the municipalities involved.
			Costs optimization	Project activity must proceed with dialogue and cooperation between all stakeholders. It means to set up activities to keep in contact local authorities (for the optimal selection of sites on the basis of local knowledge and to simplify and streamline authorization procedures) and the electricity distributor (e.g. for checking the electricity grid and its loads, in order to optimize network development and urban planning).
			Guarantee access to all potential users, even if occasional	
	 Columns and development of a network of public access recharging columns in areas with high demand. * The "future" phase from 202 to 2030, making a capillar recharge network available. 	a network of public access recharging columns in areas	Promote intermodality with other modes of transport both public and private	
		with high demand. * The "future" phase from 2020 to 2030, making a capillary recharge network available.	Full compliance with national and European (AFID) legislation	





Regional Guideline for Urban Mobility	Al Support local authorities to create conditions for sustainable urban logistics: Mobility 1. efficiency of freight transport, reducing the number of delivery trips and maximizing load capacity; 2. quality of working conditions of workers in the urban distribution of goods 3. consistency with air quality standards promoted by regional legislation 4. minimum impact on the quality of urban life	Promote the adoption of mobility governance tools and plans, in compliance with both the higher territorial level tools and the other municipal planning instruments
		The plans and tools must respond to the concrete needs of the territory, and developed by ensuring the coordination with the stakeholders including the neighboring municipalities
		Effective implementation of the plans, with a view to proportionality (avoiding excessive restrictions for commercial vehicles), effectiveness for public health and safety, gradual introduction, simple implementation by individuals and economic sustainability
		Protection of air quality, in line with regional legislation, both through structured measures against pollution and through occasional traffic interdiction measures
		Standardization of traffic regulations and loading and unloading operations (time frame for transit in LTZ, loading and unloading bay, authorization and payment procedure to enter LTZ, etc.)
		Promotion of experimental measures of city logistics





The PTCP's (infrastructure and mobility part) general objectives are:

1. Improve the accessibility of the territory:

I. provide a hierarchical and integrated system of public and private transport networks, in an optic of functionality, environmental sustainability and security;

II. meet the backlogged demand of infrastructures with particular reference to public transport;

III. promote intermodality (rail, road, air, water, soft mobility) for transport passengers and goods through the upgrading and the realization of centers of interchange;

IV. support the development of Montichiari Airport in compliance with the Regional Territorial Plan.

2. Encourage the use of public transport as a means of sustainable transport:

I. Define a model based on the rail and road force lines

Intervention on the linked infrastructure system to allow access to regional poles and promote external relations from across the country through effective integration with the European network and between long and short networks. Use the infrastructure network opportunities to encourage the creation of a polycentric system, facilitating accessibility to major poles, between secondary poles and peripheral areas. PTCP identifies the technological corridors where the infrastructures of overmunicipal interest are to be realized. The PTCP define the territorial spheres where the optimal conditions for realization of new transport infrastructure.

Reduce traffic loads in congested areas. Implement policies to streamline and improve the public transport service (in terms of efficiency and sustainability). PTCP defines the general criteria for the environmental and landscape inclusion of infrastructures of over-municipal and communal interest and the correct relationship of new settlements with

PTCP





	for the connection of the peripheral and central areas; II. Provide congestion-free transport systems to improve interconnection of the central metropolitan area, intercepting the traffic flows from the periphery; III. Integrate different modes of transport in interchange centers, adequately accessible from the road network, and with services for passengers and logistics services for goods. 3. Provide coordinated development of settlements and mobility infrastructures: I. Predict the simultaneous programming and implementation of interventions of urban and upgrading infrastructure development, including locational choices that restrict the generation of additional demand for road mobility of private carrier, avoiding in any case congestion on the network or risky situations. II. Optimize the location of settlements with respect to		respect to the same infrastructures, considering for this purpose the existing linear and new realization.	
		Ensure a quality local public transport service, with project of sustainable mobility.	PTCP identifies over-municipal interchange centers of interest:	
			(a) Freight exchange centers, i.e. the meeting places between the primary and / or main road system with the railways; and where the transport vocation of the areas is defined through the upgrading, adaptation or	
			 the new realization of logistic nodes. (b) Existing and planned passenger interchange centers, fitted with exchangeable car parks at railway stations and stops and public rail transport systems and lines of public transport on buses. 	
		Reorganize the freight transport system for a more sustainable development of the sector; carry out measures to enhance the modal interchangeability of goods, aimed at greater use of less-impact transport freight (rail, waterways).	PTCP identifies the areas of influence of public transport networks on rail or road and related stops to ensure sustainable accessibility conditions to provincial territory.	
		grading infrastructure velopment, including cational choices that strict the generation of ditional demand for road obility of private carrier, oiding in any case	In relation to the network, coordinating municipal and sector planning: A) provides functional road connections of urbanized and planned environments by organizing accesses in a grouped and limited way,	PTCP classifies the road network in relation to the prevailing type of service or service in the following categories: a) primary; b) principal;
			including through service routes, excluding the possibility of new access to individual lots;	c) secondary; d) connection.





public transport and services of interchange centers;

III. Ensure the feasibility of over-municipal infrastructures both in the short and medium to long term in agreement with municipalities.

4. Promote preparatory landscape projects aimed at road design at the best landscape and environmental integration of infrastructures.

5. Enhance soft mobility network, pedestrian and bicycle, in support of shortdistance moves. B) Ensures a level of service and security requirements appropriate to the geometric and functional characteristics of the infrastructure;

C) Defines the typology and layout of the intersections and the linkage route, also obtained from the upgrading of existing local roads, in relation to the existing traffic loads generated and expected in the medium term;

D) Verifies the incidence of the anticipated transformations by highlighting any changes to be made to the layout of the road and identifying the necessary resources.





PTVE	PTVE's main goal is to optimize road traffic through rational management of existing infrastructures. The plan identifies the road network in its articulations, establishing a hierarchy between the roads that make up the major, over-provincial (main), penetration- distribution (secondary) and local ones, with access to inhabited centers (local network).	Improve road safety Among the primary objectives of the PTVE is the reduction of road accidents and the severity of accidents, starting with the analysis of accident dynamics and related causes, with particular attention to the relationship between the latter and the geometric features of the roads. PTVE also promotes infrastructure interventions aimed at driving and influencing the behavior of road users and in particular vehicle speeds. Moreover, by providing for specific actions aimed at re-balancing the use of different transport systems by shifting traffic shares to safer and more sustainable modes.	technical and regulatory tool for anyone who needs to intervene along a provincial road is attached to the Plan. It is a document describing the characteristics of the roads according to the purposes and of the technical offices involved in the maintenance and management of the roads.	"Regolamento viario" (Road regulation)
		Improve traffic conditions Meet the demand for mobility at an appropriate level of service through retraining and development of the road network, while respecting constraints and environmental values.	road safety monitoring system and preventive safety analysis	vehicle traffic monitoring system
		Reduce the negative impacts of vehicular traffic on the environment PTVE aims to reduce airborne and acoustic pollution by mitigating impacts and promoting less polluting modes of transport through improved accessibility to interchange areas		Limited Traffic Zones (LTZ) in historic villages peripheral





The RPMT's general objectives are:

RPTM

1. Improve Lombardy's connectivity within the nation context and towards EU and main international destinations in order to strengthen its competitiveness and socioeconomic development;

2. Ensure freedom of movement for citizens and cargo, and guarantee accessibility to the territory;

3. Guarantee the quality and safety of transport and the development of integrated mobility, safe and with high quality level;

4. Promote the environmental sustainability of the transport system.

Improve Lombardy's connections on a macro-regional, national and international scale (primary network that refers to the core and comprehensive networks at EU level); and improve connections on a regional scale (integrated regional network, fundamental infrastructure for ensuring accessibility of the territories to/from the primary network.).

The creation of strategic infrastructure must be done with a view to integration at various levels (long networks/short networks; different modes) and considering:

1.the completion of the work already commenced and the optimisation of existing infrastructure;

2.the creation of new infrastructure, corresponding to the priorities of the system with quality projects, such as accountability, sustainability and the efficient use of resources and supervision over time;

3.the improvement of competitiveness of the airport, helicopter, port and interport system in a logic of integration and of international competitiveness;

4. with particular attention to the network of regional nature, the completion of the integrated cycle network.

Develop collective transport in universal form and achieve integration between different Public Transport. in order to improve

Key actions in the field of rail transport in order to increase the regional rail service;





modes of transport. Collective transport must aim to assume a competitive role within mobility, not only in urban areas, but also on a regional scale, in the perspective of a single and universal system, with strong accessibility for the territory and broad availability during the daily service. Re- planning of networks in a logic of clear functional hierarchy and readability on the territory; technological innovation for ticketing, mobile information, monitoring and safety; implementation of information and communication systems and increase of user orientation; the creation/completion of railway and subway infrastructures and interchange nodes in a system logic; investments for the renewal and expansion of railway transport, as well as vehicle fleets for subways, fast trams, ropeways and buses.	Local Public Transport services, the following actions are priorities: 1. Fine-tuning of the operations of Local Public Transport Agencies 2. Renewal of the vehicle fleet of car-trolley bus-subway-tram services and developing a pricing integration.
Achieve an integrated, competitive and resource efficient logistics and cargo transport system. The objective is focused on the fundamental role of logistics and cargo mobility in the industrial and economic development of the region, promoting, in particular, the transfer of cargo to more efficient forms of mobility, with:	Key actions in the field of road transport; in order to reduce congestion and improve connections on the non-urban network
1.New infrastructural and managerial structures, at regional/macro-regional (intermodal) and urban (city logistics) level, integrating transport over medium/long distances (by rail/water) with distribution (by road);	





	2. Promotion of homogeneous regulations, particularly in the urban area, which encourage the use of vehicles with reduced environmental impact and a coordinated system for operators.	
	Improve connections with Milan area and with other significant regional hubs.	 Car-trolley bus-subway-tram service, cableways and supplementary mobility; Services for navigation and development of State-owned lakes; Motorway and road transport system and private mobility on roads; Air and helicopter transport; Logistics and intermodal cargo transport; Cycling mobility.
	Develop further promotional initiatives of resource efficient mobility and actions for governing demand.	
	Act to improve transport safety.	





SUMP of Brescia	 The main programmatic goal is therefore to promote sustainable mobility by pursuing a culture of intermodality that will significantly modify the modal subdivision between the different modes of transport. For this reason, the government of urban mobility aims to promote intermodality, for maximum integration between the public transport system and non-motorized mobility, and for disincentive of individual motorized vehicles as "first choice" for moving with origin and / or destination within urban boundaries, but rather reorienting it towards an integrated and complementary mobility. 	More accessible city, where citizens' mobility needs are met with high standards of quality and travel comfort, while ensuring full accessibility to all traffic components, including vulnerable users (including the elderly population, expected to rise sharply over the next two decades);	Progressive closure of the historic center to vehicular traffic	Traffic calming and institution of "zone 30" Limited Traffic Zones (LTZ) in historic villages peripheral
		More efficient city, capable of employing available resources (financial, energy, territorial) in proportion to the benefits gained;	Relaunch of projects for walking mobility,	"Pedibus" for the school
		Healthier city with less air and acoustic pollution;	Progressive extension of the bicycle network, to be financed also through the share of revenues related to urbanization charges and administrative penalties for violations of the Road Code	Strengthening the BiciMia project (bike sharing), aiming to cover areas not yet served and pursue synergies with the mobility managers of institutions, companies and institutes.
		Safer city, where no citizen is more exposed to the risk of death or serious injury to following a road accident	Development of rail transport (completion of the railway station; Suburban train system also using the urban sediments of the Brescia-Iseo- Edolo line	
		More beautiful city, characterized by livable public spaces, and a general qualification of the landscaped and historic-monumental heritage.	Upgrade the exchanger subway parking and improvement of the connections with neighboring areas. It includes pedestrian and cycling access to the stops, including the lighting of the approach paths.	
			Reorganization of the local public transport network (including metropolitan line extension planning) to better integrate suburban areas, areas not served by the subway, regional train service. This includes:	





making preferred lanes for buses, extending the evening service until midnight and the unique Provincial
tariff and ticketing system
Targeted actions to adapt the road network: upgrading of the West Orbital road, with particular reference to its intersections at saturation and completion of the connection between Rose street and Vallecamonica street;
Integrated intermodality project at the "Piccola Velocità" It will become one the reference intermodal center for the eastern Lombardy. It can put up to 190,000 containers per year on trains. The operators will be the Swiss intermodal transport company Hupac. The infrastructure would serve as a new gate of the western entrance to the city. The project is to connect the railway line with the nearby Ortomercato (agribusiness), where a large logistics center for agro-food should arise. Access to the "Piccola Velocità" will be facilitated by a new road. The intermodal center would also be a significant economic advantage for exporters in Brescia and the province, who would see significantly reduced transportation costs.

Source: Brescia Mobilità data, ALOT's elaboration 2017.





3.2.3. Coherence analysis

The set of policy documents relating to the Functional Urban Area of Brescia is a complex, but still a well-integrated context. It fully reflects all the strategic directions coming from the European Union and adopted locally. Still, going into details on specific characterizations, it is possible to identify the elements of great strategic interest peculiar to the territory and local context.

Among these, the following stand out:

1) The focus on the efficiency of the logistics system in order to support the competitiveness of the territory and its economy: strong incentives to rationalize the system and to connect it with external areas (Italy, EU, world) through the identification of infrastructures planning criteria, the definition of transport networks hierarchy, and the creation of logistic nodes in specialized areas;

2) The strong pressure on the improvement of air quality standards in the Po Valley context, which is one of the places with the worst air quality in the whole EU: promotion of alternative ways of moving including the replacement of public and private fleets with electric vehicles or alternative fuels;

3) The great attention to the involvement of the stakeholders in order to find solutions for the conflicting interests. In the field of urban logistics, the regional guidelines pay particular attention to the theme of conflict of interests, clarifying that the initiatives introduced by the municipalities for the improvement of air standards, noise reduction and congestion, must be applied proportionally (verifying the costs and benefits for all the stakeholders), gradually (giving the right time to the operators of the urban distribution to adapt) and where possible in coordination with different cities public administrations (giving the possibility to standardize procedures when the last mile distribution affects several cities, to the private operators).

According to above described elements, it is possible to identify several aspects, which should increase the synergy with the national and the regional strategic indications:

1) The local documents (SUMP, PTCP, PGT) have placed great emphasis on people transport issues up to now, thus the SULP elaboration would cover large thematic areas linked to the local flows of goods that the previous documents have treated without too much in-depth coverage;

2) The guiding criteria for the construction of the infrastructures are primarily linked to passenger transport and to the main freight routes at supra-municipal level (e.g. the identification of logistic nodes at the intersection of the primary freight lines with the railway lines). The SULP elaboration should enforce the current criteria, adding new ones related to the distribution of the last mile. This way the





identification of the logistics nodes would become even more effective for the local distribution;

3) There are many shared issues by both passenger and freight transport identified and regulated by the current documents (e.g. access to the city centre of commercial vehicles). SULP elaboration will have to face these issues all over again, but it will bring added value, also compared to other Lombard cities and their stakeholders' requests, which will be brought together at Freight Quality Partnership works in SULPiTER, as also defined by the regional guidelines on urban logistics.





3.3. FUA Maribor

3.3.1. Transport and logistics policies and main features

The policy related to the SULP in FUA of Maribor is the "Integrated Transport Strategy" and in Slovenian transport policies context, the strategy developed into the "Transport Development Strategy in the Republic of Slovenia" and was adopted in 2015. It defines the vision for the transport, defining future measures related to road, railway, air and maritime transport, including public transport and measures for a sustainable mobility. Furthermore, the Strategy refers to transport and logistics sector through infrastructures, mainly with interventions for building the infrastructures for big logistics players, like in Port of Koper). The City logistics, even if at smaller extent, is mentioned as a topic which will addressed in the future transport policies. The following aims are to be achieved:

- Improved transport efficiency (better exploitation of capacities);
- Intermodality (options of shifting transport modes);
- Good management of city needs in terms of the supply of goods;
- Application of more environment-friendly vehicles and energy production.

The Slovenian Ministry of Infrastructure issued also the National Guidelines in 2012, for the development and implementation of the Integrated Transport Strategy, which were totally designed according to the EU publication: Guidelines: Developing and implementing a sustainable urban mobility plan. For SULP elaboration in Maribor there are no national guidelines.

In Slovenia there is no regional self-government, thus the development of regional FUAs transport policies is at local and municipal level, where dealing with transport and logistics topics within the city centre is up to each municipality or community.. Municipality of Maribor adopted several strategic documents that represent the basic framework with measures and indicators for the development of the city. The documents are:

a) <u>Development Strategy of Maribor 2030</u>. The document heavily relates on adopted strategy Europe 2020, and includes measures according to smart, sustainable and inclusive growth with specific local indicators. Among the seven headline targets of the Strategy are:

- ✓ Reduction of the greenhouse gas emissions by at least 30% compared with 2009 level;
- ✓ Increase of the share of renewables in energy by 20% compared with 2009 level;
- \checkmark Increase of energy efficiency by 20% in relation to the year 2009.





b) Local Energy Concept and Local Energy Action Plan and Covenant of Mayors.

c) <u>Ordinance on Air Quality of Maribor</u>. The ordinance determines the overly polluted areas with PM10 particles, the 3 pillar-measures (energy efficiency, sustainable mobility and other areas), monitoring of the implementation of the measures, and responsible institutions for measures implementation, pollution cause analysis.

d) <u>Sustainable Urban Development Strategy</u>. Social and economic agents (such as neighbours, unions, entrepreneurs, administrations, associations, etc.) are the active players in the urban transformation, involved in decision taking processes for the specific projects that are strategic to the whole city.

The Maribor "Integrated Transport Strategy" is an Action Plan (list of measures) for the implementation of measures in the field of managing the traffic issues in Maribor (Road safety, Green mobility service, ICT system and infrastructure, mobility Energy efficiency, Transport infrastructures). It has been supported by campaigns of information and awareness.





3.3.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Maribor. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Maribor Card	Main Goal	Specific Objects	Activity	Instruments
Integrated Transport Strategy /	To improve the quality of life of the citizens and municipality' possibilities for successful development in pla to Ma	To plan the traffic considering the guidelines and integrated approach: Establishment of financial, system and administrative conditions for better mobility management. Ensuring transparency of decision-making by involving the public in all stages of the planning of mobility. The introduction of tools for the systematic monitoring of Mobility. Integration between different design sectors within the Municipality	Implementation of integrated mobility planning:	
SUMP			1a Establishment of Office / Department for Integrated transport and mobility planning	
			1b Agreement on sharing of human resources at the regional level	
			1c Preparation of a balanced budget	
			1d Traffic model maintenance	
			2a Acceptance, Commissioning, Audit and Reform Strategies	
			revisions every 2 years;	
			renewal every 5 years	
			2b Periodic telephone survey on travel behaviour	
			2c Mobility plan for major traffic generators	
			3a Municipal technical guidelines for construction of pedestrian, cyclists and physically disabled infrastructure; PT priority management and traffic calming	

Figure 6. Maribor card.





	3b Promotional, awareness-raising and educational campaigns for all five pillars
	3c The preparation and introduction of car and bicycle parking standards
	3d Active participation in EU projects
To exercise and to promote walking as one of the most important ways	Promotion of walking as an important travelling mode
of travelling: Create conditions that most inhabitants	1a Improvement of the existing infrastructure
could make a large part of daily trips on foot. Increase of walking modal share in the city and the presence of pedestrians in urban area. Increase of traffic safety	1b Municipal technical guidelines for infrastructural constructions for pedestrians and physically disabled
and a sense of safety for pedestrians. Monitoring the number and behaviour of	2 The expansion of the Pedestrian area
pedestrians.	3a Footpath network - PT access
	3b Footpath network - Green corridor
	3c Footpath network - a new footbridge
	4 Improving conditions for planning
	5 Promotional and Educational activities
Further to popularize cycling and to establish even more cycling	Optimal uses of potentials of cycling
infrastructure in the city:	1a Municipal technical guidelines for
Create the conditions for a comfortable, safe and attractive	infrastructural construction for cycling - cycling strategy
share of cycling in urban trips.	1b Network of bicycle lanes
Increase traffic safety and sense of	2 Secure bicycle parking





safety of cyclist. Monitoring the number and behaviour of cyclists.	3 Management of cycling in the city4 Promotional and Educational activities
To improve public transport to be appealing and useful to the citizens	Design of attractive public passenger transport
Increasing the use of public transport. Improve the supply of public transport in	0 Update of PT strategy (ensure the funding stability 2014-2018)
the city. Improve integration between different modes of public transport and between public transport and other modes of transport. Improving the accessibility of public transport for people with reduced mobility. Improving	1a Revision of integrated PT development plan (integration of school, ''on-demand service and local taxi service into currently valid PT service)
the image of public transport.	1b Establishment of Regional PT Authority responsible for PT in city and region
	2 Increase of cities PT level of service for 10% (or additional 250.000 km per year)
	3 Pricing policy (integrated ticketing and smart card system)
	4a Increase the fleet of city buses; renovation until 2018 (250.000 € / bus)
	4b Replacement of 20 obsolete buses until year 2018
	5a Measures to ensure the bus priority (bus priority lanes, traffic light
	5b Instructions for planners and designers





	6a Renovation of bus stops (one-fifth per year or 40 every year)
	6b Equipment of bus stops with RTPI
	7 Public transport system with Demand Responsive Transport Service
	8a P+R (1 per year for 200 vehicles minimum)
	8b Actively participate in the creation of the unified national ticket program (focused on ''on- demand'' service, intermodal interchanges, railways and taxi services)
	8c Co-financing of intercity PT lines to provide better regional and global accessibility
	9 Improving the overall image of Public Transport
Approaching the rational use of	Rational use of cars
motorized vehicles (cars, motorbikes) with sustainability	1a Introduction of traffic-calming zone
Improving air and noise pollution.	(30 km/h) - city centre
parking situation in the city. Reducing	Introduction of traffic-calming zone
the dependence of the population on the car. Increasing the share of	(30 km/h) - other parts of city
environmentally friendly vehicles. Reducing the negative effects of freight transport.	1c Reconstruction of intersections with focus on traffic-calming (in city centre and residential areas)
	1d Accelerated revitalization of the roads





1e Municipal guidelines for planning the friendly area / environmental zone
1f Investments in traffic light system, including the speed limit control system
1g Investments in addressing bottlenecks in the road network
2a Comprehensive parking management (correction and update of strategy / plan)
2b Implementation of parking policy (spreading the parking zone + supervision + price increase)
3 Incentive for more environment friendly vehicles
4 Optimized Car-ownership
5 Rationalisation of freight traffic in the city - study with restriction measures

Source: Municipality and University of Maribor, ALOT's elaboration 2017.





3.3.3. Coherence analysis

After the analysis of the Slovenian national policy, it can be stated that the document has a good internal coherence and develop a consistent action plan starting form main purpose and specific objects. The strategic address is clear and well defined, plus integrated and focused on citizen needs, and consistent with other policies mentioned in the paragraph 3.3.1, mainly focused on people transport modalities such as walking, cycling, public transport, and on high emission car use reduction. At current stage the freight transport and logistics is not the main focus for the transport policies. Considering the current policy status, the elaboration of the SULP in Maribor is relevant and of high added value for the transport related policies.





3.4. FUA Stuttgart

3.4.1. Transport and logistics policies and main features

The policy framework at regional, federal and national level is given mainly with three policy documents, which are:

1. Action Plan for Goods Transport and Logistics (Aktionsplan Güterverkehr und Logistik) at Federal level, issued by the Federal Ministry of Transport and Digital Infrastructure. The document itself is a framework and is intended to encourage initiatives on the level of the 16 federal states and on local level. It is a list of all logistics related activities, in which the federal government is involved, that frames the logistics sector, combined with energy efficiency and environmental aspects, with the various policies combined in one document. The document lays open parts of the strategies corresponding to each other, coherency of the policies, and practices to be targeted, and it is the main document for the logistics policy debate on federal level.

2. General traffic and transport plan for Baden-Württemberg 2010 (Generalverkehrsplan Baden-Württemberg 2010) for the level of federal state, issued by the Baden-Wurtemberg Ministry of Transport. It is a main planning document that covers all topics about transport and traffic, along with the externalities, such as pollution, congestion etc.

3. **Regional Traffic and Transport Plan** (Regionalverkehrsplan) at Stuttgart Region level released by the Mobility and Transport Department of the Verband Region Stuttgart. It gives the planning framework for the municipalities within the region and take concrete actions only into the field of regional transport and infrastructures (e.g. regional rail public transport), while urban freight traffic and other local topics are mainly demanded at local level.

The **City Logistics concept** (Citylogistikkonzept) has been elaborated and released by the Economic Development Department of the Stuttgart city. It presents an action plan related only to the urban goods mobility, collecting aspects of current city freight distribution status and possible measures of intervention.





3.4.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Stuttgart. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Stuttgart Card	Main Goal	Specific Objects	Activity	Instruments
National action plan		Improve people's protection against traffic noise	The plan exclusively relates to the protection from freight wagons and trains. Road transport noise may be a question to be legally handled on the level of the 16 federal states or even on lower level. 'However, the question of road traffic noise is not even mentioned.	
		Support alternative propulsion technologies	"Mobility and fuel strategy of the Federal Government" is explained here as a measure to secure the energy base for transport while improving the environmental aspects, with alternative fuels and alternative means of propulsion as key technologies, including a network of service stations for all modes of transport. Electric technologies for vans and light tracks as well as for urban distribution are explicitly mentioned, with reference to the topic below.	
		Develop measures to strengthen urban logistics	The federal government states that this is important but not the responsibility of the federal level, which is why it can only support measures on the level of the 16 federal states or the municipalities. Support is basically done via research and via supporting electric and fuel cell energy technologies, including loading infrastructures.	

Figure 7. Stuttgart card.





Federal General traffic and transport plan	Service transport.	
	Urban planning is supposed to take the different segments of service transport into account. This holds for residential as well as for commercial areas.	
	Urban logistics.	
	The problem is acknowledged. The plan refers to the lack of success of earlier bundling and cooperation initiatives. It suggest cooperation in "Round Tables", initiatives by local actors, telematics, as well as the initiative suggested by the federal "Aktionsplan Güterverkehr und Logistik" (see policy 1; responsibility is therewith reciprocally returned to the respective "other" level of government). New technologies are encouraged.	
	Connection with private sidings / terminals.	The state "support" keeping and extending the infrastructure
	This is seen as important, but not explicitly with relevance to the FUA, just relevant for industries and transport in general.	
Regional traffic and transport plan	To make the transport network properly work but no topic related to urban freight traffic.	

Source: WRS and KLOK, ALOT's elaboration 2017.





3.4.3. Coherence analysis

The policy analysis highlights that, even though the transport planning documents deal little with the urban freight flows issue, there is a general policies' interest to reduce the negative impacts of pollution and congestion. The approach towards transport and logistics policies includes the rethinking of the past experiences, which in some cases have been of non-success, and working tables with different actors and stakeholders to tackle the transport issues at the local level, including the support to the promotion of vehicles with a lower environmental impact, e.g. electric vehicles. In order to have an open debate with larger number of stakeholders, the Department of economic development in the City of Stuttgart started working tables on the subject of urban logistics, with the final document publication and its adoption through the measures implementation.





3.5. FUA Rijeka

3.5.1. Transport and logistics policies and main features

The policy framework related to Rijeka Functional Urban Area is defined through National, Regional and Local policies.

At National level the Transport **Development Strategy of the Republic of Croatia for 2014-2030** delivered by the Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia, is a planning document with field application and provides a baseline, creates path and draws guidelines for transport strategy document for regional and local Public Administrations.

At Regional level the **Development Strategy of the Urban Agglomeration Rijeka 2016 - 2020**, is a planning document that includes several territorial aspects (mobility and transport, spatial planning, environment and energy, territorial development), and works in synergy with other project of the period 2016-2020. It is focused on developing sustainable development of economy path into the urban agglomeration of Rijeka, while preserving urban areas.

At local level the **Development Strategy of the City of Rijeka 2014-2020**, a planning document not only focused on mobility, but on several aspects of the territorial development, which has its main transport intervention in "Rijeka traffic route". It contains a "packet of projects" that includes investments in the port infrastructures, road infrastructures, railway, tourist capacities in the port area renovated as a public - commercial area, airport, investments in the business-logistics zones, city and regional traffic projects related to the traffic infrastructure.





3.5.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Rijeka. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Rijeka Card	Main Goal	Specific Objects	Activity	Instruments
National transport development strategy	rt Determining log-term development and future investments in the transport sector that will be in accordance with actual needs for new infrastructure and enable efficient and real planning and defining of priorities, with the goal that the transport services and infrastructure be functional and available for end users.	SO1 Improvement of transport connections and coordination with neighboring countries - elimination of congestion points; accessibility of passenger transportation on remote locations, including transit; improvement in accessibility in freight transport, including transit	A01 non relevant for Rijeka	
		SO2 Improvement of accessibility in passenger transport on remote locations specifically for each region established by the strategy	A01 non relevant for Rijeka	
	-	SO3 Improvement of regional connectivity in passenger transport by enhancing territorial cohesion		
		regional connectivity on mainland, inter - island connections; to and from Adriatic islands		

Figure 8. Rijeka card.





SO4 Improvement of accessibility in passenger transport in and towards urban agglomerations

traffic junctions: Zagreb, Rijeka, Zadar, Split, Osijek and Dubrovnik Improvement of the passengers accessibility to and within the main urban agglomerations:

intermodal terminals development; infrastructure development; station development; separation of modes, removal of bottlenecks; increase of intermodality; adaptation of legal framework; fare collection and ticketing system; adjustment of timetables; new rolling stock; traffic reorganization; traffic and logistics management and information

SO5 Improvement of freight transport accessibility in the country

regions: Central Croatia (Zagreb), Northern Adriatic (Rijeka), Eastern Croatia (Osijek - Slavonski Brod), Northern and Middle Dalmatia (Split -Zadar), south Dalmatia (Dubrovnik) Rijeka network reorganization:

The Rijeka road junction is one of Croatian main traffic junctions and plays an important role in linking the Croatian motorway network: A7 motorway links A8 motorway (Istrian Y) and A6 motorway (Rijeka -Bosiljevo). The Port of Rijeka is the main Croatian port (core port), and the development of the port must be harmonised with the road development. The planned west container terminal in Rijeka port will be connected with the planned state road D403.

The Rijeka bypass is part of the A7 motorway, being one of the roads in Croatia with the highest traffic intensities. In order to further upgrade the road network, a new





corridor outside the city for A7 is planned, in the section: Permani -Grobničko polje (A6) - Križišće. The northern part of Krk island is planned as part of the potential further development of the port of Rijeka. The new state road D102 corridor, including the new bridge is planned for Krk island.

All these measures must be coordinated with the reorganisation of the internal road network in the City of Rijeka taking into account the necessities for public transport and soft modes, the development of the port and the development plans of other relevant stakeholders such as the railway company. For that reason, further analyses are necessary to define the final set of interventions as well as the required technical parameters, taking into consideration the expected demand and economical and environmental aspects.

- Development maintenance concept (including maintenance stations) of the road network

- Traffic management, monitoring, traffic counting and information system

- Interchange development plan





SO6 Improvement of the transport system in terms of organization and operational structure, with the goal of ensuring efficiency and sustainability

harmonization of legislature, procedures and standards with European demands and best practice; cooperation among stakeholders, improvement of operational settings and financial sustainability; traffic safety, environmental protection, energy efficiency





Development Strategy of the Urban Agglomeration Rijeka	Development Strategic goals are: 1. Development of efficient human potentials, Development of efficient human potentials, Agglomeration Rijeka 2. Preparing conditions for Green Economy growth and 3. Sustainable Urban Development. 3. Sustainable Urban Development.	SO1 Development of ecologically acceptable urban public transport	Replacing the fleet of diesel powered buses on urban and suburban public transport lines with gas-driven vehicles.
		SO2 Innovative traffic/mobility solutions	Introducing new intelligent traffic light technology on all semaphored intersections in the Agglomeration area, to provide centralized surveillance and automatic coordination and traffic control. Includes replacing existing outdated traffic light technology with smart control units which constantly measures traffic intensity on control points, decides upon the best control strategy and coordinates the work of traffic lights accordingly.
			Integrating intelligent Video Surveillance System and Traffic Guidance System in the new Urban Integrated Traffic Control center that detects anomalies in traffic (traffic jams, road accidents etc.), brings appropriate decisions and informs all relevant institutions and stakeholders in the traffic system.





Development strategy city of Rijeka	The main goal of this project is to build the missing traffic infrastructure, which is most notably related to the strengthening of global competitiveness of the Port of Rijeka. This priority requires integration of all transport modes with the city's traffic	Development of the Rijeka traffic route - Building traffic infrastructure - Integrated management of the Rijeka traffic route	PO1.1 Building traffic infrastructurePO1.2 Integrated management of the Rijeka traffic route
	transport modes with the city's traffic projects. The modernization of the port of Rijeka, container terminal Brajdica and new port terminal with the new waterfront, are a base for building competitiveness of Rijeka in the EU. This also means that it is necessary to develop an integrated system of management of the Rijeka traffic route to create synergy effects	Logistic linkage of entrepreneurs within the Rijeka traffic route - Strengthening of the logistics and maritime cluster Global promotion and international cooperation	PO2.1 Strengthening of the logistics and maritime cluster PO2.2. Global promotion and international cooperation
	Rijeka traffic route is also a business opportunity for entrepreneurs from all sectors of economy. By developing traffic infrastructure and connecting different transport modes, new opportunities will be created for the processing industry and new services regarding transport. The goal of this priority is the development of the transport sector as the most important part of the local economy. Rijeka can be seen, by 2020., as a developed transport - logistics center, in which traffic and connected services will be the leading sector in the city's economic structure.	City of Rijeka - integration function of traffic systems - Coordination of transport stakeholders Sustainability of the public transportation	PO3.1 Coordination of transport stakeholders PO3.2. Sustainability of the public transportation

Source City of Rijeka, ALOT's elaboration 2017.





3.5.3. Coherence analysis

The policies analysed show a high degree of consistency, with shared focus on enhancement of economic development, preserving the quality of the urban areas. For transport policy this implies a strong focus on infrastructural development to increase the connections, at local, regional, national and international levels, to enhance the infrastructure of freight transport and increase business opportunities. Major infrastructural developments must be accompanied by a reorganization of urban mobility in Rijeka with interventions that make it more fluid, but also more sustainable (e.g. replacement of diesel bus fleet or the focus on traffic management).





3.6. FUA Poznan

3.6.1. Transport and logistics policies and main features

Several national, regional and local documents are available to consider on to better understand the policy framework in Poznan and its FUA..The most relevant documents at National level are:

- **Transport Development Strategy until 2020**, released by the Ministry of Infrastructure. It is a planning document that sets the most important strategies of transport development in Poland: road, rail, air, sea and inland waterway (IWW) navigation, urban and intermodal;
- National urban policy 2023, released by the Ministry of Development. It is a planning document that defines actions for the Government Administration on urban policy, taking into account the objectives and directions set out in the national medium-term development strategy and the national strategy for the regional development. The Urban policy addresses all Polish cities and their functional areas with an concrete and integrated territorial approach;
- National Strategy of Regional Development (NSRD) 2010-2020, released by the Ministry of Development is a planning document that defines the objectives and rules for public procedure for Public entities in order to achieve the strategic objectives of national development. The draft sets out the objectives of regional development policy, including the objectives related to rural and urban areas, and it defines their relationships with other public policies that have an explicit territorial focus;
- National Road Safety Programme 2013-2020, delivered by the National Road Safety Council, it continues the promotion of the far-reaching ZERO VISION of the previous national programme. It states the principle that human life and health is more important than the right to be mobile, and describes a road map to reduce the number of fatalities almost to zero.

The most relevant documents at Regional level are:

• Strategy for development of Wielkopolska Voivodeship, delivered by the Management Board of the Wielkopolska region. It is a strategy document focused on the territorial development, which describes the Region situation, identificates problems of the area and provides general guideline for spatial policy and development.





- SUMP for the FUA of Poznan 2016-2015, delivered by the Association Metropolia of Poznan (metropolitan administration). It defines the guidelines for development and implementation of the plans for sustainable urban mobility, and determines the importance of public transport, particularly in metropolitan areas. To better understand the role of the SUMP in the area of Poznan, the distribution of roles in the field of transport has to be explained:
 - Wielkopolskie Voivodeship is responsible for arranging railway and bus services of regional importance;
 - Municipalities perform public tasks organizing bus connections and in the case of Poznan also tram services;
 - The District of Poznan currently does not play an organizer role in the collective transport for the Metropolis area. It did though with the City of Poznan, begin to develop the Plan of Sustainable Development of Public Transport of Collective Transport for the agglomeration area. For the proper functioning of transport in Poznan, a coherent and integrated public transport system is needed, able to meet the transport needs of the inhabitants and offer provide right communication on transport services to them. In order to integrate public transport in Poznan Metropolis, various actions are taken; a common ticketing is one of the actions.

At Local, Poznan city level there are:

- The City of Poznan Development Strategy 2020+, which draws a general guideline for spatial policy and development, with the description of the transport situation in the city, the identification of problems, the direction for future development and a long-term plan for the improvement of the inhabitants' life's quality.
- The Resolution of the Poznan City Council for the adoption and implementation of **Poznan's transport policy**.
- The Poznan parking policy defines the present state and contains guidelines and recommendations for car parks in the Functional Urban Area in Poznan, with suggestions on directions to be taken for the change. The document indeed embeds principles, assumptions, conclusions and recommendations and it indicates the guidelines for a coherent parking policy in FUA area in Poznan. This is a study, but not urban document.





3.6.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Poznan. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Poznan Card	Main Goal	Specific Objects	Activity	Instruments
Transport development strategy	Increase territorial availability and to improve the safety of traffic participants and the efficiency of the transport sector by creating a consistent, sustainable and user-friendly transport system in the national, European and global dimension. Strategic objectives: 1.Creating an integrated transport system 2.Creation of conditions for the smooth functioning of transport markets and the development of efficient transport systems	Creating a modern and coherent network of transport infrastructure	Diagnosis of the current state of transport in Poland	Demand forecast for transport
		Improve the organization and management of the transport system	Concept of creating an integrated transport system in Poland, specifying particular branches and forms of transport	
		Improving the safety of traffic participants and transported goods	Concept of changes in the system of organization and management of the transport system, including the possibility of implementing modern technologies in transport	
		Limit the negative impact of transport on the environment	Defining the directions of intervention in terms of improving safety in transport	
		Development and construction of collision-free intersections, bypasses, public transport in cities	Defining the directions of intervention in reducing the negative impact of transport on the environment	

Figure 9. Poznan card




National Urban Policy	Enforce the capacity of cities and urban areas for sustainable development, improve job and population quality of life	To create conditions for effective and partnership development management in urban areas, especially in metropolitan areas Promoting the sustainable development of urban centers, including counteracting negative phenomena of uncontrolled suburbanization	 Shaping the space Public participation Transport and urban mobility Low carbon and energy efficiency Revitalization
		Rebuilding capacity for development through revitalization of degraded socially, economically and physically urban areas Improving the competitiveness and the ability of the major urban centers to	 Investment policy Economic development Environmental protection and adaptation to climate change Demography
		create development, growth and employment	Management of urban areas
		Support for the development of sub- regional and local urban centers, especially in problem areas of regional policy (including in some rural areas) by strengthening their functions and preventing their economic decline	
NSRD	Efficient usage of the specific regional and	Supporting the competitive growth of the regions	Enhancing functional areas of all voivodeship centres
	territorial development potentials for the purpose of achieving in a long-term perspective the national development objectives, i.e. growth, employment and cohesion	Establishment of the territorial cohesion and preventing the processes of marginalization of problem areas	Developing and supplementing metropolitan functions
		evelopment objectives, e. growth, employment nd cohesionEstablishment of conditions for efficient, effective and partnership implementation of development activities targeted at territories	Supporting urbanization processes
			Integration of functional urban areas
			Revitalisation - spatial, economic and social





National Road Safety programme	Limit the annual number of fatalities	Promotion and implementation of road protection measures for road traffic users, particularly pedestrians and cyclists (infrastructure for pedestrians and cyclists, organization of road traffic with respect to the needs of cyclists)
	Limit the annual number of seriously injured	Implementation of measures moderating road traffic
		Improvement of the supervision system over behaviours of road traffic users regarding their awareness of being controlled and the inevitability of punishment
		Development and modernization of a supervision system (including automatic) over behaviours of road users
		Shaping attitudes promoting safe behaviours in road traffic within comprehensive education and promotion system (school education of future drivers and information and promotion activities)





Strategy for development of Wielkopolska	Effective use of development potential for the competitiveness of the	Improvement the accessibility and communicational cohesion of the Wielkopolska Region
	region. Improvement of quality of life.	Improvement state of the Environment
		Better power management
		Increasing the competitiveness of the FUA in Ponan
		Increasing cohesion of the Wielkopolska Region
		Reinforcement economic potential of the Wielkopolska Region
		Increase the competence of the inhabitants
		Increase resources
		Increase security of the Wielkopolska Region





SUMP FUA of Poznan	 better quality of life for the inhabitants improvement of natural environment increase competitiveness increase the attractiveness of the region introduction of sustainable development system of the transport comprehensive mobility management 	Increase competitiveness of public transport - Introduction of new green public transports, optimization of bus, rail and tram connections, development of the Poznań Metropolitan Railway	Organization of the cargo delivery system (Cooperation with logistics centers)
		Increase the share of bicycle transport twice and maintain the share of pedestrian traffic- Construction of new routes of cycling	Purchase of low-emission rolling stock
		Development of road infrastructure- Optimization and development of the road system, improvement of roads, Improving road safety, Improvement of the supply system of goods	Construction / modernization / refurbishment of stops
		Improvement and development of the transport integration system- Increase intermodality through the integration of means of transport, Efficient transport management and traffic flow through the construction of Intelligent Transport Systems	launching of the Poznan Metropolitan Railway
	-	Improving the quality of the environment and preventing the negative effects of climate change- Reducing emissions from transport, Environmental Protection, alleviate the nuisance caused by car traffic	redevelopment of crossings to increase them throughput
			Establishment of new parking spaces
			Directing transit to a special routes - ring roads





Development strategy of Poznan	Improvement quality of life for citizen;	Strong metropolis - developing cohesion City of Poznan	Increasing use of ecological means of transport
	internationalization of Poznan	Advanced entrepreneurship - development of a strong and modern economy	Improvement road safety
		Green and mobile city- environmentally friendly and sustainable transport	Support for the development of electromobility
		Friendly Settlement - assurance high quality of life inhabitants	implementation of smart solutions in the field of renewable energy
		Community and social dialogue - support the actions of residents for the city	Striving for intermodal freight
			Enhance the role of ecological transport in the last mile system
Poznan transport policy	Achieve a sustainable transport system from an economic, spatial, ecological and social perspective, within the framework of politically agreed priorities and implementation instruments creation of an optimal transport system in the FUA area development of national and international links to ensure proper economic, scientific and cultural growth of the Poznan agglomeration	the release of housing areas from transit traffic, especially heavy traffic and the carriage of dangerous goods	In order to improve and improve the efficiency of cargo handling services, logistics centers in and around Poznan are of prime importance
		Increasing the efficiency of the communication system	The city should support the activities of investors in this regard.
		Counteracting the fallouts and effects of increasing vehicle congestion - reduce time and improve travel	Parking of trucks should be limited to residential areas
		Maintenance and reconstruction of transport infrastructure	the need for parking lots for trucks in the buffer zone of the city should be taken into account within the strategic parking system
		Improved accessibility to the trans- European transport network	
		Alleviation of unevenness of transport services in particular areas of the city	





		Stimulation of the activity of business entities operating in the field of public transport	
		Increased efficiency of transport system management with rationalization of investment and operating costs	
Parking Policy	Improvement parking policy in the city. Sustainable development of the FUA Poznan. Maximum integration of transport systems, regulated increase of communication accessibility of Poznań areas, environmental protection.	Counteracting the effects of growing traffic congestion	Recommendation: Construction of new parking for trucks in Poznan in SETPOS standard
		Improve traffic safety	Deliveries should be made in the hours in which a payable parking zone is not applicable
		steering suburban transport to bus and tram stations	Elimination of empty transit the trucks
		Guaranteed the conditions for the development of public transport	limit traffic in the city center of Poznan
		moderating traffic in downtown and other areas with particular traffic	Designation of parking spaces for delivery
		Implementation of inter-municipal and inter-communal relations	
		Ensuring the attractiveness of public transport	

Source City of Poznan and ILIM data, Alot processing 2017.





3.6.3. Coherence analysis

The documents related to the policy refer to three different areas of reference: transport, economic development and urban strategies and they do not show particular inconsistencies between them.

At national level the policy documents related to different areas, do not show particular points of the interconnection and synergy, even if the National policy on urban mobility suggests adopting an integrated approach, where transport and urban mobility are drivers to achieve urban development and better quality of life. At national level the most important topics are more efficient and integrated transport system; improved traffic safety, territorial competitiveness and economic (sustainable) development and jobs promotion.

At regional and local level, a greater level of integration of topics can be found, e.g accessibility and international connectivity as fundamental drivers for the economic development. Efficiency, competitiveness and sustainability of logistics and transport (intermodality, electro mobility in local public transport and new green vehicles for freight transports) are essential to achieve the objectives of improving the quality of life and therefore the attractiveness of the territories.





3.7. Budapest

3.7.1. Transport and logistics policies and main features

In order to analyse and understand Budapest's policy context, two most important high level planning documents developed by the Ministry of National Development, have to be considered at national level are the "National Transport Infrastructure Development Strategy" and the "Medium Term Logistics Strategy 2014-2020".

"National Transport Infrastructure Development Strategy" is the main Hungarian policy strategy for the transport sector and its reference for the coming years. Accordingly the Ministry defined, addressing specific national problems, the objectives and the tools through the benchmarking and inclusion of EU objectives in the strategy. The strategy was developed on a common transport traffic model for social utility and its tools can be divided into two groups: management tools and strategic development tools. The management tools represent significant benefits for the regulation, support policy and the institutional system at low cost. Strategic development tools include improvements and investments to which concrete projects can be linked. The resources required for development tools are considerably larger than for the management tools. Based on an analysis of the risks linked to social utility and feasibility, the Strategy outlines four priority levels: primary implementation development tools, proposed implementation development tools, development tools required and perspective opportunities. Each development tool is linked to the various time horizons covered by the strategy.

The Medium-term logistics strategy, based on the comprehensive assessment of the current logistics national situation, defines the pillars of the strategic goals, and the most important production factors in the logistics industry, which are expertise, infrastructure, networking and Research, development and innovation. Two additional areas; the transport and communications network infrastructure (the transport network is the object of the previous document), appear as horizontal factors.

Even though the Ministry of National Development is the most important player in the implementation of the logistics strategy, the implementation of certain measures implies the involvement of other Ministries.

At local level three relevant planning documents delivered by the Center of Budapest Transport, from the Municipality of Budapest are:

• Balazs Mor Plan (a district belonging to the first level agglomeration ring of Budapest), part of Budapest sustainable urban mobility planning, is the transport development strategy for 2014 - 2030. It is based on recent experience of transport development, international good practices and





analysis of transport key issues in the city. The new domestic mobility plan sets out the important role of Budapest's transport in achieving the strategic development goals of the city and systematizes the most important transport tasks. Its modern approach puts the people and their city environment at the heart of the design, and its is in line with the guidelines set out in the White Paper of the European Commission. The Balázs Mór Plan has a considerable impact on Budapest's transport planning: larger volumes of investments in line with the ideas of urban development, reinforcing the effects of each other. The plan develops a strategic development practice, which focuses on improving urban quality of life by satisfying its actions and positively influencing the mobility needs of the population and businesses.

- Budapest Urban Freight Strategy, based on a detailed situation assessment, includes an analysis of the traffic situation and an overview of conceptual plans, as well as international trends. The strategy outlines the possibilities of influencing traffic volume through Budapest, managing the traffic in Budapest and regulating the city's internal traffic. A freight-weight restriction zone and a related freight transport route system have been elaborated, and with the introduction of a fee payment system, elaborated in the strategy, the freight load of the capital can be reduced.
- Budapest City Logistics Strategy explores the current regulatory environment and infrastructural features of the Budapest freight transport in order to deliver the city logistics concept. Based on collected historical documents and personal interviews with the organizations involved in the transportation of goods in Budapest, it formulates the most damaging effects caused by freight traffic in Budapest and develops the system of objectives on the impacts and an exemplary international analysis. Its measures have been put in place for different time periods: the city-logistic solutions for the economic development of capital cities and agglomerations, for the traffic conditions in urban areas, the accessibility and mitigation of harmful effects of freight transport on the environment and on quality of life.





3.7.2. Conflict and synergy

The following table shows the main characteristics of the policy documents identified above for the FUA of Budapest. The Schematic and tabular representation allows to easily verify conflicts and synergies between and within them.

Budapest Card	Main Goal	Specific Objects	Activity	Instruments
National Transport infrastructure development strategy	The main goal of the strategy covering the period 2014-2050 is to increase Hungary's competitiveness by ensuring the conditions for mobility of the economy and prosperity. Naturally, it is an equivalent task to preserve the natural and human values and resources, to ensure the conditions for sustainable growth, and to coordinate the sometimes conflicting environmental and economic, national and EU objectives.	Reduction of negative impacts on the environment, implementation of climate protection considerations (Social objective)	Cost-efficient, long-term, predictable financing of public tasks (Management tool)	
		Improvement of health and property security (significant reduction of victims of accidents) (Social objective)	Ensure long-term, predictable financing of cost- effective public services (Management tool)	
		Promoting the efficiency and growth of the economy (Social objective)	Coordinated development of the incentive system (fees, subsidies, awareness-raising tools) (Management tool)	
		Improve employment (Social objective)	Providing effective planning, regulatory, institutional, monitoring backgrounds (Management tool)	
		Improving the welfare and mobility of the population (Social objective)	Mode changing systems (Primary implementation development tool)	
		Reducing territorial inequalities (Social objective)	Development of the railway permeability of Budapest (Primary implementation development tool)	
		Improving social justice and equity (Social objective)	Development of urban freight transport (Primary implementation development tool)	
		Strengthen international relations (Social objective)	Intermodal infrastructure development (Proposed implementation development tool)	

Figure10. Budapest card.





		Strengthen resource-efficient modes of transport (Transportation objective)	Development of existing expressway and main road network (Proposed implementation development tool)
		Strengthening the structure of passenger and freight transport on a social level (Transportation objective)	Road safety interventions (Primary implementation development tool)
		Development of transport services (Transportation objective)	
		Improve the physical system components of transport (Transportation objective)	
Mid term logistics	The primary purpose is to	Development of administrative services	Simplification of customs regulation
strategy 14-20	establish a strategic plan that is consistent with the Government's and the		Develop e-government services tailored to the logistical needs of entrepreneurs
	industry's related strategies and international expectations, in line with the economic weight of logistics, which can substantially contribute to employment, and to expand investments and improve Hungary's		Developing the logistics program of the trade development program in cooperation with the National External Economic Office
			Development of a logistics country marketing program
		Development of logistics education ve Hungary's veness.	Improving the conditions of logistics training professionals in line with international practice
	competitiveness.		Strengthen practical training
			Developing a training program for small and medium-sized enterprises in Hungary
			A systematic analysis of logistics training supply and corporate demand matching (skill gap analysis)
		Creating logistic accounting and monitoring	Development of a comprehensive logistic statistical accounting system based on domestic and EU expectations





Supporting the development of a flow monitoring system (capacities in certain logistics sectors e.g.: cold store, warehouse, combiterminal Create a single logistic service provider database and rating system Create a single logistic service provider rating framework Networking and cooperation Supporting complementary cooperation between logistics companies Organize logistic research and knowledge base Supporting the adaptation of international innovative practices Organize logistic research and knowledge base Supporting the adaptation of international innovative practices Process and organization support for innovation logistics research and practices Process and organization support for innovation logistics sector Support for logistics infrastructure development Encourage logistic sector Encourage logistic sector Support for logistics infrastructure development Encourage logistics development inside of the fence Encourage logistics development inside of the fence		
Create a single logistic service provider database and rating system Create a single logistics service provider rating framework Networking and cooperation Supporting complementary cooperation between logistics companies To facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networks Organize logistic research and knowledge base Supporting the adaptation of international innovative practices To promote cooperation between R & D & I, education and business To promote cooperation between R & D & I, education and business Process and organization support for innovation logistics research and practical application Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector Support for logistics infrastructure development Encourage logistics development outside of the fence Encourage logistics development inside of the fence Encourage logistics development inside of the fence		Supporting the development of a flow monitoring system (capacities in certain logistics sectors e.g.: cold store, warehouse, combi terminal
Create a single logistics service provider rating frameworkNetworking and cooperationSupporting complementary cooperation between logistics companiesTo facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networksOrganize logistic research and knowledge baseSupporting the adaptation of international innovative practicesTo promote cooperation between R & D & I, education and businessProcess and organization support for innovation logistics research and practical applicationSupport for logistics infrastructure developmentEncourage logistics development outside of the fenceSupport for logistics infrastructure developmentEncourage logistics development inside of the fence		Create a single logistic service provider database and rating system
Networking and cooperationSupporting complementary cooperation between logistics companiesTo facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networksOrganize logistic research and knowledge baseSupporting the adaptation of international innovative practicesTo promote cooperation between R & D & I, education and businessProcess and organization support for innovation logistics research and practical applicationBased on regular empirical research, annual reports and policy recommendations from the inland logistics sectorSupport for logistics infrastructure development Encourage logistics development outside of the fenceEncourage logistics development inside of the fence		Create a single logistics service provider rating framework
To facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networksOrganize logistic research and knowledge baseSupporting the adaptation of international innovative practicesTo promote cooperation between R & D & I, education and businessTo promote cooperation between R & D & I, education and businessProcess and organization support for innovation logistics research and practical applicationBased on regular empirical research, annual reports and policy recommendations from the inland logistics sectorSupport for logistics infrastructure development enceEncourage logistics development outside of the fence	Networking and cooperation	Supporting complementary cooperation between logistics companies
Organize logistic research and knowledge base Supporting the adaptation of international innovative practices To promote cooperation between R & D & I, education and business Process and organization support for innovation logistics research and practical application Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector Encourage logistics development outside of the fence Support for logistics infrastructure development Encourage logistics development inside of the fence		To facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networks
To promote cooperation between R & D & I, education and businessProcess and organization support for innovation logistics research and practical applicationBased on regular empirical research, annual reports and policy recommendations from the inland logistics sectorSupport for logistics infrastructure development Encourage logistics development outside of the fenceEncourage logistics development inside of the 	Organize logistic research and knowledge base	Supporting the adaptation of international innovative practices
Process and organization support for innovation logistics research and practical application Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector Support for logistics infrastructure development Encourage logistics development outside of the fence Encourage logistics development inside of the fence Encourage logistics development inside of the fence		To promote cooperation between R & D & I, education and business
Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector Support for logistics infrastructure development Encourage logistics development outside of the fence Encourage logistics development inside of the fence Encourage logistics development inside of the fence		Process and organization support for innovation logistics research and practical application
Support for logistics infrastructure development Encourage logistics development outside of the fence Encourage logistics development inside of the fence		Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector
Encourage logistics development inside of the fence	Support for logistics infrastructure development	Encourage logistics development outside of the fence
		Encourage logistics development inside of the fence





		Providing sustainable logistics activities	Green Logistics Developments Inverse logistics developments City logistics developments
Balazs Mor Plan	The purpose of this document is to draw the attention of decision-makers to the advantages and shortcomings of the transport system's assessment of the situation	Creating livable public spaces	Establish traffic-reduced and restricted traffic zones Differentiated development of the inner zone of Budapest (within the Hungária boulevard)
	With the evolving of a comprehensive development target system and a system of measures, the competitiveness of Budapest and its region's transport system can be enhanced. Another objective of the strategy is to contribute to the development of a sustainable, livable, attractive and healthy urban environment.	Integrated network development	Upgrading the existing urban rail network Development of a system of concentrated loading facilities
		Development of interoperable systems and intermodal connections	Improving accessibility of the Budapest Liszt Ferenc International Airport Development of logistics centers and their relations
		Use of environmentally friendly technologies	Procurement of zero emission vehicles
		Installation of convenient, passenger-friendly vehicles	Ensuring the operating conditions of vehicles, depot-upgrades Unobstructed vehicles
		Active, conscious attitude formation	Education campaigns, communication Trainings for conscious and safe mobility
		Improving service level	Using intelligent systems in the organization of public transport Harmonization of urban-suburban schedule





			and coordination of services
		Constant regulation	Further activities of the transformation of the transport institutional system, achieving predictable funding of public transport Parking control
	-	Regional cooperation	Tightening zone system based on total weight of vehicles control and environmental protection property-based traffic restrictions
			Cargo regulatory system operation and development
			The territorial regulation of logistics supply,
			city logistics tasks
Budapest Urban Freight Strategy	The fundamental aim of the strategy is to influence the transport needs of the capital	Restricting the volume of freight traffic in the city center in such a way that it does not cause undue increase in traffic volume in other areas	Influencing transit traffic
	city through the development of a freight-weight restriction zone and freight transport route system and the introduction of a payment system.	Balance in regulation with regard to vehicle size and permitted routes	Destination traffic management
		Without significant disturbance to the environment, freight traffic should be accessed by freight attractive facilities	Controlling the city's internal traffic
		Review of valid laws and make necessary changes	Evolving a freight-weight restriction zone and a related freight transport route system





Creating a payment system

Budapest City Logistics Strategy	The objective of the concept is to improve the environment	Reducing traffic impediments from loading and parking	Developing and integrating the regulatory background
	and traffic conditions, in order to promote sustainable urban mobility, and to approach the freight transport processes, the vehicles, technologies and	Reducing freight transport and freight carriages, optimizing capacities	Development of freight infrastructure
		Reducing the environmental load on freight vehicles	Installation of logistical support services and intelligent systems
	solutions used in freight transport with a more modern approach. The flow of goods and products has a significant impact on transport, urban development and environmental protection. Therefore, a strategy concept that goes beyond the sectoral level is needed: the problem of freight transport is not solved within the sector, and not solely through bans or		Creation of sustainable logistics management and the supporting communication platform





restrictions, but through a whole-mobility approach and incentives.

Source Municipality of 18th District of Budapest and Vecses data, ALOT's elaboration 2017.





3.7.3. Coherence analysis

From the analysis, it comes out that is a high coherence level between the policy documents issued by the Ministry of National Development and the Centre of Budapest transport from the Municipality of Budapest. In fact at national level a strong emphasis on the competitiveness of the logistics and transport sector, ensuring preservation of environmental and quality of life standards is given, while at urban level the focus is on solving shortcoming in the local transport system to make a more efficient mobility environment and raise the level of quality of life.

The common areas of policy documents are:

1. Stimulate the competitiveness of the Hungarian economic system (especially in national level documents);

2. Approach the issue of freight transport overcoming sectoral approaches, with acknowledge of the overall mobility complexity (infrastructures, regulations, ICT, controls, etc.), to create the economic development and improve quality of life and of the environment;

3. Network and cooperate among different stakeholders;

4. Promote the adoption of innovative solution (vehicles, technologies and organizational) for urban freight flows.





4. Conclusions

After the analysis of each policy document provided by single FUA in SULPiTER project, it can be stated that there is a high level of coherence identified even when the policies are enacted by a multiplicity of regulatory subjects.

The main differences found are in focuses in national/regional level policies compared to those in local ones. The differences, rather than inconsistencies, have to be considered as different strategic directions:

- Policy makers at national / regional levels pay more attention on methodology, on impacts of freight on the competitiveness of the overall system, and on relations/ coordination between the territories;
- Local authorities show greater attention to lowering the urban sustainable mobility principles into the concrete territorial reality and solve the concrete (and diversified) problems that every city faces in different ways.

Each FUA's policies context is coherent with the EU policy framework, but each territory, by virtue of its own peculiarity, has chosen to place the accents on certain themes rather than on others. In fact, when specific characterizations contained in each FUA's policies is compared to the EU policy framework, different aspects emerge, in particularly at local level, which should be contained in each Sustainable Urban Logistics Plan (SULP).

In already existing policy document often the focus is still on the topic of transport of people, according to the long policy tradition in people transport, with little in-depth analysis of the aspects related to freight transport. In fact, some topics that influence both passenger and freight transport at the same time (e.g. Limited Traffic Zone LTZ access) still refer more to passenger transport rather than equally to freight transport. When policy do refer to transport, often its focus is mainly on transport infrastructures, rather than including the topics on services and ICT infrastructures. The transport infrastructure network, defined by the territorial planning, is the main limit to freight flow policy action.

The Sustainable Urban Logistics Plan thus becomes an opportunity to review these regulatory areas, in light of the needs of freight transport stakeholders, collected through Freight Quality Partnerships implemented in SULPiTER project.





5. ANNEXES

- ✓ Template for the collection of urban freight and logistics policies/planning
- ✓ Questionaire for the FUA of Bologna
- ✓ Questionaire for the FUA of Brescia
- ✓ Questionaire for the FUA of Maribor
- Questionaire for the FUA of Stuttgart
 Questionaire for the FUA of Rijeka

- Questionaire for the FUA of Poznan
 Questionaire for the FUA of Budapest





I - Template for the collection of urban freight and logistics policies/planning

Who?

All partners must contribute to the implementation of this activity, in particular those included in the following Functional Urban Areas (FUAs) have to collaborate together as coupled here below:

- Bologna (IT009) Metropolitan City of Bologna PP09 & Institute for Transport and Logistics Foundation LP
- Budapest (HU001) Municipality of 18th District of Budapest PP02 & Vecsés Municipality PP11
- Stuttgart (DE007) Stuttgart Region Economic Development Corporation PP10 & KLOK Logistics Cooperation Centre PP13
- Poznan (PL005) City of Poznań PP08 & Institute of Logistics and Warehousing PP07
- Brescia (IT029) Brescia Mobility PP06
- Maribor (SI002) Municipality of Maribor PP14 & University of Maribor PP03
- Rijeka (N/A) City of Rijeka PP12

Unioncamere Veneto and CEI are not directly involved in the activities at FUA level, but they can contribute if the activity is of interest for their associated partners.

What?

While completing the questionnaire, you should consider listing and detailing both transport Policies and Planning according to the following definitions:

- Transport policy deals with the development of a set of constructs and propositions that are established to achieve particular objectives relating to social, economic and environmental development, and the functioning and performance of the transport system.
- Transport planning deals with the preparation and implementation of actions designed to address specific problems.

As far as the content of each policy/planning considered refer to the chart below:







- Policy area A: Not to be considered
- Policy area B: Only if related to freight transport in FUA
- Policy area C: To be considered
- Policy area D: To be considered
- Policy area E: Only if related to freight transport in FUA

Partners responsible for single FUA as listed above, should list and detail policies/planning at local, regional and national level; Brescia Mobilità will take care of its own FUA and EU level policies/planning, and will elaborate the final document once received contributions from all Partners.

How?

This questionnaire is divided into two sections:

- In section I you should to match the Partners with the FUA, briefly list the local, regional and national policies that meet the criteria described above (par. 2.2), and you should specify if there are national or regional guidelines on the SUMP/SULP development;
- In section II you should schematically describe the main features of each policy listed in the section I. For each policy selected and listed in section I, you should fill in section II.

When?

Please provide all the information requested by 8th of September 2017.





Questionnaire section I - General information

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.





- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- Yes
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >

	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
1						





2			
3			
•••			
n			

Questionnaire section II - Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*





II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)





- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

II.14 Main goal of the policy: <please fill in text - max 1000 characters>





II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	
SO2	
SO3	
•••	
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	
A02	
A03	
An	





II - Questionaire for the FUA of Bologna

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

Bologna (IT009) complex FUA, 1 million inh.

- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.





- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

Yes

- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

Emilia-Romagna Region has allocated \leq 350,000 to the Metropolitan City of Bologna and other municipalities with a population greater than 50,000 inhabitants, for drawing up of the "PUMS guidelines", in addition to ministerial guidelines, published in the Gazzetta Ufficiale (Italian Official Journal) on 5 October 2017, with the aim of encouraging the homogeneous and coordinated application of the PUMS. Ministerial Guidelines, substantially, accepts ELTIS guidelines.

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____





	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
1	Piano Generale del Traffico Urbano	MasterPl an of the Urban Traffic	Local	3	http://www.co mune.bologna.it /trasporti/serviz i/2:4036/4266/	
2	Piano per la distribuzio ne delle merci in città	Plan for the distribut ion of goods in the city	Local	5	http://www.co mune.bologna.it /trasporti/serviz i/2:4036/4413/	
3		Lorry Routes	Regional	4	http://www.cei. int/sites/default /files/attachme nts/docs/Sustain able%20Urban%2 0Goods%20logisti cs%20Achieved%2 0by%20Regional% 20and%20local%2 0policies%20- %20SUGAR/SUGA R%20Final%20Pub lication.pdf	
4		Inter city coordina tion	Regional	4	http://www.cei. int/sites/default /files/attachme nts/docs/Sustain able%20Urban%2 0Goods%20logisti cs%20Achieved%2 0by%20Regional%	



					20and%20local%2 Opolicies%20- %20SUGAR/SUGA R%20Final%20Pub lication.pdf
5	City logistics	City logistics	Local	4	http://www.caa b.it/wp- content/uploads /CS-DEF- progetto-CAAB- City-Logistic.pdf

Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.







II.2 Name of the responsible body: <please fill in text - max 100 characters> Municipality of Bologna

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. cplease fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation

Planning document

Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

Yes

No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status <please select one of the following options>

Definition





- Implementation
- Monitoring and Evaluation

upgrade

II.9 Specific policy field of application <please select one or more of the following options>

Road safety

- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>



II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Master Plan of the Urban Traffic (PGTU) is a short-term planning instrument. In line with Ministerial directives, it aims at "improving traffic conditions and road safety, reducing noise and air pollution and achieving energy savings, in compliance with current urban planning instruments, with transport plans and having respect for environmental values".

The PGTU has a temporal horizon of 2-4 years. We therefore turn to other, longer-term plans (such as the Municipal Structural Plan) for an assessment of the benefits deriving from large-scale infrastructural works for collective transport (Metro-Tramway, new Railway Station, Trolley-bus TPGV, People Mover). Their effects on urban mobility will concern a longer temporal horizon. However, the PGTU will take into account the critical situations which the worksites for these large-scale undertakings will inevitably create.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

There are several main goals: to reduce air and noise pollution, to save energy in the transport sector, to improve road safety, to achieve widely-available but sustainable access, to increase public transport and reduce private vehicles, to encourage a more eco-compatible stock of vehicles.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Reduction of air pollution
SO2	Reduction of noise pollution
SO3	Save energy in the transport sector

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Concentration of several type of gasses (CO, NOx, PM10); total yearly emission of GHG	µg/m3;kg	n.a.
SO2	Noise level	dB(A)	n.a.





SO3	Energy consumed (non renewable	Mjoule	n.a.
	energy sources)		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Employment of new technologies (traffic supervisor) for the provision of information on mobility
A02	Creation of new "environmental islands" and "30 km/h zones" throughout the city territory
A03	Extension of remote surveillance by Sirio, Rita and Stars, to ensure observance of road regulations
A04	Completion and extension of the Limited Traffic Zone (LTZ), avoiding cross-traffic
A05	Encouraging substitution of public and private vehicle stocks with eco-sustainable technology





II.1 Policy level <please select one of the following options>

Local

- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Municipality of Bologna

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____




II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

Yes

• No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)

Integrated planning of mobility and transport (included loading and unloading areas planning)

- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure

 Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)

- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component





Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Plan for the distribution and collection of goods in urban areas, called also "MERCI BO2", is a tool useful to stimulate a new reorganization process of logistics and urban distribution of goods, in order to reduce the kilometers traveled for the same service using eco-friendly vehicles. With this strategy can be reduce the number of commercial vehicles and so congestion and traffic impacts.

Finally, an important objective of this plan is the correct use of public spaces and therefore, the optimization of the commercial service through the experimentation of the booking of the loading/unloading bays.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

Improvement of parking availability and creation of new rules of access to restricted traffic zone

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Specialization of the loading/unloading bays
SO2	Increase the number of eco-friendly vehicles
SO3	Aggregation process of operators aimed at optimizing travel and loads in restricted traffic zone and a more correct use of the road





II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Number of loading/unloading bays for each type	Number of specific type of loading/unloading bays on the total	n.a.
SO2	Number of electric vehicle and other eco-friendly vehicles	Percentage (%)	n.a.
SO3	Number of veh-km; Average load factor of a vehicle during deliveries and pick ups; hours that vehicles are in service, e.g. deliveries, pick ups, transporting, weighting, loading/unloading over 24 hours	Veh-km ; Percentage (%) ; Percentage (%)	n.a.

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Use of the loading/unloading bays differentiated by type of permit and time limit
A02	New rules aiming to enhance the development of eco-friendly vehicles (especially in the two restricted traffic area)
A03	Possibility to use the lane of the public transport also for the commercial vehicles





II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Emilia Romagna Region

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

Yes

No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation

upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component





Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

This project provide a Regional map that defines preferential routes for heavy vehicle flow, with indication of road signs, tunnels, bridge, maximum size and weight

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

To improve the choice of the routes of the heavy vehicles

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	To reduce the mileage of the heavy vehicle flows
SO2	To provide information about road signs, tunnels, bridge, maximum size and weight end their constrains

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR	INDICATOR	TARGET VALUE	
	<max 300="" characters=""></max>	CURRENT VALUE		
SO1	Number of vehicle-kilometer	Veh-km	n.a.	





SO2	Number	of	private	Number	of	n.a.
	implementa	tion		private		
				implementa	tion	

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Collection and standardization of the various roads lists from different archivies
A02	Creation of the network from many pieces of roads
A03	Updating and digital mapping





II - Questionaire for the FUA of Brescia

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.





- Stuttgart (DE007) complex FUA, 2,7 million inh.
- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- <u>Yes</u>
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

The Ministry of Infrastructure and Transport issued a decree on August 4, 2017 with the guidelines for homogeneous and coordinated application of PUMS throughout the country. The decree identifies a uniform procedure for PUMS drafting, identifying of its strategies, objectives, actions and indicators and its approval. All cities that exceed 100,000 inhabitants must adopt PUMS within 24 months of the decree's entry into force.

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >





	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
1	Direttive Ministeriali per la redazione dei PUM	Ministerial Directives for URBAN MOBILITY PLAN Editing	National	4		
2	PNIRE - Piano Nazionale Infrastrutturale per la Ricarica dei veicoli alimentati ad energia Elettrica	National Infrastructure Plan for Recharging Electric Powered Vehicles	National	2	http://www.governo.it/site s/governo.it/files/PNire.pdf	
3	Linee guida per l'infrastruttura di ricarica dei veicoli elettrici	Guidelines for the charging infrastructure of electric vehicles	Regional	3	http://www.regione.lombar dia.it/wps/wcm/connect/c 77e3dbb-4486-4ce5-868a- ede7f1e9ee90/Linee+guida+ per+la+ricarica+elettrica.pd f?MOD=AJPERES&CACHEID=c 77e3dbb-4486-4ce5-868a- ede7f1e9ee90	
4	Programma regionale della mobilità e dei trasporti	Regional Plan for Mobility and Transport	Regional	3	http://www.regione.lombar dia.it/wps/wcm/connect/3 6244617-2c28-4b82-87a0- 9b39bbf0d7e7/PRMT_definit iva.pdf?MOD=AJPERES&CAC HEID=36244617-2c28-4b82- 87a0-9b39bbf0d7e7	http://www.reg ione.lombardia.i t/wps/wcm/con nect/81770bab- d560-420f-b073- e83d84b7bc34/ PRMT+inglese.p df?MOD=AJPERE S&CACHEID=817 70bab-d560-



S	ULPITER European Union European Regional Development Fund			Y		420f-b073- e83d84b7bc34
5	Piano Territoriale di Coordinamento Provinciale	Provincial Coordination Area Territorial Plan	Local	3	http://www.provincia.bresc ia.it/istituzionale/pianificaz ione-provinciale-ptcp- vigente	
6	Piano di Governo del Territorio	Territory Government Plan	Local	2	http://www.comune.bresci a.it/servizi/urbanistica/PGT /Pagine/Variante%202015- PGT-approvato.aspx	
7	Linee programmatiche di mandato 13-18	Programming mandates 2013-2018	Local	2		
8	PUMS città di Brescia	SUMP of the city of Brescia	Local	5	http://www.comune.bresci a.it/servizi/mobilitaetraffic o/settMob/docPianificazion e/pums/Pagine/PUMS.aspx	
9	Piano del traffico della viaiblità sovraurbana	ExtraUrban traffic plan	Local	3	http://www.provincia.bresc ia.it/cittadino/viabilita-e- strade/piano-del-traffico- della-viabilita-extraurbana- ptve	
10	Linee Guida per la pianificazione dello sviluppo della mobilità elettrica in Provincia di Brescia	Guidelines for planning the development of electric mobility in the Province of Brescia	Local	2		
11	Linee Guida regionali a sostegno della logistica urbana	Regional Guidelines for Urban Logistics	Regional	4	http://www.regione.lombardi uzionale/HP/DettaglioPubblic informazioni/enti-e-operatori logistica/mobilita-delle-merci merci-in-citta-infr/linee-guida	a.it/wps/portal/istit azione/servizi-e- /trasporti-e- /pub-linee-guida- 1-merci-in-citta





Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.





4.01. Ministerial Directives for Urban Mobility Plan Editing

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body:

Ministry of Infrastructure and Transport

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

The Ministry of Infrastructure and Transport issued the guidelines in order to promote the adoption (after elaboration process) of Urban Mobility Plans (PUM) by local public authorities (municipalities, provinces coordinating the aggregation of municipalities and regions) with more than 100,000 inhabitants. Municipality of Brescia, referred to these guidelines while in process of drafting its SUMP (see above par. 8), to which Brescia Mobility participates as member in the working group. Brescia Mobilità is a body controlled by the Municipality and specialized in Integrated City Mobility Management.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation





- Planning document
- Other <please specify> <u>Guidelines</u>

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

The implementation of the interventions contained in Urban Mobility Plan requires the involvement of a considerable amount of resources. The plan itself has to provide a detailed analysis of possible sources. Example of sources for the coverage of actions to be implemented:

1 Investment finance: external ordinary resources from state, local government budget resources for investment (including new debt) or extraordinary investment resources (e.g. EU funds).

2 Management finance: external resources (e.g. incentives from the Ministry), public transport tariffs, road and parking pricing, savings in corporate productivity and part of local tax revenue.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- <u>Transports demand management (included LTZ management and charges)</u>
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management





ICT system and infrastructure

Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)

Transport infrastructures

Other <please specify>

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> <u>definition of goals and actions to reach a unique</u> project of the mobility system of an area

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting
- stakeholders
- Other <please specify>

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Urban mobility plans must interact with all pre-existing transport planning tools (e.g. Urban Traffic Plan) and territorial plans (General territorial plan, Territorial plan of province coordination) but the urban mobility plan will not able to modify.

II.13 Brief description of the policy: cplease fill in text - max 2000 characters>

Densely urbanized areas, especially metropolitan areas with their extensive presence of residential areas and diversified productive activities, are places of high intensity related to travel and traffic. In fact, almost 70% of people's movement is localized in these areas. Congestion phenomena affecting these areas are one of the major national issues. This requires the implementation of an integrated planning process between the layout of the territory and the transport system.

To make the integrated planning process come true, planning should refer to a transport system (both individual and collective) with intermodality and interconnected networks. This development must be preceded by choices and decisions that can be traced back to a "system"





project" (Urban Mobility Plan), based on a set of investments and organizational-management innovations to be implemented in a precise period.

Transport should be considered in its entirety: collective services and individual mobility, infrastructure, management, regulations. The Urban Mobility Plan must therefore aim at the realization of a system that puts local governments in a position to manage mobility.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The Central Administration prepares the guidelines in order to allow Peripheral Administrations (Provinces, Aggregations of Municipalities and Municipalities) to deliver effective Urban Mobility Plans and fully play the role of proposition and interlocutor with other institutional subjects on the basis of goals, strategies and priorities motivated by indepth technical-economic analyzes, carried out on common standards.

The Urban Mobility Plan will also be a pre-requisite to obtain funding from the central authority in specific transport topics, proving that the general frame of local interventions meets the government's general objectives. Funding will be no longer "for specific public works", but "for specific mobility goals".

SO	SO NAME AND SHORT DESCRIPTION
SO1	Meet the needs of population mobility
SO2	Reduce the levels of atmospheric and acoustic pollution in compliance with international agreements, European Community and national legislation on polluting emissions
SO3	Reduce energy consumption
SO4	Increase the levels of transport and road traffic safety
SO5	Minimize individual use of private car
SO6	Increase transport capacity
S07	Increase the percentage of citizens transported by collective system, including car sharing, carpooling, collective taxi etc.
S08	Reduce congestion phenomena in urban areas characterized by high traffic density
S09	Encourage the use of alternative means of transport with the lowest possible environmental impact

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>





II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

The guidelines define a set of indicators for measuring objectives; however, leave the individual local governments the task of defining their levels

SO	Result indicator related to each SO			
SO1	Accessibility (that is the characteristic of a urban environment to be easily accessed by different type of users)			
SO2	Quantities of atmospheric pollutants emitted // average sound pressure level			
SO3	Quantities of equivalent tonnes of oil consumed			
SO4	Annual number of accidents, deaths and injuries			
SO <i>5</i>				
SO6	Reference units / km offered			
S07	Modal share of collective transport			
S08	Average degree of saturation			
S09	Commercial average speed, average load factor and average frequency of collective transport service			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

The guidelines do not define specific actions, which are left to the discretion of single local government. However, possible lines of intervention which should guide the selection of activities are defined.

Specific Objectives	ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
	A01	Realization, maintenance, management of the public transport infrastructures relative to any mod
	A02	Realization, maintenance, management of road infrastructures, of local competence, with particular attention to the roadways to service modal interchange





A03	Realization, maintenance management of the parkings, with particular with regard to those of interchange	
A04	Investments in new technologies	
A05	Initiatives to increase and / or improve the fleet of vehicles;	
A06	The government of transport and mobility demand, also through the mobility manager	
A07	Actions for traffic control and regulation	
A08	Investments in info-mobility	
A09	City logistics actions	





4.02. National Infrastructure Plan for Recharging Electric Powered Vehicles

The strategic guidelines and tools identified in this document are all covered by the regional guidelines for the charging infrastructure of electric vehicles presented in the following paragraph





4.03. Regional guidelines for the charging infrastructure of electric vehicles

- II.1 Policy level <please select one of the following options>
 - Local
 - FUA (Province)
 - Regional
 - National
 - European
 - Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters> Lombardy Region

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

The adoption of the Guidelines are not modifiable and are fully valid for FUA of Brescia. Moreover, Province of Brescia fully accepted the guidelines in its documents (see paragraph 10 above). Concrete decision-making on charging station planning and installation is entrusted to each single local government.

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>

II. 5 Type of document related to the policy <please select one of the following options>





- Law
- Regulation
- Planning document
- Other <please specify> Guidelines

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

There is no specific dedicated funding source. Some example of funding:

* For the implementation of the PNIRE (National Plan for electro recharging infrastructures) the national goverment allocated a fund of 50 million euro, currently partially disbursed

* Lombardy Region planned to open calls for co-financing for the installation of electric columns by Regional Operating Plan of European Regional Development Funds

* Some public administrations are studying the possibility of financing a network of recharging columns for electric vehicles through a *project financing* tender.

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)





- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)

• <u>Transport infrastructures</u>

Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

Provide incentives

<u>Regulation/enforcement component</u>

Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

* "Ricarica nelle valli Bresciane" project promoted by Provice of Brescia and financed by PNIRE Funds

* E-moticon (e-Mobility Transnational strategy fon an Interoperable Community and Networking in the Alpine Space). Eu project co-financed by Interreg Alpine Space programme. <u>http://www.alpine-space.eu/projects/e-moticon/en/home</u>

* E-moving https://www.e-moving.it/home/cms/emv/

II.13 Brief description of the policy: <please fill in text - max 2000 characters>





Directive 2014/94 / EU of 22 October 2014, also known as the Alternative Fuels Infrastructure Directive (AFID), promotes low-carbon mobility by establishing a set of measures for the construction of an alternative fuel infrastructure.

Italy, with its national Law no. 134 of August 7 2012, and the subsequent Decree of the Prime Minister of 26 September 2014, developed the National Infrastructure Plan for Recharging Electric Powered Vehicles (PNIRE). The Plan is based on the data analysis related to the distribution of electric vehicles in the automotive market and the fact that the increase of evehicles needs to be accompanied by an adequate distribution of the recharging network and, where necessary, provide special charging stations.

The Mobility and Transport Policy of the Lombardy Region adopts European and national guidelines and declines them into detailed actions at regional and local level. Lombardy Region, in line with the European and national regulatory environment, draw up the guidelines for the implementation of actions for the development of electric mobility, approved by the Regional Council of Lombardy N $^{\circ}$ X / 4593 of 17/12/2015. It illustrates the general principles useful for the design of the recharging infrastructure networks for electrical mobility, as well as the technical choices to be followed according to the typology installation, in order to support both public and private access recharge, in a framework as much synergic and functional as possible.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The objective of the Lombardy Region is to promote the development of a recharging network enabling the circulation of electric and hybrid plug-in vehicles beyond the ability of the only nighttime charging.

The achievement of this goal goes through two phases:

* The "pioneer" phase until 2020, with the aim of facilitating the first users to adopt electro mobility basic functions (charging for daily use, possibility to travel along the most important long routes). Support for private access recharge columns and development of a network of public access recharging columns in areas with high demand.

* The "future" phase from 2020 to 2030, making a capillary recharge network available.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Identify intervention areas according to a priority scheme
SO2	Enable as many services as possible with the same infrastructure
SO3	Reduce barriers at entry to potential users





SO4	Costs optimization
SO5	Guarantee access to all potential users, even if occasional
SO6	Promote intermodality with other modes of transport both public and private
S07	Full compliance with national and European (AFID) legislation

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant NOT RELEVANT

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)			
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Activation of traffic / mobility analysis to define the localization choices. Number and location of the recharging infrastructure should be established in agreement with the local administrations and in accordance with the principles of the Mobility Plan and other existing related Plans for the Reference Area (such as SEAP).
A02	Define projects of infrastructuration involving large-scale areas (e.g. metropolitan city or FUA); the projects have to guarantee a coherent design between territories, and reduction of interoperability problems between different systems.
A04	Municipalities neighboring and/or falling within the same area of transport influence (usually characterized by commuting flows) have to find





	agreement to coordinate in order to ensure easy "charging continuity" for users of the municipalities involved.
A04	Project activity must proceed with dialogue and cooperation between all stakeholders. It means to set up activities to keep in contact local authorities (for the optimal selection of sites on the basis of local knowledge and to simplify and streamline authorization procedures) and the electricity distributor (e.g. for checking the electricity grid and its loads, in order to optimize network development and urban planning).





4.04. Regional Plan for Mobility and Transport (RPMT)

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: <please fill in text - max 100 characters> Lombardy region

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The RPMT construction process involved in several steps of debate with territorial bodies, industry stakeholders, relevant entities on environmental matters and other potentially interested parties (included stakeholders from the FUA of Brescia).

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law





Regulation

Planning document

Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures





Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> _ <u>Definition of objectives, strategies, actions for</u> <u>mobility and transport in Lombardy, indicating, in particular, the</u> <u>fundamental structure of the infrastructural networks and services.</u>

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

RPMT represents an integrated planning tool of great importance, as it constitutes the system of mobility relationships, based upon demand and supply, comparing it with the layout of existing infrastructure and identifying the integrated planning requirements of infrastructural networks and transport services.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The RPMT's general objectives are:

1. Improve Lombardy's connectivity within the nation context and towards EU and main international destinations in order to strengthen its competitiveness and socio-economic development;

2. Ensure freedom of movement for citizens and cargo, and guarantee accessibility to the territory;

3. Guarantee the quality and safety of transport and the development of integrated mobility, safe and with high quality level;

4. Promote the environmental sustainability of the transport system.





II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Improve Lombardy's connections on a macro-regional, national and international scale (primary network that refers to the core and comprehensive networks at EU level); and improve connections on a regional scale (integrated regional network, fundamental infrastructure for ensuring accessibility of the territories to/from the primary network.).
	The creation of strategic infrastructure must be done with a view to integration at various levels (long networks/short networks; different modes) and considering:
	1.the completion of the work already commenced and the optimisation of existing infrastructure;
	2.the creation of new infrastructure, corresponding to the priorities of the system with quality projects, such as accountability, sustainability and the efficient use of resources and supervision over time;
	3.the improvement of competitiveness of the airport, helicopter, port and inter-port system in a logic of integration and of international competitiveness;
	4. with particular attention to the network of regional nature, the completion of the integrated cycle network.
SO2	Develop collective transport in universal form and achieve integration between different modes of transport. Collective transport must aim to assume a competitive role within mobility, not only in urban areas, but also on a regional scale, in the perspective of a single and universal system, with strong accessibility for the territory and broad availability during the daily service. Re-planning of networks in a logic of clear functional hierarchy and readability on the territory; technological innovation for ticketing, mobile information, monitoring and safety; implementation of information and communication systems and increase of user orientation; the creation/completion of railway and subway infrastructures and interchange nodes in a system logic; investments for the renewal and expansion of railway transport, as well as vehicle fleets for subways, fast trams, ropeways and buses.
SO3	Achieve an integrated, competitive and resource efficient logistics and cargo transport system. The objective is focused on the fundamental role of logistics and cargo mobility in the industrial and economic development





	of the region, promoting, in particular, the transfer of cargo to more efficient forms of mobility, with:
	1.New infrastructural and managerial structures, at regional/macro- regional (intermodal) and urban (city logistics) level, integrating transport over medium/long distances (by rail/water) with distribution (by road);
	2. Promotion of homogeneous regulations, particularly in the urban area, which encourage the use of vehicles with reduced environmental impact and a coordinated system for operators.
SO4	Improve connections with Milan area and with other significant regional hubs.
SO5	Develop further promotional initiatives of resource efficient mobility and actions for governing demand.
SO6	Act to improve transport safety.

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
	Average road network speed (km/h)	46.6	52
	Regional Rail Service offer (trains x km/year)	42	50
	Price integration satisfaction index	6.17	6.8
	No. of integrated travel tickets (million)	2.5	3
	User satisfaction index	6.58	6.8
	Average age of circulating fleet (LPT)	8.5	7.5
	Average age of circulating fleet (RRS)	21	20
	Intermodal terminal capacity (UTI, million/year)	1.45	1.90
	Average road network speed (heavy vehicles) (km/h)	41.9	45





Annual number of road accident fatalities (no.)	438	282
Private vehicle mileage reduction (vehicles x km/day)		-500.000 (compared with 2015
Integrated collective transport journeys	968	1030
% Revenues/costs	46	48
Concentrations of atmospheric polluting substances		
Annual climate-change emissions transport sector (kt/year)	17.8	15.9 - 17
Index of open space fragmentation		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

The plan programs 99 actions (61 of which are specifically focused on sustainable mobility), grouped into separate paragraphs by mode of transport. The actions correspond mainly to infrastructural interventions, and to initiatives concerning services (e.g. at any new intervention on infrastructures correspond new possible service to be implemented) or those of a regulatory/managerial nature.

Total amount for all planned interventions is 40 billion euro: 38% for rail transport; 17% for Local Public Transport on road; 45% for private road transport.

There are 20 key action.

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Key actions in the field of rail transport in order to increase the regional rail service;
A02	Key actions in the field of Local Public Transport. in order to improve Local Public Transport services, the following actions are priorities:
	1. Fine-tuning of the operations of Local Public Transport Agencies





	2. Renewal of the vehicle fleet of car-trolley bus-subway-tram services and developing a pricing integration.
A03	Key actions in the field of road transport; in order to reduce congestion and improve connections on the non-urban network
Other field of action	 Car-trolley bus-subway-tram service, cableways and supplementary mobility; Services for navigation and development of State-owned lakes; Motorway and road transport system and private mobility on roads; Air and helicopter transport; Logistics and intermodal cargo transport; Cycling mobility.





4.05. Provincial Coordination Area Territorial Plan (PTCP)

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>
Province of Brescia

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. cplease fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- <u>Transport infrastructures</u>
- Other <please specify> _____





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> <u>The plan defines the general layout of the major</u> mobility infrastructures in relation to the environment of the provincial territory.

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: cplease fill in text - max 2000 characters>

According to regional Law n. 12 the PTCP competencies concern:

- the objectives of economic-social development at a provincial scale, combined with forecasts of the sectoral plans;
- the indication of qualitative elements on a provincial or supra-municipal scale, for municipal planning and minimum content on subjects of over-municipal interest that have to be included in the plan document (the plan of the rules and the services plan);
- the general program of the major infrastructures relating to the mobility system and their environmental and landscaping integration;
- coordination of the plans of municipalities, including compensatory or financial forms, possibly aimed at promoting the association between municipalities;
- the definition of the areas for agricultural activity of strategic interest, criteria for the identification of the agricultural areas on a municipal scale and the relative standards of valorisation, use and protection;
- the hydrogeological structure of the territory;
- protection of landscapes, in coordination with regional plan for landscape;
- the identification of territorial spheres for which the definition of actions of coordination aimed at the implementation of inter-municipal territorial equalization.





There are some PTCP assumptions that become prescriptive and prevailing for other public administration levels:

- the forecasts for the protection of environmental and landscape assets;
- the indication of the location of the first and second level mobility infrastructure;
- the identification of agricultural areas until the PGT approval;
- the indication, for areas subject to protection or classification at hydrogeological and seismic risk, and priority investment for consolidation, but only in cases where sectoral legislation and programming assign the Province the competence in matter with prevailing effectiveness.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The PTCP's (infrastructure and mobility part) general objectives are:

1. <u>Improve the accessibility of the territory:</u>

I. provide a hierarchical and integrated system of public and private transport networks, in an optic of functionality, environmental sustainability and security;

II. meet the backlogged demand of infrastructures with particular reference to public transport;

III. promote intermodality (rail, road, air, water, soft mobility) for transport passengers and goods through the upgrading and the realization of centers of interchange;

IV. support the development of Montichiari Airport in compliance with the Regional Territorial Plan.

2. Encourage the use of public transport as a means of sustainable transport:

I. Define a model based on the rail and road force lines for the connection of the peripheral and central areas;

II. provide congestion-free transport systems to improve interconnection of the central metropolitan area, intercepting the traffic flows from the periphery;

III. integrate different modes of transport in interchange centers, adequately accessible from the road network, and with services for passengers and logistics services for goods.

3. Provide coordinated development of settlements and mobility infrastructures:

I. predict the simultaneous programming and implementation of interventions of urban and upgrading infrastructure development, including locational choices that restrict the generation of additional demand for road mobility of private carrier, avoiding in any case congestion on the network or risky situations.

II. optimize the location of settlements with respect to public transport and services of interchange centers;




III. ensure the feasibility of over-municipal infrastructures both in the short and medium to long term in agreement with municipalities.

- 4. <u>d) Promote preparatory landscape projects aimed at road design at the best</u> landscape and environmental integration of infrastructures.
- 5. <u>e) Enhance soft mobility network, pedestrian and bicycle, in support of short-distance moves.</u>

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Intervention on the linked infrastructure system to allow access to regional poles and promote external relations from across the country through effective integration with the European network and between long and short networks. Use the infrastructure network opportunities to encourage the creation of a polycentric system, facilitating accessibility to major poles, between secondary poles and peripheral areas.
SO2	Reduce traffic loads in congested areas. Implement policies to streamline and improve the public transport service (in terms of efficiency and sustainability).
SO3	Ensure a quality local public transport service, with project of sustainable mobility.
SO4	Reorganize the freight transport system for a more sustainable development of the sector; carry out measures to enhance the modal interchangeability of goods, aimed at greater use of less-impact transport freight (rail, waterways).
SO5	Develop Infrastructure for Territorial (and mobility) Information

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > NOT RELEVANT

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE





	1	1 1	
	1		
	1	1 1	
	1		
 	-*		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	PTCP identifies the technological corridors where the infrastructures of over- municipal interest are to be realized. The PTCP define the territorial spheres where the optimal conditions for realization of new transport infrastructure.
A02	PTCP defines the general criteria for the environmental and landscape inclusion of infrastructures of over-municipal and communal interest and the correct relationship of new settlements with respect to the same infrastructures, considering for this purpose the existing linear and new realization.
A03	PTCP identifies over-municipal interchange centers of interest:
	(a) freight exchange centers, i.e. the meeting places between the primary and / or main road system with the railways; and where the transport vocation of the areas is defined through the upgrading, adaptation or the new realization of logistic nodes.
	(b) Existing and planned passenger interchange centers, fitted with exchangeable car parks at railway stations and stops and public rail transport systems and lines of public transport on buses.
A04	PTCP identifies the areas of influence of public transport networks on rail or road and related stops to ensure sustainable accessibility conditions to provincial territory.
A05	PTCP classifies the road network in relation to the prevailing type of service or service in the following categories:
	a) primary;
	b) principal;
	c) secondary;
	d) connection.
	In relation to the network, coordinating municipal and sector planning:
	A) provides functional road connections of urbanized and planned environments by organizing accesses in a grouped and limited way, including





through service routes, excluding the possibility of new access to individual lots;
B) Ensures a level of service and security requirements appropriate to the geometric and functional characteristics of the infrastructure;
C) defines the typology and layout of the intersections and the linkage route, also obtained from the upgrading of existing local roads, in relation to the existing traffic loads generated and expected in the medium term;
D) verifies the incidence of the anticipated transformations by highlighting any changes to be made to the layout of the road and identifying the necessary resources.





4.06. Territory government plan

The strategic guidelines and tools identified in this document are all matched by the SUMP of the city of Brescia in the paragraph nr 6 and by the PTCP in the previous paragraph.





4.07. City administration: Programming mandates 2013-2018

The strategic guidelines and tools identified in this document are all matched by the SUMP of the city of Brescia in the following paragraph.





4.08. SUMP of the city of Brescia

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters> Municipality of Brescia

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

Brescia Mobility is one of the members of the working group that is drafting the SUMP. In addition, Brescia Mobilità as a company which manages an integrated mobility in the city on behalf of the Municipality of Brescia, will be called to take part in SUMP's implementation.

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> The working group that draws up the sump also includes other departments of the municipality: Urban Planning, Statistics, Environmental sustainability and natural sciences, Urban center.

II. 5 Type of document related to the policy <please select one of the following options>





- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> Not specific definitions

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- **Green mobility service** (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- <u>Urban logistics services- platform for urban distribution management</u>
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)





<u>Transport infrastructures</u>

Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

1. Ecologis - Eco - logis is an innovative city freight shipping service jointly developed by BsMob and Consorzio Brescia Mercati, with whom BreMob works to decrease and moderate the entry of heavy vehicles into the historical centre with the use of environmentally friendly vehicles having zero impact. The service is available thanks to a logistic platform at the Brescia Fruit Market, where couriers deliver their freight before entering the city centre. Once at the facility, the goods are organised using an information system that optimises the deliveries. This detailed organisation allows the service to cover the last mile of the freight transport chain using environmentally friendly vehicles. Thanks to the replacement of private transport vehicles with electric vehicles with zero environmental impact, Eco - logis adds to substantially reduction of pollutants and harmful emissions, contributing more and more to the role of Brescia as a European, contemporary and sustainable city. www.eco-logis.it

2. SULPiTER

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

A plan with a strategic vision that interests the metropolitan area of Brescia, which coordinates all the components of the mobility system and has visions over time with defined goals and measurable strategy contained in SUMP.

SUMP is a well-rooted governance tool in the daily practice of the municipal administration. It is defined on the basis of:





• a <u>constant linkage to the Programming Framework</u>, made up of the Territory Government Plan (PGT) and the over-municipal planning tools (Regional Mobility and Transport Program, Railway Services Program, Local Public Transport Area Plan, Territorial Plan Provincial Coordination, etc.);

• a <u>solid path of sharing with the various stakeholders</u> within the Administration (other departments and sectors) or associated with it (Brescia Mobility), but above all with the external actors (Metropolitan Municipalities, Province, Region, TPL Agency, RFI, Trenord, etc.);

• an <u>effective participatory process</u>, capable of virtuously activating the interest of citizenship, associations, at the level of a single district;

• an <u>adequate process for assessing</u> plan scenarios, which is translated into the drafting of Strategic Environmental Assessment (SEA).

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The main programmatic goal is therefore to promote sustainable mobility by pursuing a culture of intermodality that will significantly modify the modal subdivision between the different modes of transport. For this reason, the government of urban mobility aims to promote intermodality, for maximum integration between the public transport system and non-motorized mobility, and for disincentive of individual motorized vehicles as "first choice" for moving with origin and / or destination within urban boundaries, but rather reorienting it towards an integrated and complementary mobility.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	More accessible city, where citizens' mobility needs are met with high standards of quality and travel comfort, while ensuring full accessibility to all traffic components, including vulnerable users (including the elderly population, expected to rise sharply over the next two decades);
SO2	More efficient city, capable of employing available resources (financial, energy, territorial) in proportion to the benefits gained;
SO3	Healthier city with less air and acoustic pollution;
SO4	Safer city, where no citizen is more exposed to the risk of death or serious injury to following a road accident
SO5	More beautiful city, characterized by livable public spaces, and a general qualification of the landscaped and historic-monumental heritage.





II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > NOT RELVANT

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Traffic calming and institution of "zone 30"
A02	Progressive closure of the historic center to vehicular traffic
A03	Relaunch of projects for walking mobility, starting with "Pedibus" for the school
A04	Limited Traffic Zones (LTZ) in historic villages peripheral
A05	Progressive extension of the bicycle network, to be financed also through the share of revenues related to urbanization charges and administrative penalties for violations of the Road Code
A06	Strengthening the BiciMia project (bike sharing), aiming to cover areas not yet served and pursue synergies with the mobility managers of institutions, companies and institutes.
A07	Development of rail transport (completion of the railway station; Suburban train system also using the urban sediments of the Brescia-Iseo-Edolo line
A08	Upgrade the exchanger subway parking and improvement of the connections with neighboring areas. It includes pedestrian and cycling access to the stops, including the lighting of the approach paths.
A09	Reorganization of the local public transport network (including metropolitan line extension planning) to better integrate suburban areas, areas not served





	by the subway, regional train service. This includes: making preferred lanes for buses, extending the evening service until midnight and the unique Provincial tariff and ticketing system
A10	Targeted actions to adapt the road network: upgrading of the West Orbital road, with particular reference to its intersections at saturation and completion of the connection between Rose street and Vallecamonica street;
A11	Integrated intermodality project at the "Piccola Velocità" It will become one the reference intermodal center for the eastern Lombardy. It can put up to 190,000 containers per year on trains. The operators will be the Swiss intermodal transport company Hupac. The infrastructure would serve as a new gate of the western entrance to the city. The project is to connect the railway line with the nearby Ortomercato (agribusiness), where a large logistics center for agro-food should arise. Access to the "Piccola Velocità" will be facilitated by a new road. The intermodal center would also be a significant economic advantage for exporters in Brescia and the province, who would see significantly reduced transportation costs.





4.09. Extraurban Provincial Traffic Plan (PTVE)

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: <please fill in text - max 100 characters>Province of Brescia

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>.

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> Not specific definitions

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

Road safety

- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)

• <u>Transport infrastructures</u>

Other <please specify> _____





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- <u>Regulation/enforcement component</u>
- Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

With the elaboration of the PTVE the Provinces shall ensure the adoption of traffic plans for the extra-urban road with the aim of improving the conditions of traffic and road safety, reducing noise and atmospheric pollution and energy saving in accordance with urban planning instruments in force and with transport plans and respect for environmental values.

The elements that characterize PTVE respond to the principles of sustainability, aiming at rationalizing the use of current resources through the optimum management of existing infrastructures. The plan does not focus on planning new infrastructures.

PTVE includes the analysis of the state of facts analytical framework (characteristics of the infrastructure offer and functional classification of roads, transport demand, roadway criticality) and the elaboration of a mathematical model of traffic simulation.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

PTVE's main goal is to optimize road traffic through rational management of existing infrastructures. The plan identifies the road network in its articulations, establishing a hierarchy between the roads that make up the major, over-provincial (main), penetration-distribution (secondary) and local ones, with access to inhabited centers (local network).

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>





SO	SO NAME AND SHORT DESCRIPTION
SO1	Improve road safety
	Among the primary objectives of the PTVE is the reduction of road accidents and the severity of accidents, starting with the analysis of accident dynamics and related causes, with particular attention to the relationship between the latter and the geometric features of the roads. PTVE also promotes infrastructure interventions aimed at driving and influencing the behavior of road users and in particular vehicle speeds. Moreover, by providing for specific actions aimed at re-balancing the use of different transport systems by shifting traffic shares to safer and more sustainable modes.
SO2	Improve traffic conditions
	Meet the demand for mobility at an appropriate level of service through retraining and development of the road network, while respecting constraints and environmental values.
SO3	Reduce the negative impacts of vehicular traffic on the environment
	PTVE aims to reduce airborne and acoustic pollution by mitigating impacts and promoting less polluting modes of transport through improved accessibility to interchange areas

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > NOT RELVANT

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >





ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	"Regolamento viario" (Road regulation)
	technical and regulatory tool for anyone who needs to intervene along a provincial road is attached to the Plan. It is a document describing the characteristics of the roads according to the purposes and of the technical offices involved in the maintenance and management of the roads.
A02	vehicle traffic monitoring system
A03	road safety monitoring system and preventive safety analysis
A04	Limited Traffic Zones (LTZ) in historic villages peripheral





4.10. Guidelines for planning the development of electric mobility in the Province of Brescia

The strategic guidelines and tools identified in this document are all matched by the Regional Guideline for electric charge infrastructure in the paragraph nr3.





4.11. Regional guideline for Urban Logistics

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: <please fill in text - max 100 characters> Lombardy Region

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

NOT RELEVANT - The document drawn up by the Lombardy region does not want to enter into the individual merit of the concrete decisions in matters taken by the individual cities, but only propose a unique methodology to support the administrations and to simplify the multiplicity of approaches between the different cities

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify>.

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation





- Planning document
- Other <please specify> <u>Regional Guideline to support and uniform local</u> <u>planning</u>

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> Not specific definitions

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- <u>upgrade</u>

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures





Other <please specify> ______

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> <u>Address the action of the municipalities in the field of</u> <u>urban logistics, safeguarding their autonomy, in order to standardize on the</u> <u>territory of Lombardy the measures regulating the urban distribution of</u> <u>goods</u>

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

In coordination with other actions promoted by Regional working table on freight flows

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

Urban logistics in the Lombardy region has been tackled with an integrated approach and through the establishment of a specific area of work and comparison: Regional working table on freight flows. The working table that unites the main public and private actors in transport and logistics has defined a program of actions and interventions. Among these are those on urban logistics. Starting from a careful examination of the reality of the distribution of goods in the Lombard municipalities, it highlighted the disharmony and the territorial and temporal fragmentation of the measures regulating it, and consequently the consequent difficulties of the logistics operators to operate efficiently also in respect of the various regulations on air pollution and congestion. The guidelines were the response of the region to the requests of the private operators of the working table, to direct and support the municipalities (in full respect of their autonomy) to pay more attention in terms of quality and quantity to the legislation produced.





Support local authorities to create conditions for sustainable urban logistics:

1. efficiency of freight transport, reducing the number of delivery trips and maximizing load capacity;

- 2. quality of working conditions of workers in the urban distribution of goods
- 3. consistency with air quality standards promoted by regional legislation
- 4. minimum impact on the quality of urban life

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Promote the adoption of mobility governance tools and plans, in compliance with both the higher territorial level tools and the other municipal planning instruments
SO2	The plans and tools must respond to the concrete needs of the territory, and developed by ensuring the confiscation with the stakeholders including the neighboring municipalities
SO3	Effective implementation of the plans, with a view to proportionality (avoiding excessive restrictions for commercial vehicles), effectiveness for public health and safety, gradual introduction, simple implementation by individuals and economic sustainability
SO4	Protection of air quality, in line with regional legislation, both through structured measures against pollution and through occasional traffic interdiction measures
SO5	Standardization of traffic regulations and loading and unloading operations (time frame for transit in LTZ, loading and unloading bay, authorization and payment procedure to enter LTZ, etc.)
SO6	Promotion of experimental measures of city logistics

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > NOT RELVANT





III - Questionaire for the FUA of Maribor

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest

• PP3 University of Maribor

- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre

• PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.





- Stuttgart (DE007) complex FUA, 2,7 million inh.
- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- Yes
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

The Slovenian Ministry of infrastructure issued national Guidelines for the development and implementation of the Integrated Transport Strategy in 2012 (<u>http://www.trajnostnamobilnost.si/Portals/0/publikacije/TM_Brosura_FINAL_Civitas.pdf</u>). Guidelines were designed according to the EU publication: Guidelines: Developing and implementing a sustainable urban mobility plan (published on: <u>www.mobilityplans.eu</u>).

National guidelines represent a roadmap to prepare and to adopt the Integrated Transport Strategy/SUMP according to the local levels of the state. It focuses on 11 points: from setting the basic measures and to learn from experience at the conclusion of the process. Guidelines were prepared regarding the strategic treatment of the traffic and to improve the quality of life of the citizens and municipality' possibilities for successful development.

For SULP there are no national guidelines.

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> ______





I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >

	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
1	Celostna prometna strategija	Integrated Transport Strategy	local	1-2	http://www.smartcity maribor.si/cms/downlo ad_attachment.php?fil e=26_cps%20maribor%2 0-%20junij%202015.pdf	n.a.
2						
3						
••						
n						

Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1 Policy level <i><please< i=""></please<></i>	select	one	of the	following	options>
---	--------	-----	--------	-----------	----------

Local





- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: *<please fill in text - max 100 characters>* Municipality of Maribor

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. cplease fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

Act

Law

- Regulation
- Planning document
- Other <please specify>__Action Plan (list of measures)_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

• Yes





II.7 Policy budget and source of funding: cplease fill in text - max 500 characters>

For preparation of SUMP the ERDF funds were acquired through the National Ministry Programme: Development of Regions. For the implementation of SUMP measures there are no specific sources of funding foreseen.

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

Road safety

• Green mobility service (e.g. car and van sharing)

- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ___ Action Plan (list of measures) serves as guidelines, recommendations for the measures on the field of managing the traffic issues of MOM ____





II.11 Supporting mechanism <please select one or more of the following options>

Awareness/Information campaigns

- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

EU funded projects: PMinter, TRAMOB, RESOLVE

Local energy Agency: ENERGAP

Private public initiatives: Zavod "Zadihaj" (Institute "Breathe")

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

Integrated Transport Strategy/SUMP was prepared regarding the strategic treatment of the traffic in Municipality of Maribor. The measures set in action plan support main five pillars: - Integrated traffic planning, - walking as the important way of travelling, - optimal use of cycling, - appealing public transport, - rational use of motorized traffic.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

To improve the quality of life of the citizens and municipality' possibilities for successful development.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

- To plan the traffic considering the guidelines and integrated approach
- To exercise and to promote walking as one of the most important ways of travelling
- Further to popularize cycling and to establish even more cycling infrastructure in the city
- To improve public transport to be appealing and useful to the citizens
- Approach to the rational and sustainable use of motorized vehicles including freight





SO1	To plan the traffic considering the guidelines and integrated approach:
	Establishment of financial, system and administrative conditions for better mobility management. Ensuring transparency of decision-making by involving the public in all stages of the planning of mobility. The introduction of tools for the systematic monitoring of Mobility. Integration between different design sectors within the Municipality
SO2	To exercise and to promote walking as one of the most important ways of travelling:
	Create conditions that most inhabitants could make a large part of daily trips on foot. Increase of walking modal share in the city and the presence of pedestrians in urban area. Increase of traffic safety and a sense of safety for pedestrians. Monitoring the number and behaviour of pedestrians.
SO3	Further to popularize cycling and to establish even more cycling infrastructure in the city:
	Create the conditions for a comfortable, safe and attractive cycling in the city. Increasing the share of cycling in urban trips. Increase traffic safety and sense of safety of cyclist. Monitoring the number and behaviour of cyclists.
SO4	To improve public transport to be appealing and useful to the citizens
	Increasing the use of public transport. Improve the supply of public transport in the city. Improve integration between different modes of public transport and between public transport and other modes of transport. Improving the accessibility of public transport for people with reduced mobility. Improving the image of public transport.
SO5	Approaching the rational use of motorized vehicles (cars, motorbikes) with sustainability
	Improving air and noise pollution. Increase in traffic safety. Improve the parking situation in the city. Reducing the dependence of the population on the car. Increasing the share of environmentally-friendly vehicles. Reducing the negative effects of freight transport.
•••	
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

Qualitative or quantitative indicators set in the Integrated Transport Strategy are not beingmeasuredoranyotherwaybeingevaluatedyet.





<u>http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20maribor%20</u> -%20junij%202015.pdf (pages 32 and 33)

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
SO4			
SO5			
Son			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20 maribor%20-%20junij%202015.pdf (page 35)
	Implementation of integrated mobility planning:
	1a Establishment of Office / Department for Integrated transport and mobility planning
	1b Agreement on sharing of human resources at the regional level
	1c Preparation of a balanced budget
	1d Traffic model maintenance
	2a Acceptance, Commissioning, Audit and Reform Strategies
	revisions every 2 years;
	renewal every 5 years
	2b Periodic telephone survey on travel behaviour
	2c Mobility plan for major traffic generators
	3a Municipal technical guidelines for construction of pedestrian, cyclists and physically disabled infrastructure; PT priority management and traffic calming
	3b Promotional, awareness-raising and educational campaigns for all five pillars
	3c The preparation and introduction of car and bicycle parking standards





	3d Active participation in EU projects
A02	http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20
	<u>maribor%20-%20junij%202015.pdf</u> (page 41)
	Promotion of walking as an important travelling mode
	1a Improvement of the existing infrastructure
	1b Municipal technical guidelines for infrastructural constructions for pedestrians and physically disabled
	2 The expansion of the Pedestrian area
	3a Footpath network - PT access
	3b Footpath network - Green corridor
	3c Footpath network - a new footbridge
	4 Improving conditions for planning
	5 Promotional and Educational activities
A03	http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20 maribor%20-%20junij%202015.pdf (page 47)
	Optimal uses of potentials of cycling
	1a Municipal technical guidelines for infrastructural construction for cycling - cycling strategy
	1b Network of bicycle lanes
	2 Secure bicycle parking
	3 Management of cycling in the city
	4 Promotional and Educational activities
A04	http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20 maribor%20-%20junij%202015.pdf (page 53)
	Design of attractive public passenger transport
	0 Update of PT strategy (ensure the funding stability 2014-2018)
	1a Revision of integrated PT development plan (integration of school, ''on-demand service and local taxi service into currently valid PT service)
	1b Establishment of Regional PT Authority responsible for PT in city and region
	2 Increase of cities PT level of service for 10% (or additional 250.000 km per year)
	3 Pricing policy (integrated ticketing and smart card system)
	4a Increase the fleet of city buses; renovation until 2018 (250.000 € / bus)
	4b Replacement of 20 obsolete buses until year 2018
	5a Measures to ensure the bus priority (bus priority lanes, traffic light
	5b Instructions for planners and designers
	6a Renovation of bus stops (one-fifth per year or 40 every year)





	6b Equipment of bus stops with RTPI
	7 Public transport system with Demand Responsive Transport Service
	8a P+R (1 per year for 200 vehicles minimum)
	8b Actively participate in the creation of the unified national ticket program (focused on ''on-demand'' service, intermodal interchanges, railways and taxi services)
	8c Co-financing of intercity PT lines to provide better regional and global accessibility
	9 Improving the overall image of Public Transport
A05	http://www.smartcitymaribor.si/cms/download_attachment.php?file=26_cps%20 maribor%20-%20junij%202015.pdf (page 60)
	Rational use of cars
	1a Introduction of traffic-calming zone
	(30 km/h) - city centre
	Introduction of traffic-calming zone
	(30 km/h) - other parts of city
	1c Reconstruction of intersections with focus on traffic-calming (in city centre and residential areas)
	1d Accelerated revitalization of the roads
	1e Municipal guidelines for planning the friendly area / environmental zone
	1f Investments in traffic light system, including the speed limit control system
	1g Investments in addressing bottlenecks in the road network
	2a Comprehensive parking management (correction and update of strategy / plan)
	2b Implementation of parking policy (spreading the parking zone + supervision + price increase)
	3 Incentive for more environment friendly vehicles
	4 Optimized Car-ownership
	5 Rationalisation of freight traffic in the city - study with restriction measures
•••	
An	

accompanying mail

Dear Francesca Quiri,





Please find enclosed DT.3.1.1 document which was jointly prepared by Slovenian representatives UM (PP3) and MOM (PP14).

However, besides filling in the document we would also like to enlighten the background regarding the situation of transport policies in our national and local environment. For the time being, Slovenia is still in the process of defining transport policy and concrete binding measures for improving transport system. In 2006, "Resolution on the Transport Policy of the Republic of Slovenia" (Official Gazette of the RS, no. 35/02 and 60/04) was adopted. It determined fundamental guidelines for the future of transport in the Republic of Slovenia by defining the standpoints, vision, goals and provisional measures. Logistics was mentioned only very generally without specifying areas and topics to be addressed.

The "Transport Development Strategy in the Republic of Slovenia" (http://www.mzi.gov.si/fileadmin/mzi.gov.si/pageuploads/DMZ/Strategija_objava_EN 1012014.pdf), is the latest national strategic document, adopted in 2015. It lays down the vision of the transport policy, defining future measures on the area of road, railway, air and maritime transport, including public transport and measures for obtaining sustainable mobility. The Strategy is more or less infrastructure oriented whereby logistics is addressed mainly in the sense of building infrastructure required for big logistics players (e.g. Port of Koper). In the smaller extend also city logistics is mentioned as a promising filed to be addressed in the future. The following aims are to be achieved: improved transport efficiency (better exploitation of capacities); intermodality (options of shifting transport modes); good management of city needs in terms of the supply of goods; and application of more environment-friendly vehicles and energy products. The adoption of the Strategy will be followed by an operational plan defining detailed activities, financial sources, responsible entities and the time schedule for the implementation of measures.

As Slovenia still does not have regional self-government, the development of regional FUA transport policies is being brought to local/municipal level, where is up to each municipality or community to deal with transport and logistics topics within its centre. As already pointed out in the Sulpiter Kick-off meeting in Bologna, Municipality of Maribor (MOM) can implements its competencies only on the area of its local area. MOM adopted several strategic documents which represent basic framework with measures and indicators regarding the development of the city. The documents are available in Slovene language only.

Those documents are: Development Strategy of Maribor 2030





Document was adopted in 2012 as a respond to the emerging crisis. The document heavily relates on adopted strategy Europe 2020 and includes measures according to smart, sustainable and inclusive growth with specific local indicators. City Council of the Municipality of Maribor committed itself to achieve economically, socially and environmentally sustainable city in the context of a comprehensive vision of a clean, green and connected city, which includes an innovative economy and sustainable neighbourhoods and communities. This is a long-term vision of the city, defined in the "Development strategy of Maribor 2030". Energy represents an important area of sustainable vision. Among the seven headline targets of the Strategy are:

- Reducing greenhouse gas emissions by at least 30% compared with the level in 2009.
- Increasing the share of renewables in final energy consumption by 20% compared to the year of 2009.
- Increase energy efficiency by 20% (both public infrastructure such as households and companies) in relation to the year of 2009.

• Integrated Transport Strategy/Sustainable Urban Mobility Plan (ITS/SUMP)

Municipality of Maribor was one of the first municipalities in Slovenia which prepared and adopted ITS/SUMP. Consequently, Maribor is also the first city which established the Sustainable Mobility Centre in 2013, which serves as a focal-informative-educational point for sustainable mobility in the city. ITS/SUMP was adopted in 2015 and it consists of five connected pillars which represent a list of measures to regulate sustainable mobility in the city:

- Integrated traffic planning
- Walking as an important mean of mobility
- Optimal use of cycling
- Forming of attractive public passenger transport
- Rational use of motorised means of transport.

Local Energy Concept and Local Energy Action Plan

In 2006 the Municipality of Maribor established the Energy agency of Podravje (EnergaP) which led preparations and coordination of two important strategic documents for more energy efficient, energy sustainable and greener Maribor. Local Energy Concept was adopted by the City Council in 2009, but the Local Energy Action Plan is still in the confirmation process. Local Energy Concept was also approved by the Covenant of Mayors for Climate and Energy. Local Energy Action Plan was prepared within the cross-border project with Austria in 2012. Within the same project, a pilot environmental zone was introduced in a small area of the city centre.

Ordinance on Air Quality of Maribor

.

Municipality also adopted the Ordinance on Air quality in 2013 according to Air Quality Directive. City of Maribor is coping with the rising exceeding of PM10 particles in the air. The ordinance determines the overly polluted areas with PM10 particles, the 3 pillar-measures (energy efficiency, sustainable mobility and other areas), monitoring of the implementation of the measures, responsible institutions for measures implementation, pollution cause analysis.



.



Sustainable Urban Development Strategy

In the beginning of 2016, Municipality of Maribor adopted the Sustainable Urban Development Strategy which integrates social, economic and environmental factors to define the policies and priority projects of a city. Social and economic agents (such as neighbours, unions, entrepreneurs, administrations, associations, etc.) are the active players in the urban transformation. They are actively involved in decision taking processes for the specific projects which are strategic to the whole city.

However, the adoption processes for those documents were always too long due to administration procedures. MOM also never evaluated any of the adopted strategic documents yet. Issues were always opened when forming the group/council/committee to evaluate the foreseen implementation of measures listed in the documents.

The strategic documents refer to city transport policy very indirectly so this was also the main reason for the preparation of SULP during the project Sulpiter.

Best regards,

On behalf of Slovenian team UM and MOM Tadej Kurent Vesna Avguštinčič





IV - Questionaire for the FUA of Stuttgart

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka

• PP13 KLOK Logistics Cooperation Centre

• PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

• Bologna (IT009) complex FUA, 1 million inh.





- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.
- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

1.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- Yes
- No, but see below.
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

We typically develop them out of the transport and mobility planning documents and their procedural rules. The national plan exists, the states do the planning on their own, so do the municipalities and regions. This is due to the federal set-up, combined with self-governance of municipalities.

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

1.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >




POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
------------------------------------	--------------------------	--	---	------------------------------	---

1. Aktionsplan Güterverkehr und Logistik (Action Plan for Goods Transport and Logistics)

Federal level. Impact 1-2 on SULP and SUMP questions, 3-4 on logistics in general.

http://www.bmvi.de/SharedDocs/DE/Publikationen/G/aktionsplan-gueterverkehr-und-logistik.pdf?__blob=publicationFile; English n.a.

2. Generalverkehrsplan Baden-Württemberg 2010 (General traffic and transport plan for Baden-Württemberg 2010)

Level of federal state. Impact 2-3 on SULP and SUMP.

https://vm.baden-wuerttemberg.de/de/service/publikation/did/generalverkehrsplan-badenwuerttemberg-2010/; English n.a.

3. Regionalverkehrsplan (Regional Traffic and Transport Plan)

Level of Stuttgart Region. Impact 1-2 on SULP and SUMP.

https://www.region-stuttgart.org/video/20161221_Entwurf_Regionalverkehrsplan.pdf; English n.a.

4. Citylogistikkonzept (City logistics concept)

Local level. Impact to be seen after completion.

(not yet published.)

Policy description for policy 1





This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: cplease fill in text - max 100 characters>

Federal Ministry of Transport and Digital Infrastructure

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <*please fill in text - max 500 character*>

WRS and Region Stuttgart both have political contacts through the parties in regional and national parliament. KLOK also has contacts through research / science.

The ability or non-ability of a player to influence the decisions of the other players in the field in practice will never be laid open by that player...

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning





- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>__Action Plan (list of measures)

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

This plan has no budget of its own. It merely puts together the various plans and programs of the ministry regarding logistics.

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade (it is the 3rd edition)

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)





- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- **Urban logistics services** platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component

 Other <please specify> ___ Action Plan (list of measures) serves as guidelines, lists the activities of the ministry.

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders

Other <please specify> Explicitly and extensively using the document externally and internally to bind together all logistics related issues on federal level.

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The document itself is a kind of framework and is intended to encourage initiatives on the level of the 16 federal states and on local level.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

It is basically a collection of all logistics related activities the federal government is involved in. That does serve as a political propaganda document, but anyway it is helpful to have the logistics aspects of the various policies combined in one document. This way, the document





lays open which parts of the strategies correspond to each other, how coherent the policies are, and what in practice is targeted. This way, the plan is the main document for the logistics policy debate on federal level.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

Much of the policy is to support Germany as a logistics hub, also for oversea traffic, and to show what is done in this respect. At the same time, the document tries to encourage environmentally friendly logistics, also on local level.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

Many objectives completely unrelated to FUA freight transport. However, <u>specifically</u> <u>related policies</u> are:

4.a Improve people's protection against traffic noise.

4.b Support alternative propulsion technologies.

4.c Develop measures to strengthen urban logistics.

SO	SO NAME AND SHORT DESCRIPTION
SO1	Improve people's protection against traffic noise.
	Lists the measures as well as the current / intended federal activities in the field.
SO2	Support alternative propulsion technologies.
	Lists the measures as well as the current / intended federal activities in the field.
SO3	Develop measures to strengthen urban logistics.
	Lists the measures as well as the current / intended federal activities in the field.
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >





Qualitative or quantitative indicators are not being evaluated in the plan. There is a number of indicators or targets named, but not related to the field of SUMP/SULP.

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
Son			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Improve people's protection against traffic noise.
	The plan exclusively relates to the protection from freight wagons and trains. Road transport noise may be a question to be legally handled on the level of the 16 federal states or even on lower level. 'However, the question of road traffic noise is not even mentioned.
A02	Support alternative propulsion technologies.
	The "Mobilitäts- und Kraftstoffstrategie der Bundesregierung" ("Mobility and fuel strategy of the Federal Government") is explained here as a measure to secure the energy base for transport while improving the environmental aspects, with alternative fuels and alternative means of propulsion as key technologies, including a network of service stations for all modes of transport.
	Electric technologies for vans and light tracks as well as for urban distribution are explicitly mentioned, with explicit reference to the topic below.
A03	Develop measures to strengthen urban logistics.
	The federal government states that this is important but not the responsibility of the federal level, which is why it can only support measures on the level of the 16 federal states or the municipalities. Support is basically done via research and via supporting electric and fuel cell energy technologies, including loading infrastructures.





ļ		
	•••	
ļ		
	An	
i		

Policy description for policy 2

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1	Policy l	evel	<please< th=""><th>select</th><th>one</th><th>of tl</th><th>he j</th><th>following</th><th>options></th></please<>	select	one	of tl	he j	following	options>
------	----------	------	---	--------	-----	-------	------	-----------	----------

- Local
- FUA (Province)
- Regional (Federal State of Baden-Württemberg)
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Ministry of Transport, Baden-Württemberg state.

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The "Generalverkehrsplan" is a legal planning document, which can be finalized only after listening to the opinions of the relevant "Träger öffentlicher Belange", i.e. "carrier of public





purposes." This is how Stuttgart Region of needs is included, and as far as I remember KLOK also was asked for comment regarding some relevant chapter.

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation

Planning document

• Other <please specify

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

The plan covers the scope of the budget for the Baden-Württemberg Ministry of Transport (roughly a billion Euros per year), plus the part of the national budget for transport that is to be spent in Baden-Württemberg as co-financing or under the supervision of the state (sic, not the other way round!), plus regional and municipal budgets, plus EU money.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation





upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures

 Other <please specify> <u>It basically covers all fields of transport and traffic,</u> even by negative implication (if something is not mentioned, that can also be considered as a statement).

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component (a measure gets financed only if in accordance with the targets of the Generalverkehrsplan)
- Other <please specify> Also serves as action plan (list of measures), guidelines, and lists the activities of the ministry.

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns (of course it was publicly presented etc., but that is not the key element)
- Partnerships/Key supporting stakeholders
- Other <please specify> Well understood as guidance for all levels to align with in order to get funding, well beyond the questions of immediate legal binding of anything stated in the plan.





II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Key umbrella document.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

This is the main document for the traffic and transport policy of Baden-Württemberg. It has a general part and a part referring to specific concepts. The general part starts with guidelines (as of 2010, "securing mobility" is the main target), followed by "development of society, economy, environment", and "development of traffic / transport (passenger / freight / infrastructure / policies / financing)".

The specific part is divided into "Road Transport", "Public Passenger Transport", "Commercial Transport" and "Air Transport". In our context, it is important that commercial transport is a chapter independent of its mode.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

This is the framework document for all traffic and transport policy in the state of Baden-Württemberg. It therefore balances all conflicting targets on the base of the policies of 2010. With government changes since 2010, this is still the legal planning document, but emphasis has shifted among the targets towards environmental policies.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

Many objectives completely unrelated to FUA freight transport. However, <u>specifically</u> <u>related policies</u> are:

3.2.1 "Service transport",

3.2.2 "Urban logistics",

3.3.2 "Connection with private sidings / terminals".

SO	SO NAME AND SHORT DESCRIPTION
SO1	Service transport.
	Urban planning is supposed to take the different segments of service transport into account. This holds for residential as well as for commercial areas.





SO2	Urban logistics. The problem is acknowledged. The plan refers to the lack of success of earlier bundling and cooperation initiatives. It suggest cooperation in "Round Tables", initiatives by local actors, telematics, as well as the initiative suggested by the federal "Aktionsplan Güterverkehr und Logistik" (see policy 1; responsibility is therewith reciprocally returned to the respective "other" level of government). New technologies are encouraged.
SO3	Connection with private sidings / terminals. This is seen as important, but not explicitly with relevance to the FUA, just relevant for industries and transport in general.
•••	
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

Qualitative or quantitative indicators are not being evaluated in this part of the plan. There is a number of indicators or targets named, but not related to the field of SUMP/SULP.

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
Son			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Service transport.
	No activities listed beyond naming the policies (see above).





A02	Urban logistics. No activities listed beyond naming the policies (see above).
A03	Connection with private sidings / terminals. The state "supports" keeping and extending the infrastructure.
An	

Policy description for policy 3

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1 P	1.1 Policy level <please following="" of="" one="" options="" select="" the=""></please>				
		Local			
		FUA ("Region")			
		Regional			
		National			

- European
- Other <please specify> ______

II.2 Name of the responsible body: <please fill in text - max 100 characters>





Verband Region Stuttgart

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. cplease fill in text - max 500 character>

WRS is the economic development agency of the Verband Region Stuttgart, so there are institutional ties. With KLOK, the relation is less formal, but the Regionalverkehrsplan contains a number of pages (not related to SUMP/SULP that are written on the base of explicit KLOK input, so there for sure is cooperation.

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

This plan basically is the framework for the planning of the 179 municipalities in the 6 counties of Stuttgart Region. While there is a regional budget involved, mainly for public rail transport, this is of little relevance to the questions of SUMP and SULP.





II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade (new version, in last steps towards implementation)

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure

Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)

- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

Provide incentives

Regulation/enforcement component

 Other <please specify> ___ Action Plan (list of measures) serves as guidelines, lists the activities of the ministry.

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders





• Other <please specify> The document is mandatory for the planning of counties and municipalities, which in itself is a supporting mechanism.

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The document sticks to the regional competences in questions of traffic and transport. The region is responsible for issues too big to be handled by the counties. That is the mandatory designation of through roads, and the operation of mainline commuter trains. It therefore in part supplements all municipal traffic and transport planning, but does not interfere in purely municipal issues.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

Definition of the regional framework regarding traffic and transport, for the municipalities and the counties to fill it with measures. It does make statements about desired policies on behalf of the region, but will carefully avoid to interfere with municipal planning, except where the municipal planning has consequences for the region as a whole.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

To make transport function in the Stuttgart FUA. That mainly is road transport and public (rail) transport. With severe traffic jams and only few through roads, the region has a problem in this field that overshadows all other potential measures..

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

Many objectives completely unrelated to FUA freight transport. The absence of any specific urban freight issues is striking. This has to do with the general legal understanding that a certain level of government is not allowed to handle things that the level below can also handle. Urban freight thus is decidedly urban.

The plan is mentioned here nevertheless, because the absence of the urban freight and SULP topic, however justified, keeps the topic out of the mind of politics.

SO	SO NAME AND SHORT DESCRIPTION
SO1	(see comment at II.15)





SO2	
SO3	
•••	
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

Nothing of relevance to urban logistics.

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
•••			
Son			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	(see comment at II.15)
A02	
A03	
•••	
An	

Policy description for policy 4





This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

II.1	Policy	level	<please< th=""><th>select</th><th>one</th><th>of</th><th>the</th><th>following</th><th>options></th></please<>	select	one	of	the	following	options>
------	--------	-------	---	--------	-----	----	-----	-----------	----------

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Wirtschaftsverkehrsbeauftragter (authorized representative for commercial transport) of Stuttgart City

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

WRS KLOK both are part of the "Arbeitskreis Innenstadtlogistik" (Circle for inner city logistics") in Stuttgart, where the concepts of the Wirtschaftsverkehrsbeauftragter are debated.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy





- Territorial development
- Other <please specify> Economic development

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>__Action Plan (list of measures)

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> No budget, but it can plea to the Stuttgart Municipal Assembly for funding.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade (it is the 3rd edition)

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)





- Integrated parking management & integrate payment system
- **Urban logistics services** platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component

 Other <please specify> Naming policies and targets for municipal measures in local goods transport.

- II.11 Supporting mechanism <please select one or more of the following options>
 - Awareness/Information campaigns
 - Partnerships/Key supporting stakeholders
 - Other <please specify>

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

In principle it is to connect with any local or regional research project regarding urban goods mobility or city logistics.

II.13 Brief description of the policy: <please fill in text - max 2000 characters> It is a collection of aspects regarding the current situation and possible measures.

II.14 Main goal of the policy: <please fill in text - max 1000 characters> Have urban logistics aspects brought into urban planning and decision making.





However, for the time being a certain lack of structuring led to rejection both from the industry and from the mayor.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters> (due to the limitations outlined above, the objectives cannot be laid out in a systematic way.)

SO	SO NAME AND SHORT DESCRIPTION
SO1	(see comment at II.15).
SO2	
SO3	
SOn	

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

(see comment at II.15)

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of deliveries out of peak traffic hours		
SO2			
SO3			
Son			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >





ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	(see comment at II.15).
A02	
A03	
An	





V - Questionaire for the FUA of Rijeka

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.





- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- Yes
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >

	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)	WEB LINK (english - if available)
--	---------------------------------------	--------------------------	---	--	------------------------------	---





1	Strategija prometnog razvoja RH 2014-2030	Transport Development strategy of the Republic of Croatia 2014-2030	National	http://ww w.mppi.hr/ UserDocsIm ages/Strate gija_prome tnog_razvoj a_VRH%201 _ studeni.pdf	http://www .mppi.hr/Us erDocsImage s/TR- DEVLP%20ST RAT-M- DOC3010- 14%20FINAL% 2025- 12_15.pdf
2	Strategija razvoja Grada Rijeka 2014-2020	Development Strategy of the City of Rijeka 2014- 2020	Local	https://www .rijeka.hr/w P- content/uplo ads/2016/10 /Strategija- razvoja- 2014- 2020.pdf	
3	Strategija Urbane aglomerac ije Rijeka 2016- 2020.	Development Strategy of the Urban Agglomeratio n Rijeka 2016-2020.	Regional	https://www .rijeka.hr/ur bana- aglomeracija /strategija- urbane- aglomeracije -rijeka-2016- 2020/	

Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.





1. <u>Transport Development Strategy of the Republic of Croatia 2014-2030</u>

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body:

Ministry of the Sea, Transport and Infrastructure of the Republic of Croatia

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The City of Rijeka cooperates with all relevant institutions at the local, regional and national level, both in projects related to the development of the traffic route, as well as through participation in the consultation process for the adoption of strategic documents.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> Competent Ministry Directorates for each transport domain

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation





- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

• <u>Yes</u>

• No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

The development of the Transport Development strategy of the Republic of Croatia was funded by the Transport operational program 2007-2013.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- **Green mobility service** (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- **Transports demand management** (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- <u>Energy efficiency, environmental impact analysis (e.g SEAP) and reduction</u> (e.g. alternative fuels and E-mobility)
- <u>Transport infrastructures</u>
- Other <please specify> ______





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> Strategy for planning specific activities in established transport regions in the country; establishment of specific directions in transport development 2014-2030

II.11 Supporting mechanism <please select one or more of the following options>

- <u>Awareness/Information campaigns</u>
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The strategic planning document is the key document which creates path or draws outline for all other development strategy documents of lower (regional and local) levels.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Transport Development strategy provides a baseline document for planning transport development in the Republic of Croatia. Planning is used as a mean for determining mid-term goals and measures, and sets priorities according to established criteria. Constituent elements of the policy are establishing a consistent system of planning infrastructural and transport measures; defining measures based on intermodal goals for the transport sector; adjoining social, environmental and territorial goals with their functional and economy equivalents, and active cooperation with other competent bodies to enhance coordination and integrate the goals of sustainable development into the transport sector.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

Determining log-term development and future investments in the transport sector that will be in accordance with actual needs for new infrastructure and enable efficient and real planning and defining of priorities, with the goal that the transport services and infrastructure be functional and available for end users.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>





SO	SO NAME AND SHORT DESCRIPTION
SO1	Improvement of transport connections and coordination with neighboring countries
	- elimination of congestion points; accessibility of passenger transportation on remote locations, including transit; improvement in accessibility in freight transport, including transit
SO2	Improvement of accessibility in passenger transport on remote locations
	- specifically for each region established by the strategy
SO3	Improvement of regional connectivity in passenger transport by enhancing territorial cohesion
	 regional connectivity on mainland, inter - island connections; to and from Adriatic islands
SO4	Improvement of accessibility in passenger transport in and towards urban agglomerations
	- traffic junctions: Zagreb, Rijeka, Zadar, Split, Osijek and Dubrovnik
SO5	Improvement of freight transport accessibility in the country
	 regions: Central Croatia (Zagreb), Northern Adriatic (Rijeka), Eastern Croatia (Osijek - Slavonski Brod), Northern and Middle Dalmatia (Split - Zadar), south Dalmatia (Dubrovnik)
SO6	Improvement of the transport system in terms of organization and operational structure, with the goal of ensuring efficiency and sustainability
	 harmonization of legislature, procedures and standards with European demands and best practice; cooperation among stakeholders, improvement of operational settings and financial sustainability; traffic safety, environmental protection, energy efficiency

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	1a % reduction of waiting time at borders with non-Schengen States		1a 30% reduction in waiting time at borders with non-Schengen States compared to the year when Croatia joins Schengen





	 1b % reduction of passenger travel time 1b % modal split shift from private cars to public transport (buses, rail based, waterborne) 1c % increase of freight volume 1c % of road freight volumes over 300 km shifted to more sustainable transport modes (rail or waterborne) 1c % of the TEN-T railway network with implemented ERTMS 	current modal split: 60% private cars, 40 % public transport	1b Reduction of passenger travel time on the main international connections to/from/across Croatia by 10% 1b 20 % modal shift from private car to public transport (buses, rail based, waterborne; 40%/60% target value) 1c Increase of international freight volumes by 10% 1c 30% road freight volumes over 300 km shifted to more sustainable transport modes (rail or waterborne) 1c 100% of the TEN-T railway network equipped with ERTMS
SO2	% reduction of travel time to/from/across functional regions		Reduction of travel time to/from/across functional regions by 10%
	% of modal shift private car to public transport (buses, rail based, waterborne)		20% modal shift from private car to public transport (buses, rail based, waterborne)
SO3	NOT RELEVANT FOR FREIGHT TRANSPORT		
SO4	% of modal shift from private car to public transport		20% modal shift from private car to public transport
	% increase in usage of zero emission modes		10% increase in usage of zero emission modes
	% of population within 400 m of a public transport stop/station		90% of population within 400 m of a public transport stop/station
	% reduction in travel time		10% reduction in travel time
	Number of Master plans developed		All 6 nodes having developed transport Master plans
SO5	% increase of freight volumes		Increase of freight volumes by 10%
			20% increase in freight distribution efficiency (km/freight volume)
			10% increase in freight distribution by more sustainable means of transport (railway,





		waterborne, high efficiency road vehicles) 50% of non TEN-T lines leading to intermodal hubs equipped with ERTMS
SO6	6e reduction of environmental impact 6f improvement of energy efficiency	20%reductionintransportrelatedGHGemissionsincomparisonto1990levels20%improvementinenergyefficiencyincomparison to1990levels20%shareofrenewableenergysourcesintransport10%reduction10%reductionoftransportreductionofpollutants(PM, NOx, SOx)

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	NOT RELEVANT FOR RIJEKA FUA FREIGHT TRANSPORT
A02	NOT RELEVANT FOR RIJEKA FUA FREIGHT TRANSPORT
AO4	 Measures are in regard to specific objective 4 - Improvement of the passengers accessibility to and within the main urban agglomerations: intermodal terminals development; infrastructure development; station development; separation of modes, removal of bottlenecks; increase of intermodality; adaptation of legal framework; fare collection and ticketing system; adjustment of timetables; new rolling stock; traffic reorganization; traffic and logistics management and information
AO5	Rijeka network reorganization: The Rijeka road junction is one of Croatian main traffic junctions and plays an important role in linking the Croatian motorway network: A7 motorway links A8 motorway (Istrian Y) and A6 motorway (Rijeka - Bosiljevo). The Port of Rijeka is the main Croatian port (core port), and the development of the port must be harmonised with the road development. The planned west container terminal in Rijeka port will be connected with the planned state road D403. The Rijeka bypass is part of the A7 motorway, being one of the roads in Croatia with the highest traffic intensities. In order to further upgrade the road network, a new corridor outside the city for A7 is planned, in the section: Permani - Grobničko polje (A6) - Križišće. The northern part of Krk island is planned as part of the potential further development of the port of Rijeka. The new state road D102 corridor, including the new bridge is planned for Krk island. All these measures must be coordinated with the reorganisation of the internal road network in the City of Rijeka taking into account the necessities for public transport and





soft modes, the development of the port and the development plans of other relevant stakeholders such as the railway company. For that reason, further analyses are necessary to define the final set of interventions as well as the required technical parameters, taking into consideration the expected demand and economical and environmental aspects.
 Development maintenance concept (including maintenance stations) of the road network Traffic management, monitoring, traffic counting and information system Interchange development plan
Measures are in regard to specific objective 4 - Improvement of the passengers accessibility to and within the main urban agglomerations

2. Development Strategy of the City of Rijeka 2014-2020

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: City of Rijeka, Rijeka promet d.o.o. etc

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- <u>Territorial development</u>
- Other <please specify> ______





II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: 16.7 billion kn, projects will be financed mostly through EU funds

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- **Green mobility service** (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- **Urban logistics services** platform for urban distribution management
- ICT system and infrastructure





- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- <u>Transport infrastructures</u>
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> strategic planning document for determining the activities and goals set by the year 2020.

II.11 Supporting mechanism <please select one or more of the following options>

- <u>Awareness/Information campaigns</u>
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The Development Strategy of the City of Rijeka has goals determined for execution by 2020.; in regards to the freight transportation networks, there are several projects being developed in this period: Rijeka Gateway project; County Transport Master plan; Rijeka ECC and the Sustainable Energy Action plan of the City of Rijeka that also deals with the traffic sector but from the viewpoint of energy efficiency, energy consumption and using alternative fuels and renewable energy sources.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Rijeka traffic route is a major investment opportunity for the whole country, especially for the city's economy. The Rijeka traffic route is a "packet of projects" that includes investments in the port infrastructure, road infrastructure, railway, tourist capacities in the port area being renovated into a public - commercial area, airport and investments in the business-logistics zones, city and regional traffic projects related to the traffic infrastructure.





The main goal of this project is to build the missing traffic infrastructure, which is most notably related to the strengthening of global competitiveness of the Port of Rijeka. This priority requires integration of all transport modes with the city's traffic projects. The modernization of the port of Rijeka, container terminal Brajdica and new port terminal with the new waterfront, are a base for building competitiveness of Rijeka in the EU. This also means that it is necessary to develop an integrated system of management of the Rijeka traffic route to create synergy effects on the European and global level. The Rijeka traffic route is also a business opportunity for entrepreneurs from all sectors of economy. By developing traffic infrastructure and connecting different transport modes, new opportunities will be created for the processing industry and new services regarding transport. The goal of this priority is the development of the transport sector as the most important part of the local economy. Rijeka can be seen, by 2020., as a developed transport - logistics center, in which traffic and connected services will be the leading sector in the city's economic structure.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO/Priorities	SO NAME AND SHORT DESCRIPTION
SO1	Global positioning of Rijeka by developing the Rijeka traffic route
PO1	Development of the Rijeka traffic route
	- Building traffic infrastructure
	- Integrated management of the Rijeka traffic route
PO2	Logistic linkage of entrepreneurs within the Rijeka traffic route
	 Strengthening of the logistics and maritime cluster Global promotion and international cooperation
PO3	City of Rijeka - integration function of traffic systems
	 Coordination of transport stakeholders Sustainability of the public transportation

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	MEASURES <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	INDICATORS
PO1.1	Building traffic infrastructure		 Newly built or reconstructed km of roads/railways





		- Invested funds
PO1.2	Integrated management of the Rijeka traffic route	 TEU/t indicator - port/rail/air No of passengers transported
PO2.1	Strengthening of the logistics and maritime cluster	 No of employees Funds leveraged
PO2.2.	Global promotion and international cooperation	- Presentation of the Rijeka traffic route on fairs and conferences
PO3.1	Coordination of transport stakeholders	- Invested budget funds in traffic projects
PO3.2.	Sustainability of the public transportation	 Total no of passengers on public transportation Share of km passed by city buses on CNG

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
PO1	Global positioning of Rijeka - Rijeka Traffic route
A01.1	Building traffic infrastructure - Zagreb port terminal; road D-403 - new west entranceway into the city of Rijeka; new 2rail railway through the city
A01.2	Integrated management of the Rijeka traffic route- modernization of airport; new complex of bus and rail infrastructure; 2 new public garages
PO2	Logistic linkage of entrepreneurs within the Rijeka traffic route
AO2.1	Strengthening of the logistics and maritime cluster - business - logistics zones Miklavija and Škrljevo





A02.2.	Global promotion and international cooperation
PO3	City of Rijeka - integration function of traffic systems
AO3.1	Coordination of transport stakeholders - Delta area for public use- public needs, hotel, congress center, business infrastructure etc; use change of port Baroš; renovation of Molo longo, removal of parking lot on the promenade; new roundabouts etc.
A03.2	Sustainability of the public transportation - introduction of the city railway; cableway; promotion of CNG use in public transportation; new bus base

3. Development Strategy of the Urban Agglomeration Rijeka 2016-2020

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: City of Rijeka, City of Opatija, City of Kastav, City of Kraljevica, Community of Čavle, Community of Lovran, Community of Klana, Community of Kostrena, Community of Mošćenička Draga, Community of Viškovo.

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. cplease fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy




<u>Territorial development</u>

Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

Total policy budget is 66.117.775 Eur; source of funding is Ministry of Regional Development; ITI mechanism

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)





- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The Development Strategy of the Urban Agglomeration Rijeka has goals determined for execution in the period 2016-2020.; in regards to the freight transportation networks, there are several projects being developed in this period: Rijeka Gateway project; County Transport Master plan; Rijeka ECC and the Sustainable Energy Action plan of the City of Rijeka that also deals with the traffic sector but from the viewpoint of energy efficiency, energy consumption and using alternative fuels and renewable energy sources. Also several other projects of local importance performed by partners in the Agglomeration will be executed during this period, and they will be coordinated within this Strategy.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

Urban Agglomeration Rijeka is an area which is being developed by means of strengthening of human resources, in the function of sustainable development of economy and preserving valuable urban areas. This vision, the Urban Agglomeration





Rijeka seeks to reach through the implementation of three strategic goals, seven priorities and 13 measures.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

Strategic goals are: 1. Development of efficient human potentials, 2. Preparing conditions for Green Economy growth and 3. Sustainable Urban Development.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Development of ecologically acceptable urban public transport
SO2	Innovative traffic/mobility solutions

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)	Number of passengers	modal split 60 % cars - 40 % Public transport (buses)	modal split 40 % cars - 60 % Public transport (buses)
SO2	number of vehicles in the city center	55.000 vehicles/day in Rijeka city center	45.000 vehicles/day in Rijeka city center

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Replacing the fleet of diesel powered buses on urban and suburban public transport lines with gas-driven vehicles.
A02	Introducing new intelligent traffic light technology on all semaphored intersections in the Agglomeration area, to provide centralized surveillance and automatic coordination and traffic control. Includes replacing existing outdated traffic light technology with smart control units which constantly measures traffic





intensity on control points, decides upon the best control strategy and coordinates the work of traffic lights accordingly.
Integrating intelligent Video Surveillance System and Traffic Guidance System in the new Urban Integrated Traffic Control center that detects anomalies in traffic (traffic jams, road accidents etc.), brings appropriate decisions and informs all relevant institutions and stakeholders in the traffic system.





VI - Questionaire for the FUA of Poznan

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- PP2 Municipality of 18th District of Budapest
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.





- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- Yes
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

Ecorys Polska and Atmoterm have to created a Sustainable Urban Mobility Plan for Poznan City Functional Area for the years 2016-2025.

Implemented the following actions:

Preparatory work and the development of the concept of SULP

Surveys and measurements in order to obtain the missing data and information needed to develop SULP

Drafting the document SULP for Poznan City Functional Area for the years 2016-2025, together with the environmental impact assessment and justification of the solutions adopted

The preparation of the final version of the document

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >





	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high	WEB LINK (local language)	WEB LINK (english - if available)
1	Biała Księga Transportu	White Paper on transport	eu	1	http://wrpo.wie lkopolskie.pl/e- biuletyn/2017/2 /pdf/white- paper- illustrated- brochure_pl.pdf	http://www.ptf erroviaria.es/do cs/Documentos/ White_paper_Br ochure.pdf
2	Strategia Rozwoju Transportu do 2020 roku (z perspektywą do 2030 roku)	Transport Development Strategy until 2020 (with a prospect until 2030)	national	2	http://mib.gov. pl/media/3511/ Strategia_Rozwo ju_Transportu_d o_2020_roku.pd f	x
3	Krajowa Polityka Miejska 2023	National Urban Policy 2023	national	3	https://www.m r.gov.pl/media/ 10252/Krajowa Polityka_Miejska _20-10-2015.pdf	x
4	Krajowa Strategia Rozwoju Regionalnego 2010- 2020: Regiony - miasta - obszary wiejskie	National Strategy of Regional Development 2010-2020: Regions, Cities, Rural Areas	national	3	https://www.m r.gov.pl/media/ 3337/KSRR_13_0 7_2010.pdf	http://www.esp on- usespon.eu/dan e/web_usespon_ library_files/672 /national_strate gy_of_regional_ development_20 10-2020.pdf
5	Narodowy Program Bezpieczeństwa Ruchu Drogowego 2013-2020	National Road Safety Programme 2013-2020	national	1	http://www.krb rd.gov.pl/files/f ile/NP-BRD- 2020_przyjety_p rzez_KRBRD.pdf	http://www.krb rd.gov.pl/files/f ile/Programy/K RBRD-Program- P1a-20140422- S2-K3d-EN.pdf
6	Strategia Rozwoju Województwa Wielkopolskiego do 2020 roku (zaktualizowana)	Updated Development Strategy Of The Wielkopolskie Voivodship By 2020	regional	3	http://www.wr po2007- 2013.wielkopols kie.pl/zalaczniki 1/2013/Zaktuali zowana_Strategi a_RWW_do_202 0.pdf	https://umww.p l/attachments/a rticle/11584/2.S RWW_wersja_an g.pdf
7	Plan Zrównoważonej Mobilności Miejskiej	Sustainable Urban Mobility Plan	regional	5	http://mobilnos c.metropoliapoz nan.pl/dokumen tacja/plan- zrownowazonej- mobilnosci- miejskiej/	X
8	Strategia Rozwoju Miasta Poznania 2020+	Development strategy for the city of Poznan 2020+	local	4	http://www.poz nan.pl/mim/mai n/strategia- rozwoju-miasta-	x



					poznania- 2020,p,14886,26 640 html	
9	Uchwała Rady Miasta Poznania w sprawie przyjęcia i wdrażania polityki transportowej Poznania	Resolution of the Poznan City Council on the acceptance and implementation of Poznan's transport policy	local	4	http://bip.pozn an.pl/bip/zinteg rowana- polityka- transportowa- miasta- poznania,doc,20 16/polityka- transportowa- miasta- poznania,23486. html	x
10	Polityka Parkingowa	Parking Policy	local	2	http://bip.pozn an.pl/bip/zinteg rowana- polityka- transportowa- miasta- poznania,doc,20 16/polityka- transportowa- miasta- poznania,23486. html	X

Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.

Strategy Development of the Wielkopolska Voivodeship until 2020 (updated)

II.1 Policy level < please select one of the following options >

- Local
- FUA (Province)
- Regional





- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: Management Board of the Wielkopolska Region

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. Submission of applications for modifications

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify> Strategy document

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

Yes

• No

II.7 Policy budget and source of funding: lack





II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> protection of environment

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> guidelines for the region

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____





II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative:

Consistent with community Policy:

- Europe 2020 Strategy
- Cohesion Policy after 2013
- Territorial dimension
- Leipzig card
- Common Agricultural Policy

Consistent with national policies (in Poland):

- Strategy of national development 2020
- Spatial Development Concept of the Country 2030
- Long-term strategy for national development. Poland 2030
- National Strategy for Regional Development. Regions, Cities and district rural

II.13 Brief description of the policy:

The document embraces:

- -General guidelines for spatial policy and development of the Wielkopolska Region.
- -Description of the situation in Wielkopolska Region
- -identification of problem areas

-directions for future development.

II.14 Main goal of the policy:

Effective use of development potential for the competitiveness of the Wielkopolska Region, aimed at improving the quality of life of regions under decentralized conditions

II.15 Specific objectives	(SO)	
<u> </u>		

30			SU NAME AN	חכ ח	DRT DESCRIPTION			
SO1	Improvement	the	accessibility	and	communicational	cohesion	of	the
	wielkopolska i	xegioi	7					





SO2	Imrovement state of the Environment
SO3	Better power management
SO4	Increasing the competitiveness of the FUA in Ponan
SO5	Increasing cohesion of the Wielkopolska Region
SO6	Reinforcement economic potential of the Wielkopolska Region
S07	Increase the competence of the inhabitants
SO8	Increase resources
SO9	Increase security of the Wielkopolska Region

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > not applicable

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)			
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity > no details

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	
A02	
A03	
An	





City of Poznań Development Strategy 2020+

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: Poznan City Hall

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character>

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> Department of Development

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify> Strategy document

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>





- Yes
- No

II.7 Policy budget and source of funding: *Budget City of Poznan*

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> guidelines for the city

II.11 Supporting mechanism <please select one or more of the following options>





- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Consistent with national policies (in Poland):

-Strategy of national development 2020

- Strategy for Responsible Development

- Strategy Development of the Wielkopolska Voivodeship until 2020

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The document embraces:

-General guidelines for spatial policy and development City of Poznan.

-Description of the situation in City of Poznan.

-identification of problem areas

-directions for future development

-long-term plans for the improve quality life.

II.14 Main goal of the policy:

Improvement quality of life all inhabitants and the importance of Poznań in the international arena

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Strong metropolis - developing cohesion City of poznan
SO2	Advanced entrepreneurship - development of a strong and modern economy
SO3	Green and mobile city- environmentally friendly and sustainable transport
SO4	Friendly Settlement - assurance high quality of life inhabitants
SO <i>5</i>	Community and social dialogue - support the actions of residents for the city





II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

Lack

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1			
SO2			
SO3			
•••			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION	
A01	Increasing use of ecological means of transport	
A02	Improvement road safety	
A03	Support for the development of electromobility	
A03	implementation of smart solutions in the field of renewable energy	
A04	Striving for intermodal freight	
A05	Enhance the role of ecological transport in the last mile system	

Resolution of the Poznan City Council on the adoption and implementation of Poznan's transport policy

- II.1 Policy level <please select one of the following options>
 - Local
 - FUA (Province)
 - Regional
 - National
 - European





Other <please specify> ______

II.2 Name of the responsible body: Poznań City Hall

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify> legal act

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: Budget Poznan City Hall

II.8 Specify policy life-cycle status <please select one of the following options>

Definition





- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> lack

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: Consistent with:





- Transport Policy of the City of Poznan

- other Documents of the City of Poznan

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

Achieve a sustainable transport system from an economic, spatial, ecological and social perspective, within the framework of politically agreed priorities and implementation instruments

creation of an optimal transport system in the FUA area

development of national and international links to ensure proper economic, scientific and cultural growth of the Poznan agglomeration.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	the release of housing areas from transit traffic, especially heavy traffic and the carriage of dangerous goods
SO2	Increasing the efficiency of the communication system
SO3	Counteracting the fallouts and effects of increasing vehicle congestion - reduce time and improve travel
SO4	Maintenance and reconstruction of transport infrastructure
SO5	Improved accessibility to the trans-European transport network
SO6	Alleviation of unevenness of transport services in particular areas of the city
S07	Stimulation of the activity of business entities operating in the field of public transport
SO8	Increased efficiency of transport system management with rationalization of investment and operating costs

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > lack





SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)			
SO2			
SO3			
SOn			

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION	
A01	In order to improve and improve the efficiency of cargo handling services, logistics centers in and around Poznan are of prime importance	
A02	The city should support the activities of investors in this regard.	
A03	Parking of trucks should be limited to residential areas	
A04	the need for parking lots for trucks in the buffer zone of the city should be taken into account within the strategic parking system	

Parking policy

II.1 Policy level < please select one of the following options >

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: Poznań City Hall





II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- P Yes
- No

II.7 Policy budget and source of funding: budget Poznan City Hall and support of the European Union

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade





II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> Improving parking in the city

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> public consultation

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Consistent with Resolution of the Poznan City Council on the adoption and implementation of Poznan's transport policy

II.13 Brief description of the policy: <please fill in text - max 2000 characters>





Guidelines and recommendations for car parks in the Functional Urban Area in Poznan. Suggested directions of change. The document contains: principles, assumptions, conclusions and recommendations. He indicates the guidelines for a coherent parking policy in FUA area in Poznan. This is a study, but not urban document. The document defines the present state and direction for future development.

II.14 Main goal of the policy:

Improvement parking policy in the city.

the sustainable development of the FUA Poznan. Maximum integration of transport systems, regulated increase of communication accessibility of Poznań areas, environmental protection.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Counteracting the effects of growing traffic congestion
SO2	Improve traffic safety
SO3	steering suburban transport to bus and tram stations
SO4	Guaranteed the conditions for the development of public transport
SO5	moderating traffic in downtown and other areas with particular traffic
SO6	Implementation of inter-municipal and inter-communal relations
SO7	Ensuring the attractiveness of public transport

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant > lack

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1 (example)			
SO2			
SO3			
•••			





~~		
SOn		
3011		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Recommendation: Construction of new parking for trucks in Poznan in SETPOS standard
A02	Deliveries should be made in the hours in which a payable parking zone is not applicable
A03	Elimination of empty transit the trucks
A04	limit traffic in the city center of Poznan
A05	Designation of parking spaces for delivery

Sustainable Urban Mobility Plan for FUA City of Poznan

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: Association Metropolia Poznan

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>* Cooperation Poznan City Hall with Association Metropolia Poznan

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport





- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> metropolitan administration

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- P Yes
- □ No

II.7 Policy budget and source of funding: *budget Poznan City Hall and support of the European Union*

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)





- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Consistent with:

-Strategy of national development 2020

-Spatial Development Concept of the Country 2030

-State transport policy for the years 2006-2025

-National Urban Policy 2023

-Strategy Development of the Wielkopolska Voivodeship until 2020 (update).





II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Sustainable Urban Mobility Plan for the Functional Urban Area in Poznan for the years 2016-2025 assumes an explanation of the issues related to the organization of transport.

The guidelines for developing and implementing plans for sustainable urban mobility also determine the importance of public transport, particularly in metropolitan areas.

In the area of Mertopolis Poznan, the role of transport organizers is:

Wielkopolskie Voivodeship - the voivodship marshals are responsible for arranging railway and bus services of regional importance. Within the framework of the transport organization, the Marshal is obliged to subsidize transportation within the voivodship.

Communes - perform public tasks by organizing bus connections and in the case of Poznan also tram.

Poznan District - currently does not perform the role of the organizer of collective transport in the Metropolis area, but together with the City of Poznan began to develop for the area of the Agglomeration the Plan of Sustainable Development of Public Transport of Collective Transport.

For the proper functioning of transport in the Poznan Metropolis, a coherent and integrated public transport system is needed, which will be able to meet the transport needs of the inhabitants and at the same time be transparent and friendly to them. In order to integrate public transport in Poznan Metropolis, various actions are taken, based on the concept of a common ticket.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

- better quality of life for the inhabitants
- improvement of natural environment
- increase competitiveness
- increase the attractiveness of the region
- introduction of sustainable development system of the transport
- comprehensive mobility management

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Increase competitiveness of public transport - Introduction of new green public transports, optimization of bus, rail and tram connections, development of the Poznań Metropolitan Railway





SO2	Increase the share of bicycle transport twice and maintain the share of pedestrian traffic- Construction of new routes of cycling
SO3	Development of road infrastructure- Optimization and development of the road system, improvement of roads, Improving road safety, Improvement of the supply system of goods
SO4	Improvement and development of the transport integration system- Increase intermodality through the integration of means of transport, Efficient transport management and traffic flow through the construction of Intelligent Transport Systems
SO5	Improving the quality of the environment and preventing the negative effects of climate change- Reducing emissions from transport, Environmental Protection, alleviate the nuisance caused by car traffic

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Number of installed intelligent transport systems	number of units	lack of data
SO2	Total length of modernized railway lines	km	lack of data
SO3	Number of purchased or upgraded railway vehicles	number of units	lack of data
SO4	Number of new parking spaces	number of units	lack of data

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Organization of the cargo delivery system (Cooperation with logistics centers)
	Purchase of low-emission rolling stock
A02	Construction / modernization / refurbishment of stops
A03	launching of the Poznan Metropolitan Railway





	redevelopment of crossings to increase them throughput
An	Establishment of new parking spaces
	Directing transit to a special routes - ring roads

White Book on Transport

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: European Commission

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>* not applicable

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> ______

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document





Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- P Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

not applicable

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

Provide incentives





- Regulation/enforcement component
- Other <please specify> Roadmap to a Single European Transport Area

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Future of Transport

Maritime Transport Strategy

2008 - Greening transport

2007 - Logistics: Keeping freight moving

Keep Europe moving

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The Transport White Paper, adopted by the European Commission in March 2011, provided a comprehensive strategy and vision for tomorrow's transport in Europe. In the context of the Commission's forthcoming mid-term review of the Transport White Paper CER reiterates that:

-The political priorities set by the White Paper should be kept;

-Effective steps must be taken to realize the goals of the White Paper.

With this Position Paper, CER contributes to the debate on the assessment of the implementation of the Transport White Paper based on the core set of monitoring indicators:

-Decarbonisation and energy

-Pricing and regulation

-Infrastructure

-Modal shift

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The European Commission adopted a roadmap of 40 concrete initiatives for the next decade to build a competitive transport system that will increase mobility, remove major barriers in



key areas and fuel growth and employment. At the same time, the proposals will dramatically reduce Europe's dependence on imported oil and cut carbon emissions in transport by 60% by 2050.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	No more conventionally-fuelled cars in cities
SO2	40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions
SO3	A 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport
SO4	All of which will contribute to a 60% cut in transport emissions by the middle of the century

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Not applicable		
••••	Not applicable		
SO4	Not applicable		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	An efficient and integrated mobility system
A02	Innovating for the future: technology and behavior
A03	Modern infrastructure and smart funding

Transport Development Strategy until 2020 (with a prospect until 2030)





II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: Ministry of Infrastructure and Construction

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>* not applicable

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>





No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

Budget ok. 710,9 mld pln. (from national public funds)

Additional founds:

-EU funds - within the framework of available aid and development programs and

-other foreign sources;

-private funds of investors, in the private-public partnership system,

-measures resulting from the gradual implementation of the "polluter pays" principle

and "User pays";

-commercial credits

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> Development strategy

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

Long-term National Development Strategy

National Development Strategy 2020

White Paper of Transport

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

It is a document that sets the most important directions of transport development in Poland. The strategy applies to all sectors of transport: road, rail, air, sea and inland waterways, urban and intermodal.

Transport Development Strategy is one of integrated strategies, and aims to achieve the goals set out in national high-level documents - Long-term National Development Strategy and Country Development Strategy 2020.

The strategy takes into account the priorities of the various European Union policies - transport, regional, innovation and environmental protection. It also takes into account the European Commission's proposals presented in the 2011 White Paper of Transport.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The main objective of the national transport policy is to increase territorial availability and to improve the safety of traffic participants and the efficiency of the transport sector by creating a consistent, sustainable and user-friendly transport system in the national, European and global dimension.

Strategic objectives:

1. Creating an integrated transport system





2. Creation of conditions for the smooth functioning of transport markets and the development of efficient transport systems

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Creating a modern and coherent network of transport infrastructure
SO2	To improve the organization and management of the transport system
SO3	Improving the safety of traffic participants and transported goods
SO4	Limit the negative impact of transport on the environment
SO5	Development and construction of collision-free intersections, bypasses, public transport in cities

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Not applicable		
•••	Not applicable		
SO5	Not applicable		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Diagnosis of the current state of transport in Poland
A02	Demand forecast for transport
A03	Concept of creating an integrated transport system in Poland, specifying particular branches and forms of transport
A04	Concept of changes in the system of organization and management of the transport system, including the possibility of implementing modern technologies in transport
A05	Defining the directions of intervention in terms of improving safety in transport




A06 Defining the directions of intervention in reducing the negative impact of transport on the environment

National Urban Policy 2023

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: Ministry of Developmeny

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. <please fill in text - max 500 character> not applicable

ποι αρριτιαστε

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> Development

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> not applicable

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

Provide incentives





- Regulation/enforcement component
- Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

- Strategy for Innovation and Efficiency of the Economy 'Dynamic Poland 2020'
- Human Capital Development Strategy 2020
- Transport Development Strategy until 2020 (with a prospect until 2030)
- Energy Security and Environment perspective to 2020
- National Strategy of Regional Development 2010-2020: Regions, Cities, Rural. Areas

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

According to the Law from 6 December 2006 on the principles of development policy, the National Urban Policy is a document defining planned actions of the government administration concerning urban policy, taking into account the objectives and directions set out in the medium-term development strategy of the country and the national regional development strategy.

Urban policy is addressed to all Polish cities and their functional areas. It is an expression of an integrated territorial approach

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The strategic objective of urban policy is to make stronger capacity of cities and urban areas for sustainable development and to create new work places also to improve the quality of life of the population.

II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>





SO1	To create conditions for effective and partnership development management in urban areas, especially in metropolitan areas					
SO2	Promoting the sustainable development of urban centers, including counteracting negative phenomena of uncontrolled suburbanization					
SO3	Rebuilding capacity for development through revitalization of degraded socially, economically and physically urban areas					
SO4	Improving the competitiveness and the ability of the major urban centers to create development, growth and employment					
SO5	Support for the development of sub-regional and local urban centers, especially in problem areas of regional policy (including in some rural areas) by strengthening their functions and preventing their economic decline					

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	Not applicable		
	Not applicable		
SO5	Not applicable		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Shaping the space
A02	Public participation
A03	Transport and urban mobility
A04	Low carbon and energy efficiency
A05	Revitalization
A06	Investment policy
A07	Economic development
A08	Environmental protection and adaptation to climate change
A09	Demography





A10 Management of urban areas

National Strategy of Regional Development 2010–2020: Regions, Cities, Rural Areas

- II.1 Policy level <please select one of the following options>
 - Local
 - FUA (Province)
 - Regional
 - National
 - European
 - Other <please specify> ______

II.2 Name of the responsible body: Ministry of Development

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>* Not applicable

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify> Strategy





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

- national public funds
- EU funds within the framework of available aid and development programs and

other foreign sources;

- private funds of investors, in the private-public partnership system,
- measures resulting from the gradual implementation of the "polluter pays" principle and "User pays";

• commercial credits

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)





- Transport infrastructures
- Other <please specify> ______

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> Strategy

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

- Green Paper
- National Development Strategy 2020

II.13 Brief description of the policy: cplease fill in text - max 2000 characters>

National Strategy of Regional Development 2010-2020: Regions, Cities, Rural Areas (NSRD) constitutes a document, which defines the objectives and rules of procedure for public entities and, in particular, for the government and self- governments of voivodeships as regards the Polish space in order to achieve the strategic objectives of national development. The draft sets out the objectives of regional development policy, including the objectives related to rural and urban areas, and it also defines their relationships with other public policies that have an explicit territorial focus

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The strategic objective of regional policy, which was established in the NSRD, covers efficient usage of the specific regional and territorial development potentials for the purpose of achieving in a long--term perspective the national development objectives, i.e. growth, employment and cohesion





II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION					
SO1	Supporting the competitive growth of the regions					
SO2	Establishment of the territorial cohesion and preventing the processes of marginalization of problem areas					
SO3	Establishment of conditions for efficient, effective and partnership implementation of development activities targeted at territories					

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
SO1	not applicable		
SO2	not applicable		
SO3	not applicable		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ΑCTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Enhancing functional areas of all voivodeship centres
A02	Developing and supplementing metropolitan functions
A03	Supporting urbanization processes
A04	Integration of functional urban areas
A05	Revitalisation - spatial, economic and socia

National Road Safety Programme 2013–2020

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)





- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: National Road Safety Council

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>* not applicable

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

• Yes

No





National budget

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> _____

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____





II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

- National Development Strategy 2020
- Transport Development Strategy until 2020
- Efficient State Strategy 2020
- National Health Programme for the years 2007-20151

 National Programme for Prevention and Solving of Alcohol-Related Problems for the years 2011-2015

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The programme for the period of 2013-2020 continues the far-reaching ZERO VISION, adopted in previous national programmes of road safety15. The vision was successfully initialized in Sweden16, and then it was developed by other countries. Assuming, among others, that human life and health is more important than the right to be mobile and other objectives of road transport system, the ZERO Vision strives to decrease the number of fatalities in road traffic to zero.

As regards The Decade of Action for Road Safety 2011-2020, as well as Transport Development Strategy until 2020 (see: Chapter 2) established by UN, National Road Safety Programme 2013-2020 and its structure of intervention is based on the following five pillars:

-safe behaviours of road traffic users

-safe road infrastructure

-safe speed

-safe vehicles

-rescue and medical assistance system.

Protection of road users aims at conducting activities of a protective nature. Unlike in the case of actions oriented at changing behaviours of all road users, their safety should be ensured by systems that they do not have control over, of which they may not even be aware. These actions primarily include: engineering activities (building safe roads and their surroundings), uptake of modern technology (security systems in vehicles), supervisory, control and information activities

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

To limit the annual number of fatalities by at last 50% until 2020

To limit the annual number of seriously injured by at least 40% until 2020





II.15 Specific objectives (SO) <please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	to limit the annual number of fatalities by at last 50% until 2020
SO2	to limit the annual number of seriously injured by at least 40% until 2020

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

SO	SO RESULT INDICATOR <max 300="" characters=""></max>	INDICATOR CURRENT VALUE	TARGET VALUE
501	This objective should be attained in relation to 2010 - which means a maximum of 2.000 of fatalities in 2020.		
502	This objective should be attained in relation to 2010 - which is no more than 6.900 of seriously injured in 2020.		

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Promotion and implementation of road protection measures for road traffic users, particularly pedestrians and cyclists (infrastructure for pedestrians and cyclists, organization of road traffic with respect to the needs of cyclists)
A02	Implementation of measures moderating road traffic
A03	Improvement of the supervision system over behaviours of road traffic users regarding their awareness of being controlled and the inevitability of punishment
A04	Development and modernization of a supervision system (including automatic) over behaviours of road users
A05	Shaping attitudes promoting safe behaviours in road traffic within comprehensive education and promotion systemII (school education of future drivers and information and promotion activities)









VII - Questionaire for the FUA of Budapest

This section of the questionnaire is an overview of policies related to logistics and transport sector in each FUA. The information you are asked to provide will be used to hand over general framework about relevant policies freight transport and logistics policies in specific FUA.

The aim is to first select and list the policies in your FUA according to criteria described in paragraph 2.2 and second, to analyse the most relevant ones related to the development and implementation of SULP in each FUA context. It is also required to specify whether national or regional guidelines already exist for the development of SUMP or SULP.

I.1 PPs name <please select one of the following options>

- LP Institute for Transport and Logistics Foundation
- <u>PP2 Municipality of 18th District of Budapest</u>
- PP3 University of Maribor
- PP4 Regional Union of the Chamber of Commerce of Veneto Eurosportello Veneto
- PP5 Central European Initiative- Executive Secretariat
- PP6 Brescia Mobility
- PP7 Institute of Logistics and Warehousing
- PP8 City of Poznań
- PP9 Metropolitan City of Bologna
- PP10 Stuttgart Region Economic Development Corporation
- PP11 Vecsés Municipality
- PP12 City of Rijeka
- PP13 KLOK Logistics Cooperation Centre
- PP14 Municipality of Maribor

I.2 Related FUA <please select one of the following options>

- Bologna (IT009) complex FUA, 1 million inh.
- Budapest (HU001) complex FUA, 1,7 million inh.
- Stuttgart (DE007) complex FUA, 2,7 million inh.





- Poznan (PL005) complex FUA, 600.000 inh.
- Brescia (IT029) small FUA, 335.000 inh.
- Maribor (SI002) small FUA, 230.000 inh.
- Rijeka (N/A) small FUA, 210.000 inh.
- Other (for UCV or CEI)

I.3 Please specify if your Country or your Region released national or regional guidelines on the SUMP/SULP development (following the ELTIS example), and if there are rules for the adoption of the SUMP/SULP <please select one of the following options>

- <u>Yes</u>
- No
- No, but it is planned

I.4 If "yes" to question number I.3, briefly describe the existing Guidelines or rules <please fill in the text - max 500 characters>

The relevant ministries co-working with mobility experts developed SUMP Guidelines in order to ease the elaboration of mobility plans. Mostly bigger cities have been started the elaboration of SUMPs by commitment or by necessity to be eligible to Cohesion Fund subsidies or ERDF funds. Medium and smaller cities aren't obliged to develop SUMPs, but it might be changed.

1.5 If "No, but it is planned"" specify if from Region or State <please select one of the following options>

- Region
- State
- Other <please specify> _____

I.6 List the policies addressed <please fill in the following Table - only policies which are able to influence freight transport in your FUA >





	•				
	POLICY NAME (original language)	POLICY NAME (English)	POLICY LEVEL (national, regional, local)	IMPACT RATE on freight transport (please rate form 1 - low impact to 5 high impact)	WEB LINK (local language)
1	Balázs Mór Terv	Balázs Mór Plan	regional / local	4	http://bkk.hu/wp-content/uploads/2014/06/BMT.pdf
2	Budapest 2030 Hosszú Távú Városfejlesztési Koncepció	Budapest 2030 Long Term Urban Development Concept	regional	2	http://infoszab.budapest.hu:8080/GetSPFile.aspx?Attachment/Lists//Bud f
3	Középtávú Logisztikai Stratégia 2014-2020	Medium Term Logistics Strategy 2014-2020	national	5	http://2010-2014.kormany.hu/download/7/d5/e0000/IFKA_logstrat_130521.pc
4	Vecsés Város Integrált Településfejlesztési Stratégiája 2015-2020	Integrated Urban Development Strategy of Vecsés City, 2015-2020	local	2	http://www.vecses.hu/uploads/files/ITS%20VECS%C3%89S_tervezet_2015_10.p
5	Budapest Főváros XVIII. kerület Pestszentlőrinc-Pestszentimre Önkormányzata Integrált Településfejlesztési Stratégia	Integrated Urban Development Strategy of Budapest, 18 th District	local	2	http://www.bp18.hu/images/dokumentumok/legacy/hirdetmeny/941/ITS.pdf
6	Budapest Város Integrált Településfejlesztési Stratégiája	Integrated Urban Development Strategy of Budapest, 2020	regional / local	2	http://budapest.hu/Documents/fejlesztesi_tervek/ITS_strategia_201407_kesz.
7	Smart Budapest- Budapest Okos Város Jövőképe	Smart Budapest - The Future of Smart City of Budapest	regional / local	1	http://budapest.hu/Documents/V%C3%A1ros%C3%A9p%C3%ADt%C3%A9si%20F%C 1ly/Smart%20Budapest_HUN_web.pdf
8	Nemzeti Közlekedési Infrastruktúra- Fejlesztési Stratégia	National Transport Infrastructure Development Strategy	national	4	http://www.kormany.hu/download/b/84/10000/Nemzeti%20K%C3%B6zleked%C strukt%C3%BAra-fejleszt%C3%A9si%20Strat%C3%A9gia.pdf
9	Budapest Teherforgalmi Stratégiája	Budapest Urban Freight Strategy	local	5	to be linked later
10	Budapest Citylogisztikai Célkitűzéseinek Egységes Koncepció Javaslata	Budapest City Logistics Strategy	local	5	to be linked later
11	2/2005. (I.18.) rendelete Budapest Ferihegy Nemzetközi Repülőtér Szabályozási tervéről	2/2005. (I.18) Regulatory Plan of Budapest Ferihegy International Airport	local	1	http://www.vecses.hu/uploads/files/2_2005r_egyseges_Hatalyos-2017_04_27.
12	92/2011. (XII. 30.) Főv. Kgy. rendelet Budapest főváros közigazgatási területén a teherforgalom közlekedésének szabályozásáról	92/2011. (XII. 30.) Budapest General Assembly decree Regulation of freight traffic in the	regional	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?rendelettar=fovaros&dbnum=104& 2.FOV

	WEB LINK (english - if available)
apest_2030.pd	
f	
lf	
odf	
i%91oszt%C3%A	
3%A9si%20Infra	
odf	
docid=A110009	
	<u>.</u>





		administrative area of Budapest capital				
13	120/2016. (VI. 7.) Korm. rendelet a közúti árutovábbítási szerződésekről	120/2016. (VI.7.) Government decree of road transit contracts	national	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A1600120.KOR	
14	101/2003. (XII. 23.) GKM rendelet a nemzetközi közúti áru- és személyszállítás végzésének egyes feltételeiről	101/2003. (XII.23.) Ministry of Economy and Transport Decree Regulation of conditions for the international road carriage of goods and passengers	national	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0300101.GKM	
15	190/2008. (VII. 29.) Korm. Rendelet a nehéz tehergépkocsik közlekedésének korlátozásáról	190/2008. (VII 29) Government decree Regulation of the restriction of the freight vehicles	national	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0800190.KOR	
16	1988. évi I. törvény a közúti közlekedésről	1988/I. Law about Road Transport	national	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=98800001.TV	
17	2005. évi CLXXXIII. törvény a vasúti közlekedésről	2005// CLXXXIII. Law about Rail Transport	national	3	https://net.jogtar.hu/jr/gen/hjegy_doc.cgi?docid=A0500183.TV	





Questionnaire section II – Policy description

This section, that has to be filled in for each policy listed in I.6 (e.g. if there are six lines in I.6, there must be six questionnaire part II) is open to the description of the main features of each policy.

A first set of questions must be answered by selecting an option from a closed list of possible options. This part will define the main formal policy features and will enable Brescia Mobilità to compare policies within and between FUAs, to underline if there is (or not) consistency and collaboration between different actors.

The second part of the section focuses on the constituent elements of the policy with the aim to identify the guidelines and limitations of each policy, and to evaluate if there is a common strategic address, and if planned action are consistent among different public authorities.





Balázs Mór Plan

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body:

Centre of Budapest Transport, Municipality of Budapest

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The scope of the document is Budapest City and its surroundings. The XVIII. district is part of Budapest and Vecsés belongs to the first level agglomeration ring of Budapest. Thus, the effect is much stronger in the XVIII. district. The district and the municipality of the city comment on the plans in preparation and participate in regional discussions. At the moment, Balázs Mór Plan II is being prepared, which will be the concrete SUMP for the city: it will include concrete measures beyond the city limits. It will be the mobility plan to be implemented both for the city and the districts, with regard to the agglomeration mobility issues.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> <u>Centre for Budapest Transport is the city's</u> <u>transport organization authority</u>

II. 5 Type of document related to the policy <please select one of the following options>





- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

Balázs Mór Plan, the SUMP of Budapest is funded by the Centre for Budapest Transport. The strategy is designed to meet the expectations of programming EU development resources to be ready to apply for funding of the development of EU urban transport. However, the use of EU funds is only possible in certain development areas, so national (municipal, public and private) resources will have to be used to implement the other measures.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system





- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> <u>SUMP (Integrated planning of mobility and transport)</u>

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> <u>Provide complex mobility framework for</u> <u>strategy planning</u>

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> Framework for mobility planning

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

It has synergy with other plans developed by the city and also it has connection to national wide or district based plans focusing on Budapest level projects.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

Based on the decision of the Municipal Assembly, the Balázs Mór Plan prepared in 2013 in the spirit of sustainable urban mobility planning, is the transport development strategy of Budapest between 2014 and 2030, Based on recent experience of transport development, international good practices and analysis of transport key issues in the capital, this new domestic mobility plan sets out the role of Budapest's transport to achieve the strategic development goals of the city and systematizes the most important transport tasks.





Its modern approach puts the people and their environment in the city at the heart of the design. The new strategy is in line with the guidelines set out in the White Paper of the European Commission issued in March 2011.

The Balázs Mór Plan has an impact on Budapest's transport planning: larger volumes of investments will be made and implemented in line with the ideas of urban development, reinforcing the effects of each other. The plan develops a strategic development practice, which focuses on improving urban quality of life by satisfying its actions and favorably influencing the mobility needs of the population and businesses.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The purpose of this document is to draw the attention of decision-makers to the advantages and shortcomings of the transport system's assessment of the situation. With the evolving of a comprehensive development target system and a system of measures, the competitiveness of Budapest and its region's transport system can be enhanced. Another objective of the strategy is to contribute to the development of a sustainable, livable, attractive and healthy urban environment.

SO	SO NAME AND SHORT DESCRIPTION
SO1	Creating livable public spaces
SO2	Integrated network development
SO3	Development of interoperable systems and intermodal connections
SO4	Use of environmentally friendly technologies
SO <i>5</i>	Installation of convenient, passenger-friendly vehicles
SO6	Active, conscious attitude formation
S07	Improving service level
S08	Constant regulation
S09	Regional cooperation

II.15 Specific objectives (SO) < please fill in the following chart - max 700 characters>

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

Balázs Mór Plan does not contain detailed project descriptions and indicators. These are currently being planned in Balázs Mór Plan II.





II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals *<please fill in the following chart - max 1000 characters each activity >*

Balázs Mór Plan contains a total of 56 measures in connection with the goals. The most important of these are in the table.

Specific Objectives	ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION				
SO1	A01	Establish traffic-reduced and restricted traffic zones				
	A02	Differentiated development of the inner zone of Budapest (within the Hungária boulevard)				
S02	A03	Upgrading the existing urban rail network				
	A04	Development of a system of concentrated loading facilities				
S03	A05	Improving accessibility of the Budapest Liszt Ferenc International Airport				
	A06	Development of logistics centers and their relations				
S04	A07	Procurement of zero emission vehicles				
S05	A08	Ensuring the operating conditions of vehicles, depot-upgrades				
	A09	Unobstructed vehicles				
S06	A10	Education campaigns, communication				
	A11	Trainings for conscious and safe mobility				
S07	A12	Using intelligent systems in the organization of public transport				
	A13	Harmonization of urban-suburban schedule and coordination of services				
S08	A14	Further activities of the transformation of the transport institutional system, achieving predictable funding of public transport				
	A15	Parking control				
S09	A16	Tightening zone system based on total weight of vehicles control and environmental protection property-based traffic restrictions				





A17	Cargo regulatory system operation and development
A18	The territorial regulation of logistics supply,
	city logistics tasks





Medium Term Logistics Strategy 2014-2020

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> ______

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Ministry of National Development

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The strategy developed by the Ministry of National Development can be commented on by professional and advocacy organizations, also by municipalities and nongovernmental organisations.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> Governmental organizations

II. 5 Type of document related to the policy *<please select one of the following options>*

- Act
- Law
- Regulation
- Planning document





Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

Yes

□ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

To create the strategy and to achieve the development goals, the implementation of the tasks assigned is financed by the Hungarian State and EU development resources between 2014-2020 period.

II.8 Specify policy life-cycle status <please select one of the following options>

Definition

- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> <u>Comprehensive future plans and developments</u> related to logistics





II.10 Primary policy objective <please select one or more of the following options>

Provide incentives

- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

Awareness/Information campaigns

Partnerships/Key supporting stakeholders

Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

The document is in line with previous related strategies (National Transport Strategy, National Development 2020, New Széchenyi Plan) and international expectations.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The creating of the strategy was decided by the Government Decision 1157/2013. The antecedent for strategy creation was the Ministry of National Economy's demand for compiling sectoral strategies. Professional and stakeholder organizations have been involved in the strategy-making process.

After the comprehensive assessment of the situation, the pillars of the strategic goals are defined in the document. These are the most important production factors in the logistics industry: expertise, infrastructure, networking and R & D & I. Additionally, two areas, the transport and communications network infrastructure, appear as horizontal factors.

Overall, the strategic objective consists of the overall strategic goal and the specific objectives set out in the strata of the strategy.

To achieve the strategic goals, measures and tools have been set up.

The Ministry of National Development is the most important player in the implementation of the logistics strategy. In addition, the implementation of certain measures also implies the involvement of other ministries.





The primary purpose of preparing the Medium Term Logistics Strategy is to establish a strategic plan that is consistent with the Government's and the industry's related strategies and international expectations, in line with the economic weight of logistics, which can substantially contribute to employment and to expand investments and improve Hungary's competitiveness.

II.15 Specific objectives (SO) < please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Development of administrative services
SO2	Development of logistics education
SO3	Creating logistic accounting and monitoring
S04	Networking and cooperation
S05	Organize logistic research and knowledge base
S06	Support for logistics infrastructure development
S07	Providing sustainable logistics activities

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

In the logistical strategy, three indicators are the most important:

- Positioned of Hungary in the rankings based on the LPI index
- The share of gross value added by logistics service providers (double-entry bookkeeping)
- Country ranking of logistical centers in every two years

The development of an indicator system for each specific purpose and the inclusion of base values are not included in this document. This is a later task of the strategic monitoring system.

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

Specific objectives	ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
S01	A01	Simplification of customs regulation





	A02	Develop e-government services tailored to the logistical needs of entrepreneurs
	A03	Developing the logistics program of the trade development program in cooperation with the National External Economic Office
	A04	Development of a logistics country marketing program
S02	A05	Improving the conditions of logistics training professionals in line with international practice
	A06	Strengthen practical training
	A07	Developing a training program for small and medium-sized enterprises in Hungary
	A08	A systematic analysis of logistics training supply and corporate demand matching (skill gap analysis)
S03	A09	Development of a comprehensive logistic statistical accounting system based on domestic and EU expectations
	A10	Supporting the development of a flow monitoring system (capacities in certain logistics sectors eg.: cold store, warehouse, combi terminal
	A11	Create a single logistic service provider database and rating system
	A12	Create a single logistics service provider rating framework
S04	A13	Supporting complementary cooperation between logistics companies
	A14	To facilitate the internationalization of small and medium-sized enterprises in logistics and their regional networks
S05	A15	Supporting the adaptation of international innovative practices
	A16	To promote cooperation between R & D & I, education and business
	A17	Process and organization support for innovation logistics research and practical application
	A18	Based on regular empirical research, annual reports and policy recommendations from the inland logistics sector
S06	A19	Encourage logistics development outside of the fence





	A20	Encourage logistics development inside of the fence
S07	A21	Green Logistics Developments
	A22	Inverse logistics developments
	A23	City logistics developments





National Transport Infrastructure Development Strategy

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Ministry of National Development

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body.

During different phases of the planning all stakeholders, relevant bodies had the occasion to participate in the process. Several fora, conferences, professional events were held to give possibility to influence the planning.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> Governmental organizations

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law
- Regulation
- Planning document
- Other <please specify>_____





II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

Some of the concrete projects can be funded from European Union funding bases, but the use of EU funds is only possible in certain development areas, so national (municipal, public and private) resources will have to be used to implement the other measures.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> <u>National transport development strategy</u> <u>extending beyond subsectors</u>





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

Awareness/Information campaigns

Partnerships/Key supporting stakeholders

Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative:

The document is in synergy with relevant transport projects to be implemented between 2014-2020 or after 2020. These are mainly large scale infrastructure projects (e.g. intermodal centres, railway upgrades, road and waterways improvements, urban infrastructures, rail vehicle procurements). Despite the strategic level, this document partly follows previously decided or partly implemented projects.

II.13 Brief description of the policy: cplease fill in text - max 2000 characters>

The National Transport Infrastructure Development Strategy is the policy strategy of the Hungarian transport sector, which is one of the decisive documents of the coming years of Hungarian transport policy. Accordingly, the objectives and tools of the Strategy and the benchmarking of the Strategy have been developed, including the implementation of EU objectives, while addressing specific national problems.

The assessment of the proposed development tools is based on a common transport traffic model for social utility. Development tools can be divided into two groups: management tools and strategic development tools. Management tools represent significant benefits for the regulation, support policy and the institutional system at low cost. Strategic development tools include improvements and investments to which concrete projects can be linked. The resources required for development tools are considerably larger than the management tools. Based on an analysis of the risk of social utility and risk of feasibility, the Strategy understands four priority levels: primary implementation development tools, proposed implementation development tools, development tools required, perspective opportunities. Each development tool is linked to the various time horizons covered by the strategy.





II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The main goal of the strategy covering the period 2014-2050 is to increase Hungary's competitiveness by ensuring the conditions for mobility of the economy and prosperity. Naturally, it is an equivalent task to preserve the natural and human values and resources, to ensure the conditions for sustainable growth, and to coordinate the sometimes conflicting environmental and economic, national and EU objectives.

There is also a practical reason for making a strategy: the existence of a comprehensive sectoral strategy is a condition to accepted the "Integrated Transport Development Operational" by the European Union for a seven-year EU planning period.

	The goals can be social and transport goals.
SO	SO NAME AND SHORT DESCRIPTION
SO1	Reduction of negative impacts on the environment, implementation of climate protection considerations (Social objective)
SO2	Improvement of health and property security (significant reduction of victims of accidents) (Social objective)
SO3	Promoting the efficiency and growth of the economy (Social objective)
S04	Improve employment (Social objective)
SO <i>5</i>	Improving the welfare and mobility of the population (Social objective)
S06	Reducing territorial inequalities (Social objective)
S07	Improving social justice and equity (Social objective)
S08	Strengthen international relations (Social objective)
S09	Strengthen resource-efficient modes of transport (Transportation objective)
S10	Strengthening the structure of passenger and freight transport on a social level (Transportation objective)
S11	Development of transport services (Transportation objective)
S12	Improve the physical system components of transport (Transportation objective)

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >





From the full indicator list, delivery performance indicators are displayed in the table.

RESULT INDICATOR <max 300<br="">characters></max>	INDICATOR CURRENT VALUE	TARGET VALUE - 2020	TARGET VALUE - 2030	TARGET VALUE - 2050
Changes in156 6631freight volumes(milliontonkm/year)due to new andupgraded roads		-1,520	-1,899	-2,400
Changes in freight volumes (million tonkm/year) due to new and upgraded railways	13 558 ¹	0	146,169	158,624
Number of deaths due to vehicular traffic accidents (capita/year)	644 ²	303	393	454
Number of serious injuries due to vehicular traffic accidents (capita/year)	5575 ²	0	0	0
Number of deaths due to railway traffic accidents (capita/year)	108 ³	36	47	54
Number of serious injuries due to railwaytraffic accidents (capita/year)	39 ³	5	13	16
Change of greenhouse gases emission caused by transport	4 269,9 ⁴	-124	-31	-17





(kiloton CO ₂ /year)				
Change of local air pollutants emission caused by transport (ton NO _x /year)	31 702,75	-319	-20	-7
Közlekedésből származó szálló por (PM10) emissziójának változása	1 690,4 ⁶	-5,4	0,3	0,1
Change of PM10 emission caused by transport				
(ton CO2/year)				

¹Domestic freight transport for year 2016; Source:

https://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_odmv001.html

²For year 2016; Source: http://www.ksh.hu/docs/hun/xstadat/xstadat_evkozi/e_feb002.html

³For year 2016; Source: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_ods001.html

⁴For year 2014; Source: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_ua025d.html

⁵ For year 2014; Source: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_ua031d.html

⁶ For year 2014; Source: http://www.ksh.hu/docs/hun/xstadat/xstadat_eves/i_ua036b.html

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals *<please fill in the following chart - max 1000 characters each activity >*

The intervention tools can be divided into two groups: management tools and development tools.

Based on an analysis of the risk of social utility and risk of feasibility, the development tools have four priority levels: primary implementation development tools, proposed implementation development tools, development tools required, perspective opportunities.

The most important interventions are listed in the table.

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION						
A01	Cost-efficient, (Management to	long-term, ool)	predictable	financing	of	public	tasks




A02	Ensure long-term, predictable financing of cost-effective public services (Management tool)
A03	Coordinated development of the incentive system (fees, subsidies, awareness-raising tools) (Management tool)
A04	Providing effective planning, regulatory, institutional, monitoring backgrounds (Management tool)
A05	Mode changing (P + R and B + R) systems (Primary implementation development tool)
A06	Development of the railway permeability of Budapest (Primary implementation development tool)
A07	Development of urban freight transport (Primary implementation development tool)
A08	Intermodal infrastructure development (Proposed implementation development tool)
A09	Development of existing expressway and main road network (Proposed implementation development tool)
A10	Road safety interventions (Primary implementation development tool)





Budapest Urban Freight Strategy

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Centre of Budapest Transport, Municipality of Budapest

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The scope of the document is Budapest City and its surroundings. The XVIII. district is part of Budapest and Vecsés belongs to the settlements offirst level Budapest agglomeration ring of Budapest. Thus, the effect is much stronger in the XVIII. district. The district and the municipality of the city comment on the plans in preparation and participate in regional discussions.

II.4 Department of the responsible body <please select one of the following options>

Mobility and Transport

- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> _____

II. 5 Type of document related to the policy *<please select one of the following options>*

- Act
- Law
- Regulation





Planning document

Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- No

II.7 Policy budget and source of funding: <please fill in text - max 500 characters> No information

II.8 Specify policy life-cycle status < please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- Urban logistics services- platform for urban distribution management
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)
- Transport infrastructures
- Other <please specify> _____





II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

Awareness/Information campaigns

Partnerships/Key supporting stakeholders

Other <please specify> ______

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

It has synergy with other plans planned developed by the city and also it has connection to national wide or district based plans focusing on Budapest level projects.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The strategy is based on a detailed situation assessment, which includes an analysis of the traffic situation and an overview of conceptual plans, as well as international trends. The strategy outlines the possibilities of influencing traffic volume through Budapest, managing the traffic in Budapest and regulating the city's internal traffic. A freightweight restriction zone and a related freight transport route system have been elaborated. With the introduction of a fee payment system, the freight load of the capital can be reduced, so this system has also been elaborated within this strategic framework.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>

The fundamental aim of the strategy is to influence the transport needs of the capital city through the development of a freight-weight restriction zone and freight transport route system and the introduction of a payment system.

II.15 Specific objectives (SO) < please fill in the following chart - max 700 characters>





SO	SO NAME AND SHORT DESCRIPTION
SO1	Restricting the volume of freight traffic in the city center in such a way that it does not cause undue increase in traffic volume in other areas
SO2	Balance in regulation with regard to vehicle size and permitted routes
S03	Without significant disturbance to the environment, freight traffic should be accessed by freight attractive facilities
S05	Review of valid laws and make necessary changes

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

The concept does not include any indicators.

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION					
A01	Influencing transit traffic					
A02	Destination traffic management					
A03	Controlling the city's internal traffic					
A04	Evolving a freight-weight restriction zone and a related freight transport route system					
A05	Creating a payment system					





Budapest City Logistics Strategy

II.1 Policy level <please select one of the following options>

- Local
- FUA (Province)
- Regional
- National
- European
- Other <please specify> _____

II.2 Name of the responsible body: <please fill in text - max 100 characters>

Centre of Budapest Transport, Municipality of Budapest

II.3 If the partner is not the responsible body, please describe how you are able to influence the decisions of the responsible body. *<please fill in text - max 500 character>*

The scope of the document is Budapest City and its surroundings. The XVIII. district is part of Budapest and Vecsés belongs to the settlements of Budapest agglomeration. Thus, the effect is much stronger in the XVIII. district. The district and the municipality of the city comment on the plans in preparation and participate in regional discussions.

II.4 Department of the responsible body <please select one of the following options>

- Mobility and Transport
- Spatial Planning
- Environment and Energy
- Territorial development
- Other <please specify> <u>Center of Budapest Transport is the city's</u> <u>transport organization authority</u>

II. 5 Type of document related to the policy <please select one of the following options>

- Act
- Law





Regulation

Planning document

Other <please specify>_____

II.6 Is this an operational/cooperation program financed by Structural Funds? <please select one of the following options>

- Yes
- □ <u>No</u>

II.7 Policy budget and source of funding: <please fill in text - max 500 characters>

Some of the concrete projects to be identified in the future can be funded from European Union funding bases, but the use of EU funds is only possible in certain development areas, so national (municipal, public and private) resources will have to be used to implement the other measures.

II.8 Specify policy life-cycle status <please select one of the following options>

- Definition
- Implementation
- Monitoring and Evaluation
- upgrade

II.9 Specific policy field of application <please select one or more of the following options>

- Road safety
- Green mobility service (e.g. car and van sharing)
- Integrated planning of mobility and transport (included loading and unloading areas planning)
- Transports demand management (included LTZ management and charges)
- Integrated parking management & integrate payment system
- <u>Urban logistics services- platform for urban distribution management</u>
- ICT system and infrastructure
- Energy efficiency, environmental impact analysis (e.g SEAP) and reduction (e.g. alternative fuels and E-mobility)





- Transport infrastructures
- Other <please specify> _____

II.10 Primary policy objective <please select one or more of the following options>

- Provide incentives
- Regulation/enforcement component
- Other <please specify> ______

II.11 Supporting mechanism <please select one or more of the following options>

- Awareness/Information campaigns
- Partnerships/Key supporting stakeholders
- Other <please specify> _____

II.12 Synergies with other projects (e.g. local, regional, EU) or Private Public Initiative: <please fill in text- max 1000 characters>

It has synergy with other projects planned by the city.

II.13 Brief description of the policy: <please fill in text - max 2000 characters>

The current regulatory environment and infrastructural features of the Budapest freight transport were explored for the preparation of the city logistics concept. Based on collected historical documents and personal interviews with the organizations involved in the transportation of goods in Budapest, the most damaging effects caused by freight traffic in Budapest were formulated.

Based on the impacts and an exemplary international analysis, the system of objectives has been developed. For this purpose, measures have been put in place for different time periods.

The city-logistic solutions proposed for use help the economic development of capital cities and agglomerations, improve traffic conditions in urban areas, their accessibility and contribute to mitigating the harmful effects of freight transport on the environment and on quality of life.

II.14 Main goal of the policy: <please fill in text - max 1000 characters>





The objective of the concept is to improve the environment and traffic conditions, in order to promote sustainable urban mobility, and to approach the freight transport processes, the vehicles, technologies and solutions used in freight transport with a more modern approach. The flow of goods and products has a significant impact on transport, urban development and environmental protection. Therefore, a strategy concept that goes beyond the sectoral level is needed: the problem of freight transport is not solved within the sector, and not solely through bans or restrictions, but through a whole-mobility approach and incentives.

II.15 Specific objectives (SO) < please fill in the following chart - max 700 characters>

SO	SO NAME AND SHORT DESCRIPTION
SO1	Reducing traffic impediments from loading and parking
SO2	Reducing freight transport and freight carriages, optimizing capacities
SO3	Reducing the environmental load on freight vehicles

II.16 SO Result indicators: please list, if the policy identify relevant qualitative or quantitative indicator of tangible improvement for final beneficiaries of the policy <please fill in the following chart - if relevant >

The concept does not include any indicators.

II.17 Activities: please specify Actions defined by the policy and through which it aims to achieve its goals <please fill in the following chart - max 1000 characters each activity >

ACTIVITY	ACTIVITY NAME AND SHORT DESCRIPTION
A01	Developing and integrating the regulatory background
A02	Development of freight infrastructure
A03	Installation of logistical support services and intelligent systems
A04	Creation of sustainable logistics management and the supporting communication platform



WPT1: D.T1.2.5

FUA REPORT INCLUDING SULPITER TOOL	Version definitive
FEEDING & CALIBRATION IN BRESCIA	02 2018







Table of Contents

1. INTRODUCTION22. THE TERRITORIAL CONTEST23. CURRENT FREIGHT MOBILITY IMPACT44. ANNEXES11

Authors:

Status (F: final; D: draft; RD: revised draft):

Brescia Mobilità - ALOT srl

F





1. Introduction

This document arise from the FUA reports of each involved city and will provide the inputs for the deliverable T1.2.11 "understanding Freight behaviour and impact on FUA". It is essential to arrive to a harmonized description of each FUA and to provide a suitable comparison among them.

Each FUA is required to fill in the following form starting from the surveys and tool implementation.

Please note that this template includes the minimum requirements for the SULPiTER project. The information included in this template will be used for the transnational report (D.T1.2.11) and for the final output of the work package 0.T1.7.

Please, do not answer as a questionnaire (i.e.: yes, no, maybe...) but use the template for elaborating the results of your interviews. As an example, we expect a deep and exhaustive qualitative report. Each component of the survey should be analysed and reported here with comments and interpretation of the results.

Once you completed the report, please format the document removing the tables for a better readability.

The following document was drafted in order to present the results of the WPT1 activities carried out by PP Brescia Mobilità in the FUA of Brescia, according to the SULPiTER project methodology, agreed on its concrete step by step application. The list of activities carried out, with their description could be found here below. More information on each activity can be found further in the document, or in the attachments

- Desk analysis related to Brescia FUA characterization and its sample stratification (activity completed May 17);
- 303 obtained interviews to shops in order to collect data on their logistics activities (commercial operators), using the questionnaire in annex (activity completed in September 17);
- 20 obtained interviews to transport operators in order to complete and cross check information obtained from interveiwed shops (activity completed in September 17);
- Traffic flows analysis: made of research of available data, traffic count with video recordings, and desk count along the two orbital roads (activity completed in September 17);
- O/D matrix run using available data from activities above;
- First draft calculation of the LSI: as per project partnership indication the LSI has been calculated only for the "before scenario", while the wheighting process has to be re-calibrated with the stakeholders within the FQP.

2. The territorial contest

The information included in this chapter, are general. Please include also some specific information even if not requested by the template, in order to better focus the area of study.

FUA name

BRESCIA

Km² involved in the study-area





293 KM²

N. of inhabitant

341.384

N. of municipalities involved

16 municipalities: Brescia (core) + 15 small medium neighbouring municipalities

N. of working units (employers)

According to the Chamber of Commerce's database the total number of relevant productive activities in the FUA is 18.750.

After the subdivision into categories (for more information consult "operative methodology for the stratification of FUA BRESCIA" in annex) the number of relevant activities are:

7.191 for distributive flow of city logistics;

3.275 for industrial flows (not considered in the analysis carried out by BreMob);

585 logistic and transport operators in the FUA;

189 not directly located in the FUA, but with relevant activities in it.

A large number of transport and logistics operators are not relevant for the urban distributive flows, which was not taken into account in the analysis, thus the list was shorted to 56 operators.

More information in the annexes "operative methodology for the stratification of FUA Brescia.

N. of zones used in the tool and in the o/d matrix

According to the analysis based on Ateco 3 digit codes explained in the "operative methodology for the stratification of FUA BRESCIA", the FUA was divided into 25 zones for the tool feeding and in the o/d matrix.

Zoning criteria

The basic zoning criteria was the ZIP code, which is the most disaggregated level possible indicated by the SULPiTER methodology. The choice to keep a high level of analytics allows to aggregate (if necessary) in later stages of the analysis, the areas considered, otherwise keeping limited and easily managed number of area does not allow to disaggregate them.

In fact, the second level zoning criteria was the aggregation of zip codes with the similar concentration of the most important categories of commercial activities (for more information consult "operative methodology for the stratification of FUA BRESCIA" in annex)

Map of the FUA Brescia study area







3. Current freight mobility impact

This chapter is the core of your report. Please include data and interpretation of the results. This activity should be elaborated in the best possible way in order to understand how freight behaviours are impacting in your FUA.

Analysis of survey on distribution flows. It may include the following aspects:

- Total number of interviews (per supply chain);
- Number of suppliers (average per category);
- Share of DDP, EX-WORK and OFF TRUCK delivery modes;
- Frequency of deliveries and type of load units;
- Number of load units per delivery (minimum, maximum, average);
- Usual hours of delivery (distribution);
- Share of OWN ACCOUNT COLLECTION
- Share of DELIVERIES TO END CUSTOMERS;
- Problems and suggestions (short analysis and description).

Please do not include just the figures, but also detail and comment the results.

INTERVIEWS

The following table shows the number of interviews made for macro commercial categories

	Retailer	Ho.re.ca.	Wholesailer	CarRepair	TOTAL
Population	2420	2047	1822	562	6851



Phone calls made	328	293	199	36	856
Finalized interviews	133	56	85	29	303
Sample %	5%	2%	5%	5%	4.4%
Redemption	41%	1 9 %	43%	81%	35%

After the analysis of interviews' results and in agreement with the technical expert of CTL "La Sapienza", the sample was divided in five freight types or supply chains:

Home accessories - 74 interviews;

Articles for persons - 61 interviews;

Ho.re.ca. and foodstuff - 96 interviews;

Car Repair - 29 interviews;

B2B - 43 interviews.

The number of interviews for freight types reflects the distribution of the number of shops per supply chain.

SUPPLIERS

The Average number of suppliers per shop is less than 20, but the distribution of statistics is greatly variable, there are a great number of small shops with just few suppliers and some commercial activities with a large number of suppliers (in some cases up to 100). There is a prevalence of Manufacturers suppliers (59.6%) while 39.3% are wholesalers.

The distribution process is generally managed by the suppliers (DDP 94.9%); while less than 5% of the supply process is managed by the shop (EXW 4.7%; Off Truck 0.4%).

The share of supplying process managed by third party provider is 60%, while the "own account" managed by suppliers is 35%, and the shop keepers "own account" is just 5%. The share changes depend on different supply chains as per following chart.

Transport service share	1. Home accessories	2. Articles for persons	3. Horeca & foodstuff	4. Car repair	5. B2B
Shop own account (%)	0,0%	3,5%	5,5%	13,0%	15,3%
Suppliers own account (%)	25,0%	11,0%	60,5%	22,5%	24,7%
Third party (%)	75,0%	85,5%	34,0%	64,5%	60,0%

The large numbers of travels are in the morning as per the following chart.

Daily distribution	1. Home accessories	2. Articles for persons	3. Horeca e foodstuff	4. Car repair	5. B2B
Morning (%)	73,8%	53,9%	82,0%	51,2%	60,6%
Afternoon (%)	26,2%	26,2%	26,2%	26,2%	26,2%





The main peak is during the morning between 9 and 12 it includes the 48% of all daily deliveries. There is also a second peak (during the afternoon) around 15.30. The afternoon peak is less that the half of the morning one.

DELIVERY & LOAD UNIT

The average number of daily deliveries per shops is 1.04. The 44% of the shops have one or more deliveries per day, while the 56% have less than one per day (2 average deliveries per week)

Load unit: there are three main types of delivery unit:

Box (36.2%);

Carton box (29.1%);

Pallet (17.8%).

For the other (17.3%) there is a lot of deliveries without a specific load unit (groupage) and in some cases with specialized load unit (e.g. demijohn or bread basket, etc.)

The Delivery time is very short: 57% less than 10'; 36% from 10' to 20'; 7% more than 20'

The number of load per delivery is highly variable: minimum 3.6 - maximum 29.5 - average 8.6

The Point of delivery: 42% private area; 36% on street regular parking; 12% illegal parking or double lane; 10% public loading bay. There is a problem related to point of delivery into the LTZ better specified after.

DELIVERIES TO END CUSTOMERS

Over 35% of respondents make deliveries to the final customer, but this percentage is diversified among the various supply chains as per the following chart.



Deliveries to end customers	1. Home accessories	2. Articles for persons	3. horeca & foodstuff	4. Car repair	5. B2B	Total
YES	60,00%	17,19%	16,16%	0,00%	79,52%	35,29%
NO	40,00%	82,81%	83,84%	100,00%	20,48%	64,71%

Deliveries are more frequently carried out by "own account" (62%), but there is a substantial quota carried out by third party operators (38%), in particular in B2B supply chain.

Delivery provider	1. Home accessories	2. Articles for persons	3. horeca & foodstuff	5. B2B	Totale complessivo
own account	77,78%	72,73%	87,50%	51,52%	61,76%
third party	22,22%	27,27%	12,50%	48,48%	38,24%

The average number of stops for each delivery round to the final customer is 4.22, of which, however, about half are outside the FUA. The average number of packages delivered is about 7.5; the weights and dimensions are on average reduced compared to those received.

PROBLEMS & SUGGESTION FROM SURVEYS

The first outlined information is that majority of the interviewees did not report any particular problem regarding the distribution of goods in the FUA.

However, there were some noteworthy reported problems:

1. According to shopkeepers there is a loading and unloading cargo bays incorrect planning, especially in LTZ (city centre): in general, the spaces dedicated to loading and unloading activities are not enough, in many cases in areas where they are not necessary. Besides loading/unloading, areas are always occupied by residents' private cars and there is no control from traffic wardens.

2. The regulation for the LTZ access is too rigid: time slots are too narrow, access and parking costs too high. Shops/commercial activities' logistics needs not taken enough into consideration/ planning. The shopkeepers have to sustain big costs for vehicle entering and parking in LTZ because there is lack of specific arrangements.

3. The shopkeepers' business model is characterized by low or total absence of stocks, and to have a continuous supplying process to match the customers' requests. The consequence on the distribution model is a high flows intensity of couriers. The cost reduction is main driver of this process thus, except for specialized network (e.g. "Ad Hoc" for car repair), the handling quality level is very low.

4. Few reported points of the road network where traffic is often congested (Flero's "corda molle", road to Lumezzane, etc.)

Analysis of survey on transport operators flows. It may include the following aspects:

• total number of interviews;

- type of vehicles;
- sequence of movements (number of movements, number of stops per trip);





- typical quantity;
- frequency of movements;
- parking during deliveries;
- main issues.

Please do not include just the figures, but also detail and comment the results.

The sample interviewed is of 20 operators (whose fleets added up were 375 vehicles) out of 56 in the short list of operators with significant urban activities. On average, they make over 250 delivery/distribution rounds per day into the FUA, for almost 7100 pickup/delivery stops.

The weight of the total goods delivered is rarely less than the quintal; generally, the weight is between a quintal and a ton, but very often it is superior to the ton.

The operators are representative of the main FUA product categories.

FLEET CHARACTERISTICS

The prevailing type of vehicle is Diesel fuelled generally with high quality level of emissions standards; the most frequent is EURO5.

More than 25% of the vehicles adopt alternative fuels; generally methane, in a few cases LNG, e-van present only in Ecologis - the city logistics operator of the municipality - and has been adopted by other operators.

MAIN ISSUES

As for shopkeepers, logistics and transport operators underline a problem related to loading and unloading bay into the Brescia's city centre; the planning in not always correct, there is a need for more areas, the existing ones are not equipped and are always occupied by private vehicles and there is no local police intervention. This situation forces operators of the city centre to stop on sidewalks, or in double rows, or in areas where they could not. No parking problems in other FUA zones.

Planning of access times in ZTL need to be more in line with the needs of transport operators and shopkeepers (for example, the time window available for morning deliveries is very early compared to the time when traders reach their store).

There are some areas with strong vehicular congestion (e.g. the road from/to Val Trompia)

Analysis on the traffic counts. It may include the following aspects:

- AADT (average annual daily traffic);
- Total and for different categories of vehicles.

Please do not include just the figures, but also detail and comment the results.







TRAFFIC COUNT POSITIONING

As for the map below, the traffic count was carried out:

On the most important accesses to LTZ because of the high density of commercial activities and relevant freight flows into the city centre;

On two observation points along the two primary level roads (west and south orbital roads). Those points were selected due to high traffic flows (they are in fact the two busiest roads on the territory after the highway) and also because, if seen together, the two orbital roads form an "L" configuration: this bypass configuration, inserted in a radial pathway, ensures that freight flows in most cases pass on them.

CITY CENTRE

According to 2016 data, in the 12-month period, 2.8 million vehicles entered in the LTZ in the city centre of Brescia. That means 54.000 average weekly traffic. The 92% of the flows was by cars, while the most part of the remaining (8%) by vans. The hourly distribution of the traffic flow is showed in the following chart.







Along the two orbital roads the average numbers of vehicle per working day per each direction is very high:

53.300 south orbital road (4.350 in peak hours);

34.000 west orbital road (2.500 in peak hours).

The traffic is well balanced along the two directions, with a peak in the morning (from 7.30 to 9.30 a.m.) and a second one into the afternoon (from 18 to 19.30). Between the two peaks the traffic level remains still high (as for the following chart).



The share of commercial vehicles is 20.87% on south orbital road and 15.73% on south one. The following chart shows the share between different vehicle type:



For more information about urban traffic flow consult Urban traffic flows map in peak hours (extract from territorial government plan) in annex.





Please report below the 3 matrixes (quantity, deliveries, vehicles) from the tool, for each considered supply chain

The model was developed with 23 zones, taking into account five different supply chains: 1. household items, 2. items for the person, 3. horeca and foodstuff, 4. autorepair, 5. B2B. The following are the quantities, deliveries and vehicles matrices for each supply chain.

Quantity model	1. househol	d item		Q_oc																				
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
City center	0,2974	0,0480	0,1102	0,0792	0,1556	0,0819	0,0847	0,0480	0,0396	0,0056	0,0480	0,0565	0,0056	0,0113	0,0113	0,0283	0,0056	0,0056	0,0056	0,0141	0,0254	-	-	1,17
25124	0,7863	0,1275	0,2921	0,2096	0,4117	0,2172	0,2247	0,1273	0,1048	0,0150	0,1272	0,1496	0,0150	0,0299	0,0299	0,0748	0,0150	0,0150	0,0150	0,0375	0,0674	-	-	3,09
25125	0,7682	0,1244	0,2859	0,2047	0,4024	0,2121	0,2196	0,1245	0,1024	0,0146	0,1243	0,1462	0,0146	0,0292	0,0292	0,0731	0,0146	0,0146	0,0146	0,0366	0,0658	-	-	3,02
25128	0,2608	0,0422	0,0967	0,0697	0,1365	0,0720	0,0744	0,0422	0,0348	0,0050	0,0422	0,0496	0,0050	0,0099	0,0099	0,0248	0,0050	0,0050	0,0050	0,0124	0,0223			1,03
BS west side	0,3824	0,0618	0,1419	0,1019	0,2006	0,1055	0,1091	0,0619	0,0511	0,0073	0,0619	0,0728	0,0073	0,0146	0,0146	0,0364	0,0073	0,0073	0,0073	0,0182	0,0327	-	-	1,50
25123	0,1816	0,0294	0,0674	0,0484	0,0950	0,0503	0,0518	0,0294	0,0242	0,0035	0,0294	0,0346	0,0035	0,0069	0,0069	0,0173	0,0035	0,0035	0,0035	0,0087	0,0156	-	-	0,71
25020	0,3164	0,0513	0,1176	0,0843	0,1658	0,0874	0,0907	0,0512	0,0422	0,0060	0,0512	0,0603	0,0060	0,0121	0,0121	0,0301	0,0060	0,0060	0,0060	0,0151	0,0271	-	-	1,25
25030	0,3054	0,0494	0,1135	0,0814	0,1602	0,0843	0,0873	0,0496	0,0407	0,0058	0,0495	0,0582	0,0058	0,0116	0,0116	0,0291	0,0058	0,0058	0,0058	0,0145	0,0262	-	-	1,20
25127	0,1075	0,0174	0,0399	0,0287	0,0564	0,0297	0,0307	0,0174	0,0144	0,0020	0,0174	0,0205	0,0020	0,0041	0,0041	0,0102	0,0020	0,0020	0,0020	0,0051	0,0092	-	-	0,42
25010	0,2128	0,0345	0,0791	0,0567	0,1115	0,0588	0,0609	0,0345	0,0284	0,0041	0,0345	0,0406	0,0041	0,0081	0,0081	0,0203	0,0041	0,0041	0,0041	0,0102	0,0183	-	-	0,84
25064	0,2129	0,0344	0,0790	0,0568	0,1115	0,0588	0,0608	0,0345	0,0284	0,0041	0,0346	0,0406	0,0041	0,0081	0,0081	0,0203	0,0041	0,0041	0,0041	0,0101	0,0182	-	-	0,84
25062	0,1679	0,0272	0,0623	0,0448	0,0880	0,0464	0,0480	0,0272	0,0224	0,0032	0,0272	0,0321	0,0032	0,0064	0,0064	0,0160	0,0032	0,0032	0,0032	0,0080	0,0144	-	-	0,66
25014	0,1791	0,0290	0,0665	0,0478	0,0938	0,0495	0,0512	0,0290	0,0239	0,0034	0,0290	0,0341	0,0034	0,0068	0,0068	0,0171	0,0034	0,0034	0,0034	0,0085	0,0154	-	-	0,70
BS north side	0,0335	0,0054	0,0124	0,0089	0,0175	0,0092	0,0096	0,0054	0,0045	0,0006	0,0054	0,0064	0,0006	0,0013	0,0013	0,0032	0,0006	0,0006	0,0006	0,0016	0,0029	-	-	0,13
25075	0,1028	0,0166	0,0382	0,0274	0,0538	0,0284	0,0294	0,0166	0,0137	0,0020	0,0167	0,0196	0,0020	0,0039	0,0039	0,0098	0,0020	0,0020	0,0020	0,0049	0,0088			0,40
25060	0,1029	0,0166	0,0382	0,0275	0,0539	0,0284	0,0294	0,0167	0,0137	0,0020	0,0167	0,0197	0,0020	0,0039	0,0039	0,0098	0,0020	0,0020	0,0020	0,0049	0,0088	-	-	0,40
25135	0,0782	0,0127	0,0290	0,0209	0,0410	0,0216	0,0223	0,0127	0,0104	0,0015	0,0127	0,0149	0,0015	0,0030	0,0030	0,0075	0,0015	0,0015	0,0015	0,0037	0,0067	-	-	0,31
25073	0,0558	0,0090	0,0207	0,0149	0,0292	0,0154	0,0159	0,0090	0,0074	0,0011	0,0090	0,0107	0,0011	0,0021	0,0021	0,0053	0,0011	0,0011	0,0011	0,0027	0,0048	-	-	0,22
25134	0,0312	0,0051	0,0116	0,0083	0,0163	0,0086	0,0089	0,0051	0,0042	0,0006	0,0051	0,0059	0,0006	0,0012	0,0012	0,0030	0,0006	0,0006	0,0006	0,0015	0,0027	-	-	0,12
25082	0,0245	0,0040	0,0091	0,0065	0,0128	0,0068	0,0070	0,0040	0,0033	0,0005	0,0040	0,0047	0,0005	0,0009	0,0009	0,0023	0,0005	0,0005	0,0005	0,0012	0,0021	-	-	0,10
25086	0,1476	0,0239	0,0548	0,0394	0,0773	0,0408	0,0422	0,0239	0,0197	0,0028	0,0239	0,0281	0,0028	0,0056	0,0056	0,0141	0,0028	0,0028	0,0028	0,0070	0,0127	-	-	0,58
25131	0,0200	0,0032	0,0075	0,0053	0,0105	0,0055	0,0057	0,0032	0,0027	0,0004	0,0032	0,0038	0,0004	0,0008	0,0008	0,0019	0,0004	0,0004	0,0004	0,0010	0,0017	-	-	0,08
25129	0,0044	0,0007	0,0016	0,0012	0,0023	0,0012	0,0013	0,0007	0,0006	0,0001	0,0007	0,0008	0,0001	0,0002	0,0002	0,0004	0,0001	0,0001	0,0001	0,0002	0,0004	-	-	0,02
TOTAL	4,7797	0,7739	1,7753	1,2746	2,5036	1,3201	1,3656	0,7739	0,6373	0,0910	0,7739	0,9104	0,0910	0,1821	0,1821	0,4552	0,0910	0,0910	0,0910	0,2276	0,4097	-		18,8000



 Q_{oc}

Quantity 2. articles for person

| Origin | City
center | 25124 | 25125 | 25128 | BS west
side
 | 25123 | 25020 | 25030 | 25127 | 25010 | 25064
 | 25062 | 25014 | BS north
side | 25075
 | 25060 | 25135

 | 25073 | 25134
 | \$ 250 | 82 25 | 086 | 25131 | 25129
 | Total |
|--|---|--|--|---
---|---|---|---|---|---
--|---|---|--
--
--|--
--
---|--
---|---|--
--|---|--|---|
| City center | 0,0577 | 0,0250 | 0,0063 | 0,0076 | 0,0105
 | 0,0080 | 0 0,002 | 5 0,003 | 1 0,0011 | 1 0,0027 | 0,002
 | 7 0,000 | 0,0018 | 0,0041 | 0,0013
 | 0,0067 | 0,0002

 | 0,0015 | 5 0,001
 | 11 0,0 | 018 0 | ,0024 | 0,0010 | -
 | 0,15 |
| 25124 | 0,1697 | 0,0737 | 0,0185 | 0,0223 | 0,0308
 | 0,0235 | 5 0,007 | 3 0,009 | 1 0,0032 | 2 0,0079 | 0,007
 | 9 0,000 | 0,0053 | 0,0120 | 0,0038
 | 0,0197 | 0,0006

 | 0,0044 | 0,003
 | 32 0,0 | 053 0 | ,0070 | 0,0029 | -
 | 0,44 |
| 25125 | 0,1654 | 0,0718 | 0,0180 | 0,0217 | 0,0300
 | 0,0229 | 9 0,007 | 2 0,008 | 9 0,0031 | 1 0,0077 | 0,007
 | 7 0,000 | 0,0052 | 0,0117 | 7 0,0037
 | 0,0192 | 0,000€

 | 0,004 | 3 0,003
 | 31 0,0 | 052 0 | ,0069 | 0,0029 | -
 | 0,43 |
| 25128 | 0,0500 | 0,0217 | 0,0054 | 0,0066 | 0,0091
 | 0,0069 | 9 0,002 | 2 0,002 | 7 0,0010 | 0,002 | 0,002
 | 3 0,000 | 0,0016 | 0,0035 | 5 0,0011
 | 0,0058 | 0,0002

 | 0,001 | 8 0,001
 | 10 0,0 | 016 0 | ,0021 | 0,0009 | -
 | 0,13 |
| BS west side | 0,0764 | 0,0332 | 0,0083 | 0,0100 | 0,0139
 | 0,0106 | 6 0,003 | 3 0,004 | 1 0,0019 | 5 0,0036 | i 0,003
 | 5 0,0004 | 0,0024 | 0,0054 | 0,0017
 | 0,0089 | 0,0003

 | 0,0020 | 0,00
 | 15 0,0 | 024 0 | ,0032 | 0,0013 | -
 | 0,20 |
| 25123 | 0,0335 | 0,0146 | 0,0037 | 0,0044 | 0,0061
 | 0,0046 | 6 0,001 | 5 0,001 | 8 0,000 | 5 0,0016 | 5 0,001
 | 6 0,0002 | 0,0010 | 0,0024 | 0,0008
 | 0,0039 | 0,0001

 | 0,0009 | 0,000
 | 06 0,0 | 010 0 | ,0014 | 0,0006 | -
 | 0,09 |
| 25020 | 0,0621 | 0,0270 | 0,0068 | 0,0082 | 0,0113
 | 0,0086 | 6 0,002 | 7 0,003 | 3 0,0012 | 2 0,0029 | 0,002
 | 9 0,000 | 0,0019 | 0,0044 | 0,0014
 | 0,0072 | 0,0002

 | 0,0016 | 5 0,001
 | 12 0,0 | 019 0 | ,0026 | 0,0011 | -
 | 0,16 |
| 25030 | 0,0596 | 0,0259 | 0,0065 | 0,0078 | 0,0108
 | 0,008 | 3 0,002 | 6 0,003 | 2 0,0011 | 1 0,0028 | 3 0,002
 | B 0,000 | 0,0019 | 0,0042 | 0,0013
 | 0,0069 | 0,0002

 | 0,0015 | 5 0,001
 | 11 0,0 | 019 0 | ,0025 | 0,0010 | -
 | 0,15 |
| 25127 | 0,0188 | 0,0081 | 0,0020 | 0,0025 | 0,0034
 | 0,0026 | 6 0,000 | 8 0,001 | 0 0,0004 | 4 0,0009 | 0,000
 | 9 0,000 | 0,0006 | 0,0013 | 3 0,0004
 | 0,0022 | 0,0001

 | 0,000 | 5 0,000
 | 04 0,0 | 006 0 | ,0008 | 0,0003 | -
 | 0,05 |
| 25010 | 0,0400 | 0,0174 | 0,0044 | 0,0053 | 0,0073
 | 0,0055 | 5 0,001 | 7 0,002 | 1 0,0008 | B 0,0019 | 0,001
 | 9 0,0002 | 0,0012 | 0,0028 | 3 0,0009
 | 0,0046 | 0,0001

 | 0,0010 | 0,000
 | 08 0,0 | 012 0 | ,0017 | 0,0007 |
 | 0,10 |
| 25064 | 0,0400 | 0,0174 | 0,0044 | 0,0053 | 0,0073
 | 0,005 | 0,001 | 7 0,002 | 1 0,0008 | 5 0,001 | 0,001
 | 9 0,000 | 0,0012 | 0,0028 | 0,0009
 | 0,004 | 0,0001

 | 0,0010 | 0,000
 | 08 0,0 | 012 0 | ,0017 | 0,0007 | <u> </u>
 | 0,10 |
| 25014 | 0.0331 | 0.0144 | 0.0034 | 0.0043 | 0,0050
 | 0.004 | 5 0,001 | 4 0.001 | 8 0.0006 | 5 0.001 | 0,001
 | 5 0.0002 | 0.0010 | 0.0023 | 0,0007
 | 0.0038 | 0,0001

 | 0.0009 | 0,000
 | 06 0,0 | 010 0 | 0014 | 0.0005 |
 | 0.09 |
| BS north side | 0,0052 | 0,0022 | 0,0006 | 0,0007 | 0,0009
 | 0,0007 | 7 0,000 | 2 0,000 | 3 0,000 | 1 0,0002 | 0,000
 | 2 0,000 | 0,0002 | 0,0004 | 0,0001
 | 0,0006 | 0,0000

 | 0,0001 | 0,000
 | 01 0,0 | 002 0 | ,0002 | 0,0001 | -
 | 0.01 |
| 25075 | 0.0179 | 0.0078 | 0.0020 | 0.0024 | 0.0033
 | 0.002 | 5 0.000 | 8 0.001 | 0 0.000 | 3 0.0008 | 3 0.000
 | B 0.000 | 0.0006 | 0.0013 | 3 0.0004
 | 0.0021 | 0.0001

 | 0.000 | 5 0.000
 | 03 0.0 | 006 0 | .0007 | 0.0003 | -
 | 0.05 |
| 25060 | 0,0179 | 0,0078 | 0,0020 | 0,0024 | 0,0033
 | 0,002 | 5 0,000 | 8 0,001 | 0 0,000 | 3 0,0008 | 3 0,000
 | B 0,0001 | 0,0006 | 0,0013 | 3 0,0004
 | 0,0021 | 0,0001

 | 0,000 | 5 0,000
 | 03 0,0 | 006 0 | ,0007 | 0,0003 | -
 | 0,05 |
| 25135 | 0,0132 | 0,0057 | 0,0014 | 0,0017 | 0,0024
 | 0,0018 | 8 0,000 | 6 0,000 | 7 0,0003 | 3 0,000 | 5 0,000
 | 5 0,000 | 0,0004 | 0,0009 | 0,0003
 | 0,0015 | 0,0000

 | 0,0003 | 3 0,000
 | 03 0,0 | 004 0 | ,0005 | 0,0002 | -
 | 0,03 |
| 25073 | 0,0091 | 0,0040 | 0,0010 | 0,0012 | 0,0017
 | 0,001 | 3 0,000 | 4 0,000 | 5 0,0002 | 2 0,0004 | 0,000
 | 4 0,000 | 0,0003 | 0,0006 | 5 0,0002
 | 0,0011 | 0,0000

 | 0,0002 | 0,000
 | 02 0,0 | 003 0 | ,0004 | 0,0002 | -
 | 0,02 |
| 25134 | 0,0048 | 0,0021 | 0,0005 | 0,0006 | 0,0009
 | 0,0007 | 7 0,000 | 2 0,000 | 3 0,0001 | 1 0,0002 | 0,000
 | 2 0,000 | 0,0001 | 0,0003 | 8 0,0001
 | 0,0006 | 0,0000

 | 0,0001 | L 0,000
 | 01 0,0 | 001 0 | ,0002 | 0,0001 |
 | 0,01 |
| 25082 | 0,0037 | 0,0016 | 0,0004 | 0,0005 | 0,0007
 | 0,000 | 5 0,000 | 2 0,000 | 2 0,0001 | 1 0,0002 | 2 0,000
 | 2 0,000 | 0,0001 | 0,0003 | 8 0,0001
 | 0,0004 | 0,0000

 | 0,0001 | 0,000
 | 01 0,0 | 001 0 | ,0002 | 0,0001 |
 | 0,01 |
| 25086 | 0,0267 | 0,0116 | 0,0029 | 0,0035 | 0,0049
 | 0,003 | 7 0,001 | 2 0,001 | 4 0,0005 | 5 0,0012 | 2 0,001
 | 2 0,000 | 0,0008 | 0,0019 | 0,0006
 | 0,003 | 0,0001

 | 0,0007 | 0,000
 | 05 0,0 | 008 0 | ,0011 | 0,0005 |
 | 0,07 |
| 25131 | 0,0029 | 0,0013 | 0,0003 | 0,0004 | 0,0003
 | 0,0004 | 1 0,000 | 0,000 | 0,000 | 0,000 | 0,000
 | 0,0000 | 0,0001 | 0,0002 | 0,0001
 | 0,000 | 0,0000

 | 0,000 | 0,000
 | | 000 0 | 00001 | 0,0001 | -
 | 0,01 |
| TOTAL | 0.9390 | 0.4078 | 0.1023 | 0.1235 | 0.1706
 | 0.1300 | 0.040 | 6 0.050 | 4 0.0179 | 0.0439 | 0.043
 | 0.0049 | 0.0292 | 0.0666 | 0.0211
 | 0.1088 | 0.0032

 | 0.0244 | 0.017
 | 79 0.0 | 292 0 | .0390 | 0.0162 |
 | 2,4304 |
| | -, | -, | -, | -, | -,
 | -, | -, | -, | | -, | -,
 | -, | -, | -, | -,
 | -, | -,

 | -, | -,
 | | | | -, |
 | -, |
0				Q_{0}
 | | | | | |
 | | | |
 | |

 | |
 | | | | |
 | |
Quantity	horeca e	foodstaff		
 | | | | | |
 | | | |
 | |

 | |
 | | | | |
 | |
| | City | | | | BC wort
 | | | | | |
 | | D. | north |
 | |

 | |
 | | | | |
 | |
| Origin | City
center | 25124 | 25125 | 25128 | BS west
side
 | 25123 | 25020 | 25030 | 25127 | 25010 | 25064
 | 25062 | 25014 ^{BS} | inorth
side | 25075 2
 | 5060 2 | 5135 2

 | 5073 2 | 5134
 | 25082 | 25086 | 2513 | 31 25 | 129
 | Total |
| Origin
City center | City
center
6,6347 | 25124
2,7211 | 25125
1,9585 | 25128
1,5157 | BS west
side
1,1291
 | 25123
1,6880 | 25020
2,6688 | 25030
1,0208 | 25127
0,4279 | 25010
0,5719 | 25064
0,7418
 | 25062
0,4037 | 25014 BS | side 2
0,9627 | 25075 2
0,3489
 | 5060 2
0,5301 | 5135 29
0,2839 0

 | 5073 2
0,0982 (| 5134
0,2292
 | 25082
0,2129 | 25086
0,5402 | 251 | 31 25 :
926 0, | 0218
 | Total
25,23 |
| Origin
City center
25124 | City
center
6,6347
8,6892 | 25124
2,7211
3,6435 | 25125
1,9585
2,6044 | 25128
1,5157
1,9924 | BS west
side
1,1291
1,4843
 | 25123
1,6880
2,2424 | 25020
2,6688
3,5567 | 25030
1,0208
1,3541 | 25127
0,4279
0,5641 | 25010
0,5719
0,7641 | 25064
0,7418
0,9821
 | 25062
0,4037
0,5340 | 25014 BS
0,4302
0,5739 | inorth
side 2
0,9627
1,2732 | 25075 2
0,3489 (
0,4619 (
 | 5060 2
0,5301 (
0,7007 (| 5135 29
0,2839 0
0,3777 0

 | 5073 2
0,0982 (0
0,1302 (0 | 5134
0,2292
0,3063
 | 25082
0,2129
0,2832 | 25086
0,5402
0,7176 | 2513
0,09
0,12 | 31 25: 926 0,1 232 0,1 | 0218
0289
 | Total
25,23
33,39 |
| Origin
City center
25124
25125 | City
center
6,6347
8,6892
24,2989 | 25124
2,7211
3,6435
10,1121 | 25125
1,9585
2,6044
7,3406 | 25128
1,5157
1,9924
5,5633 | BS west
side
1,1291
1,4843
4,1599
 | 25123
1,6880
2,2424
6,2508 | 25020
2,6688
3,5567
9,9470 | 25030
1,0208
1,3541
3,8083 | 25127
0,4279
0,5641
1,5795 | 25010
0,5719
0,7641
2,1244 | 25064
0,7418
0,9821
2,7492
 | 25062
0,4037
0,5340
1,4945 | 25014 BS
0,4302
0,5739
1,5987 | inorth
side 2
0,9627
1,2732
3,5543 | 25075 2
0,3489 (
0,4619 (
1,2923)
 | 5060 2
0,5301 (
0,7007 (
1,9613 2 | 5135 29
0,2839 0
0,3777 0
1,0516 0

 | 5073 2
,0982 (
,1302 (
,3633 (| 5134
0,2292
0,3063
0,8506
 | 25082
0,2129
0,2832
0,7878 | 25086
0,5402
0,7176
2,0022 | 251:
0,0!
0,12
0,34 | 31 25. 926 0, 232 0, 161 0, | 0218
0289
0811
 | Total
25,23
33,39
93,32 |
| Origin
City center
25124
25125
25128 | City
center
6,6347
8,6892
24,2989
1,5561 | 25124
2,7211
3,6435
10,1121
0,6420 | 25125
1,9585
2,6044
7,3406
0,4617 | 25128
1,5157
1,9924
5,5633
0,3604 | BS west
side
1,1291
1,4843
4,1599
0,2660
 | 25123
1,6880
2,2424
6,2508
0,3997 | 25020
2,6688
3,5567
9,9470
0,6303 | 25030
1,0208
1,3541
3,8083
0,2411 | 25127
0,4279
0,5641
1,5795
0,1012 | 25010
0,5719
0,7641
2,1244
0,1352 | 25064
0,7418
0,9821
2,7492
0,1758
 | 25062
0,4037
0,5340
1,4945
0,0958 | 0,4302
0,5739
1,5987
0,1019 | inorth
side 2,0,9627
1,2732
3,5543
0,2292 | 25075 2
0,3489 (
0,4619 (
1,2923 :
0,0828 (
 | 5060 2
0,5301 (
0,7007 (
1,9613 (
0,1261 (| 5135 29 0,2839 0 0,3777 0 1,0516 0 0,0672 0

 | 5073 2
1,0982 (
1,1302 (
1,3633 (
1,0233 (| 5134
0,2292
0,3063
0,8506
0,0542
 | 25082
0,2129
0,2832
0,7878
0,0504 | 25086
0,5402
0,7176
2,0022
0,1278 | 251:
0,0!
0,12
0,34 | 31 25 926 0, 232 0, 461 0, 218 0, | 0218
0289
0811
0052
 | Total
25,23
33,39
93,32
5,96 |
| Origin
City center
25124
25125
25128
BS west side | City
center
6,6347
8,6892
24,2989
1,5561
0,8917 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549 | 25014 B
0,4302 0
0,5739 0
1,5987 0
0,1019 0
0,0584 0 | inorth 2 side 0,9627 1,2732 3,5543 0,2292 0,1308 | 25075 2 0,3489 () 0,4619 () 1,2923 () 0,0828 () 0,0475 ()
 | 5060 2
0,5301 (
0,7007 (
1,9613 :
0,1261 (
0,0723 (| 5135 21 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,0385 0

 | 5073 2
1,0982 (
1,1302 (
1,3633 (
1,0233 (
1,0134 (| 5134
0,2292
0,3063
0,8506
0,0542
0,0311 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733 | 251:
2 0,0!
3 0,12
2 0,34
3 0,02
4 0,02 | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, | ,0218
,0218
,0289
,0811
,0052
,0030 |
Total
25,23
33,39
93,32
5,96
3,42 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549
0,1490 | 25014 BS
0,4302 0
0,5739 1
1,5987 0
0,1019 0
0,0584 0
0,1591 0 | inorth 2 side 0,9627 1,2732 3,5543 0,2292 0,1308 0,3550 0,3550 | 25075 2 0,3489 0 0,4619 0 1,2923 3 0,0828 0 0,0475 0 0,1289 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 3 0,1261 0 0,0723 0 0,1954 0 | 5135 21 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,0385 0 0,01049 0

 | 5073 2
0,0982 (0
1,1302 (0
1,3633 (0
1,0233 (0
1,0134 (0
1,0363 (0
1,0363 (0 | 5134
0,2292
0,3063
0,8506
0,0542
0,0311
0,0846
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998 | 251:
2 0,0!
3 0,1:
2 0,34
1 0,0:
3 0,0:
4 0,0:
0,0:
0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, | 0218
0289
0811
0052
0030
0081
 | Total
25,23
33,39
93,32
5,96
3,42
9,27 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25020 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4465 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545
2,0286
0,1026 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
1,5163
0,0769
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0705 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,031 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,058
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549
0,1490
0,5464
0,0276 | 25014 85
0,4302 0,5739 0
1,5987 0,1019 0,0584 0,1591 0,552 0,0234 0 | inorth 2 side 0,9627 1,2732 3,5543 0,2292 0,1308 0,3550 1,2992 0,0655 0,0555 | 25075 2 0,3489 0 0,4619 0 1,2923 3 0,0828 0 0,0475 0 0,1289 0 0,0238 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 1 0,1261 0 0,0723 0 0,1954 0 0,7163 0 0,0362 0 | 5135 2: 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,0385 0 0,1049 0 0,3846 0

 | 5073 2
0,0982 (0
0,1302 (0
0,3633 (0
0,0233 (0
0,0134 (0
0,0363 (0
0,1329 (0
0,0057 (0) | 5134),2292),3063),8506),0542),0311),0846),3110),0156
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324 | 251:
2 0,0:
3 0,1:
2 0,3:
3 0,0:
4 0,0:
4 0,0:
4 0,0:
5 0,1:
0 0,0:
5 0,1:
6 0,1:
7 0,1:
7 0,1:
7 0,2:
7 0,2: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 164 0 | ,0218
,0289
,0811
,0052
,0030
,0081
,0296
,0015 |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25127 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545
2,0286
0,1026
0,3061 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
1,5163
0,0769
0,2285
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549
0,1490
0,5464
0,0276
0,0820 | 25014 85
0,4302 0,5739 0
1,5987 0
0,1019 0
0,0584 0
0,1591 0
0,5852 0
0,0294 0
0,0872 0 | inorth
side 2 0,9627 1,2732 3,5543 0,2292 0,1308 0,3550 1,2992 0,0656 0,01953 0 | 25075 2 0,3489 0 0,4619 0 1,2923 1 0,0828 0 0,0475 0 0,1289 0 0,0238 0 0,0238 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 1 0,1261 0 0,0723 0 0,1954 0 0,0362 0 | 5135 2: 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,0385 0 0,3846 0 0,0194 0 0,0574 0

 | 5073 2
1,0982 (0
1,1302 (0
1,3633 (0
1,0233 (0
1,0134 (0
1,0363 (0
1,0363 (0
1,1329 (0
1,0067 (0
0,0199 (0) | 5134
),2292
),3063
),8506
),0542
),0542
),0311
),0846
),0156
),0463
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0430 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092 | 251:
2 0,0!
5 0,1:
2 0,3:
3 0,0:
3 0,0:
4 0,0:
4 0,0:
4 0,0:
4 0,0:
5 0,1:
5 0,1:
7 0,3:
8 0,0:
1 0,0: | 31 25 926 0, 232 0, 461 0, 126 0, 341 0, 771 0, 188 0, | ,0218
,0289
,0811
,0052
,0030
,0081
,0296
,0015
,0044 |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25127
25010 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545
2,0286
0,1026
0,3061
1,2398 | BS west
side 1,1291 1,4843 4,1599 0,2660 0,1539 0,4119 1,5163 0,0769 0,2285 0,9258
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,8445 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
 | 25062
0,4037
1,4945
0,0958
0,0549
0,1490
0,5464
0,0276
0,0820
0,3347 | 25014 83
0,4302 0,5739 0
1,5987 0,1019 0
0,0584 0,1591 0,5852 0,0294 0,0872 0,03617 0 | inorth
side 2 0,9627 1,2732 1,2732 0,2292 0,1308 0,3550 1,2992 0,06556 0,09556 0,0953 0,1953 0,7961 | 25075 2 0,3489 0 0,4619 0 1,2923 3 0,0828 0 0,0475 0 0,1289 0 0,0289 0 0,0289 0 0,0289 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,0723 0 0,1954 0 0,0362 0 0,1079 0 | 5135 2: 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,0385 0 0,1049 0 0,3846 0 0,00574 0 0,02368 0

 | 5073 2
,0982 (
,1302 (
,3633 (
,0233 (
,0134 (
,0363 (
,0134 (
,0363 (
,036 | 5134
),2292
),3063
),8506
),0542
),0542
),0311
),0846
),0463
),0463
),1917 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0787
0,2885
0,0145
0,0430
0,01777
 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092
0,4512 | 251:
2 0,0!
5 0,1:
2 0,3:
3 0,0:
3 0,0:
3 0,0:
4 0,0:
4 0,0:
4 0,0:
5 0,0:
5 0,1:
7 0,3:
7 0,3:
7 0,3:
7 0,3:
7 0,3:
7 0,3:
7 0,3:
7 0,0:
7 0,3:
7 0,0:
7 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0,' 341 0,' 271 0,' 188 0,' 188 0,' 770 0,' | 0218
0289
0811
0052
0030
0081
0296
0015
0044
0183 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25127
25010
25064 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,3963
1,6230
2,3228 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,2045
2,0286
0,1026
0,3061
1,2398
1,7897 | BS west
side 1,1291 1,4843 4,1599 0,2660 0,1539 0,4119 1,5163 0,02285 1,324
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,150
0,3421
1,4022
2,0076 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,2078
0,2078
0,2078 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523
0,5091 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0517
0,0517
0,6147
0,6147
 | 25062
0,4037
1,4945
0,0958
0,0549
0,549
0,5464
0,0276
0,840
0,3347
0,4840 | 25014 8
0,4302 0,5739 0
1,5987 0
0,1019 0
0,0584 0
0,1591 0,05852 0
0,0294 0
0,0872 0
0,3617 0
0,5126 0 | inorth 2 side 0,9627 1,2732 3,5543 0,2292 0 0,1308 0,3550 1,2992 0,0655 0,01953 0,7961 1,1457 | 25075 2 0,3489 (0,4619 (1,2923 (0,0828 (0,0475 (0,0475 (0,04729 (0,0709 (0,0709 (0,04165 (
 | 5060 2 0,5301 () 0,7007 () 1,9613 () 0,0723 () 0,0723 () 0,1261 () 0,0723 () 0,1763 () 0,07363 () 0,0362 () 0,04380 () 0,04380 () | 5135 2: 0,2839 0 0,3777 0 1,0516 0 0,0672 0 0,1049 0 0,1149 0 0,0574 0 0,0574 0 0,0574 0 0,37374 0

 | 5073 2 ,0982 (,1302 (,3633 (,0134 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0134 (,0067 (,0199 (,0814 (,1174 (| 5134
),2292
),3063
),8506
),0542
),0542
),0311
),0310
),0463
),0463
),1917
),2717
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0787
0,0430
0,0430
0,01777
0,2535 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,032
0,1992
0,4512
0,6418 | 251:
2 0,0!
5 0,1:
2 0,3:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
4 0,0:
3 0,0:
4 0,0:
5 0,1:
7 0,3:
8 0,0:
8 0,0:
9 0,0:
9 0,0:
9 0,1:
9 0,3:
9 0,0:
9 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0,' 341 0,' 271 0,' 188 0,' 1064 0,' 188 0,' 101 0,' | 0289
0289
0052
0052
0030
0081
0296
0015
0044
0283
0044
0259
 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25030
25127
25010
25064
25062 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
3,6953 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545
2,0286
0,1026
0,3061
1,2398
1,7897
0,8528 | BS west
side 1,1291 1,4843 4,1599 0,2660 0,1539 0,4119 1,5163 0,0258 0,9258 1,3324 0,6332
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,8445
1,2159
0,5770 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523
0,5091
0,2415 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,6801
0,6801
0,6848 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
0,8996
0,4231
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549
0,5464
0,0276
0,820
0,3347
0,4840
0,4840
0,4840 | 25014 8
0,4302 0,5739 0,15987 0
0,1019 0,0584 0
0,1591 0,5852 0,0294 0,0872 0,03617 0,05126 0,5126 0 | inorth 2 side 2 0,9627 1,2732 3,5543 0,02292 0,1308 0,3550 0,1308 0,0656 0,1953 0,7961 1,1457 0,1499 | 25075 2 0,3489 0 0,4619 0 1,2923 3 0,0828 0 0,0475 0 0,1289 0 0,0475 0 0,0238 0 0,0238 0 0,0239 0 0,2897 0 0,1405 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,0723 0 0,1954 0 0,07163 0 0,0362 0 0,04380 0 0,0322 0 0,3332 0 | 5135 2! 0,2839 C 0,3777 C 0,0516 C 0,0672 C 0,0385 C 0,0485 C 0,0546 C 0,0574 C 0,0268 C 0,03846 C 0,0574 C 0,2368 C 0,2368 C 0,3374 C 0,1607 C

 | 5073 2 ,0982 (,1302 (,3633 (,0134 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0067 (,0199 (,03814 (,03174 (,0564 (| 5134 0,2292 0,3063 0,8506 0,0,0542 0,0311 0,0846 0,3110 0,0156 0,0463 0,01917 0,1917 0,1296
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0145
0,0145
0,2535
0,2235 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0326
0,1092
0,4512
0,6418
0,3063 | 251:
2 0,0!
5 0,1:
2 0,3:
3 0,0:
3 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 341 0, 271 0, 064 0, 188 0, 770 0, 101 0, 523 0, | 129 .0218 .0289 .0811 .0052 .0030 .0081 .0296 .0015 .0044 .0259 .0259 .0259 .023 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87
14,22
 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25127
25010
25064
25064
25064
25064 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338
0,5487 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,5545
2,0286
0,1026
0,3061
1,2398
1,7897
0,8528
0,3024 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
1,5163
0,0769
0,2285
0,9258
1,3324
0,6332
0,2249
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560
0,3409 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,2078
1,2159
0,5770
0,2051 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523
0,5091
0,2415
0,2415 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801
0,3240
0,3240 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
0,8996
0,4231
0,1494
 | 25062
0,4037
0,5340
1,4945
0,0958
0,0549
0,1490
0,5464
0,0276
0,3447
0,4840
0,2333
0,0815 | 25014 8
0,4302
0,5739 1
1,5987 0,1019 0
0,0584 0
0,5852 0
0,0294 0
0,0294 0
0,02436 0
0,2436 0
0,0488 0 | inorth 2 side 2 0,9627 1,2732 3,5543 0,2292 0,1308 0,3550 0,1308 0,03550 0,1953 0,7961 1,1457 0,5499 0,5499 0,1938 | 25075 2 0,3489 (0,4619 (1,2923 : 0,0828 (0,0428 (0,0475 (0,0475 (0,0729 (0,0238 (0,0238 (0,02387 (0,0194 (0,01945 (
 | 5060 2 0,5301 0 0,7007 0 1,9613 1 0,1261 0 0,0723 0 0,01763 0 0,0362 0 0,04380 0 0,0322 0 0,0302 0 0,0302 0 | 5135 2! 0,2839 C 0,3777 C 0,0516 C 0,0672 C 0,0385 C 0,0385 C 0,04072 C 0,0385 C 0,0385 C 0,03846 C 0,0574 C 0,2368 C 0,3374 C 0,0576 C

 | 5073 2 ,0982 (,1302 (,3633 (,0233 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0363 (,0134 (,0364 (,0174 (,0564 (,0564 (,0564 (| 5134 0,2292 0,3063 0,8506 0,0311 0,0846 0,3110 0,0156 0,0463 0,1917 0,2717 0,2716 0,0466
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0145
0,01477
0,2535
0,1207
0,0432 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092
0,4512
0,6418
0,3063
0,1102 | 251:
2 0,0?
5 0,1:
2 0,3:
3 0,0:
3 0,0:
3 0,0:
4 0,1:
4 0,0:
5 0,0:
1 0,0:
1 0,0:
2 0,0:
2 0,0:
3 0,0:
4 0,0:
4 0,0:
5 0,0:
5 0,1:
2 0,3:
6 0,0:
7 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0, 188 0, 770 0, 101 0, 323 0, 187 0, | .0218 .0289 .0811 .0052 .0030 .0081 .0296 .0015 .0044 .0123 .0045
 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87
14,22
5,06 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25030
25030
25030
25040
25062
25014
BS north
side | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
3,6953
1,3152
0,4468 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,1329 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,2045
0,1026
0,1026
0,3061
1,2398
0,3024
0,3024
0,1032 | BS west
side 1,1291 1,4843 4,1599 0,2660 0,1539 0,4119 1,5163 0,0769 0,2285 1,3324 0,6332 0,2249
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560
0,3409
0,1152 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,6445
1,2159
0,5770
0,2051
0,0695 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,5766
0,0292
0,0877
0,3523
0,0599
0,2415
0,0888
0,0291 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,6801
0,6801
0,6801
0,6804
0,0390 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
0,6147
0,6147
0,6147
0,6147
 | 25062 0,4037 0,5340 1,4945 0,0549 0,0549 0,5464 0,0276 0,8820 0,34347 0,4840 0,4845 0,4840 0,4845 0,0815 0,0278 | 25014 B 0,4302 | inorth 2 side 2 0,9627 1,2732 3,5543 0,2292 0,0,2292 0,0385 0,3550 1,2992 0,0556 0,01953 0,7961 1,1457 0,5499 0,01938 0,01938 0,0566 | 25075 2 0,3489 0 0,4619 0 1,2923 1 0,0828 0 0,01289 0 0,01289 0 0,0238 0 0,0238 0 0,0238 0 0,0238 0 0,0239 0 0,01405 0 0,01994 0 0,0705 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 1 0,1261 0 0,07032 0 0,07034 0 0,07035 0 0,07143 0 0,0763 0 0,0763 0 0,0362 0 0,0362 0 0,0322 0 0,0332 0 0,0367 0 | 5135 2! 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0672 C 0,0385 C 0,1049 C 0,3846 C 0,2368 C 0,1049 C 0,33846 C 0,33846 C 0,1607 C 0,1607 C 0,0576 C 0,0576 C 0,0194 C

 | 5073 2 ,0982 () ,1302 () ,3633 () ,0134 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0364 () ,0384 () ,0384 () ,0384 () ,0384 () ,0384 () ,0068 () | 5134 0,2292 0,3063 0,8506 0,0542 0,0311 0,0846 0,03156 0,0463 0,1917 0,1296 0,0466 0,0156
 | 25082
0,2129
0,2832
0,0504
0,0289
0,0289
0,0285
0,0245
0,0430
0,0145
0,1207
0,0432
0,0145 | 25086
0,5402
0,07176
0,0723
0,0733
0,1992
0,0368
0,1092
0,4512
0,6418
0,3063
0,1102
0,0367 | 251:
2 0,0:
5 0,1:
2 0,3:
8 0,0:
8 0,0:
8 0,0:
9 0,0:
9 0,0:
1 0,1:
9 0,0:
9 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0, 188 0, 770 0, 187 0, 187 0, | 129 .0218 .0289 .0052 .0030 .0030 .0031 .0030 .0031 .0226 .0015 .044 .0183 .0259 .0259 .0259 .0259 .0259 .0259 .0259 .0259 .0259 .0259 .015 |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87
14,22
5,06
1,71 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25020
25010
25027
25010
25064
25064
25064
25075 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,2749 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,3941
0,1329
1,9959 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
2,0286
0,1026
0,3061
1,2398
1,7897
0,8528
0,3024
0,1032
1,5426 | BS west
side 1,1291 1,4843 4,1599 0,2660 0,1539 0,4119 1,5163 0,0769 0,2285 0,6332 0,6332 0,0765 1,1448
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560
0,9560
0,9409
0,1152
1,7320 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,5382
0,1816
2,7300 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,2078
0,2078
0,2078
0,2075
0,2051
0,695
1,0435 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,877
0,3523
0,5091
0,2415
0,0858
0,0291 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801
0,1166
0,3240
0,1166
0,0390
0,5851 | 25064 0,7418 0,9821 2,7492 0,1758 0,1011 0,2736 1,0051 0,0508 0,1511 0,4231 0,4231 0,0507 0,7624
 | 25062 0,4037 0,5340 1,4945 0,0958 0,0549 0,5464 0,0276 0,4840 0,2333 0,03815 0,0278 0,0278 0,02176 | 25014 B 0,4302 | inorth 2 side 2 0,9627 1 1,2732 3,5543 0,2292 0 0,1308 0 0,3550 1 1,2792 0 0,0656 0 0,07961 1 1,457 0,5499 0,0666 0 0,0930 0 | 25075 2 0,3489 0 0,4619 0 1,2923 0 0,0828 0 0,0475 0 0,0475 0 0,0709 0 0,0238 0 0,0128 0 0,0237 0 0,01394 0 0,01994 0 0,02355 0
 | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,0,703 0 0,0,0723 0 0,0,0723 0 0,0,0723 0 0,0,0362 0 0,0,332 0 0,0,332 0 0,0,0327 0 0,0,0327 0 0,0,0367 0 0,0,05463 0 | 5135 2: 0,2839 C 0,03777 C 0,0516 C 0,0672 C 0,0385 C 0,0385 C 0,03846 C 0,0194 C 0,03846 C 0,03846 C 0,03846 C 0,03846 C 0,03846 C 0,0194 C 0,0576 C 0,0576 C 0,0194 C 0,0194 C 0,0194 C 0,0194 C 0,0194 C 0,0194 C 0,02909 C

 | 5073 2 ,0982 () ,1302 () ,3633 () ,0134 () ,0363 () ,0134 () ,0363 () ,0134 () ,0363 () ,0134 () ,0363 () ,0134 () ,0139 () ,0067 () ,0199 () ,0174 () ,0554 () ,0068 () ,00068 () | 5134
),2292
),3063
),8506
),0542
),0311
),0846
),3110
),0156
),0463
),1917
),1927
),1926
),0466
),0156
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0145
0,1777
0,2535
0,1207
0,0432
0,0145
0,2185 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092
0,4512
0,6418
0,3063
0,1102
0,0367
0,5547 | 251:
2 0,0:
5 0,1:
2 0,3:
8 0,0:
8 0,0:
8 0,0:
1 0,0:
1 0,0:
1 0,0:
2 0,0:
1 0,0:
2 0,0:
2 0,0:
1 0,0:
2 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 054 0, 188 0, 101 0, 523 0, 187 0, 063 0, 487 0, | |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
14,22
5,06
1,71
25,72 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25030
25064
25064
25064
25064
25014
BS north
side
25075
25070 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
0,5487 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,1329
1,9959
0,6545 | 25128
1,5157
1,9924
5,5633
0,2045
0,2045
0,2045
0,026
0,3061
1,2398
1,7897
0,8528
0,3024
0,3022
1,5426
0,5073 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
1,5163
0,0759
0,2285
1,3324
0,6332
0,0275
1,1448
0,3760
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,3409
0,3409
0,1152
1,7320
0,5662 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8840 | 25030
1,0208
1,3541
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,2078
0,2078
0,2075
1,2159
0,5770
0,2051
0,0695
1,0435
0,3423 | 25127
0,4279
0,5641
1,5795
0,1012
0,5766
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523
0,5091
0,2415
0,0888
0,0291
0,4365
0,1436 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801
0,3240
0,03240
0,03290
0,5851
0,1915 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
0,8996
0,4231
0,1494
0,0507
0,7624
0,2497
 | 25062
0,4037
1,4945
0,0958
0,0958
0,0549
0,1490
0,2464
0,0276
0,8457
0,8440
0,2333
0,0815
0,0278
0,0278
0,4172
0,1371 | 25014 B 0,4302 | inorth 2 side 2 0,9627 1,2732 3,5543 0,2292 0,1308 0,03550 1,2992 0,0656 0,7961 1,1457 0,5499 0,01933 0,01933 0,0666 0,9930 0,3273 | 25075 2 0,3489 () 0,4619 () 1,2923 () 0,0828 () 0,0828 () 0,0475 () 0,0475 () 0,0475 () 0,0475 () 0,0283 () 0,0709 () 0,04165 () 0,0709 () 0,0709 () 0,0709 () 0,0705 () 0,0705 () 0,0705 () 0,0705 () 0,0705 () 0,0705 () 0,0705 () 0,0705 () 0,3656 () 0,1181 ()
 | S060 2 0,5301 0,0007 0,7007 0,1261 0,01261 0,01261 0,01763 0,01763 0,0362 0,03032 0,03037 0,0332 0,03067 0,0367 0,03663 0,03663 | 5135 21 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0385 C 0,0194 C 0,0574 C 0,0574 C 0,03846 C 0,0194 C 0,0374 C 0,0574 C 0,0574 C 0,0574 C 0,0574 C 0,0576 C 0,0574 C 0,0575 C 0,0576 C 0,0579 C 0,052 C

 | 5073 2 ,0982 () ,1302 () ,3633 () ,0134 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0363 () ,0134 () ,0363 () ,0067 () ,0067 () ,0067 () ,0054 () ,0564 () ,0068 () ,0206 () ,0333 () | 5134),2292),3663),8506),0542),0310),03166),03160),03160),03160),03160),0463),1917),2717),1296),0466),03156),0466),02747),02747),02766
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0289
0,0145
0,0430
0,0145
0,1207
0,0235
0,0245
0,0432
0,0145
0,02185
0,0714 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092
0,4512
0,6418
0,3063
0,1102
0,0367
0,5547
0,1814 | 251:
2 0,0:
5 0,1:
2 0,3:
3 0,0:
3 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0,1 188 0, 770 0,1 101 0, 252 0,1 187 0, 310 0, 347 0,3 310 0, | 129 .0218 .0289 .0811 .0052 .0030 .0081 .0296 .0015 .0223 .0045 |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87
14,22
5,06
1,71
25,72
8,43 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25030
25030
25044
25062
25064
25062
25044
BS north
side
25075
25050
25125
25050
25125
25050
25125
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050
25050 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930
3,7084 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,7749
0,1850 | 25125
1,9585
2,6044
7,3406
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,3941
0,1329
1,9959
0,6545
1,1063 | 25128
1,5157
1,9924
5,5633
0,2045
0,2045
0,3604
0,1026
0,3026
1,2398
1,7897
0,8528
0,3024
0,1032
1,5426
0,5073
0,8522 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,0769
0,2185
0,0769
0,2285
0,9258
1,3324
0,6332
0,2249
0,0765
1,1448
0,3760
0,6331
 | 25123
1,6880
2,2424
6,2508
0,3997
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560
0,3409
0,1152
1,7320
0,5662
0,9609 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115 | 25030
1,0208
1,3541
3,8083
0,2411
0,3752
1,3842
0,0706
0,2078
0,0705
1,3842
1,2159
0,5770
0,2051
0,6945
1,0435
0,3423
0,5769 | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,0792
0,0292
0,0877
0,3523
0,0291
0,2415
0,0858
0,0291
0,4365
0,1436
0,1436 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,4848
0,0390
0,5851
0,0390
0,5851
0,3264 | 25064 0,7418 0,9821 2,7492 0,1011 0,2736 1,0051 0,0508 0,4231 0,4231 0,0507 0,2497 0,2497
 | 25062 0,4037 0,5340 1,4945 0,0549 0,0549 0,0549 0,05464 0,0276 0,0347 0,4840 0,3347 0,4840 0,03278 0,0347 0,04840 0,0347 0,04172 0,13711 0,2292 | 25014 B 0,4302 | inorth
side 2 0,9627 1 1,2732 3,5543 0,02292 0,03550 0,1308 0 0,1308 0 0,03550 0,1308 0,04556 0 0,0556 0 0,07961 1 1,1457 0,5499 0,04938 0 0,0566 0 0,01938 0 0,02373 0,3273 0,32457 1 | 25075 2 0,3489 (0,4619 (1,2923 (0,0828 (0,0828 (0,0475 (0,0475 (0,0709 (0,0238 (0,0709 (0,0709 (0,0415 (0,04165 (0,0241 (0,3656 (0,1181 (0,1183 (
 | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,0723 0 0,0724 0 0,0725 0 0,0154 0 0,0152 0 0,0362 0 0,0362 0 0,0362 0 0,0362 0 0,0362 0 0,0362 0 0,0362 0 0,0364 0 0,0365 0 0,0366 0 0,0367 0 0,1809 0 0,3004 0 | 5135 2: 0,2839 C 0,3777 C 0,0516 C 0,0672 C 0,0385 C 0,0385 C 0,0385 C 0,0385 C 0,0385 C 0,0194 C 0,0574 C 0,2368 C 0,1607 C 0,3374 C 0,0576 C 0,0194 C 0,0290 C 0,03268 C 0,0194 C 0,0290 C 0,0345 C 0,2909 C 0,0454 C 0,0585 C 0,0452 C 0,0452 C 0,0453 C

 | 5073 2 ,0982 () ,1302 () ,1302 () ,0133 () ,0134 () ,0313 () ,0313 () ,0363 () ,0067 () ,0019 () ,0134 () ,0313 () ,01174 () ,0564 () ,0198 () ,00198 () ,00068 () ,00333 () ,0333 () | 5134),2292),3663),8506),0542),0311),0846),3110),0156),0463),1917),2717),0466),0156),02466),0256),2246),0768),1310
 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0445
0,0445
0,0430
0,1777
0,2535
0,1207
0,0432
0,0432
0,0445
0,2185
0,0714
0,2126 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,1092
0,4512
0,6418
0,3063
0,1102
0,04512
0,0367
0,5547
0,1814
0,3103 | 251:
2 0,0:
5 0,1:
2 0,3:
3 0,0:
3 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 188 0, 188 0, 101 0, 523 0, 187 0, 340 0, 342 0, 343 0, 344 0, | |
Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
7
29,87
14,22
5,06
1,71
25,72
1,71
25,72
25,72
25,72
3,43
14,25
5,06 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25030
25030
25040
25062
25014
BS north
side
25075
25065
25075
25062
25075
25062
25075
25062
25075
25062
25135
25073
25135 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930
2,1930
7,084 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,7749
0,9074
1,5441 | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,3963
1,6230
2,3228
1,1031
0,3941
0,1329
1,9959
0,6545
1,1063
- | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,02045
0,3026
0,1026
0,3021
1,2398
0,3024
0,8528
0,3024
0,1032
1,5426
0,5073
0,5573
0,8522
- | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,0769
0,2285
0,9258
1,3324
0,6332
0,6332
0,6332
0,6332
0,6332
0,6332
0,6354
1,1448
0,3760
0,06331
-
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,3421
1,4022
2,0076
0,3429
0,3429
0,1152
1,7320
0,5662
0,96609
- | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0705
0,2078
0,2078
0,2078
0,2078
0,2051
0,0695
1,0435
0,3423
0,5769
- | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,0292
0,0857
0,0292
0,0858
0,0291
0,2415
0,0435
0,14365
0,2415 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,4848
0,6801
0,1159
0,3240
0,3240
0,3240
0,3240
0,3245
1,03264
0,3290
0,3264
0,3265
1,03264
0,3264 | 25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,0508
0,31511
0,6147
0,8996
0,4231
0,1494
0,0507
0,7624
0,2497
0,4207
 | 25062
0,4037
1,4945
0,0958
0,0958
0,0954
0,1490
0,5464
0,0820
0,3847
0,4840
0,0820
0,3847
0,4843
0,0815
0,0278
0,4172
0,1477
0,2292
0,2292
- | 25014 B 0,4302 | inorth 2 side 2 0,9627 1,2732 1,2732 3,5543 0,0627 0,1308 0,3550 0,1493 0,0555 0,01953 0,1953 0,1953 0,05666 0,03273 0,03273 0,05457 | 25075 2 0,3489 (0,4619 (1,2923 (0,0828 (0,0475 (0,0475 (0,0475 (0,0475 (0,04729 (0,0709 (0,0709 (0,0705 (0,0194 (0,03656 (0,0181 (0,0183 (
 | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,7163 0 0,7163 0 0,7163 0 0,7163 0 0,0362 0 0,1079 0 0,1079 0 0,1064 0 0,0362 0 0,1304 0 0,5463 0 0,10809 0 0,13024 0 | 5135 21 0,2839 C 0,3777 C 0,0672 C 0,0672 C 0,0385 C 0,0385 C 0,0149 C 0,0194 C 0,0574 C 0,0385 C 0,0194 C 0,0576 C 0,0576 C 0,0576 C 0,0194 C 0,0576 C 0,0576 C 0,0576 C 0,0194 C 0,0576 C 0,0576 C 0,0576 C 0,0576 C 0,1638 C 0,1638 C

 | 5073 2 ,0982 (,1302 (,3633 (,0233 (,0134 (,0363 (,0134 (,0363 (,0134 (,0363 (,0199 (,0054 (,00564 (,00568 (,0333 (,0558 (|
5134
),2292
),3063
),8506
),0542
),0046
),0311
),0156
),0463
),0463
),0197
),1917
),1927
),1926
),0466
),0466
),0466
),0316
),0156
),0466
),0311
),0546
),0466
),0466
),0311
),0546
),0546
),0546
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0157
),0156
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0156
),0167
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176
),0176 | 25082
0,2129
0,2832
0,7878
0,0289
0,0289
0,0289
0,0289
0,0145
0,0430
0,0145
0,1277
0,0432
0,0145
0,0145
0,0145
0,0145
0,0145
0,0145
0,0145
0,0126
- | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,7324
0,0368
0,7324
0,6418
0,3063
0,102
0,04512
0,6418
0,3063
0,102
0,0367
0,5547
0,5547 | 251:
2 0,0°
5 0,1;
2 0,3°
8 0,0°
8 0,0°
8 0,0°
8 0,0°
9 0,0°
2 0,0°
2 0,0°
1 0,0° | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0, 188 0, 770 0, 187 0, 947 0, 310 0, 224 0, | 129 .0218 .0289 .0811 .0052 .0030 .0031 .0259 .00259 .0223 .0044 .0133 .0259 .02123 .0045 .0015 .0213 .0045 .0015 .0223 .0215 .0215 .0215 .0125
 | Total
25,23
33,39
93,32
9,27
34,08
1,72
5,10
20,83
29,87
1,72
5,06
1,71
14,22
5,06
1,71
25,72
8,43
14,25
0,000 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25030
25040
25042
25014
BS north
side
25075
25060
25135
25073
25134
25082 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930
3,7084 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,7749
0,9074
1,5415
- | 25125
1,9585
2,6044
7,3406
0,4617
0,2652
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,1329
1,9959
0,6545
1,10545
1,9559
0,6545
1,10545
1,10555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,0555
1,05 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,2045
0,3061
1,2398
1,7897
0,3024
0,3024
0,1032
1,5426
0,5073
0,8528
-
-
- | BS west
side
1,1291
1,4843
4,1599
0,2660
0,0,1539
0,4119
1,5163
0,0769
0,2285
0,9258
1,3324
0,6332
0,6332
0,2249
0,0765
1,1448
0,3760
0,6351
1,1448
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,3421
1,4022
2,0076
0,3449
0,1152
1,7320
0,5662
0,95662
0,95662
0,95662 | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115
- | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0706
0,2078
0,8445
1,2159
0,07570
0,2051
0,0695
1,0435
0,3423
0,5770
-
-
-
-
-
-
-
-
-
-
-
-
- | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,5766
0,0292
0,0877
0,3523
0,5091
0,4365
0,2415
0,04365
0,44365
0,44365 | 25010
0,5719
0,7641
2,1244
0,01352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801
0,3240
0,1166
0,0390
0,5851
0,32551
0,1915
0,32651
0,1915
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,21551
0,2155
0,21551
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0,2155
0 | 25064
0,7418
0,9821
2,7492
0,01758
0,1011
0,2736
1,0051
0,0508
0,1511
0,6147
0,8996
0,4231
0,4231
0,42497
0,4297
0,2497
0,2497
0,2497
0,2497
 | 25062 0,4037 0,5340 1,4945 0,0958 0,0958 0,0549 0,1490 0,5464 0,0276 0,0820 0,3347 0,4840 0,0233 0,0815 0,0278 0,2333 0,0815 0,0278 0,1371 0,2292 | 25014 B 0,4302 | inorth 2 side 2 0,9627 1,2732 3,5543 0,02292 0,01308 0,3550 0,3550 1,2992 0,0565 0,01953 0,7961 1,1457 0,5499 0,05499 0,05497 0,03273 0,9300 0,3273 0,5457 - | 25075 2 0,3489 (0,4619 (1,2923 (0,0828 (0,0475 (0,0475 (0,04729 (0,0709 (0,0709 (0,0705 (0,01944 (0,01941 (0,01881 (0,01841 (0,01943 (- - - - - -
 | 5060 2 0,5301 0,0007 0,7007 0,0007 1,9613 0,01261 0,0703 0 0,01261 0,0743 0,01079 0 0,01079 0 0,03022 0 0,03032 0 0,03032 0 0,5463 0 0,3004 - - - - - | 5135 21 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0672 C 0,0385 C 0,0385 C 0,0386 C 0,0194 C 0,0574 C 0,0574 C 0,0576 C 0,0576 C 0,0576 C 0,0592 C 0,1949 C 0,0576 C 0,0576 C 0,0592 C 0,1438 C - -

 | 5073 2 ,0982 (, ,1302 (, ,3633 (, ,0233 (, ,0363 (, ,0363 (, ,0363 (, ,0363 (, ,0363 (, ,0363 (, ,0363 (, ,0384 (, ,0554 (, ,0058 (, ,0333 (, ,0333 (, ,0558 (, | 5134
),2292
),3063
),8506
),0542
),0046
),03110
),0156
),0463
),01917
),1296
),0466
),0156
),0466
),0156
),0216
),0156
),0310
-
-
-
-
 | 25082
0,2129
0,2832
0,7878
0,0289
0,0289
0,0787
0,0289
0,0145
0,0430
0,1145
0,0432
0,0145
0,2185
0,0145
0,0145
0,2185
0,0145
0,1226 | 25086
0,5402
0,7176
2,0022
0,1278
0,0733
0,1998
0,0368
0,1092
0,4512
0,06418
0,3063
0,1102
0,0367
0,5547
0,1814
0,3103 | 251: 2 0,0 5 0,1: 2 0,3: 3 0,0: 1 0,1: 1 0,0: | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0, 188 0, 770 0, 187 0, 523 0, 187 0, 523 0, 247 0, - - - - - - - - |
129
0218
0289
00811
0052
0030
0081
0256
0015
0044
0183
0045
0015
0044
0123
0045
0123
0045
0123
0075
0123
0125
0073
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0123
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125
0125 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
29,87
1,72
5,06
1,71
14,22
5,06
1,71
25,72
8,43
14,25
14,25
0,00
0,00
0,00 |
| Origin
City center
25124
25125
25128
BS west side
25123
25020
25030
25020
25030
25027
25010
25064
25075
25064
25075
25060
25135
25075
25060
25135
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25075
25 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
5,4106
5,4106
6,6885
0,4468
6,66885
2,1930
3,7084
-
-
-
-
-
-
-
-
-
-
- | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,1857
0,09074
1,5441
-
-
-
-
-
-
-
-
-
-
-
-
- | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,033
1,6230
2,3228
1,03941
0,1329
0,6545
1,1063
-
-
-
-
-
-
-
-
-
-
-
-
- | 25128
1,5157
1,9924
5,5633
0,2045
0,5545
2,0286
0,1026
0,3061
1,2398
1,7897
0,8528
0,3024
0,1032
1,5426
0,5073
0,8522
-
-
-
-
-
-
-
-
-
-
-
-
- | BS west
side
1,1291
1,4843
4,1599
0,2660
0,01539
0,4119
1,5163
0,0769
0,2285
0,9258
1,3324
0,6332
0,0765
1,1448
0,3760
0,6331
-
-
-
-
-
-
-
 | 25123
1,6880
2,2424
6,2508
0,3997
0,32290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,3429
0,3429
0,1152
1,7320
0,5662
0,9609
-
-
-
-
-
-
-
-
-
-
-
-
- | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115
-
-
-
-
-
-
-
-
-
-
-
-
- | 25030
1,0208
1,3541
0,2411
0,2411
0,3752
1,3842
0,3752
1,3842
0,0706
0,2078
0,2078
0,2078
0,2075
1,2159
0,5770
0,2051
0,0695
1,0435
0,3423
0,5769
-
-
-
-
-
-
-
-
-
-
-
-
- | 25127
0,4279
0,5641
1,5795
0,1012
0,5766
0,0585
0,1571
0,5766
0,0292
0,3523
0,5091
0,2415
0,0888
0,0291
0,4365
0,1436
0,2415
-
-
-
- | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0391
0,1159
0,4848
0,6801
0,3240
0,3240
0,1666
0,0390
0,5851
0,1915
0,3264
-
-
-
-
-
-
-
-
-
-
-
-
- |
25064
0,7418
0,9821
2,7492
0,1758
0,01711
0,02736
1,0051
0,0508
0,6147
0,8996
0,4241
0,4997
0,7624
0,4297
0,7624
0,2497
0,7624
0,2497
0,7624
0,2497
0,7624
0,2497
0,7624
0,2497
0,7624
0,2497
0,7624
0,2497
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7624
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,7644
0,764 | 25062 0,4037 0,5340 1,4945 0,0958 0,0958 0,0549 0,1490 0,5464 0,0276 0,0820 0,3347 0,4840 0,2333 0,0815 0,0278 0,0815 0,0278 0,4172 0,1371 0,2292 | 25014 0,4302 0,5739 1,5987 0,1019 0,0584 0,0584 0,0584 0,0584 0,0872 0,5126 0,2436 0,03617 0,5126 0,2436 0,0284 0,04411 0,1443 0,2464 | inorth 2 side 2 0,9627 1,2732 3,5543 0,0292 0,0,1308 0,03550 0,1308 0,0556 0,1953 0,1953 0,7961 1,1457 0,1938 0,0666 0,9930 0,3273 0,05457 - - - 0,1610 - | 25075 2 0,3489 0 0,419 0 1,2923 0 0,0828 0 0,0828 0 0,0475 0 0,04729 0 0,02897 0 0,02897 0 0,0378 0 0,0709 0 0,0709 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,0705 0 0,07181 0 - - - - - - 0,0588 0
 | 5060 2 0,5301 0,0007 0,7007 0,0007 1,9613 0,0123 0,01261 0,0123 0,017163 0,01954 0,0,01095 0,01095 0,01097 0,01095 0,03032 0,0,01095 0,03032 0,0,03067 0,03643 0,0,1664 0,03004 - - - - - - - 0,0889 0
 | 5135 21 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0672 C 0,0385 C 0,0194 C 0,0542 C 0,0544 C 0,0544 C 0,0574 C 0,0574 C 0,0574 C 0,0574 C 0,0576 C 0,0576 C 0,0572 C 0,0574 C 0,0575 C 0,0576 C 0,0572 C 0,1638 C - - - - - - - - 0,0480 C
 | 5073 2 ,0982 (,1302 ,1302 (,1303 ,0233 (,0134 ,0363 (,0134 ,0363 (,0134 ,0363 (,0134 ,0363 (,0134 ,0363 (,0134 ,0363 (,0138 ,0198 (,0198 ,0198 (,0198 ,0198 (,0198 ,0198 (,0138 ,0198 (,0158 ,0198 (,0158 ,0155 (,0158 |
5134
),2292
),3063
),8506
),0542
),0542
),0542
),0542
),0543
),0546
),0156
),1296
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0468
),0387
] | 25082
0,2129
0,2832
0,0504
0,0504
0,0289
0,0787
0,2885
0,0787
0,2885
0,0145
0,1777
0,2535
0,1207
0,0432
0,0432
0,0425
0,0425
0,0425
0,0425
0,0425
0,0425
0,0425
0,0425
0,0425
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,045
0,040000000000 | 25086
0,5402
0,7176
0,1778
0,1733
0,0733
0,1998
0,7324
0,0358
0,7324
0,0358
0,7324
0,04512
0,6418
0,3063
0,1102
0,0367
0,5547
0,1814
0,3103
 | 251:
2 0,0
3 0,1:
2 0,3:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
3 0,0:
1 0,1:
1 0,1:
1 0,1:
1 0,0:
2 0,0:
1 0,0:
2 0,0:
1 0,0:
2 0,0:
1 0,1:
1 0,1:
1 0,1:
2 0,3:
3 0,0:
3 0,0:
2 | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 2771 0, 064 0, 188 0, 770 0, 181 0, 523 0, 187 0, 310 0, 524 0, - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - <th>129 .0218 .0289 .0811 .0052 .0030 .0081 .0296 .0015 .0230 .0044 .0183 .0229 .0015 .0233 .0155 </th> <th>Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
20,83
29,87
14,22
5,06
1,71
25,72
8,43
14,22
5,06
1,71
25,72
8,43
14,22
0,00
0,00
0,00
0,00</th> | 129 .0218 .0289 .0811 .0052 .0030 .0081 .0296 .0015 .0230 .0044 .0183 .0229 .0015 .0233 .0155
 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
20,83
29,87
14,22
5,06
1,71
25,72
8,43
14,22
5,06
1,71
25,72
8,43
14,22
0,00
0,00
0,00
0,00 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25030
25047
25062
25064
25062
25064
25062
25044
BS north
side
25075
25030
25135
25073
25135
25073
25135
25073
25135
25073
25135
25073
25135
25073
25135
25073
25135
25073
25135
25135
25073
25135
25135
25135
25135
25135
25135
25135
25135
25135
25135
25135
25135
25135
25135
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157
25157 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930
3,7084
-
-
-
-
-
1,0952 | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,7740
0,1850
2,7741
-
-
-
-
-
-
-
-
-
-
-
-
- | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,1343
0,3963
1,6230
2,3228
1,1031
0,3941
0,1329
1,9595
0,6545
1,1063
-
-
-
-
-
-
-
-
-
-
-
-
- | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,3061
1,2398
1,7897
0,8528
0,3024
0,1032
1,5456
0,3024
0,1032
1,5457
0,8528
0,3024
0,1032
1,5457
0,8528
0,3024
0,5545
0,3024
0,1032
1,5457
0,8528
0,5545
0,5545
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,1025
0,3024
0,3024
0,3024
0,3024
0,3024
0,3024
0,3024
0,3024
0,3025
0,3024
0,3025
0,3024
0,3025
0,3024
0,3025
0,3024
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,3025
0,5545
0,3025
0,3025
0,5545
0,3025
0,5545
0,3025
0,5545
0,5545
0,3025
0,5545
0,5545
0,5545
0,3024
0,5545
0,5545
0,5545
0,5545
0,5545
0,5545
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755
0,5755 | BS west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,4119
1,5163
0,0769
0,2285
0,9288
1,3224
0,6332
0,2249
0,6332
0,2249
0,0765
1,1448
0,6331
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
-
 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,1150
0,3421
1,4022
2,0076
0,9560
0,3409
0,1152
1,7320
0,5662
0,9609
-
-
-
0,2840
0,9500
-
-
-
-
-
-
-
-
-
-
-
-
- | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,1827
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115
-
-
-
-
-
-
-
-
-
-
-
-
- | 25030
1,0208
1,3541
3,8081
0,2411
0,1395
0,3752
1,3842
0,0706
0,0706
0,0706
0,0708
0,0707
0,02051
0,0695
1,0435
0,5769
-
-
-
-
0,3423
0,5769
-
-
-
-
-
-
-
-
-
-
-
-
- | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,0792
0,0877
0,3523
0,0291
0,2415
0,0888
0,0291
0,4365
0,1436
0,2415
-
-
-
-
-
-
-
-
-
-
-
-
- | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,792
0,0321
0,1159
0,4848
0,03240
0,1159
0,4848
0,0390
0,5851
0,3264
-
-
-
0,0926
-
-
-
-
-
-
-
-
-
-
-
-
- |
25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,0508
0,1511
0,6147
0,08996
0,4231
0,1494
0,0897
0,7624
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497
0,2497 | 25062
0,4037
1,4945
0,0958
0,05549
0,0546
0,0276
0,0845
0,0347
0,4840
0,2333
0,4840
0,2333
0,0278
0,0278
0,4172
0,1371
0,2292
-
-
-
-
0,647
0,279
0,1371
0,2292
-
-
-
-
-
-
-
-
-
-
-
-
- | 25014 0,4302 0,5739 1,5987 0,1019 0,0584 0,0584 0,0584 0,0582 0,0294 0,0872 0,3617 0,5126 0,03617 0,5126 0,04411 0,1443 0,2464 | inorth
side 2
0,9627
1,2732
1,2732
0,2529
0,1308
0,2292
0,1308
0,0656
0,1953
0,7961
1,1457
0,5499
0,0656
0,1938
0,0666
0,9320
0,3273
0,3273
0,3273
0,5457
-
-
-
-
-
-
- | 25075 2 0,3489 (0,4619 (1,2923 (0,0828 (0,0828 (0,0475 (0,0709 (0,0238 (0,0709 (0,0709 (0,0415 (0,04165 (0,04165 (0,01181 (0,1181 (- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 | 5060 2 0,5301 (0,7007 (1,9613 (0,1261 (0,7163 (0,7163 (0,7163 (0,0362 (0,0362 (0,0362 (0,0362 (0,0362 (0,0362 (0,0362 (0,0364 (0,0364 (0,0364 (0,0364
 (0,0364 (0,0369 (0,0389 (0,0389 (| 5135 21 5,2839 C 5,3777 C 6,0516 C 5,0672 C 5,0672 C 5,0777 C 5,0672 C 5,0672 C 5,0672 C 5,0484 C 5,0574 C 5,3384 C 5,0480 C - - - - - - - - - - - - - - - - - - - - <th>5073 2 ,0982 () ,1302 () ,3633 () ,0233 () ,0134 () ,0363 () ,0134 () ,0363 () ,0199 () ,0564 () ,0564 () ,0564 () ,0564 () ,0564 () ,0568 () ,0558 () - - ,01055 ()</th> <th>5134
),2292
),3063
),3506
),0542
),0542
),0311
),0846
),0156
),0463
),0156
),0156
),02717
),1296
),0266
),0276
),0276
),0276
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156 </th> <th>25082
0,2129
0,2832
0,7878
0,0504
0,0787
0,2885
0,0145
0,0145
0,0145
0,2535
0,1207
0,0432
0,0145
0,2185
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,071400000000000000000000000000000000</th> <th>25086
0,5402
0,7176
2,0022
0,1278
0,07334
0,0398
0,7324
0,0366
0,1092
0,4512
0,6418
0,3063
0,1102
0,6418
0,3103
0,1102
0,0367
0,1104
0,3103
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,047
0,037
0,037
0,037
0,047
0,037
0,037
0,047
0,047
0,037
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,037
0,047
0,037
0,047
0,037
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,0470000000000</th> <th>251:
2 0,0
5 0,1;
2 0,3;
3 0,0;
3 0,0;
3 0,0;
4 0,1;
1 0,0;
2 0,0;
4 0,0;
5 0,0;
6 0,0;
7 0,0;
6 0,0;
7 0,0;
7 0,0;
7 0,0;
8 0,0;
9 0,0;
9</th> <th>31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271
 0, 064 0, 188 0, 770 0, 101 0, 523 0, 187 0, 947 0, 310 0, - - - - - - - - - -</th> <th>129
.0218
.0289
.00811
.0052
.0030
.0081
.0015
.0044
.0183
.0015
.0045
.0015
.0045
.00259
.0123
.0045
.00259
.0223
.0015
.0229
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259</th> <th>Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
7
29,87
14,22
5,06
1,71
25,72
5,06
1,71
25,72
5,66
1,71
25,72
9,87
14,22
5,06
0,00
0,00
0,00</th> | 5073 2 ,0982 () ,1302 () ,3633 () ,0233 () ,0134 () ,0363 () ,0134 () ,0363 () ,0199 () ,0564 () ,0564 () ,0564 () ,0564 () ,0564 () ,0568 () ,0558 () - - ,01055 () | 5134
),2292
),3063
),3506
),0542
),0542
),0311
),0846
),0156
),0463
),0156
),0156
),02717
),1296
),0266
),0276
),0276
),0276
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
),0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156
 ,0156 |
25082
0,2129
0,2832
0,7878
0,0504
0,0787
0,2885
0,0145
0,0145
0,0145
0,2535
0,1207
0,0432
0,0145
0,2185
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,0714
0,071400000000000000000000000000000000 | 25086
0,5402
0,7176
2,0022
0,1278
0,07334
0,0398
0,7324
0,0366
0,1092
0,4512
0,6418
0,3063
0,1102
0,6418
0,3103
0,1102
0,0367
0,1104
0,3103
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,0367
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,037
0,047
0,037
0,037
0,037
0,047
0,037
0,037
0,047
0,047
0,037
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,037
0,047
0,037
0,047
0,037
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,047
0,0470000000000 | 251:
2 0,0
5 0,1;
2 0,3;
3 0,0;
3 0,0;
3 0,0;
4 0,1;
1 0,0;
2 0,0;
4 0,0;
5 0,0;
6 0,0;
7 0,0;
6 0,0;
7 0,0;
7 0,0;
7 0,0;
8 0,0;
9 | 31 25 926 0, 232 0, 461 0, 218 0, 126 0, 341 0, 271 0, 064 0, 188 0, 770 0, 101 0, 523 0, 187 0, 947 0, 310 0, - - - - - - - - - - | 129
.0218
.0289
.00811
.0052
.0030
.0081
.0015
.0044
.0183
.0015
.0045
.0015
.0045
.00259
.0123
.0045
.00259
.0223
.0015
.0229
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259
.0259 | Total
25,23
33,39
93,32
5,96
3,42
9,27
34,08
1,72
5,10
20,83
7
29,87
14,22
5,06
1,71
25,72
5,06
1,71
25,72
5,66
1,71
25,72
9,87
14,22
5,06
0,00
0,00
0,00 |
| Origin
City center
25124
25125
25128
BS west side
25020
25030
25127
25010
25030
25044
25062
25044
BS north
side
25075
25075
25073
25135
25073
25135
25073
25135
25082
25082
25086
25131
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25030
25129
25030
25129
25030
25129
25075
25075
25073
25129
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25082
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129
25129 | City
center
6,6347
8,6892
24,2989
1,5561
0,8917
2,4119
8,8511
0,4466
1,3303
5,4106
7,7676
3,6953
1,3152
0,4468
6,6885
2,1930
0,4468
6,6885
2,1930
3,7084
-
-
- | 25124
2,7211
3,6435
10,1121
0,6420
0,3688
1,0012
3,6925
0,5493
2,2585
3,2195
1,5338
0,5487
0,1850
2,7749
0,9074
-
-
0,4566
-
- | 25125
1,9585
2,6044
7,3406
0,4617
0,2662
0,7191
2,6584
0,3963
1,6230
2,3228
1,1031
0,3941
0,3941
0,1329
1,9959
0,6545
1,1065
1,1065
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0658
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558
1,0558 | 25128
1,5157
1,9924
5,5633
0,3604
0,2045
0,2045
0,3026
0,1026
0,3021
1,2398
1,7897
0,8528
0,3024
0,1032
1,5426
0,5073
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5573
0,5575
0,5573
0,5575
0,5575
0,5575
0,5575
0,5575
0,5575
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775
0,5775 | BS
west
side
1,1291
1,4843
4,1599
0,2660
0,1539
0,0769
0,0769
1,5163
0,0769
1,3324
0,6332
0,6332
0,6332
0,6332
0,6332
0,6332
0,6332
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,6337
0,750000000000000000000000000000000000 | 25123
1,6880
2,2424
6,2508
0,3997
0,2290
0,6327
2,2862
0,3421
1,4022
2,0076
0,3421
1,4022
2,0076
0,3409
0,1152
1,7320
0,5662
0,5662
0,9609
-
-
0,2840
-
- | 25020
2,6688
3,5567
9,9470
0,6303
0,3626
0,9831
3,6801
0,3626
0,9831
3,6801
0,3626
0,9831
3,6801
0,5407
2,2222
3,1737
1,5085
0,5382
0,1816
2,7300
0,8940
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115
1,5115 | 25030
1,0208
1,3541
3,8083
0,2411
0,1395
0,3752
1,3842
0,0708
0,2078
0,2078
0,2078
0,2078
0,2051
0,0695
1,0435
0,3423
0,5769
-
-
0,1710
-
-
- | 25127
0,4279
0,5641
1,5795
0,1012
0,0585
0,1571
0,0292
0,0857
0,0292
0,0877
0,3523
0,0858
0,0291
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,2415
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455
0,455 | 25010
0,5719
0,7641
2,1244
0,1352
0,0776
0,2114
0,7792
0,0370
0,1159
0,4848
0,6801
0,3240
0,1166
0,3240
0,3240
0,3240
0,3240
0,3240
0,3245
0,3264
0,3265
0,3264
0,3265
0,3264
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265
0,3265 |
25064
0,7418
0,9821
2,7492
0,1758
0,1011
0,2736
1,0051
0,0508
0,0508
0,0508
0,4231
0,1494
0,2497
0,4207
0,4207
0,4207
-
-
-
-
-
-
-
-
-
-
-
-
- | 25062
0,4037
1,4945
0,0958
0,0958
0,0954
0,1490
0,5464
0,0276
0,8220
0,3347
0,4840
0,0820
0,3347
0,4815
0,0278
0,2333
0,0278
0,2292
0,2292
-
-
-
0,05679
-
-
-
-
-
-
-
-
-
-
-
-
- | 25014 25 0,4302 0,5739 0,5739 0,1019 0,0584 0,01019 0,05852 0,0294 0,0872 0,0372 0,0872 0,0372 0,0872 0,0488 0,02436 0,2436 0,24364 0,24464 0,2464 - 0,2464 - 0,0736 - - - | inorth
side 2 0,9627 - 1,2732 - 3,5543 - 0,0627 - 1,2732 - 0,0503 - 0,1308 - 0,0555 - 0,1953 - 0,1953 - 0,05457 - 0,5457 - 0,5457 - 0,5457 - 0,5457 - 0,5457 - - - - - 0,1610 - - - | 25075 2 0,3489 () 0,4619 () 1,2923 () 0,0828 () 0,0475 () 0,0475 () 0,0428 () 0,0475 () 0,0475 () 0,0475 () 0,0475 () 0,0475 () 0,0475 () 0,0705 () 0,0705 () 0,0194 () 0,0194 () 0,01981 () 0,1181 () 0,0588 () - - - - - - - - - - - - - - - - - - - - - - - - - <t< th=""><th>5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,7163 0 0,7163 0 0,7163 0 0,7163 0 0,0362 0 0,1079 0 0,1064 0 0,0362 0 0,1064 0 0,0367 0 0,10869 0 0,10809 0 0,10809 0 0,0382 0 0,00889 0 - - - - - -</th><th>5135 21 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0385 C 0,0385 C 0,0149 C 0,0194 C 0,0576 C 0,0576 C 0,0576 C 0,0576 C 0,0576 C 0,0494 C 0,0576 C 0,0576 C 0,1638 C 0,1638 C 0,1638 C - - - - 0,04480 C</th><th>5073 2 ,0982 (, ,1302 (, ,3633 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0199 (, ,0354 (, ,0554 (, ,0333 (, ,0558 (, ,0165 (, ,0165
(,</th><th>5134
),2292
),3063
),8506
),0542
),0311
),0846
),0156
),0156
),0156
),0463
),0157
),02717
),2717
),2717
),2717
),0266
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466</th><th>25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0430
0,1277
0,0432
0,0145
0,2185
0,0714
0,1226
-
-
0,0361
-
-</th><th>25086
0,5402
0,7176
2,00222
0,1278
0,0733
0,1998
0,7324
0,0363
0,1092
0,4512
0,04512
0,04512
0,04512
0,04512
0,04512
0,0367
0,1002
0,05547
0,1002
0,0367
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100000000</th><th>251:
2 0,0
5 0,1,1
2 0,3
3 0,0,0
3 0,0,0
3 0,0,0
3 0,0,0
1 0,1;
1 0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0,0
1 0,0,0,0
1 0,0,0,0,0,0</th><th>31 25 926 0, 232 0, 461 0, 128 0, 341 0, 271 0, 064 0, 188 0, 523 0, 188 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 524 0, - - - - - - - -</th><th>129
.0218
.0289
.00811
.0052
.0030
.00015
.0044
.0183
.00259
.0015
.02259
.0015
.0223
.0045
.0259
.0123
.0045
.0259
.0123
.0015
.0259
.0123
.0015
.0259
.0015
.00259
.0015
.00259
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015</th><th>Total
25,23
33,39
93,32
9,27
34,08
1,72
5,10
20,83
29,87
1,72
5,06
1,71
25,72
8,43
14,22
5,06
1,71
14,22
5,06
1,71
14,25
0,00
0,00
0,00
0,00
0,00</th></t<> | 5060 2 0,5301 0 0,7007 0 1,9613 0 0,1261 0 0,7163 0 0,7163 0 0,7163 0 0,7163 0 0,0362 0 0,1079 0 0,1064 0 0,0362 0 0,1064 0 0,0367 0 0,10869 0 0,10809 0 0,10809 0 0,0382 0 0,00889 0 - - - - - - | 5135 21 0,2839 C 0,3777 C 1,0516 C 0,0672 C 0,0385 C 0,0385 C 0,0149 C 0,0194 C 0,0576 C 0,0576 C 0,0576 C 0,0576 C 0,0576 C 0,0494 C 0,0576 C 0,0576 C 0,1638
 C 0,1638 C 0,1638 C - - - - 0,04480 C
 | 5073 2 ,0982 (, ,1302 (, ,3633 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0134 (, ,0363 (, ,0199 (, ,0354 (, ,0554 (, ,0333 (, ,0558 (, ,0165 (, ,0165 (, |
5134
),2292
),3063
),8506
),0542
),0311
),0846
),0156
),0156
),0156
),0463
),0157
),02717
),2717
),2717
),2717
),0266
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466
),0466 | 25082
0,2129
0,2832
0,7878
0,0504
0,0289
0,0787
0,2885
0,0145
0,0430
0,1277
0,0432
0,0145
0,2185
0,0714
0,1226
-
-
0,0361
-
- | 25086
0,5402
0,7176
2,00222
0,1278
0,0733
0,1998
0,7324
0,0363
0,1092
0,4512
0,04512
0,04512
0,04512
0,04512
0,04512
0,0367
0,1002
0,05547
0,1002
0,0367
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0102
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100
0,0100000000 | 251:
2 0,0
5 0,1,1
2 0,3
3 0,0,0
3 0,0,0
3 0,0,0
3 0,0,0
1 0,1;
1 0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0
1 0,0,0,0,0
1 0,0,0,0
1 0,0,0,0,0,0 | 31 25 926 0, 232 0, 461 0, 128 0, 341 0, 271 0, 064 0, 188 0, 523 0, 188 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 523 0, 187 0, 524 0, - - - - - - - - |
129
.0218
.0289
.00811
.0052
.0030
.00015
.0044
.0183
.00259
.0015
.02259
.0015
.0223
.0045
.0259
.0123
.0045
.0259
.0123
.0015
.0259
.0123
.0015
.0259
.0015
.00259
.0015
.00259
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015
.0015 | Total
25,23
33,39
93,32
9,27
34,08
1,72
5,10
20,83
29,87
1,72
5,06
1,71
25,72
8,43
14,22
5,06
1,71
14,22
5,06
1,71
14,25
0,00
0,00
0,00
0,00
0,00 |





Quantity m	4. autorena	ir		Q_oc																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS nort side	h 25075	25060	2513	5 250	73 251	34 2	5082	25086	25131	25129	Total
City center	0,0167	0,0220	0,0140	0,0056	0,0125	0,0010	0,0179	0,0098	0,0017	0,0071	0,0066	0,002	7 0,005	6 0,004	9 0,002	0 0,007	1 0,00	34 0,0	037 0,0	0110 (0,0012	0,0091	0,0012		0,17
25124	0,0447	0,0592	0,0375	0,0151	0,0336	0,0026	0,0480	0,0263	0,0046	0,0191	0,0178	0,007	2 0,015	1 0,013	2 0,005	3 0,019	1 0,00	92 0,0	099 0,0	296 (0,0033	0,0243	0,0033		0,45
25125	0,2296	0,3038	0,1924	0,0776	0,1722	0,0135	0,2464	0,1350	0,0236	0,0979	0,0911	0,037	1 0,077	6 0,067	5 0,027	0 0,097	9 0,04	73 0,0	506 0,1	519 0	0,0169	0,1249	0,0169		2,30
25128	0,0266	0,0352	0,0223	0,0090	0,0200	0,0016	0,0286	0,0157	0,0027	0,0114	0,0106	0,004	3 0,009	0 0,007	8 0,003	1 0,011	.4 0,00	55 0,0	059 0,0	176 (0,0020	0,0145	0,0020		0,27
BS west side	0,2951	0,3906	0,2474	0,0998	0,2213	0,0174	0,3168	0,1736	0,0304	0,1259	0,1172	0,047	7 0,099	8 0,086	8 0,034	7 0,125	9 0,06	08 0,0	651 0,1	.953 (0,0217	0,1606	0,0217		2,96
25123	0,0054	0,0071	0,0045	0,0018	0,0040	0,0003	0,0058	0,0032	0,0006	0,0023	0,0021	0,000	9 0,001	8 0,001	.6 0,000	6 0,002	3 0,00	11 0,0	012 0,0	036 0	0,0004	0,0029	0,0004		0,05
25020	0,0447	0,0592	0,0375	0,0151	0,0336	0,0026	0,0480	0,0263	0,0046	0,0191	0,0178	0,007	2 0,015	1 0,013	2 0,005	3 0,019	1 0,00	92 0,0	099 0,0	296 (0,0033	0,0243	0,0033		0,45
25030	0,0124	0,0164	0,0104	0,0042	0,0093	0,0007	0,0133	0,0073	0,0013	0,0053	0,0049	0,0020	0,004	2 0,003	6 0,001	5 0,005	3 0,00	25 0,0	027 0,0	082 0	0,0009	0,0067	0,0009		0,12
25127	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-		0,00
25010	0,0323	0,0427	0,0270	0,0109	0,0242	0,0019	0,0346	0,0190	0,0033	0,0138	0,0128	0,005	2 0,010	9 0,009	5 0,003	8 0,013	8 0,00	66 0,0	071 0,0	213 (0,0024	0,0176	0,0024		0,32
25064	0,0323	0,0427	0,0270	0,0109	0,0242	0,0019	0,0346	0,0190	0,0033	0,0138	0,0128	0,005	2 0,010	9 0,009	5 0,003	8 0,013	8 0,00	66 0,0	071 0,0	213 (0,0024	0,0176	0,0024		0,32
25062	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-		-		0,00
25014	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-		0,00
BS north side	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-		0,00
25075	-	-		-	-				-	-	-			-	-	-	-	-	-	-	-		-		0.00
25060	0,0054	0,0071	0,0045	0,0018	0,0040	0,0003	0,0058	0,0032	0,0006	0,0023	0,0021	0,000	9 0,001	8 0,001	.6 0,000	6 0,002	3 0.00	11 0.0	012 0.0	036 (0,0004	0,0029	0,0004		0,05
25135	0.0167	0.0220	0.0140	0.0056	0.0125	0.0010	0.0179	0.0098	0.0017	0.0071	0.0066	0.002	7 0.005	6 0.004	9 0.002	0 0.007	1 0.00	34 0.0	037 0.0	0110 0	0.0012	0.0091	0.0012		0.17
25073	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-		0,00
25134	0.0383	0.0507	0.0321	0.0130	0.0287	0.0023	0.0411	0.0225	0.0039	0.0163	0.0152	0.006	2 0.013	0 0.011	3 0.004	5 0.016	3 0.00	79 0.0	084 0.0	253 (0.0028	0.0208	0.0028		0.38
25082	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-	-	-		0,00
25086	-	-		-	-				-	-	-			-	-	-	-	-	-	-	-		-		0.00
25131	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-	-		-		0.00
25129	-	-		-	-	-	-	-	-	-				-	-	-	-	-	-	-	-	-	-		0.00
TOTAL	0,8000	1,0589	0,6706	0,2706	0,6000	0,0471	0,8589	0,4706	0,0824	0,3412	0,3177	0,1294	0,270	6 0,235	3 0,094	1 0,341	2 0,16	47 0,1	765 0,5	294 0	0,0588	0,4353	0,0588		8,0122
					•															•					
Quantity	5. B2B			Q_01																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	2508	86 251	31 251	29	Total
City	0.4355	3 3356	6.6765	4 4 7 7 7	F 0007	2 4075	0.4000	2 2040	4 7405	4.0720	2 2002	0.0540	0.0046	2 2245	0.7447	4 04 00	2 2025	0.004	0.4055	0.555				c.0.5	
center	8,4350	7,7756	6,4761	4,1722	5,9802	3,4979	9,4022	3,7818	1,7486	1,8728	2,2902	0,8648	0,9946	2,2315	0,7117	1,8180	2,2075	0,6944	0,4068	0,560	1,1	/01 0,3	s/14 0,1	692	67,63
25124	7,7016	7,5875	6,1902	3,8525	5,5219	3,3335	9,0457	3,5879	1,6280	1,8162	2,1600	0,8139	0,9594	2,0983	0,6711	1,7064	2,1114	0,6588	0,3947	0,535	6 1,1	148 0,3	3558 0,1	607	64,01
25125	6,4019	6,1654	5,2687	3,1877	4,6204	2,7445	7,5212	3,0342	1,3589	1,4833	1,8010	0,6780	0,7884	1,7351	0,5588	1,4228	1,7327	0,5437	0,3213	0,438	2 0,9	204 0,2	2996 0,1	343	53,16
25128	4,0611	3,8105	3,1662	2,0933	2,9165	1,7336	4,6210	1,8601	0,8627	0,9244	1,1368	0,4318	0,4930	1,1239	0,3554	0,9124	1,0909	0,3479	0,2008	0,276	3 0,5	787 0,1	1816 0,0	834	33,26
BS west side	5,8316	5,5121	4,6291	2,9184	4,3160	2,4874	6,7160	2,7488	1,2754	1,3314	1,6495	0,6207	0,7095	1,5954	0,5107	1,3121	1,5698	0,4984	0,2891	0,398	5 0,8	330 0,2	2668 0,1	202	48,14
25123	3,3801	3,2307	2,6740	1,7039	2,4212	1,5367	3,9206	1,5667	0,7222	0,7889	0,9581	0,3631	0,4199	0,9333	0,2997	0,7594	0,9286	0,2920	0,1704	0,236	2 0,49	935 0,1	1542 0,0	712	28,02
25020	9,2735	8,9971	7,5002	4,6321	6,7058	4,0244	11,4156	4,3664	1,9807	2,1937	2,6377	0,9934	1,1588	2,5396	0,8207	2,0767	2,5392	0,7983	0,4705	0,645	1 1,3	502 0,4	1445 0,1	967	77,76
25030	3,6779	3,5319	2,9883	1,8490	2,7059	1,5835	4,3122	1,7864	0,7935	0,8563	1,0523	0,3939	0,4554	1,0099	0,3247	0,8282	0,9994	0,3162	0,1848	0,253	5 0,5	304 0,1	1712 0,0	772	30,68

| | - | | | | | |

 | |

 | | | |
 | | |
 | |
 | | |
 | | 67,63 |
|---------|---|---|---|--|--|--
--
--
---|---
--
--|--
--|--|--|---|--
--
---------------------|--|---
---|--|---|---|--|
| 7,7016 | 7,5875 | 6,1902 | 3,8525 | 5,5219 | 3,3335 | 9,0457 | 3,5879

 | 1,6280 | 1,8162

 | 2,1600 | 0,8139 | 0,9594 | 2,0983
 | 0,6711 | 1,7064 | 2,1114
 | 0,6588 | 0,3947
 | 0,5356 | 1,1148 | 0,3558
 | 0,1607 | 64,01 |
| 6,4019 | 6,1654 | 5,2687 | 3,1877 | 4,6204 | 2,7445 | 7,5212 | 3,0342

 | 1,3589 | 1,4833

 | 1,8010 | 0,6780 | 0,7884 | 1,7351
 | 0,5588 | 1,4228 | 1,7327
 | 0,5437 | 0,3213
 | 0,4382 | 0,9204 | 0,2996
 | 0,1343 | 53,16 |
| 4,0611 | 3,8105 | 3,1662 | 2,0933 | 2,9165 | 1,7336 | 4,6210 | 1,8601

 | 0,8627 | 0,9244

 | 1,1368 | 0,4318 | 0,4930 | 1,1239
 | 0,3554 | 0,9124 | 1,0909
 | 0,3479 | 0,2008
 | 0,2763 | 0,5787 | 0,1816
 | 0,0834 | 33,26 |
| 5,8316 | 5,5121 | 4,6291 | 2,9184 | 4,3160 | 2,4874 | 6,7160 | 2,7488

 | 1,2754 | 1,3314

 | 1,6495 | 0,6207 | 0,7095 | 1,5954
 | 0,5107 | 1,3121 | 1,5698
 | 0,4984 | 0,2891
 | 0,3985 | 0,8330 | 0,2668
 | 0,1202 | 48,14 |
| 3,3801 | 3,2307 | 2,6740 | 1,7039 | 2,4212 | 1,5367 | 3,9206 | 1,5667

 | 0,7222 | 0,7889

 | 0,9581 | 0,3631 | 0,4199 | 0,9333
 | 0,2997 | 0,7594 | 0,9286
 | 0,2920 | 0,1704
 | 0,2362 | 0,4935 | 0,1542
 | 0,0712 | 28,02 |
| 9,2735 | 8,9971 | 7,5002 | 4,6321 | 6,7058 | 4,0244 | 11,4156 | 4,3664

 | 1,9807 | 2,1937

 | 2,6377 | 0,9934 | 1,1588 | 2,5396
 | 0,8207 | 2,0767 | 2,5392
 | 0,7983 | 0,4705
 | 0,6451 | 1,3502 | 0,4445
 | 0,1967 | 77,76 |
| 3,6779 | 3,5319 | 2,9883 | 1,8490 | 2,7059 | 1,5835 | 4,3122 | 1,7864

 | 0,7935 | 0,8563

 | 1,0523 | 0,3939 | 0,4554 | 1,0099
 | 0,3247 | 0,8282 | 0,9994
 | 0,3162 | 0,1848
 | 0,2535 | 0,5304 | 0,1712
 | 0,0772 | 30,68 |
| 1,6755 | 1,5762 | 1,3228 | 0,8467 | 1,2217 | 0,7175 | 1,9268 | 0,7861

 | 0,3711 | 0,3838

 | 0,4766 | 0,1785 | 0,2040 | 0,4593
 | 0,1470 | 0,3782 | 0,4501
 | 0,1434 | 0,0827
 | 0,1137 | 0,2378 | 0,0763
 | 0,0345 | 13,81 |
| 1,7731 | 1,7233 | 1,4287 | 0,8850 | 1,2778 | 0,7773 | 2,1039 | 0,8301

 | 0,3782 | 0,4423

 | 0,5050 | 0,1911 | 0,2290 | 0,4891
 | 0,1579 | 0,3975 | 0,4962
 | 0,1535 | 0,0923
 | 0,1262 | 0,2643 | 0,0827
 | 0,0391 | 14,84 |
| 2,1689 | 2,0637 | 1,7312 | 1,1006 | 1,5744 | 0,9430 | 2,5335 | 1,0241

 | 0,4718 | 0,5047

 | 0,6544 | 0,2388 | 0,2695 | 0,6027
 | 0,1940 | 0,4941 | 0,5935
 | 0,1903 | 0,1086
 | 0,1514 | 0,3144 | 0,1000
 | 0,0455 | 18,07 |
| 0,8033 | 0,7676 | 0,6378 | 0,4097 | 0,5814 | 0,3503 | 0,9359 | 0,3764

 | 0,1733 | 0,1877

 | 0,2343 | 0,0920 | 0,0996 | 0,2293
 | 0,0733 | 0,1875 | 0,2204
 | 0,0726 | 0,0406
 | 0,0562 | 0,1176 | 0,0369
 | 0,0169 | 6,70 |
| 0,9263 | 0,8991 | 0,7438 | 0,4672 | 0,6659 | 0,4064 | 1,0873 | 0,4328

 | 0,1985 | 0,2236

 | 0,2638 | 0,1002 | 0,1234 | 0,2566
 | 0,0828 | 0,2075 | 0,2600
 | 0,0798 | 0,0482
 | 0,0662 | 0,1401 | 0,0428
 | 0,0205 | 7,74 |
| 2,1400 | 2,0290 | 1,6823 | 1,0929 | 1,5453 | 0,9248 | 2,4625 | 0,9932

 | 0,4585 | 0,4946

 | 0,6084 | 0,2359 | 0,2641 | 0,6146
 | 0,1939 | 0,5007 | 0,5820
 | 0,1911 | 0,1071
 | 0,1480 | 0,3052 | 0,0973
 | 0,0446 | 17,72 |
| 0,6562 | 0,6261 | 0,5205 | 0,3339 | 0,4732 | 0,2869 | 0,7641 | 0,3067

 | 0,1410 | 0,1523

 | 0,1887 | 0,0725 | 0,0814 | 0,1860
 | 0,0622 | 0,1511 | 0,1801
 | 0,0590 | 0,0331
 | 0,0460 | 0,0962 | 0,0301
 | 0,0138 | 5,46 |
| 1,7289 | 1,6364 | 1,3716 | 0,8877 | 1,2531 | 0,7495 | 2,0057 | 0,8095

 | 0,3748 | 0,3990

 | 0,4959 | 0,1925 | 0,2130 | 0,4978
 | 0,1565 | 0,4098 | 0,4717
 | 0,1538 | 0,0868
 | 0,1201 | 0,2513 | 0,0792
 | 0,0362 | 14,38 |
| 2,1087 | 2,0340 | 1,6711 | 1,0616 | 1,5095 | 0,9237 | 2,4453 | 0,9775

 | 0,4501 | 0,4984

 | 0,5980 | 0,2266 | 0,2674 | 0,5817
 | 0,1871 | 0,4737 | 0,6072
 | 0,1822 | 0,1087
 | 0,1530 | 0,3176 | 0,0962
 | 0,0460 | 17,53 |
| 0,6462 | 0,6113 | 0,5108 | 0,3295 | 0,4652 | 0,2810 | 0,7489 | 0,3012

 | 0,1386 | 0,1505

 | 0,1858 | 0,0725 | 0,0804 | 0,1852
 | 0,0595 | 0,1497 | 0,1769
 | 0,0600 | 0,0325
 | 0,0451 | 0,0943 | 0,0295
 | 0,0136 | 5,37 |
| 0,3772 | 0,3691 | 0,3013 | 0,1897 | 0,2704 | 0,1649 | 0,4410 | 0,1749

 | 0,0804 | 0,0903

 | 0,1068 | 0,0405 | 0,0481 | 0,1039
 | 0,0334 | 0,0846 | 0,1055
 | 0,0325 | 0,0203
 | 0,0267 | 0,0557 | 0,0173
 | 0,0083 | 3,14 |
| 0,5139 | 0,4942 | 0,4093 | 0,2592 | 0,3694 | 0,2256 | 0,6020 | 0,2395

 | 0,1101 | 0,1217

 | 0,1467 | 0,0556 | 0,0655 | 0,1423
 | 0,0459 | 0,1160 | 0,1471
 | 0,0446 | 0,0264
 | 0,0384 | 0,0778 | 0,0235
 | 0,0112 | 4,29 |
| 1,0784 | 1,0441 | 0,8658 | 0,5442 | 0,7780 | 0,4738 | 1,2711 | 0,5057

 | 0,2305 | 0,2590

 | 0,3085 | 0,1170 | 0,1417 | 0,2967
 | 0,0967 | 0,2441 | 0,3037
 | 0,0933 | 0,0557
 | 0,0778 | 0,1703 | 0,0500
 | 0,0236 | 9,03 |
| 0,3450 | 0,3335 | 0,2813 | 0,1726 | 0,2504 | 0,1489 | 0,4182 | 0,1632

 | 0,0739 | 0,0812

 | 0,0980 | 0,0369 | 0,0429 | 0,0944
 | 0,0304 | 0,0774 | 0,0937
 | 0,0296 | 0,0174
 | 0,0239 | 0,0500 | 0,0171
 | 0,0073 | 2,89 |
| 0,1532 | 0,1463 | 0,1227 | 0,0771 | 0,1099 | 0,0671 | 0,1796 | 0,0714

 | 0,0327 | 0,0371

 | 0,0436 | 0,0165 | 0,0199 | 0,0423
 | 0,0135 | 0,0345 | 0,0435
 | 0,0132 | 0,0081
 | 0,0110 | 0,0230 | 0,0071
 | 0,0035 | 1,28 |
| 65,8579 | 62,9645 | 52,4934 | 33,0667 | 47,5334 | 28,3823 | 76,8801 | 30,7245

 | 14,0534 | 15,2934

 | 18,6000 | 7,0267 | 8,1289 | 18,0489
 | 5,7867 | 14,7422 | 17,9111
 | 5,6489 | 3,3067
 | 4,5467 | 9,5067 | 3,0311
 | 1,3778 | 544,9120 |
| | 7,7016
6,4019
4,0611
5,8316
3,8801
9,2735
3,6779
1,6755
1,7731
2,1689
0,8033
0,9263
2,1400
0,6562
1,7289
2,1087
0,66462
0,3772
0,5139
1,0784
0,3450
0,3450 | 7,7016 7,5875 6,4019 6,1654 4,0611 3,8105 5,8316 5,5121 3,3801 3,2307 9,2735 8,9971 3,6779 3,5319 1,6755 1,5762 1,7731 1,7233 2,1689 2,0637 0,9263 0,7676 0,9263 0,6562 0,6562 0,6261 1,7289 1,6364 2,0340 0,6462 0,6372 0,3691 0,5139 0,4942 0,3450 0,3345 0,3450 0,3345 | 7,7016 7,5875 6,1902 6,4019 6,1654 5,2687 4,0611 3,8105 3,1662 5,8316 5,5121 4,6291 3,3801 3,2307 2,6740 9,2735 8,9971 7,5002 3,6779 3,5319 2,9883 1,6755 1,5762 1,3228 1,6755 1,5762 1,7231 1,733 1,7233 1,4287 2,1689 2,0637 1,7312 0,8930 0,7676 0,6378 0,9263 0,6921 0,5205 1,728 1,6324 1,3716 2,1400 2,0340 1,6113 0,6552 0,6261 0,5205 1,7289 1,6344 1,3716 2,1689 0,3450 0,313 0,5139 0,4942 0,4093 0,5139 0,4942 0,4093 0,5139 0,4942 0,4033 0,5139 0,4942 0,4033 0,5450 | 7,7016 7,5875 6,1902 3,8525 6,4019 6,1654 5,2687 3,1877 4,0611 3,8105 3,1662 2,0933 5,8316 5,5121 4,6291 2,9184 3,3801 3,2307 2,6740 1,7039 9,2735 8,9971 7,5002 4,6321 3,6779 3,5319 2,9883 1,8490 1,6755 1,5762 1,3228 0,845 2,1689 2,0637 1,7312 1,1006 0,8930 0,7676 0,6378 0,4672 2,1400 2,0290 1,6823 1,0929 0,6562 0,6261 0,5205 0,3339 1,7289 1,6364 1,3716 0,8877 2,1400 2,0340 1,6711 1,0616 0,6452 0,6131 0,5108 0,3295 0,3772 0,3691 0,3013 0,1897 0,5139 0,4942 0,4093 0,5542 0,73450 0,3453 0,2814 | 7,7016 7,5875 6,1902 3,8525 5,5219 6,4019 6,1654 5,2687 3,1877 4,6204 4,0611 3,8105 3,1662 2,0933 2,9165 5,8316 5,5121 4,6291 2,9184 4,3160 3,3801 3,2307 2,6740 1,7039 2,4212 9,2735 8,9971 7,5002 4,6321 6,7058 3,6779 3,5319 2,9883 1,8490 2,7059 1,6755 1,5722 1,3228 0,8467 1,2217 1,7731 1,7233 1,4247 0,8850 1,2778 2,1689 2,0637 1,7312 1,1006 1,5744 0,8333 0,7676 0,6378 0,4097 0,6512 2,1400 2,0290 1,6823 1,0929 1,5453 0,6562 0,6261 0,5205 0,3339 0,4732 1,7289 1,6364 1,3716 0,8277 1,2531 2,0400 1,6130 0,1287 0,329 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 4,0611 3,8105 3,1862 2,0933 2,9165 1,7336 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 3,3803 3,2307 2,6740 1,7039 2,4212 1,5367 9,2735 8,9971 7,5002 4,6221 6,7058 4,0244 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 1,6755 1,5762 1,3228 0,8467 1,2217 0,7173 2,1689 2,0637 1,7132 1,1006 1,5744 0,9430 0,8633 0,7676 0,6378 0,4072 0,6826 0,4064 2,1400 2,0290 1,6823 1,0929 1,5433 0,9248 0,6562 0,6261 0,5205 0,3339 0,4732 0,2869 1,7289 1,6364 1,3716 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 4,0611 3,8105 3,1662 2,0933 2,9165 1,7336 4,6210 5,816 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 3,3801 3,2307 2,6740 1,7039 2,4212 1,5367 3,9206 9,7375 8,9971 7,5002 4,6321 6,7058 4,0244 11,4156 3,6773 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,6755 1,5762 1,3228 0,8467 1,2217 0,7173 1,039 2,1689 2,0637 1,7312 1,1006 1,5744 0,9430 2,5335 0,8330 0,7676 0,6378 0,4077 0,5184 0,4523 0,9372 2,1400 2,0290 1,6823 1,0929 1,5453 0,9248 2,4625 <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 4,0611 3,8105 3,1662 2,0933 2,9165 1,7336 4,6210 1,8601 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 3,3801 3,297 2,6700 1,7039 2,4212 1,5677 3,9206 1,5667 9,2735 8,9971 7,5002 4,6221 6,7058 4,4241 1,4156 4,3664 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 1,6753 1,5722 1,2287 0,8450 1,2778 0,7773 2,1039 0,8311 2,0637 1,7312 1,1006 1,5744 0,9430 2,5335 1,0241 0,8638 0,7676 0,6378 0,4672 0,6565 0,40641 0,30</th> <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 4,0611 3,8105 3,1662 2,0933 2,9165 1,7336 4,6210 1,6601 0,8627 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 3,3803 3,2307 2,6740 1,7039 2,4212 1,5567 3,9206 1,5667 0,7222 9,2735 8,9971 7,5002 4,6321 6,7058 4,0244 1,1456 4,3664 1,9807 1,6753 1,5762 1,3228 0,8467 1,2217 0,7173 1,9268 0,7816 0,3711 1,7733 1,4287 0,8850 1,2718 0,4733 0,4723 0,4930 2,5335 1,0241 0,4718 0,8033 0,6767 0,6378 0,4072 0,6859 <td< th=""><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 5,816 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 3,3801 3,2307 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,7212 0,7883 3,773 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,7733 1,7233 1,4287 0,8850 1,2778 0,7175 1,0268 0,7861 0,7173 0,1391 0,3742 0,4423 2,1689 2,0637 1,7312 1,1006 1,5744 0,9430
2,5335</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 3,3810 3,2970 2,6700 1,7039 2,4212 1,5367 3,9206 1,5667 0,7222 0,7889 0,9581 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 1,7733 1,7228 1,4287 0,8850 1,2778 0,1410 0,1733 0,1423 0,5050 2,7638 2,0637 1,7312 1,1006</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 4,0611 3,8105 3,1867 4,6210 1,8601 0,8227 0,9244 1,1368 0,4318 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,314 1,6495 0,6207 3,3803 3,2307 2,6740 1,7039 2,4212 1,5767 3,9206 1,5667 0,7222 0,7889 0,9581 0,6313 3,6779 3,5319 2,9883 1,8490 2,7059 1,5585 4,3122 1,7864 0,9735 0,8563 1,0523 0,3393 1,7733 1,4287 0,8850 1,2717 0,7173 1,0268 0,7816 0,7111 0,4383 0,6766 0,1783</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 4,0611 3,8105 3,1662 2,0933 2,9154 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 0,4318 0,4930 5,8161 5,5121 4,6202 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6493 0,6301 0,7193 3,3801 3,2307 2,6740 1,7339 2,4212 1,5567 3,9206 1,5667 0,7222 0,7889 0,6331 0,4132 0,4563 1,5572 0,9334 0,4564 1,5887 0,5533 1,0523 0,3339 0,4554 3,6773 3,5319 2,9883 1,8490 2,7759 1,5268 0,7861 0,7713<!--</th--><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 0,9594 2,0983 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 4,0611 3,8105 2,1620 2,9383 2,9164 1,7336 4,6210 1,8601 0,8627 0,9244 1,3368 0,4318 0,4930 1,1239 5,811 4,6203 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,722 0,7889 0,9581 0,3631 0,1158 2,5396 3,801 3,2307 2,6740 1,7039 2,4212 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 1,7733 1,7474 0,8805 1,7778 0,7175 1,9268 0,7816 0,7171 0,8331 0,4766 0,1781 0,2040 0,4893</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 4,0611 3,8102 2,0233 2,9165 1,7336 4,6210 1,860 0,8627 0,2244 1,1368 0,4318 0,4303 1,1239 0,3554 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 0,6313 0,4199 0,333 0,2907 3,3305 2,9202 2,6831 1,7032 2,4212 1,5355 4,3122 1,7864 1,9307 0,8533 1,0523 0,3339 0,4554 1,0099 0,3247 1,7733 1,3724 1,3287 0,8310 0,7824 0,7173 0,3103</th></th></td<><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3333 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 1,4228 4,0611 3,8105 3,1622 2,0933 2,9165 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 0,4318 0,4939 1,1239 0,5554 0,5124 5,8121 4,6202 2,9184 4,0241 1,1566 3,9266 1,5667 0,722 0,7889 0,6531 0,6313 0,499 0,333 0,2997 0,7594 9,7375 8,971 7,5020 4,6321 1,5563 1,3121 1,3646 1,9807 2,1397 0,9333 0,4554 1,029 0,3331 0,2327 0,9333 0,2477 0,9334 1,4797 0,8263<!--</th--><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 0,8139 0,9544 2,0983 0,6711 1,7064 2,1114 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7236 0,5588 1,4228 1,7327 4,0611 3,8102 2,0983 2,9184 4,3100 2,4874 6,7100 2,7488 1,2754 1,3141 1,6495 0,6207 0,7095 1,5954 0,5107 1,3121 1,5698 3,3801 3,2307 2,6740 1,7039 2,4212 1,567 0,7254 0,7817 0,9381 0,4159 0,4507 0,7973 2,5376 0,3207 0,7372 2,5372 3,6773 3,519 2,883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7813 0,4766 0,1785 0,0207 0,3247 0,4232 0,5507</th><th>7,7016 7,587 6,1902 3,852 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,5588 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7313 0,5588 1,4228 1,7327 0,5437 4,0611 3,8105 3,162 2,0933 2,2184 4,310 2,4874 6,7106 2,7488 1,2754 1,3314 1,6459 0,6217 0,7095 1,5154 0,5107 1,3121 1,5669 0,2926 3,3801 3,2307 2,6770 4,6321 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 0,3247 0,6822 0,9949 0,3162 3,6773 3,519 1,3282 1,588 1,5812 1,0819 0,4262 1,5124 0,4841 0,4310<th>7.7016 7.587 6.1902 3.825 5.5219 3.335 9.0457 3.5879 1.6280 1.8162 2.1600 0.8139 0.9594
 2.0983 0.6711 1.7066 2.111 0.5588 1.4228 1.7370 0.5543 0.3213 4.0611 3.8105 3.1662 2.0333 2.9165 1.7336 4.6210 1.8601 0.8627 0.9244 1.1368 0.4317 0.4318 0.4316</th><th>7.7016 7.5875 6.1902 3,8555 5,5219 3,333 9,047 3,8579 1,6280 1,8162 2,1600 0.8139 0,0784 1,7064 1,7064 2,1114 0,6588 0,3431 0,4382 6,4019 6,1654 5,267 3,1877 4,6204 2,7455 7,5212 3,0382 1,3880 1,8102 0,7844 1,7330 0,5718 0,5388 1,4228 1,737 0,5437 0,3131 0,4382 4,0011 3,8105 3,1662 2,0933 2,916 1,736 4,6201 0,8627 0,9241 0,5581 0,3131 0,4930 1,2128 0,3554 0,9174 1,5698 0,4948 0,2280 0,7474 0,314 0,4953 0,5751 1,3214 1,568 0,3470 0,3331 0,3354 0,4254 1,314 0,4984 0,2114 0,4984 0,2114 0,4934 0,4281 0,5761 0,3224 0,3234 0,4282 0,4743 0,4281 0,4703 0,4231 0,4314 0,4024 0,</th><th>7.7016 7.5875 6.1902 3,8525 5,5219 3,333 9,057 1,6280 1,8162 2,1600 0,8139 0,0571 1,7064 2,1114 0,6588 0,3471 0,5381 0,4312 0,3232 0,3231 0,4323 0,3232 0,3233 0,3273 0,3233 0,3471 0,3432 0,3233 0,3781 1,7381 0,5588 1,7236 1,7230 0,3233 0,3773 0,3233 0,3479 0,3479 0,3439 0,3479<th>7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134 1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<></th></th></th></th></th> | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 4,0611 3,8105 3,1662 2,0933 2,9165 1,7336 4,6210 1,8601 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 3,3801 3,297 2,6700 1,7039 2,4212 1,5677 3,9206 1,5667 9,2735 8,9971 7,5002 4,6221 6,7058 4,4241 1,4156 4,3664 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 1,6753 1,5722 1,2287 0,8450 1,2778 0,7773 2,1039 0,8311 2,0637 1,7312 1,1006 1,5744 0,9430 2,5335 1,0241 0,8638 0,7676 0,6378 0,4672 0,6565 0,40641 0,30 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 4,0611 3,8105 3,1662 2,0933 2,9165 1,7336 4,6210 1,6601 0,8627 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 3,3803 3,2307 2,6740 1,7039 2,4212 1,5567 3,9206 1,5667 0,7222 9,2735 8,9971 7,5002 4,6321 6,7058 4,0244 1,1456 4,3664 1,9807 1,6753 1,5762 1,3228 0,8467 1,2217 0,7173 1,9268 0,7816 0,3711 1,7733 1,4287 0,8850 1,2718 0,4733 0,4723 0,4930 2,5335 1,0241 0,4718 0,8033 0,6767 0,6378 0,4072 0,6859 <td< th=""><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 5,816 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 3,3801 3,2307 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,7212 0,7883 3,773 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,7733 1,7233 1,4287 0,8850 1,2778 0,7175 1,0268 0,7861 0,7173 0,1391 0,3742 0,4423 2,1689 2,0637 1,7312 1,1006 1,5744 0,9430 2,5335</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342
 1,3589 1,4833 1,8010 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 3,3810 3,2970 2,6700 1,7039 2,4212 1,5367 3,9206 1,5667 0,7222 0,7889 0,9581 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 1,7733 1,7228 1,4287 0,8850 1,2778 0,1410 0,1733 0,1423 0,5050 2,7638 2,0637 1,7312 1,1006</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 4,0611 3,8105 3,1867 4,6210 1,8601 0,8227 0,9244 1,1368 0,4318 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,314 1,6495 0,6207 3,3803 3,2307 2,6740 1,7039 2,4212 1,5767 3,9206 1,5667 0,7222 0,7889 0,9581 0,6313 3,6779 3,5319 2,9883 1,8490 2,7059 1,5585 4,3122 1,7864 0,9735 0,8563 1,0523 0,3393 1,7733 1,4287 0,8850 1,2717 0,7173 1,0268 0,7816 0,7111 0,4383 0,6766 0,1783</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 4,0611 3,8105 3,1662 2,0933 2,9154 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 0,4318 0,4930 5,8161 5,5121 4,6202 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6493 0,6301 0,7193 3,3801 3,2307 2,6740 1,7339 2,4212 1,5567 3,9206 1,5667 0,7222 0,7889 0,6331 0,4132 0,4563 1,5572 0,9334 0,4564 1,5887 0,5533 1,0523 0,3339 0,4554 3,6773 3,5319 2,9883 1,8490 2,7759 1,5268 0,7861 0,7713<!--</th--><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 0,9594 2,0983 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 4,0611 3,8105 2,1620 2,9383 2,9164 1,7336 4,6210 1,8601 0,8627 0,9244 1,3368 0,4318 0,4930 1,1239 5,811 4,6203 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,722 0,7889 0,9581 0,3631 0,1158 2,5396 3,801 3,2307 2,6740 1,7039 2,4212 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 1,7733 1,7474 0,8805 1,7778 0,7175 1,9268 0,7816 0,7171 0,8331 0,4766 0,1781 0,2040 0,4893</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 4,0611 3,8102 2,0233 2,9165 1,7336 4,6210 1,860 0,8627 0,2244 1,1368 0,4318 0,4303 1,1239 0,3554 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 0,6313 0,4199 0,333 0,2907 3,3305 2,9202 2,6831 1,7032 2,4212 1,5355 4,3122 1,7864 1,9307 0,8533 1,0523 0,3339 0,4554 1,0099 0,3247 1,7733 1,3724 1,3287 0,8310 0,7824 0,7173 0,3103</th></th></td<> <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3333 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 1,4228 4,0611 3,8105 3,1622 2,0933 2,9165 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 0,4318 0,4939 1,1239 0,5554 0,5124 5,8121 4,6202 2,9184 4,0241 1,1566 3,9266 1,5667 0,722 0,7889 0,6531 0,6313 0,499 0,333 0,2997 0,7594 9,7375 8,971 7,5020 4,6321 1,5563 1,3121 1,3646 1,9807 2,1397 0,9333 0,4554 1,029 0,3331 0,2327 0,9333 0,2477 0,9334 1,4797 0,8263<!--</th--><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 0,8139 0,9544 2,0983 0,6711 1,7064 2,1114 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7236 0,5588 1,4228 1,7327 4,0611 3,8102 2,0983 2,9184 4,3100 2,4874 6,7100 2,7488 1,2754 1,3141 1,6495 0,6207 0,7095 1,5954 0,5107 1,3121 1,5698 3,3801 3,2307 2,6740 1,7039 2,4212 1,567 0,7254 0,7817 0,9381 0,4159 0,4507 0,7973 2,5376 0,3207 0,7372 2,5372 3,6773 3,519 2,883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7813 0,4766 0,1785 0,0207 0,3247 0,4232 0,5507</th><th>7,7016 7,587 6,1902 3,852 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,5588 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7313 0,5588 1,4228 1,7327 0,5437 4,0611 3,8105 3,162 2,0933 2,2184 4,310 2,4874 6,7106 2,7488 1,2754 1,3314 1,6459 0,6217 0,7095 1,5154 0,5107 1,3121 1,5669 0,2926 3,3801 3,2307 2,6770 4,6321 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 0,3247 0,6822 0,9949 0,3162 3,6773 3,519 1,3282 1,588 1,5812 1,0819 0,4262 1,5124 0,4841 0,4310<th>7.7016 7.587 6.1902 3.825 5.5219 3.335 9.0457 3.5879 1.6280 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7066 2.111 0.5588 1.4228 1.7370 0.5543 0.3213 4.0611 3.8105 3.1662 2.0333 2.9165 1.7336 4.6210 1.8601 0.8627 0.9244
1.1368 0.4317 0.4318 0.4316</th><th>7.7016 7.5875 6.1902 3,8555 5,5219 3,333 9,047 3,8579 1,6280 1,8162 2,1600 0.8139 0,0784 1,7064 1,7064 2,1114 0,6588 0,3431 0,4382 6,4019 6,1654 5,267 3,1877 4,6204 2,7455 7,5212 3,0382 1,3880 1,8102 0,7844 1,7330 0,5718 0,5388 1,4228 1,737 0,5437 0,3131 0,4382 4,0011 3,8105 3,1662 2,0933 2,916 1,736 4,6201 0,8627 0,9241 0,5581 0,3131 0,4930 1,2128 0,3554 0,9174 1,5698 0,4948 0,2280 0,7474 0,314 0,4953 0,5751 1,3214 1,568 0,3470 0,3331 0,3354 0,4254 1,314 0,4984 0,2114 0,4984 0,2114 0,4934 0,4281 0,5761 0,3224 0,3234 0,4282 0,4743 0,4281 0,4703 0,4231 0,4314 0,4024 0,</th><th>7.7016 7.5875 6.1902 3,8525 5,5219 3,333 9,057 1,6280 1,8162 2,1600 0,8139 0,0571 1,7064 2,1114 0,6588 0,3471 0,5381 0,4312 0,3232 0,3231 0,4323 0,3232 0,3233 0,3273 0,3233 0,3471 0,3432 0,3233 0,3781 1,7381 0,5588 1,7236 1,7230 0,3233 0,3773 0,3233 0,3479 0,3479 0,3439 0,3479<th>7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134 1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<></th></th></th></th> | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 5,816 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 3,3801 3,2307 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,7212 0,7883 3,773 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,7733 1,7233 1,4287 0,8850 1,2778 0,7175 1,0268 0,7861 0,7173 0,1391 0,3742 0,4423 2,1689 2,0637 1,7312 1,1006 1,5744 0,9430 2,5335 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 4,0611 3,8105 3,1662 2,0933 2,9155 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 3,3810 3,2970 2,6700 1,7039 2,4212 1,5367 3,9206 1,5667 0,7222 0,7889 0,9581 3,6779 3,5319 2,9883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 1,7733 1,7228 1,4287 0,8850 1,2778 0,1410 0,1733 0,1423 0,5050 2,7638 2,0637 1,7312 1,1006 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 4,0611 3,8105 3,1867 4,6210 1,8601 0,8227 0,9244 1,1368 0,4318 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,314 1,6495 0,6207 3,3803 3,2307 2,6740 1,7039 2,4212 1,5767 3,9206 1,5667 0,7222 0,7889 0,9581 0,6313 3,6779 3,5319 2,9883 1,8490 2,7059 1,5585 4,3122 1,7864 0,9735 0,8563 1,0523 0,3393 1,7733 1,4287 0,8850 1,2717 0,7173 1,0268 0,7816 0,7111 0,4383 0,6766 0,1783 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 4,0611 3,8105 3,1662 2,0933 2,9154 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368
0,4318 0,4930 5,8161 5,5121 4,6202 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6493 0,6301 0,7193 3,3801 3,2307 2,6740 1,7339 2,4212 1,5567 3,9206 1,5667 0,7222 0,7889 0,6331 0,4132 0,4563 1,5572 0,9334 0,4564 1,5887 0,5533 1,0523 0,3339 0,4554 3,6773 3,5319 2,9883 1,8490 2,7759 1,5268 0,7861 0,7713 </th <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 0,9594 2,0983 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 4,0611 3,8105 2,1620 2,9383 2,9164 1,7336 4,6210 1,8601 0,8627 0,9244 1,3368 0,4318 0,4930 1,1239 5,811 4,6203 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,722 0,7889 0,9581 0,3631 0,1158 2,5396 3,801 3,2307 2,6740 1,7039 2,4212 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 1,7733 1,7474 0,8805 1,7778 0,7175 1,9268 0,7816 0,7171 0,8331 0,4766 0,1781 0,2040 0,4893</th> <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 4,0611 3,8102 2,0233 2,9165 1,7336 4,6210 1,860 0,8627 0,2244 1,1368 0,4318 0,4303 1,1239 0,3554 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 0,6313 0,4199 0,333 0,2907 3,3305 2,9202 2,6831 1,7032 2,4212 1,5355 4,3122 1,7864 1,9307 0,8533 1,0523 0,3339 0,4554 1,0099 0,3247 1,7733 1,3724 1,3287 0,8310 0,7824 0,7173 0,3103</th> | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8133 0,9594 2,0983 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 4,0611 3,8105 2,1620 2,9383 2,9164 1,7336 4,6210 1,8601 0,8627 0,9244 1,3368 0,4318 0,4930 1,1239 5,811 4,6203 2,6740 1,7039 2,4212 1,5367 3,9206 1,5667 0,722 0,7889 0,9581 0,3631 0,1158 2,5396 3,801 3,2307 2,6740 1,7039 2,4212 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 1,7733 1,7474 0,8805 1,7778 0,7175 1,9268 0,7816 0,7171 0,8331 0,4766 0,1781 0,2040 0,4893 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 4,0611 3,8102 2,0233 2,9165 1,7336 4,6210 1,860 0,8627 0,2244 1,1368 0,4318 0,4303 1,1239 0,3554 5,8316 5,5121 4,6291 2,9184 4,3160 2,4874 6,7160 2,7488 1,2754 1,3314 1,6495 0,6313 0,4199 0,333 0,2907 3,3305 2,9202 2,6831 1,7032 2,4212 1,5355 4,3122 1,7864 1,9307 0,8533 1,0523 0,3339 0,4554 1,0099 0,3247 1,7733 1,3724 1,3287 0,8310 0,7824 0,7173 0,3103 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3333 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7351 0,5588 1,4228 4,0611 3,8105 3,1622 2,0933 2,9165 1,7336 4,6210 1,8601 0,8627 0,9244 1,1368 0,4318 0,4939 1,1239 0,5554 0,5124 5,8121 4,6202 2,9184 4,0241 1,1566 3,9266 1,5667 0,722 0,7889 0,6531 0,6313 0,499 0,333 0,2997 0,7594 9,7375 8,971 7,5020 4,6321 1,5563 1,3121 1,3646 1,9807 2,1397 0,9333 0,4554 1,029 0,3331 0,2327 0,9333 0,2477 0,9334 1,4797 0,8263 </th <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 0,8139 0,9544 2,0983 0,6711 1,7064 2,1114 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7236 0,5588 1,4228 1,7327 4,0611 3,8102 2,0983 2,9184 4,3100 2,4874 6,7100 2,7488 1,2754 1,3141 1,6495 0,6207 0,7095 1,5954 0,5107 1,3121 1,5698 3,3801 3,2307 2,6740 1,7039 2,4212 1,567 0,7254 0,7817 0,9381 0,4159 0,4507 0,7973 2,5376 0,3207 0,7372 2,5372 3,6773 3,519 2,883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7813 0,4766 0,1785 0,0207 0,3247 0,4232 0,5507</th> <th>7,7016 7,587 6,1902 3,852 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,5588 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7313 0,5588 1,4228 1,7327 0,5437 4,0611 3,8105 3,162 2,0933 2,2184 4,310 2,4874 6,7106 2,7488 1,2754 1,3314 1,6459 0,6217 0,7095 1,5154 0,5107 1,3121 1,5669 0,2926 3,3801 3,2307 2,6770 4,6321 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 0,3247 0,6822 0,9949 0,3162 3,6773 3,519 1,3282 1,588 1,5812 1,0819 0,4262 1,5124 0,4841 0,4310<th>7.7016 7.587 6.1902 3.825 5.5219 3.335 9.0457 3.5879 1.6280 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7066 2.111 0.5588 1.4228 1.7370 0.5543 0.3213 4.0611 3.8105 3.1662 2.0333 2.9165 1.7336 4.6210 1.8601 0.8627 0.9244 1.1368 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318 0.4318
 0.4318 0.4317 0.4318 0.4316</th><th>7.7016 7.5875 6.1902 3,8555 5,5219 3,333 9,047 3,8579 1,6280 1,8162 2,1600 0.8139 0,0784 1,7064 1,7064 2,1114 0,6588 0,3431 0,4382 6,4019 6,1654 5,267 3,1877 4,6204 2,7455 7,5212 3,0382 1,3880 1,8102 0,7844 1,7330 0,5718 0,5388 1,4228 1,737 0,5437 0,3131 0,4382 4,0011 3,8105 3,1662 2,0933 2,916 1,736 4,6201 0,8627 0,9241 0,5581 0,3131 0,4930 1,2128 0,3554 0,9174 1,5698 0,4948 0,2280 0,7474 0,314 0,4953 0,5751 1,3214 1,568 0,3470 0,3331 0,3354 0,4254 1,314 0,4984 0,2114 0,4984 0,2114 0,4934 0,4281 0,5761 0,3224 0,3234 0,4282 0,4743 0,4281 0,4703 0,4231 0,4314 0,4024 0,</th><th>7.7016 7.5875 6.1902 3,8525 5,5219 3,333 9,057 1,6280 1,8162 2,1600 0,8139 0,0571 1,7064 2,1114 0,6588 0,3471 0,5381 0,4312 0,3232 0,3231 0,4323 0,3232 0,3233 0,3273 0,3233 0,3471 0,3432 0,3233 0,3781 1,7381 0,5588 1,7236 1,7230 0,3233 0,3773 0,3233 0,3479 0,3479 0,3439 0,3479<th>7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134 1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<></th></th></th> | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5875 1,6280 1,8162 2,1600 0,8139 0,9544 2,0983 0,6711 1,7064 2,1114 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7236 0,5588 1,4228 1,7327 4,0611 3,8102 2,0983 2,9184 4,3100 2,4874 6,7100 2,7488 1,2754 1,3141 1,6495 0,6207 0,7095 1,5954 0,5107 1,3121 1,5698 3,3801 3,2307 2,6740 1,7039 2,4212 1,567 0,7254 0,7817 0,9381 0,4159 0,4507 0,7973 2,5376 0,3207 0,7372 2,5372 3,6773 3,519 2,883 1,8490 2,7059 1,5835 4,3122 1,7864 0,7813 0,4766 0,1785 0,0207 0,3247 0,4232 0,5507 | 7,7016 7,587 6,1902 3,852 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,5588 6,4019 6,1654 5,2687 3,1877 4,6204 2,7445 7,5212 3,0342 1,3589 1,4833 1,8010 0,6780 0,7884 1,7313 0,5588 1,4228 1,7327 0,5437 4,0611 3,8105 3,162 2,0933 2,2184 4,310 2,4874 6,7106 2,7488 1,2754 1,3314 1,6459 0,6217 0,7095 1,5154 0,5107 1,3121 1,5669 0,2926 3,3801 3,2307 2,6770 4,6321 1,5835 4,3122 1,7864 0,7935 0,8563 1,0523 0,3939 0,4554 1,0099 0,3247 0,6822 0,9949 0,3162 3,6773 3,519 1,3282 1,588 1,5812 1,0819 0,4262 1,5124 0,4841 0,4310 <th>7.7016 7.587 6.1902 3.825 5.5219 3.335 9.0457 3.5879 1.6280 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7066 2.111 0.5588 1.4228 1.7370 0.5543 0.3213 4.0611 3.8105 3.1662 2.0333 2.9165 1.7336 4.6210 1.8601 0.8627 0.9244 1.1368 0.4317 0.4318 0.4316</th> <th>7.7016 7.5875 6.1902 3,8555 5,5219 3,333 9,047 3,8579 1,6280 1,8162 2,1600 0.8139 0,0784 1,7064 1,7064 2,1114 0,6588 0,3431 0,4382 6,4019 6,1654 5,267 3,1877 4,6204 2,7455 7,5212 3,0382 1,3880 1,8102 0,7844 1,7330 0,5718 0,5388 1,4228 1,737 0,5437 0,3131 0,4382 4,0011 3,8105 3,1662 2,0933 2,916 1,736 4,6201 0,8627 0,9241 0,5581
 0,3131 0,4930 1,2128 0,3554 0,9174 1,5698 0,4948 0,2280 0,7474 0,314 0,4953 0,5751 1,3214 1,568 0,3470 0,3331 0,3354 0,4254 1,314 0,4984 0,2114 0,4984 0,2114 0,4934 0,4281 0,5761 0,3224 0,3234 0,4282 0,4743 0,4281 0,4703 0,4231 0,4314 0,4024 0,</th> <th>7.7016 7.5875 6.1902 3,8525 5,5219 3,333 9,057 1,6280 1,8162 2,1600 0,8139 0,0571 1,7064 2,1114 0,6588 0,3471 0,5381 0,4312 0,3232 0,3231 0,4323 0,3232 0,3233 0,3273 0,3233 0,3471 0,3432 0,3233 0,3781 1,7381 0,5588 1,7236 1,7230 0,3233 0,3773 0,3233 0,3479 0,3479 0,3439 0,3479<th>7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131</th><th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134 1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<></th></th> | 7.7016 7.587 6.1902 3.825 5.5219 3.335 9.0457 3.5879 1.6280 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7066 2.111 0.5588 1.4228 1.7370 0.5543 0.3213 4.0611 3.8105 3.1662 2.0333 2.9165 1.7336 4.6210 1.8601 0.8627 0.9244 1.1368 0.4317 0.4318 0.4316 | 7.7016 7.5875 6.1902 3,8555 5,5219 3,333 9,047 3,8579 1,6280 1,8162 2,1600 0.8139 0,0784 1,7064 1,7064 2,1114 0,6588 0,3431 0,4382 6,4019 6,1654 5,267 3,1877 4,6204 2,7455 7,5212 3,0382 1,3880 1,8102 0,7844 1,7330 0,5718 0,5388 1,4228 1,737 0,5437 0,3131 0,4382 4,0011 3,8105 3,1662 2,0933 2,916 1,736 4,6201 0,8627 0,9241 0,5581 0,3131 0,4930 1,2128 0,3554 0,9174 1,5698 0,4948 0,2280 0,7474 0,314 0,4953 0,5751 1,3214 1,568 0,3470 0,3331 0,3354 0,4254 1,314 0,4984 0,2114 0,4984 0,2114 0,4934 0,4281 0,5761 0,3224 0,3234 0,4282 0,4743 0,4281 0,4703 0,4231 0,4314 0,4024 0, | 7.7016 7.5875 6.1902 3,8525 5,5219 3,333 9,057 1,6280 1,8162 2,1600 0,8139 0,0571 1,7064 2,1114 0,6588 0,3471 0,5381 0,4312 0,3232 0,3231 0,4323 0,3232 0,3233 0,3273 0,3233 0,3471 0,3432 0,3233 0,3781 1,7381 0,5588 1,7236 1,7230 0,3233 0,3773 0,3233 0,3479 0,3479 0,3439 0,3479 <th>7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131</th> <th>7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134
1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<></th> | 7.7016 7.8875 6.1902 3.8525 5.5219 3.3335 9.0457 3.5879 1.620 1.8162 2.1600 0.8139 0.9594 2.0983 0.6711 1.7064 2.1114 0.6588 0.3977 0.5335 1.1148 0.3355 6.4011 3.8105 3.1662 2.0933 2.09155 1.7336 4.6201 2.0882 0.9244 1.188 0.4318 0.4930 1.3120 0.5588 1.428 0.9247 0.5437 0.5354 0.4370 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5437 0.5588 1.414 0.5588 1.418 0.5587 1.316 1.516 0.512 0.5354 0.5107 0.5137 0.5581 1.5164 0.5217 0.5381 1.518 0.5127 0.5131 0.5181 0.5121 0.5581 0.5121 0.5131 0.5131 0.5181 0.5228 0.5217 0.5354 0.5131 0.5161 0.5131 0.5131 0.5131 0.5131 | 7,7016 7,5875 6,1902 3,8525 5,5219 3,3335 9,0457 3,5879 1,6280 1,8162 2,1600 0,8139 0,9594 2,0983 0,6711 1,7064 2,1114 0,6588 0,3213 0,3323 0,3214 0,3233 0,3213 0,3233 0,3213 0,3333 0,3421 0,3233 0,3214 1,0399 0,3213 0,4323 0,3213 0,4323 0,3214 1,0999 0,3479 0,2335 0,3131 0,3335 0,8314 0,3134 1,368 0,4314 0,4930 1,1239 0,558 1,428 1,3237 0,5437 0,2137 0,3237 0,5131 0,5637 0,3214 1,368 0,4934 0,4930 0,1237 0,578 0,7263 0,588 0,1424 0,993 0,1247 0,9266 0,2907 0,758 0,7264 0,333 0,7263 0,587 0,738 0,738 0,7373 0,7383 0,746 0,7353 2,537 0,9341 1,158 2,536 0,5207 0,7583 0,4723 <th< th=""></th<> |





TOTAL delive	ries x day	1.	household iter	n																				
Origin	Citycenter	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
25124	1,2392	0,2001	0,4590	0,3301	0,6483	0,3413	0,3530	0,2001	0,1649	0,0235	0,2001	0,2354	0,0235	0,0471	0,0471	0,1177	0,0235	0,0235	0,0235	0,0588	0,1059	-	-	4,87
25125	3,2761	0,5313	1,2171	0,8734	1,7152	0,9050	0,9364	0,5302	0,4365	0,0624	0,5301	0,6235	0,0624	0,1247	0,1247	0,3118	0,0624	0,0624	0,0625	0,1560	0,2808	-	-	12,88
25128	3,2009	0,5184	1,1911	0,8531	1,6766	0,8836	0,9149	0,5187	0,4266	0,0609	0,5180	0,6093	0,0609	0,1218	0,1219	0,3047	0,0609	0,0609	0,0610	0,1523	0,2742	-	-	12,59
BS west side	1,0865	0,1756	0,4028	0,2902	0,5689	0,2999	0,3099	0,1757	0,1448	0,0207	0,1758	0,2069	0,0207	0,0414	0,0414	0,1035	0,0207	0,0207	0,0207	0,0517	0,0930		-	4,27
25123	1,5933	0,2577	0,5914	0,4248	0,8359	0,4397	0,4548	0,2581	0,2128	0,0303	0,2579	0,3034	0,0303	0,0607	0,0607	0,1518	0,0303	0,0303	0,0303	0,0758	0,1364	-	-	6,27
25020	0,7565	0,1224	0,2808	0,2018	0,3960	0,2096	0,2160	0,1224	0,1009	0,0144	0,1225	0,1441	0,0144	0,0288	0,0288	0,0721	0,0144	0,0144	0,0144	0,0360	0,0649	-	-	2,98
25030	1,3184	0,2136	0,4900	0,3514	0,6906	0,3642	0,3780	0,2135	0,1758	0,0251	0,2135	0,2511	0,0251	0,0502	0,0502	0,1256	0,0251	0,0251	0,0251	0,0628	0,1130	-	-	5,19
25127	1,2724	0,2060	0,4731	0,3393	0,6673	0,3514	0,3636	0,2065	0,1698	0,0242	0,2061	0,2424	0,0242	0,0485	0,0485	0,1212	0,0242	0,0242	0,0242	0,0606	0,1090	-	-	5,01
25010	0,4480	0,0724	0,1663	0,1195	0,2348	0,1237	0,1279	0,0725	0,0599	0,0085	0,0726	0,0853	0,0085	0,0171	0,0171	0,0427	0,0085	0,0085	0,0085	0,0213	0,0383	-	-	1,76
25064	0,8868	0,1437	0,3295	0,2364	0,4644	0,2452	0,2536	0,1436	0,1182	0,0170	0,1436	0,1690	0,0169	0,0338	0,0338	0,0845	0,0169	0,0169	0,0169	0,0423	0,0762	-	-	3,49
25062	0,8869	0,1435	0,3294	0,2367	0,4647	0,2451	0,2534	0,1437	0,1184	0,0169	0,1442	0,1693	0,0169	0,0338	0,0338	0,0846	0,0169	0,0169	0,0169	0,0423	0,0760	-	-	3,49
25014	0,6997	0,1132	0,2597	0,1868	0,3666	0,1934	0,1999	0,1133	0,0934	0,0133	0,1135	0,1339	0,0133	0,0267	0,0267	0,0668	0,0133	0,0134	0,0133	0,0333	0,0600	-	-	2,75
BS north side	0,7462	0,1209	0,2772	0,1990	0,3907	0,2063	0,2133	0,1208	0,0995	0,0142	0,1208	0,1422	0,0143	0,0284	0,0285	0,0711	0,0142	0,0142	0,0142	0,0356	0,0641	-	-	2,94
25075	0,1394	0,0226	0,0517	0,0372	0,0730	0,0385	0,0398	0,0226	0,0186	0,0027	0,0226	0,0266	0,0027	0,0053	0,0053	0,0133	0,0027	0,0027	0,0027	0,0066	0,0119	-	-	0,55
25060	0,4284	0,0693	0,1590	0,1143	0,2244	0,1184	0,1224	0,0694	0,0571	0,0082	0,0694	0,0818	0,0082	0,0164	0,0164	0,0409	0,0082	0,0082	0,0082	0,0204	0,0367	-	-	1,69
25135	0,4288	0,0694	0,1592	0,1145	0,2247	0,1185	0,1225	0,0694	0,0572	0,0082	0,0695	0,0819	0,0082	0,0164	0,0164	0,0410	0,0082	0,0082	0,0082	0,0204	0,0368	-	-	1,69
25073	0,3260	0,0528	0,1210	0,0869	0,1707	0,0901	0,0931	0,0527	0,0435	0,0062	0,0528	0,0621	0,0062	0,0124	0,0124	0,0311	0,0062	0,0062	0,0062	0,0156	0,0280	-	-	1,28
25134	0,2325	0,0376	0,0863	0,0621	0,1218	0,0643	0,0664	0,0376	0,0310	0,0044	0,0377	0,0444	0,0044	0,0089	0,0089	0,0222	0,0044	0,0045	0,0044	0,0111	0,0199	-	-	0,91
25082	0,1301	0,0211	0,0483	0,0347	0,0681	0,0360	0,0372	0,0210	0,0173	0,0025	0,0211	0,0248	0,0025	0,0050	0,0050	0,0124	0,0025	0,0025	0,0025	0,0062	0,0112	-	-	0,51
25086	0,1020	0,0165	0,0379	0,0272	0,0534	0,0282	0,0292	0,0165	0,0136	0,0019	0,0165	0,0194	0,0019	0,0039	0,0039	0,0097	0,0019	0,0019	0,0019	0,0049	0,0088	-	-	0,40
25131	0,6149	0,0996	0,2284	0,1640	0,3221	0,1700	0,1758	0,0996	0,0820	0,0117	0,0996	0,1172	0,0118	0,0234	0,0235	0,0586	0,0117	0,0117	0,0117	0,0294	0,0530	-	-	2,42
25129	0,0835	0,0135	0,0311	0,0223	0,0438	0,0231	0,0239	0,0135	0,0111	0,0016	0,0135	0,0159	0,0016	0,0032	0,0032	0,0080	0,0016	0,0016	0,0016	0,0040	0,0072	-	-	0,33
TOTAL	0,0185	0,0030	0,0069	0,0049	0,0097	0,0051	0,0053	0,0030	0,0025	0,0004	0,0030	0,0035	0,0004	0,0007	0,0007	0,0018	0,0004	0,0004	0,0004	0,0009	0,0016	-	-	0,07
TOTAL	19,9153	3,2244	7,3971	5,3107	10,4318	5,5004	5,6901	3,2244	2,6554	0,3793	3,2244	3,7934	0,3793	0,7587	0,7587	1,8967	0,3793	0,3793	0,3793	0,9483	1,7070	-	-	78,3334

TOTAL delive	ries x day	2.a	rticles for perso	on																				
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
25124	1,9230	0,8349	0,2096	0,2528	0,3493	0,2661	0,0832	0,1031	0,0366	0,0898	0,0898	0,0100	0,0599	0,1364	0,0432	0,2229	0,0067	0,0499	0,0366	0,0599	0,0798	0,0333	-	4,98
25125	5,6573	2,4569	0,6166	0,7439	1,0277	0,7830	0,2447	0,3034	0,1077	0,2643	0,2643	0,0294	0,1762	0,4013	0,1272	0,6558	0,0196	0,1468	0,1077	0,1762	0,2349	0,0979	-	14,64
25128	5,5135	2,3943	0,6010	0,7249	1,0016	0,7631	0,2385	0,2957	0,1049	0,2575	0,2575	0,0286	0,1717	0,3911	0,1240	0,6391	0,0191	0,1431	0,1049	0,1717	0,2289	0,0954	-	14,27
BS west side	1,6659	0,7234	0,1816	0,2191	0,3026	0,2306	0,0720	0,0893	0,0317	0,0778	0,0778	0,0086	0,0519	0,1182	0,0375	0,1931	0,0058	0,0432	0,0317	0,0519	0,0692	0,0288	-	4,31
25123	2,5461	1,1056	0,2775	0,3348	0,4626	0,3524	0,1101	0,1366	0,0485	0,1189	0,1189	0,0132	0,0793	0,1806	0,0573	0,2951	0,0088	0,0661	0,0485	0,0793	0,1057	0,0440	-	6,59
25020	1,1181	0,4855	0,1219	0,1470	0,2031	0,1548	0,0484	0,0600	0,0213	0,0522	0,0522	0,0058	0,0348	0,0793	0,0251	0,1296	0,0039	0,0290	0,0213	0,0348	0,0464	0,0193	-	2,89
25030	2,0686	0,8983	0,2255	0,2720	0,3758	0,2863	0,0895	0,1109	0,0394	0,0966	0,0966	0,0107	0,0644	0,1467	0,0465	0,2398	0,0072	0,0537	0,0394	0,0644	0,0859	0,0358	-	5,35
25127	1,9874	0,8630	0,2166	0,2613	0,3611	0,2751	0,0860	0,1066	0,0378	0,0928	0,0928	0,0103	0,0619	0,1410	0,0447	0,2304	0,0069	0,0516	0,0378	0,0619	0,0825	0,0344	-	5,14
25010	0,6255	0,2716	0,0682	0,0823	0,1136	0,0866	0,0271	0,0335	0,0119	0,0292	0,0292	0,0032	0,0195	0,0444	0,0141	0,0725	0,0022	0,0162	0,0119	0,0195	0,0260	0,0108	-	1,62
25064	1,3345	0,5795	0,1455	0,1755	0,2424	0,1847	0,0577	0,0716	0,0254	0,0624	0,0623	0,0069	0,0416	0,0947	0,0300	0,1547	0,0046	0,0346	0,0254	0,0416	0,0554	0,0231	-	3,45
25062	1,3345	0,5795	0,1455	0,1755	0,2424	0,1847	0,0577	0,0716	0,0254	0,0623	0,0624	0,0069	0,0416	0,0947	0,0300	0,1547	0,0046	0,0346	0,0254	0,0416	0,0554	0,0231	-	3,45
25014	1,0265	0,4458	0,1119	0,1350	0,1865	0,1421	0,0444	0,0551	0,0195	0,0480	0,0480	0,0053	0,0320	0,0728	0,0231	0,1190	0,0036	0,0266	0,0195	0,0320	0,0426	0,0178	-	2,66
BS north side	1,1027	0,4789	0,1202	0,1450	0,2003	0,1526	0,0477	0,0591	0,0210	0,0515	0,0515	0,0057	0,0343	0,0782	0,0248	0,1278	0,0038	0,0286	0,0210	0,0343	0,0458	0,0191	-	2,85
25075	0,1720	0,0747	0,0187	0,0226	0,0312	0,0238	0,0074	0,0092	0,0033	0,0080	0,0080	0,0009	0,0054	0,0122	0,0039	0,0199	0,0006	0,0045	0,0033	0,0054	0,0071	0,0030	-	0,45
25060	0,5966	0,2591	0,0650	0,0785	0,1084	0,0826	0,0258	0,0320	0,0114	0,0279	0,0279	0,0031	0,0186	0,0423	0,0134	0,0692	0,0021	0,0155	0,0114	0,0186	0,0248	0,0103	-	1,54
25135	0,5966	0,2591	0,0650	0,0785	0,1084	0,0826	0,0258	0,0320	0,0114	0,0279	0,0279	0,0031	0,0186	0,0423	0,0134	0,0692	0,0021	0,0155	0,0114	0,0186	0,0248	0,0103	-	1,54
25073	0,4405	0,1913	0,0480	0,0579	0,0800	0,0610	0,0191	0,0236	0,0084	0,0206	0,0206	0,0023	0,0137	0,0312	0,0099	0,0511	0,0015	0,0114	0,0084	0,0137	0,0183	0,0076	-	1,14
25134	0,3032	0,1317	0,0330	0,0399	0,0551	0,0420	0,0131	0,0163	0,0058	0,0142	0,0142	0,0016	0,0094	0,0215	0,0068	0,0352	0,0010	0,0079	0,0058	0,0094	0,0126	0,0052	-	0,78
25082	0,1593	0,0692	0,0174	0,0209	0,0289	0,0221	0,0069	0,0085	0,0030	0,0074	0,0074	0,0008	0,0050	0,0113	0,0036	0,0185	0,0006	0,0041	0,0030	0,0050	0,0066	0,0028	-	0,41
25086	0,1219	0,0529	0,0133	0,0160	0,0221	0,0169	0,0053	0,0065	0,0023	0,0057	0,0057	0,0006	0,0038	0,0086	0,0027	0,0141	0,0004	0,0032	0,0023	0,0038	0,0051	0,0021	-	0,32
25131	0,8907	0,3868	0,0971	0,1171	0,1618	0,1233	0,0385	0,0478	0,0170	0,0416	0,0416	0,0046	0,0277	0,0632	0,0200	0,1032	0,0031	0,0231	0,0170	0,0277	0,0370	0,0154	-	2,31
25129	0,0976	0,0424	0,0106	0,0128	0,0177	0,0135	0,0042	0,0052	0,0019	0,0046	0,0046	0,0005	0,0030	0,0069	0,0022	0,0113	0,0003	0,0025	0,0019	0,0030	0,0041	0,0017	-	0,25
TOTAL	0,0184	0,0080	0,0020	0,0024	0,0033	0,0025	0,0008	0,0010	0,0003	0,0009	0,0009	0,0001	0,0006	0,0013	0,0004	0,0021	0,0001	0,0005	0,0003	0,0006	0,0008	0,0003	-	0,05
TOTAL	31,3004	13,5924	3,4116	4,1156	5,6861	4,3322	1,3538	1,6787	0,5957	1,4621	1,4621	0,1625	0,9748	2,2203	0,7040	3,6282	0,1083	0,8123	0,5957	0,9748	1,2997	0,5415	-	81,0127





TOTAL deliver	ies x day	3. h	oreca e foods	taff																				
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
25124	44,2314	18,1405	13,0564	10,1045	7,5275	11,2531	17,7921	6,8052	2,8527	3,8124	4,9455	2,6911	2,8681	6,4181	2,3259	3,5339	1,8930	0,6546	1,5280	1,4196	3,6014	0,6174	0,1454	168,22
25125	57,9277	24,2900	17,3624	13,2830	9,8954	14,9495	23,7112	9,0270	3,7604	5,0942	6,5473	3,5602	3,8257	8,4882	3,0791	4,6711	2,5179	0,8683	2,0421	1,8880	4,7840	0,8216	0,1928	222,59
25128	161,9924	67,4137	48,9375	37,0886	27,7329	41,6720	66,3136	25,3889	10,5303	14,1623	18,3279	9,9630	10,6577	23,6956	8,6154	13,0756	7,0110	2,4223	5,6707	5,2520	13,3481	2,3075	0,5403	622,12
BS west side	10,3741	4,2799	3,0780	2,4027	1,7731	2,6649	4,2017	1,6075	0,6745	0,9016	1,1718	0,6389	0,6792	1,5281	0,5522	0,8404	0,4479	0,1556	0,3613	0,3357	0,8523	0,1456	0,0344	39,70
25123	5,9448	2,4586	1,7744	1,3634	1,0263	1,5267	2,4174	0,9300	0,3903	0,5172	0,6738	0,3662	0,3895	0,8723	0,3165	0,4818	0,2568	0,0891	0,2073	0,1926	0,4888	0,0840	0,0197	22,79
25020	16,0793	6,6746	4,7939	3,6965	2,7459	4,2181	6,5542	2,5014	1,0475	1,4092	1,8238	0,9936	1,0610	2,3666	0,8596	1,3026	0,6994	0,2418	0,5637	0,5249	1,3317	0,2271	0,0537	61,77
25030	59,0074	24,6167	17,7228	13,5241	10,1085	15,2414	24,5342	9,2280	3,8437	5,1946	6,7007	3,6429	3,9010	8,6613	3,1527	4,7750	2,5637	0,8863	2,0731	1,9234	4,8826	0,8473	0,1975	227,23
25127	2,9773	1,2378	0,8956	0,6838	0,5130	0,7670	1,2180	0,4705	0,1946	0,2607	0,3387	0,1838	0,1962	0,4374	0,1589	0,2414	0,1290	0,0447	0,1043	0,0967	0,2456	0,0423	0,0099	11,45
25010	8,8686	3,6619	2,6423	2,0405	1,5235	2,2806	3,6047	1,3853	0,5847	0,7724	1,0071	0,5466	0,5813	1,3022	0,4725	0,7195	0,3829	0,1329	0,3087	0,2867	0,7277	0,1252	0,0294	33,99
25064	36,0708	15,0567	10,8202	8,2651	6,1723	9,3483	14,8149	5,6301	2,3485	3,2320	4,0977	2,2314	2,4111	5,3075	1,9311	2,9199	1,5786	0,5429	1,2781	1,1847	3,0080	0,5132	0,1223	138,89
25062	51,7843	21,4635	15,4852	11,9311	8,8824	13,3842	21,1579	8,1061	3,3938	4,5339	5,9974	3,2266	3,4172	7,6379	2,7766	4,2144	2,2495	0,7827	1,8111	1,6898	4,2788	0,7339	0,1728	199,11
25014	24,6353	10,2252	7,3537	5,6856	4,2214	6,3731	10,0566	3,8465	1,6100	2,1598	2,8209	1,5551	1,6242	3,6661	1,3295	2,0211	1,0711	0,3761	0,8641	0,8044	2,0422	0,3488	0,0823	94,77
BS north side	8,7679	3,6582	2,6271	2,0160	1,4991	2,2729	3,5882	1,3676	0,5717	0,7771	0,9960	0,5431	0,5921	1,2918	0,4701	0,7096	0,3841	0,1317	0,3106	0,2883	0,7347	0,1244	0,0297	33,75
25075	2,9784	1,2330	0,8861	0,6877	0,5100	0,7682	1,2108	0,4635	0,1942	0,2602	0,3382	0,1857	0,1961	0,4442	0,1604	0,2446	0,1291	0,0453	0,1042	0,0969	0,2447	0,0420	0,0099	11,43
25060	44,5900	18,4991	13,3060	10,2837	7,6320	11,5464	18,2000	6,9564	2,9102	3,9007	5,0824	2,7810	2,9407	6,6203	2,4372	3,6419	1,9391	0,6797	1,5642	1,4568	3,6980	0,6310	0,1490	171,45
25135	14,6203	6,0492	4,3631	3,3818	2,5065	3,7750	5,9598	2,2822	0,9571	1,2765	1,6649	0,9142	0,9620	2,1822	0,7870	1,2057	0,6344	0,2220	0,5118	0,4763	1,2092	0,2068	0,0487	56,20
25073	24,7230	10,2940	7,3752	5,6813	4,2210	6,4058	10,0768	3,8462	1,6101	2,1758	2,8046	1,5279	1,6425	3,6378	1,3220	2,0028	1,0923	0,3718	0,8731	0,8173	2,0689	0,3492	0,0835	95,00
25134	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25082	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25086	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25131	7,3011	3,0438	2,1875	1,6790	1,2498	1,8936	2,9920	1,1402	0,4757	0,6460	0,8307	0,4527	0,4909	1,0734	0,3918	0,5929	0,3202	0,1099	0,2581	0,2409	0,6207	0,1037	0,0247	28,12
25129	-	-		-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	0,00
TOTAL	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
TOTAL	582,8741	242,2966	174,6676	133,7983	99,7406	150,3406	238,4043	90,9828	37,9501	51,0866	66,1693	36,0039	38,4366	85,6309	31,1385	47,1943	25,3000	8,7577	20,4347	18,9750	48,1674	8,2712	1,9462	2.238,5673

TOTAL deliver	ies x day		4. autorepair																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
25124	0,4759	0,6299	0,3989	0,1610	0,3569	0,0280	0,5109	0,2799	0,0490	0,2030	0,1890	0,0770	0,1610	0,1400	0,0560	0,2030	0,0980	0,1050	0,3149	0,0350	0,2589	0,0350	-	4,77
25125	1,2782	1,6917	1,0714	0,4323	0,9586	0,0752	1,3722	0,7519	0,1316	0,5451	0,5075	0,2068	0,4323	0,3759	0,1504	0,5451	0,2632	0,2819	0,8458	0,0940	0,6955	0,0940	-	12,80
25128	6,5588	8,6808	5,4978	2,2184	4,9191	0,3858	7,0411	3,8581	0,6752	2,7971	2,6042	1,0610	2,2184	1,9291	0,7716	2,7971	1,3503	1,4468	4,3404	0,4823	3,5688	0,4823	-	65,68
BS west side	0,7606	1,0067	0,6376	0,2573	0,5704	0,0447	0,8165	0,4474	0,0783	0,3244	0,3020	0,1230	0,2573	0,2237	0,0895	0,3244	0,1566	0,1678	0,5033	0,0559	0,4139	0,0559	-	7,62
25123	8,4324	11,1605	7,0683	2,8521	6,3243	0,4960	9,0524	4,9602	0,8680	3,5962	3,3481	1,3641	2,8521	2,4801	0,9920	3,5962	1,7361	1,8601	5,5802	0,6200	4,5882	0,6200	-	84,45
25020	0,1538	0,2035	0,1289	0,0520	0,1153	0,0090	0,1651	0,0904	0,0158	0,0656	0,0610	0,0249	0,0520	0,0452	0,0181	0,0656	0,0317	0,0339	0,1017	0,0113	0,0837	0,0113	-	1,54
25030	1,2782	1,6917	1,0714	0,4323	0,9586	0,0752	1,3722	0,7519	0,1316	0,5451	0,5075	0,2068	0,4323	0,3759	0,1504	0,5451	0,2632	0,2819	0,8458	0,0940	0,6955	0,0940	-	12,80
25127	0,3535	0,4679	0,2964	0,1196	0,2652	0,0208	0,3795	0,2080	0,0364	0,1508	0,1404	0,0572	0,1196	0,1040	0,0416	0,1508	0,0728	0,0780	0,2340	0,0260	0,1924	0,0260	-	3,54
25010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25064	0,9216	1,2197	0,7725	0,3117	0,6912	0,0542	0,9893	0,5421	0,0949	0,3930	0,3659	0,1491	0,3117	0,2711	0,1084	0,3930	0,1897	0,2033	0,6099	0,0678	0,5014	0,0678	-	9,23
25062	0,9216	1,2197	0,7725	0,3117	0,6912	0,0542	0,9893	0,5421	0,0949	0,3930	0,3659	0,1491	0,3117	0,2711	0,1084	0,3930	0,1897	0,2033	0,6099	0,0678	0,5014	0,0678	-	9,23
25014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
BS north side	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25075	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25135	0,1538	0,2035	0,1289	0,0520	0,1153	0,0090	0,1651	0,0904	0,0158	0,0656	0,0610	0,0249	0,0520	0,0452	0,0181	0,0656	0,0317	0,0339	0,1017	0,0113	0,0837	0,0113	-	1,54
25073	0,4759	0,6299	0,3989	0,1610	0,3569	0,0280	0,5109	0,2799	0,0490	0,2030	0,1890	0,0770	0,1610	0,1400	0,0560	0,2030	0,0980	0,1050	0,3149	0,0350	0,2589	0,0350	-	4,77
25134	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25082	1,0943	1,4483	0,9172	0,3701	0,8207	0,0644	1,1747	0,6437	0,1126	0,4667	0,4345	0,1770	0,3701	0,3218	0,1287	0,4667	0,2253	0,2414	0,7241	0,0805	0,5954	0,0805	-	10,96
25086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
25129	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
TOTAL	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0,00
TOTAL	22,8584	30,2537	19,1607	7,7315	17,1438	1,3446	24,5391	13,4461	2,3531	9,7484	9,0761	3,6977	7,7315	6,7231	2,6892	9,7484	4,7061	5,0423	15,1269	1,6808	12,4376	1,6808	-	228,9199





TOTAL deliver	ies x day		5. B2B																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
25124	5,7381	5,2895	4,4055	2,8382	4,0681	2,3795	6,3961	2,5726	1,1895	1,2740	1,5579	0,5883	0,6766	1,5180	0,4841	1,2367	1,5017	0,4724	0,2767	0,3810	0,7960	0,2527	0,1153	46,01
25125	5,2392	5,1616	4,2110	2,6207	3,7564	2,2677	6,1535	2,4407	1,1075	1,2355	1,4694	0,5537	0,6527	1,4274	0,4565	1,1608	1,4363	0,4481	0,2685	0,3643	0,7584	0,2420	0,1093	43,54
25128	4,3550	4,1942	3,5841	2,1685	3,1431	1,8670	5,1165	2,0641	0,9244	1,0091	1,2252	0,4612	0,5363	1,1803	0,3801	0,9679	1,1787	0,3699	0,2185	0,2981	0,6261	0,2038	0,0914	36,16
BS west side	2,7627	2,5921	2,1539	1,4240	1,9840	1,1794	3,1435	1,2654	0,5868	0,6289	0,7733	0,2937	0,3354	0,7646	0,2417	0,6206	0,7421	0,2367	0,1366	0,1880	0,3937	0,1235	0,0568	22,63
25123	3,9671	3,7497	3,1491	1,9853	2,9360	1,6921	4,5687	1,8699	0,8676	0,9057	1,1221	0,4222	0,4826	1,0853	0,3474	0,8926	1,0679	0,3391	0,1967	0,2711	0,5667	0,1815	0,0818	32,75
25020	2,2994	2,1977	1,8190	1,1591	1,6471	1,0454	2,6671	1,0658	0,4913	0,5367	0,6517	0,2470	0,2857	0,6349	0,2039	0,5166	0,6317	0,1986	0,1159	0,1607	0,3357	0,1049	0,0484	19,06
25030	6,3085	6,1205	5,1021	3,1511	4,5617	2,7377	7,7657	2,9703	1,3474	1,4923	1,7944	0,6758	0,7883	1,7276	0,5583	1,4127	1,7274	0,5431	0,3200	0,4388	0,9185	0,3024	0,1338	52,90
25127	2,5020	2,4027	2,0329	1,2578	1,8407	1,0772	2,9334	1,2152	0,5398	0,5825	0,7158	0,2680	0,3098	0,6870	0,2209	0,5634	0,6798	0,2151	0,1257	0,1724	0,3608	0,1165	0,0525	20,87
25010	1,1398	1,0722	0,8999	0,5760	0,8311	0,4881	1,3107	0,5348	0,2524	0,2611	0,3242	0,1215	0,1388	0,3124	0,1000	0,2573	0,3062	0,0975	0,0563	0,0773	0,1618	0,0519	0,0235	9,39
25064	1,2062	1,1723	0,9719	0,6021	0,8693	0,5288	1,4312	0,5647	0,2572	0,3009	0,3435	0,1300	0,1558	0,3327	0,1074	0,2704	0,3376	0,1045	0,0628	0,0858	0,1798	0,0563	0,0266	10,10
25062	1,4755	1,4039	1,1777	0,7487	1,0710	0,6415	1,7235	0,6967	0,3210	0,3433	0,4452	0,1625	0,1834	0,4100	0,1320	0,3361	0,4038	0,1294	0,0738	0,1030	0,2139	0,0680	0,0310	12,29
25014	0,5465	0,5222	0,4339	0,2787	0,3955	0,2383	0,6367	0,2561	0,1179	0,1277	0,1594	0,0626	0,0677	0,1560	0,0498	0,1275	0,1500	0,0494	0,0276	0,0382	0,0800	0,0251	0,0115	4,56
BS north side	0,6302	0,6116	0,5060	0,3178	0,4530	0,2764	0,7397	0,2944	0,1350	0,1521	0,1794	0,0682	0,0839	0,1745	0,0563	0,1412	0,1769	0,0543	0,0328	0,0450	0,0953	0,0291	0,0139	5,27
25075	1,4558	1,3803	1,1445	0,7434	1,0512	0,6291	1,6752	0,6756	0,3119	0,3365	0,4139	0,1605	0,1796	0,4181	0,1319	0,3406	0,3959	0,1300	0,0728	0,1007	0,2076	0,0662	0,0304	12,05
25060	0,4464	0,4259	0,3541	0,2272	0,3219	0,1952	0,5198	0,2086	0,0959	0,1036	0,1284	0,0493	0,0554	0,1265	0,0423	0,1028	0,1226	0,0402	0,0225	0,0313	0,0654	0,0205	0,0094	3,72
25135	1,1761	1,1132	0,9331	0,6039	0,8524	0,5098	1,3644	0,5507	0,2550	0,2714	0,3373	0,1309	0,1449	0,3386	0,1065	0,2788	0,3209	0,1046	0,0590	0,0817	0,1710	0,0539	0,0246	9,78
25073	1,4345	1,3837	1,1368	0,7222	1,0269	0,6284	1,6635	0,6649	0,3062	0,3391	0,4068	0,1541	0,1819	0,3957	0,1273	0,3223	0,4130	0,1239	0,0739	0,1041	0,2160	0,0655	0,0313	11,92
25134	0,4396	0,4158	0,3475	0,2242	0,3165	0,1912	0,5094	0,2049	0,0943	0,1024	0,1264	0,0493	0,0547	0,1260	0,0405	0,1018	0,1203	0,0408	0,0221	0,0306	0,0642	0,0201	0,0092	3,65
25082	0,2566	0,2511	0,2049	0,1290	0,1839	0,1122	0,3000	0,1190	0,0547	0,0614	0,0726	0,0275	0,0327	0,0707	0,0227	0,0576	0,0718	0,0221	0,0138	0,0181	0,0379	0,0118	0,0056	2,14
25086	0,3496	0,3362	0,2784	0,1763	0,2513	0,1535	0,4095	0,1629	0,0749	0,0828	0,0998	0,0378	0,0446	0,0968	0,0312	0,0789	0,1000	0,0304	0,0179	0,0261	0,0529	0,0160	0,0076	2,92
25131	0,7336	0,7103	0,5889	0,3702	0,5292	0,3223	0,8647	0,3440	0,1568	0,1762	0,2099	0,0796	0,0964	0,2018	0,0658	0,1661	0,2066	0,0635	0,0379	0,0529	0,1158	0,0340	0,0160	6,14
25129	0,2347	0,2269	0,1913	0,1174	0,1703	0,1013	0,2845	0,1110	0,0503	0,0552	0,0667	0,0251	0,0292	0,0642	0,0207	0,0527	0,0637	0,0202	0,0118	0,0162	0,0340	0,0116	0,0050	1,96
TOTAL	0,1042	0,0995	0,0834	0,0525	0,0748	0,0456	0,1221	0,0486	0,0223	0,0252	0,0296	0,0112	0,0135	0,0288	0,0092	0,0235	0,0296	0,0090	0,0055	0,0075	0,0156	0,0048	0,0024	0,87
TOTAL	44,8013	42,8330	35,7098	22,4944	32,3357	19,3077	52,2994	20,9010	9,5601	10,4036	12,6531	4,7801	5,5299	12,2782	3,9365	10,0287	12,1844	3,8428	2,2494	3,0930	6,4671	2,0620	0,9373	370,6884





TOTAL vehi	cle per day	1. h	ousehold it	em																				
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
City center	0,2930	0,0473	0,1085	0,0780	0,1533	0,0807	0,0834	0,0473	0,0390	0,0056	0,0473	0,0556	0,0056	0,0111	0,0111	0,0278	0,0056	0,0056	0,0056	0,0139	0,0250	-	-	1,15
25124	0,7745	0,1256	0,2877	0,2065	0,4055	0,2139	0,2214	0,1254	0,1032	0,0148	0,1253	0,1474	0,0148	0,0295	0,0295	0,0737	0,0148	0,0147	0,0148	0,0369	0,0664	-	-	3,05
25125	0,7567	0,1225	0,2816	0,2017	0,3964	0,2089	0,2163	0,1226	0,1009	0,0144	0,1225	0,1440	0,0144	0,0288	0,0288	0,0720	0,0144	0,0144	0,0144	0,0360	0,0648	-	-	2,98
25128	0,2569	0,0415	0,0952	0,0686	0,1345	0,0709	0,0733	0,0415	0,0342	0,0049	0,0416	0,0489	0,0049	0,0098	0,0098	0,0245	0,0049	0,0049	0,0049	0,0122	0,0220	-	-	1,01
BS west side	0,3767	0,0609	0,1398	0,1004	0,1976	0,1039	0,1075	0,0610	0,0503	0,0072	0,0610	0,0717	0,0072	0,0143	0,0143	0,0359	0,0072	0,0072	0,0072	0,0179	0,0323	-	-	1,48
25123	0,1788	0,0289	0,0664	0,0477	0,0936	0,0496	0,0511	0,0289	0,0238	0,0034	0,0290	0,0341	0,0034	0,0068	0,0068	0,0170	0,0034	0,0034	0,0034	0,0085	0,0153	-	-	0,70
25020	0,3117	0,0505	0,1158	0,0831	0,1633	0,0861	0,0894	0,0505	0,0416	0,0059	0,0505	0,0594	0,0059	0,0119	0,0119	0,0297	0,0059	0,0059	0,0059	0,0148	0,0267	-	-	1,23
25030	0,3008	0,0487	0,1118	0,0802	0,1578	0,0831	0,0860	0,0488	0,0401	0,0057	0,0487	0,0573	0,0057	0,0115	0,0115	0,0287	0,0057	0,0057	0,0057	0,0143	0,0258	-	-	1,18
25127	0,1059	0,0171	0,0393	0,0283	0,0555	0,0292	0,0302	0,0172	0,0142	0,0020	0,0172	0,0202	0,0020	0,0040	0,0040	0,0101	0,0020	0,0020	0,0020	0,0050	0,0091	-	-	0,42
25010	0,2096	0,0340	0,0779	0,0559	0,1098	0,0580	0,0600	0,0339	0,0279	0,0040	0,0340	0,0400	0,0040	0,0080	0,0080	0,0200	0,0040	0,0040	0,0040	0,0100	0,0180	-	-	0,82
25064	0,2097	0,0339	0,0779	0,0560	0,1099	0,0579	0,0599	0,0340	0,0280	0,0040	0,0341	0,0400	0,0040	0,0080	0,0080	0,0200	0,0040	0,0040	0,0040	0,0100	0,0180	-	-	0,83
25062	0,1654	0,0268	0,0614	0,0442	0,0867	0,0457	0,0473	0,0268	0,0221	0,0032	0,0268	0,0316	0,0032	0,0063	0,0063	0,0158	0,0032	0,0032	0,0032	0,0079	0,0142	-	-	0,65
25014	0,1764	0,0286	0,0655	0,0471	0,0924	0,0488	0,0504	0,0286	0,0235	0,0034	0,0286	0,0336	0,0034	0,0067	0,0067	0,0168	0,0034	0,0034	0,0034	0,0084	0,0152	-	-	0,69
BS north side	0,0330	0,0053	0,0122	0,0088	0,0173	0,0091	0,0094	0,0053	0,0044	0,0006	0,0053	0,0063	0,0006	0,0013	0,0013	0,0031	0,0006	0,0006	0,0006	0,0016	0,0028	-	-	0,13
25075	0,1013	0,0164	0,0376	0,0270	0,0530	0,0280	0,0289	0,0164	0,0135	0,0019	0,0164	0,0193	0,0019	0,0039	0,0039	0,0097	0,0019	0,0019	0,0019	0,0048	0,0087	-	-	0,40
25060	0,1014	0,0164	0,0376	0,0271	0,0531	0,0280	0,0290	0,0164	0,0135	0,0019	0,0164	0,0194	0,0019	0,0039	0,0039	0,0097	0,0019	0,0019	0,0019	0,0048	0,0087	-	-	0,40
25135	0,0771	0,0125	0,0286	0,0206	0,0403	0,0213	0,0220	0,0125	0,0103	0,0015	0,0125	0,0147	0,0015	0,0029	0,0029	0,0073	0,0015	0,0015	0,0015	0,0037	0,0066	-	-	0,30
25073	0,0550	0,0089	0,0204	0,0147	0,0288	0,0152	0,0157	0,0089	0,0073	0,0010	0,0089	0,0105	0,0010	0,0021	0,0021	0,0052	0,0010	0,0011	0,0010	0,0026	0,0047	-	-	0,22
25134	0,0307	0,0050	0,0114	0,0082	0,0161	0,0085	0,0088	0,0050	0,0041	0,0006	0,0050	0,0059	0,0006	0,0012	0,0012	0,0029	0,0006	0,0006	0,0006	0,0015	0,0026	-	-	0,12
25082	0,0241	0,0039	0,0090	0,0064	0,0126	0,0067	0,0069	0,0039	0,0032	0,0005	0,0039	0,0046	0,0005	0,0009	0,0009	0,0023	0,0005	0,0005	0,0005	0,0012	0,0021	-	-	0,09
25086	0,1454	0,0235	0,0540	0,0388	0,0761	0,0402	0,0416	0,0235	0,0194	0,0028	0,0236	0,0277	0,0028	0,0055	0,0055	0,0139	0,0028	0,0028	0,0028	0,0069	0,0125	-	-	0,57
25131	0,0197	0,0032	0,0073	0,0053	0,0103	0,0055	0,0057	0,0032	0,0026	0,0004	0,0032	0,0038	0,0004	0,0008	0,0008	0,0019	0,0004	0,0004	0,0004	0,0009	0,0017	-	-	0,08
25129	0,0044	0,0007	0,0016	0,0012	0,0023	0,0012	0,0012	0,0007	0,0006	0,0001	0,0007	0,0008	0,0001	0,0002	0,0002	0,0004	0,0001	0,0001	0,0001	0,0002	0,0004	-	-	0,02
TOTAL	4,7081	0,7623	1,7487	1,2555	2,4661	1,3003	1,3452	0,7623	0,6277	0,0897	0,7623	0,8968	0,0897	0,1794	0,1794	0,4484	0,0897	0,0897	0,0897	0,2242	0,4036	-	-	18,5185

TOTAL veh	cle per day	2. ar	ticles for pe	rson																				
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
City center	0,4546	0,1974	0,0495	0,0598	0,0826	0,0629	0,0197	0,0244	0,0087	0,0212	0,0212	0,0024	0,0142	0,0322	0,0102	0,0527	0,0016	0,0118	0,0087	0,0142	0,0189	0,0079	-	1,18
25124	1,3374	0,5808	0,1458	0,1759	0,2430	0,1851	0,0578	0,0717	0,0255	0,0625	0,0625	0,0069	0,0417	0,0949	0,0301	0,1550	0,0046	0,0347	0,0255	0,0417	0,0555	0,0231	-	3,46
25125	1,3034	0,5660	0,1421	0,1714	0,2368	0,1804	0,0564	0,0699	0,0248	0,0609	0,0609	0,0068	0,0406	0,0925	0,0293	0,1511	0,0045	0,0338	0,0248	0,0406	0,0541	0,0226	-	3,37
25128	0,3938	0,1710	0,0429	0,0518	0,0715	0,0545	0,0170	0,0211	0,0075	0,0184	0,0184	0,0020	0,0123	0,0279	0,0089	0,0457	0,0014	0,0102	0,0075	0,0123	0,0164	0,0068	-	1,02
BS west side	0,6019	0,2614	0,0656	0,0791	0,1094	0,0833	0,0260	0,0323	0,0115	0,0281	0,0281	0,0031	0,0187	0,0427	0,0135	0,0698	0,0021	0,0156	0,0115	0,0187	0,0250	0,0104	-	1,56
25123	0,2643	0,1148	0,0288	0,0348	0,0480	0,0366	0,0114	0,0142	0,0050	0,0123	0,0123	0,0014	0,0082	0,0187	0,0059	0,0306	0,0009	0,0069	0,0050	0,0082	0,0110	0,0046		0,68
25020	0,4890	0,2124	0,0533	0,0643	0,0888	0,0677	0,0212	0,0262	0,0093	0,0228	0,0228	0,0025	0,0152	0,0347	0,0110	0,0567	0,0017	0,0127	0,0093	0,0152	0,0203	0,0085	-	1,27
25030	0,4698	0,2040	0,0512	0,0618	0,0854	0,0650	0,0203	0,0252	0,0089	0,0219	0,0219	0,0024	0,0146	0,0333	0,0106	0,0545	0,0016	0,0122	0,0089	0,0146	0,0195	0,0081	-	1,22
25127	0,1479	0,0642	0,0161	0,0194	0,0269	0,0205	0,0064	0,0079	0,0028	0,0069	0,0069	0,0008	0,0046	0,0105	0,0033	0,0171	0,0005	0,0038	0,0028	0,0046	0,0061	0,0026	-	0,38
25010	0,3155	0,1370	0,0344	0,0415	0,0573	0,0437	0,0136	0,0169	0,0060	0,0147	0,0147	0,0016	0,0098	0,0224	0,0071	0,0366	0,0011	0,0082	0,0060	0,0098	0,0131	0,0055	-	0,82
25064	0,3155	0,1370	0,0344	0,0415	0,0573	0,0437	0,0136	0,0169	0,0060	0,0147	0,0147	0,0016	0,0098	0,0224	0,0071	0,0366	0,0011	0,0082	0,0060	0,0098	0,0131	0,0055	-	0,82
25062	0,2427	0,1054	0,0264	0,0319	0,0441	0,0336	0,0105	0,0130	0,0046	0,0113	0,0113	0,0013	0,0076	0,0172	0,0055	0,0281	0,0008	0,0063	0,0046	0,0076	0,0101	0,0042	-	0,63
25014	0,2607	0,1132	0,0284	0,0343	0,0474	0,0361	0,0113	0,0140	0,0050	0,0122	0,0122	0,0014	0,0081	0,0185	0,0059	0,0302	0,0009	0,0068	0,0050	0,0081	0,0108	0,0045	-	0,67
BS north side	0,0407	0,0177	0,0044	0,0053	0,0074	0,0056	0,0018	0,0022	0,0008	0,0019	0,0019	0,0002	0,0013	0,0029	0,0009	0,0047	0,0001	0,0011	0,0008	0,0013	0,0017	0,0007	-	0,11
25075	0,1410	0,0612	0,0154	0,0185	0,0256	0,0195	0,0061	0,0076	0,0027	0,0066	0,0066	0,0007	0,0044	0,0100	0,0032	0,0164	0,0005	0,0037	0,0027	0,0044	0,0059	0,0024	-	0,37
25060	0,1411	0,0612	0,0154	0,0185	0,0256	0,0195	0,0061	0,0076	0,0027	0,0066	0,0066	0,0007	0,0044	0,0100	0,0032	0,0164	0,0005	0,0037	0,0027	0,0044	0,0059	0,0024		0,37
25135	0,1041	0,0452	0,0114	0,0137	0,0189	0,0144	0,0045	0,0056	0,0020	0,0049	0,0049	0,0005	0,0032	0,0074	0,0023	0,0121	0,0004	0,0027	0,0020	0,0032	0,0043	0,0018	-	0,27
25073	0,0717	0,0311	0,0078	0,0094	0,0130	0,0099	0,0031	0,0038	0,0014	0,0033	0,0033	0,0004	0,0022	0,0051	0,0016	0,0083	0,0002	0,0019	0,0014	0,0022	0,0030	0,0012	-	0,19
25134	0,0377	0,0164	0,0041	0,0050	0,0068	0,0052	0,0016	0,0020	0,0007	0,0018	0,0018	0,0002	0,0012	0,0027	0,0008	0,0044	0,0001	0,0010	0,0007	0,0012	0,0016	0,0007	-	0,10
25082	0,0288	0,0125	0,0031	0,0038	0,0052	0,0040	0,0012	0,0015	0,0005	0,0013	0,0013	0,0001	0,0009	0,0020	0,0006	0,0033	0,0001	0,0007	0,0005	0,0009	0,0012	0,0005	-	0,07
25086	0,2106	0,0914	0,0230	0,0277	0,0382	0,0291	0,0091	0,0113	0,0040	0,0098	0,0098	0,0011	0,0066	0,0149	0,0047	0,0244	0,0007	0,0055	0,0040	0,0066	0,0087	0,0036	-	0,54
25131	0,0231	0,0100	0,0025	0,0030	0,0042	0,0032	0,0010	0,0012	0,0004	0,0011	0,0011	0,0001	0,0007	0,0016	0,0005	0,0027	0,0001	0,0006	0,0004	0,0007	0,0010	0,0004	-	0,06
25129	0,0043	0,0019	0,0005	0,0006	0,0008	0,0006	0,0002	0,0002	0,0001	0,0002	0,0002	0,0000	0,0001	0,0003	0,0001	0,0005	0,0000	0,0001	0,0001	0,0001	0,0002	0,0001	-	0,01
TOTAL	7,3996	3,2133	0,8065	0,9730	1,3442	1,0242	0,3201	0,3969	0,1408	0,3457	0,3457	0,0384	0,2304	0,5249	0,1664	0,8577	0,0256	0,1920	0,1408	0,2304	0,3073	0,1280	-	19,1519



BS north side

25075

25060

25135

25073

25134

25082

25086

25131

25129

0,0363 0,0481

0.1125

0,1489

0,0305

0.0943

0,0123

0.0381

0,0273

0,0844

0,0021 0,0390

0,2587 0,3424 0,2168 0,0875 0,1940 0,0152 0,2777 0,1522 0,0266 0,1103 0,1027 0,0418

0,1208

0,0066

0,0214

0.0662

0,0037

0,0116

0,0155

0,0480

0,0144

0,0447

TOTAL 5,4039 7,1522 4,5297 1,8278 4,0529 0,3179 5,8012 3,1787 0,5563 2,3046 2,1457 0,8742 1,8278 1,5894 0,6357 2,3046 1,1126 1,1920 3,5761 0,3973 2,9403 0,3973

0,0059

0,0182

0,0123

0.0381

0,0107

0,0331

0,0875 0,0761 0,0304

0,0043

0,0132

0,0155 0,0075

0,0232

0,0480

0,0080

0,0248

0,0241 0,0027

0,0083

0,0745

0,1103 0,0533 0,0571 0,1712 0,0190 0,1408

0,0198

0,0612

0,0027

0,0083

0,0190

TOTAL vehi	cle per day	3. ho	oreca e food	staff																					
Origin	City	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129		Total
City	10,4566	4,2885	3,0866	2,3888	1,7796	2,6603	4,2062	1,6088	0,6744	0,9013	1,1691	0,6362	0,6780	1,5173	0,5499	0,8354	0,4475	0,1547	0,3612	0,3356	0,8514	0,1460	0,034	4	39 77
25124	13.6945	5,7423	4.1046	3.1402	2.3393	3.5342	5,6055	2.1341	0.8890	1.2043	1.5478	0.8417	0.9044	2.0067	0.7279	1.1043	0.5952	0.2053	0.4828	0.4463	1.1310	0.1942	0.045	6	52.62
25125	38,2961	15,9370	11.5692	8,7680	6.5562	9.8515	15.6770	6.0021	2,4894	3.3481	4.3328	2.3553	2,5196	5.6018	2.0367	3.0912	1.6574	0.5726	1.3406	1.2416	3.1556	0.5455	0.127	7 1	47.07
25128	2,4525	1,0118	0,7277	0,5680	0,4192	0,6300	0,9933	0,3800	0,1595	0,2132	0,2770	0,1510	0,1606	0,3613	0,1305	0,1987	0,1059	0,0368	0,0854	0,0794	0,2015	0,0344	0,008	1	9,39
BS west side	1,4054	0,5812	0,4195	0,3223	0,2426	0,3609	0,5715	0,2199	0,0923	0,1223	0,1593	0,0866	0,0921	0,2062	0,0748	0,1139	0,0607	0,0211	0,0490	0,0455	0,1156	0,0199	0,004	7	5.39
25123	3,8013	1,5779	1,1333	0,8739	0,6491	0,9972	1,5495	0.5914	0,2476	0.3331	0,4312	0,2349	0,2508	0,5595	0,2032	0,3079	0,1653	0.0572	0.1333	0.1241	0.3148	0,0537	0,012	7	14,60
25020	13,9497	5,8195	4,1898	3,1972	2,3897	3,6032	5,8001	2,1816	0,9087	1,2280	1,5841	0,8612	0,9222	2,0476	0,7453	1,1289	0,6061	0,2095	0,4901	0,4547	1,1543	0,2003	0,046	7	53,72
25030	0,7038	0,2926	0,2117	0,1617	0,1213	0,1813	0,2879	0,1112	0,0460	0,0616	0,0801	0,0435	0,0464	0,1034	0,0376	0,0571	0,0305	0,0106	0,0247	0,0229	0,0581	0,0100	0,002	3	2,71
25127	2,0966	0,8657	0,6247	0,4824	0,3602	0,5391	0,8522	0,3275	0,1382	0,1826	0,2381	0,1292	0,1374	0,3078	0,1117	0,1701	0,0905	0,0314	0,0730	0,0678	0,1720	0,0296	0,007	0	8,03
25010	8,5274	3,5595	2,5580	1,9539	1,4592	2,2100	3,5023	1,3310	0,5552	0,7641	0,9687	0,5275	0,5700	1,2547	0,4565	0,6903	0,3732	0,1283	0,3021	0,2801	0,7111	0,1213	0,028	19	32,83
25064	12,2422	5,0741	3,6608	2,8206	2,0999	3,1641	5,0019	1,9163	0,8023	1,0718	1,4178	0,7628	0,8078	1,8057	0,6564	0,9963	0,5318	0,1850	0,4282	0,3995	1,0115	0,1735	0,040	18	47,07
25062	5,8240	2,4173	1,7385	1,3441	0,9980	1,5067	2,3775	0,9093	0,3806	0,5106	0,6669	0,3676	0,3840	0,8667	0,3143	0,4778	0,2532	0,0889	0,2043	0,1902	0,4828	0,0825	0,019	15	22,41
25014	2,0728	0,8648	0,6211	0,4766	0,3544	0,5373	0,8483	0,3233	0,1352	0,1837	0,2355	0,1284	0,1400	0,3054	0,1111	0,1678	0,0908	0,0311	0,0734	0,0682	0,1737	0,0294	0,007	'0	7,98
BS north side	0,7041	0,2915	0,2095	0,1626	0,1206	0,1816	0,2862	0,1096	0,0459	0,0615	0,0799	0,0439	0,0464	0,1050	0,0379	0,0578	0,0305	0,0107	0,0246	0,0229	0,0579	0,0099	0,002	3	2,70
25075	10,5414	4,3733	3,1456	2,4311	1.8042	2,7296	4,3026	1.6445	0,6880	0.9222	1,2015	0.6575	0.6952	1,5651	0.5762	0.8610	0.4584	0.1607	0.3698	0.3444	0.8742	0.1492	0.035	2	40.53
25060	3,4563	1,4301	1,0315	0,7995	0,5926	0,8924	1,4089	0,5395	0,2263	0,3018	0,3936	0,2161	0,2274	0,5159	0,1861	0,2850	0,1500	0,0525	0,1210	0,1126	0,2859	0,0489	0,011	5	13,29
25135	5,8447	2,4336	1,7436	1,3431	0,9979	1,5144	2,3822	0,9093	0,3806	0,5144	0,6630	0,3612	0,3883	0,8600	0,3125	0,4735	0,2582	0,0879	0,2064	0,1932	0,4891	0,0826	0,019	7	22,46
25073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	0,00
25134	-		-	-	-	-	-	-	-	-	-	-	-		-	-	-		-			-		-	0,00
25082			-	-	-	-		-	-	-	-	-	-	-	-	-	-		-		-	-		-	0,00
25086	1,7260	0,7196	0,5171	0,3969	0,2955	0,4477	0,7073	0,2696	0,1125	0,1527	0,1964	0,1070	0,1160	0,2537	0,0926	0,1402	0,0757	0,0260	0,0610	0,0569	0,1467	0,0245	0,005	8	6,65
25131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	0,00
25129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	0,00
TOTAL	*****	57,2805	41,2926	31,6308	23,5793	35,5415	56,3603	21,5089	8,9716	12,0772	15,6429	8,5116	9,0867	20,2437	7,3614	11,1570	5,9811	2,0704	4,8309	4,4858	11,3871	1,9554	0,460	1	529,2121
TOTAL vehi	cle per day		4. autorepa	ir																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS nort	25075	25060	25135	25073	25134	2508	2 2508	6 251	31 25	5129	Total
City	0,1125	0,1489	0,0943	0,0381	0,0844	0,0066	0,1208	0,0662	0,0116	0,0480	0,0447	0,018	2 0,038	1 0,033	1 0,013	2 0,048	0 0,023	2 0,0248	8 0,074	15 0,00	83 0,06	512 0,0	083	-	1 12
25124	0.3022	0.3999	0.2522	0.1022	0.2266	0.0179	0.3244	0.1777	0.0311	0.1280	0.120/	0.048	9 0.107	2 0.088	9 0.035	5 0.129	9 0.062	2 0.066	0.200	0 0.02	22 0.14	544 0.0	222		3.03
25124	1 5505	2 0522	1 2997	0.5245	1 1629	0.0917	1 6646	0,1777	0.1596	0.6617	0,1200	0,040	9 0,102	5 0,000	0 0,055	4 0.661	2 0.210	2 0,000	1 1 026	1 0.11	40 0.8/	127 0.1	140	-	15 52
25125	0.1798	0.2380	0.1507	0,0508	0 1349	0,0312	0 1930	0,5121	0.0185	0.0767	0.071/	0,230	1 0.060	18 0.052	9 0.021	2 0.076	7 0.037	0 0.0397	0 119	0,11	32 0.09	78 0.0	132	-	1.80
BSweet	0,1750	0,2500	0,1507	0,0000	0,1545	0,0100	0,1000	0,1050	0,0103	0,0707	0,071-	0,025	. 0,000	0,052	5 0,021	2 0,070	0,037	0 0,0351	0,111	0,01	.52 0,0.	//0 0,0		-	1,00
side	1,9935	2,6384	1,6710	0,6743	1,4951	0,1173	2,1400	1,1726	0,2052	0,8502	0,7915	0,322	5 0,674	3 0,586	3 0,234	5 0,850	2 0,410	4 0,4397	1,319	92 0,14	66 1,08	347 0,1	466	-	19,96
25123	0,0363	0,0481	0,0305	0,0123	0,0273	0,0021	0,0390	0,0214	0,0037	0,0155	0,0144	0,005	9 0,012	3 0,010	/ 0,004	3 0,015	5 0,007	5 0,0080	0,024	0,00	2/ 0,01	198 0,0	027	-	0,36
25020	0,3022	0,3999	0,2533	0,1022	0,2266	0,0178	0,3244	0,1777	0,0311	0,1289	0,1200	0,048	9 0,102	2 0,088	9 0,035	5 0,128	9 0,062	2 0,0667	0,200	0,02	22 0,16	0,0	222	-	3,03
25030	0,0836	0,1106	0,0701	0,0283	0,0627	0,0049	0,0897	0,0492	0,0086	0,0356	0,0332	0,013	5 0,028	13 0,024	ь 0,009	8 0,035	6 0,017	2 0,0184	0,055	5 0,00	61 0,04	155 0,0	061	-	0,84
25127	-	-	-	-	-		-	-	-				-	-	-	-	-			-	-	-	-	-	0,00
25010	0,2179	0,2884	0,1826	0,0737	0,1634	0,0128	0,2339	0,1282	0,0224	0,0929	0,0865	0,035	z 0,073	7 0,064	1 0,025	6 0,092	9 0,044	9 0,0481	0,144	2 0,01	.60 0,11	185 0,0	160	-	2,18
25064	0,2179	0,2884	0,1826	0,0737	0,1634	0,0128	0,2339	0,1282	0,0224	0,0929	0,0865	0,035	2 0,073	0,064	1 0,025	6 0,092	9 0,044	9 0,0481	0,144	2 0,01	.60 0,11	185 0,0	160	-	2,18
25062	-	-	-	-	-		-	-	-				-	-	-	-	-		•	-	-	-	-	-	0,00
25014	-	-	-	-		-	-	-	-				-	-	-	-	-			-	-	-	-	-	0,00

0,00

0,00

0,36

1,13

0,00

2,59

0,00

0,00

0,00

0,00

54,1182





TOTAL vehi	cle per day		5. B2B																					
Origin	City center	25124	25125	25128	BS west side	25123	25020	25030	25127	25010	25064	25062	25014	BS north side	25075	25060	25135	25073	25134	25082	25086	25131	25129	Total
City center	1,3565	1,2505	1,0415	0,6710	0,9617	0,5625	1,5121	0,6082	0,2812	0,3012	0,3683	0,1391	0,1599	0,3589	0,1145	0,2924	0,3550	0,1117	0,0654	0,0901	0,1882	0,0597	0,0273	10,88
25124	1,2386	1,2202	0,9955	0,6196	0,8880	0,5361	1,4547	0,5770	0,2618	0,2921	0,3474	0,1309	0,1543	0,3374	0,1079	0,2744	0,3396	0,1059	0,0635	0,0861	0,1793	0,0572	0,0258	10,29
25125	1,0296	0,9915	0,8473	0,5127	0,7431	0,4414	1,2096	0,4880	0,2185	0,2385	0,2896	0,1090	0,1268	0,2790	0,0899	0,2288	0,2786	0,0874	0,0517	0,0705	0,1480	0,0482	0,0216	8,55
25128	0,6531	0,6128	0,5092	0,3366	0,4690	0,2788	0,7432	0,2991	0,1387	0,1487	0,1828	0,0694	0,0793	0,1808	0,0572	0,1467	0,1754	0,0560	0,0323	0,0444	0,0931	0,0292	0,0134	5,35
BS west side	0,9378	0,8865	0,7445	0,4693	0,6941	0,4000	1,0801	0,4421	0,2051	0,2141	0,2653	0,0998	0,1141	0,2566	0,0821	0,2110	0,2525	0,0802	0,0465	0,0641	0,1340	0,0429	0,0193	7,74
25123	0,5436	0,5196	0,4300	0,2740	0,3894	0,2471	0,6305	0,2520	0,1162	0,1269	0,1541	0,0584	0,0675	0,1501	0,0482	0,1221	0,1493	0,0470	0,0274	0,0380	0,0794	0,0248	0,0114	4,51
25020	1,4914	1,4469	1,2062	0,7449	1,0784	0,6472	1,8359	0,7022	0,3185	0,3528	0,4242	0,1598	0,1864	0,4084	0,1320	0,3340	0,4084	0,1284	0,0757	0,1037	0,2171	0,0715	0,0316	12,51
25030	0,5915	0,5680	0,4806	0,2974	0,4352	0,2547	0,6935	0,2873	0,1276	0,1377	0,1692	0,0634	0,0732	0,1624	0,0522	0,1332	0,1607	0,0509	0,0297	0,0408	0,0853	0,0275	0,0124	4,93
25127	0,2695	0,2535	0,2127	0,1362	0,1965	0,1154	0,3099	0,1264	0,0597	0,0617	0,0767	0,0287	0,0328	0,0739	0,0236	0,0608	0,0724	0,0231	0,0133	0,0183	0,0383	0,0123	0,0056	2,22
25010	0,2852	0,2771	0,2298	0,1423	0,2055	0,1250	0,3384	0,1335	0,0608	0,0711	0,0812	0,0307	0,0368	0,0787	0,0254	0,0639	0,0798	0,0247	0,0148	0,0203	0,0425	0,0133	0,0063	2,39
25064	0,3488	0,3319	0,2784	0,1770	0,2532	0,1517	0,4074	0,1647	0,0759	0,0812	0,1052	0,0384	0,0433	0,0969	0,0312	0,0795	0,0955	0,0306	0,0175	0,0243	0,0506	0,0161	0,0073	2,91
25062	0,1292	0,1234	0,1026	0,0659	0,0935	0,0563	0,1505	0,0605	0,0279	0,0302	0,0377	0,0148	0,0160	0,0369	0,0118	0,0301	0,0355	0,0117	0,0065	0,0090	0,0189	0,0059	0,0027	1,08
25014	0,1490	0,1446	0,1196	0,0751	0,1071	0,0654	0,1749	0,0696	0,0319	0,0360	0,0424	0,0161	0,0198	0,0413	0,0133	0,0334	0,0418	0,0128	0,0077	0,0106	0,0225	0,0069	0,0033	1,25
BS north side	0,3442	0,3263	0,2706	0,1758	0,2485	0,1487	0,3960	0,1597	0,0737	0,0795	0,0978	0,0379	0,0425	0,0988	0,0312	0,0805	0,0936	0,0307	0,0172	0,0238	0,0491	0,0156	0,0072	2,85
25075	0,1055	0,1007	0,0837	0,0537	0,0761	0,0461	0,1229	0,0493	0,0227	0,0245	0,0304	0,0117	0,0131	0,0299	0,0100	0,0243	0,0290	0,0095	0,0053	0,0074	0,0155	0,0048	0,0022	0,88
25060	0,2780	0,2632	0,2206	0,1428	0,2015	0,1205	0,3226	0,1302	0,0603	0,0642	0,0798	0,0310	0,0343	0,0801	0,0252	0,0659	0,0759	0,0247	0,0140	0,0193	0,0404	0,0127	0,0058	2,31
25135	0,3391	0,3271	0,2687	0,1707	0,2428	0,1486	0,3933	0,1572	0,0724	0,0802	0,0962	0,0364	0,0430	0,0936	0,0301	0,0762	0,0976	0,0293	0,0175	0,0246	0,0511	0,0155	0,0074	2,82
25073	0,1039	0,0983	0,0822	0,0530	0,0748	0,0452	0,1204	0,0484	0,0223	0,0242	0,0299	0,0117	0,0129	0,0298	0,0096	0,0241	0,0284	0,0097	0,0052	0,0072	0,0152	0,0047	0,0022	0,86
25134	0,0607	0,0594	0,0484	0,0305	0,0435	0,0265	0,0709	0,0281	0,0129	0,0145	0,0172	0,0065	0,0077	0,0167	0,0054	0,0136	0,0170	0,0052	0,0033	0,0043	0,0090	0,0028	0,0013	0,51
25082	0,0826	0,0795	0,0658	0,0417	0,0594	0,0363	0,0968	0,0385	0,0177	0,0196	0,0236	0,0089	0,0105	0,0229	0,0074	0,0187	0,0237	0,0072	0,0042	0,0062	0,0125	0,0038	0,0018	0,69
25086	0,1734	0,1679	0,1392	0,0875	0,1251	0,0762	0,2044	0,0813	0,0371	0,0417	0,0496	0,0188	0,0228	0,0477	0,0156	0,0393	0,0488	0,0150	0,0090	0,0125	0,0274	0,0080	0,0038	1,45
25131	0,0555	0,0536	0,0452	0,0278	0,0403	0,0239	0,0673	0,0263	0,0119	0,0131	0,0158	0,0059	0,0069	0,0152	0,0049	0,0124	0,0151	0,0048	0,0028	0,0038	0,0080	0,0027	0,0012	0,46
25129	0,0246	0,0235	0,0197	0,0124	0,0177	0,0108	0,0289	0,0115	0,0053	0,0060	0,0070	0,0027	0,0032	0,0068	0,0022	0,0055	0,0070	0,0021	0,0013	0,0018	0,0037	0,0011	0,0006	0,21
TOTAL	10,5913	10,1260	8,4420	5,3178	7,6444	4,5645	12,3639	4,9411	2,2601	2,4595	2,9913	1,1300	1,3073	2,9026	0,9306	2,3709	2,8805	0,9085	0,5318	0,7312	1,5289	0,4875	0,2216	87,6332





Following the chord chart related to the first final O/D matrix (TOTAL quantity per day)







Following the chord chart related to the second final O/D matrix (TOTAL deliveries per day)







Following the chord chart related to the final third O/D matrix (TOTAL vehicles per day)







Matrix quantities, e.g.: are some relations predominant among the others? Do you see an homogeneous distribution or a concentration in some zones? Do you see some unexpected phenomena?

The total quantity of goods identified in the analysis, managed by the selected supply chains and relevant for the urban distribution in the FUA, amounts to about 910 tons daily.

Among the supply chains analysed, the most relevant for transported loads is the B2B that manages 60% of total (545 ton per day), while the second is "Horeca and foodstuff" up to 37% of total (little more than 335 ton per day); the other three chains add up only to 3% in terms of weights.

The areas of greatest attraction are where the density of shops is the highest, in particular:

The city centre, which attracts more than 18% of the total;

The areas of Poncarale - Flero, which from the analysed data, present a large number of both commercial and wholesaler shops and attract more than 13% of the total amount of freight flows;

The areas with zip code 24124 and 25125, south of the historical city centre, which totalize 11% and 9% of total attraction.

Half of the freight flows considered are directed in the above-mentioned zones.

Matrix deliveries, e.g.: are some relations predominant among the others? Do you see an homogeneous distribution or a concentration in some zones? Do you see some unexpected phenomena?

About 3000 deliveries are carried out daily in the FUA of Brescia. Three out of four of these are linked to the "Horeca and foodstuff" supply chain. Even if considering the level of transported loads the B2B supply chain is more important, the deliveries related to "Horeca and foodstuff" supply chain are higher due to the very limited average weights.

The matrix of the "Horeca and foodstuff" supply chain shows that the main place of delivery is the historical centre of Brescia, where 26% of deliveries take place.

Matrix vehicles, e.g.: are some relations predominant among the others? Do you see an homogeneous distribution or a concentration in some zones? Do you see some unexpected phenomena?

The total number of vehicles involved in the estimated urban distribution of goods is 709 vehicles per day. Consistent with the above-mentioned data, the main attraction zone is the historical centre which attracts about 23%; other best attractors are the areas at south of the historic centre and the area of Poncarale - Flero.

The average number of stops for each delivery round is just over 4; distribution takes place mainly in the morning, but with differentiation in supply chains as shown in the table below

	1. Home accessories	2. Articles for persons	3. Horeca & foodstuff	4. Car repair	5. B2B
Morning (%)	73,8%	53,9%	82,0%	51,2%	60,6%
Afternoon (%)	26,2%	46,1%	18,0%	48,8%	39,4%

In 81% of cases, a light commercial vehicle is used for delivery, in 19% a medium-sized vehicle.





Please provide a comment (qualitative description) for you tool's results, e.g.:

- Vehicle-km travelled by each type of vehicle within the study area
- Traffic pollutant and greenhouse emissions
- Network assignment
- Other?

In the FUA of Brescia for the urban distribution of goods considered by the analysis, the model estimates more than 6000 kilometres run daily (approximately 5000 by light good vehicle and 1000 by medium goods vehicle). To this amount of travelled kilometres corresponds a stock of emissions that exceeds 500,000 kg of CO2 per year (little less than 2000 kg of CO2 per day).

The following table (part of the LSI model) shows the related first estimation of the level of impact on the environment.

	Impact area: En	vironment	Scenarios				
Criterion	Indicators	Data needed	Before	Data/unit	Explanation/Comments		
		Annual mileage	1.602.640	km			
		Diesel fuel consumption	100	g/km			
		CO emission factor	6,37	g/kgdiesel			
		NMVOC emission factor	1,29	g/kgdiesel			
		NOx emission factor	13,36	g/kgdiesel			
		PM amission factor	1,1	g/kgdiesel			
		NO2 emission factor	0,025	g/kgdiesel			
		NH3 emission factor	0,056	g/kgdiesel			
		SO2 emission factor	0,000008	g/kgdiesel			
		CO emission cost	0,004	€/g			
		NMVOC emission cost	0,0016	€/g			
Air quality		NOx emission cost	0,0032	€/g			
		PM amission cost	0,39	€/g			
		NH3 emission cost	0,02209	€/g			
		SO2 emission cost	0,0035	€/g			
		CO2 emission cost	0,0001	€/g			
	CO emission	-	1020881,68	g/year	CO annual emission		
	NMVOC emission	-	206740,56	g/year	NMVOC annual emission		
	Nox emission	-	2141127,04	g/year	Nox annual emission		
	PM emission	-	176290,4	g/year	PM annual emission		
	NH3 emission	-	8974,784	g/year	NH3 annual emission		
	SO2 emission	-	1,282112	g/year	SO2 annual emission		
			80217,43	€	Total emission cost		
		CO2 emission factor	3140	g/kgdiesel			
GHG emissions	CO2 emission	-	503.228.960	g/year	CO2 annual emission		
			50.323	€	Total emission cost		
		Average traffic volume	616,4	vehicle/hour			
Noise					Modelled / measured (based		
	Noise level	-	70,78958744	dB (A)	on vehicle type and speed)		





4. Annexes

Please include all the working documents which allowed the results described in the chapters above.

Please, provide as annex:

- the complete tables of the O/D Matrices
- The final results of the LSI calculations
- The surveys (the questionnaires, not the single answers) in original language
- Operative methodology for the stratification of FUA Brescia
- Urban traffic flows map in peak hours (extract from territorial government plan)



BRESCIA MOBILITÀ

OPERATIVE METHODOLOGY FOR THE STRATIFICATION OF BRESCIA FUA

Operative methodology to define a representative cross - section of the entire productive activities' population of Brescia (D T1.2.5b)






Table of Contents

1. INTRODUCTION	2
2. OPERATIVE FLOW CHART	3
3. CATEGORIZATION RESULTS	4
4. ZONING AND CROSS-SECTION STRATIFICATION	6
5. TRAFFIC COUNTS	9
6. Annex	11





1. Introduction

The aim of this document is to show the operative methodology adopted by Brescia Mobilità to define the best representative cross-section of the productive activities to use for surveys and analysis according to the Sulpiter working plan.

Starting points of the operative methodology are:

1. The definition of the FUA Brescia illustrated in the map below:



Fig.1 - Map of FUA of Brescia

- 2. The Database of all productive and commercial activities inside the FUA from the Chamber of Commerce of Brescia.
- 3. Stratification and zoning criteria defined:
 - a. Full application of the proposed SULPITER stratification methodology;
 - b. Option for analyzing only the commercial flows;
 - c. Within the entire population (the database of all productive activities inside FUA from the Chamber of Commerce) selection of:
 - i. most relevant activities in terms of urban area freight flows;
 - ii. most interesting supply chain according to the list of relevant ATECO code suggested by the Lead Partner (Annex 1)
 - d. Zoning the FUA by aggregation of postal codes adjacent and with coherent "commercialdistributive" structure
 - e. Cross section:
 - covering at least the 5% of the most relevant activities (as defined above) of the sectors G (commerce) and I (ho.re.ca. and pub); proportionally distributed within zones according to the "commercial and distributive" structure;
 - ii. selection of most important operators (in terms of market share) in sector H (transport and logistics).





2. Operative flow chart

The following chart shows the logical flow to define the stratification.



Fig.2 - Operative flow chart





3. Categorization results

The following chart shows the subdivision into categories of the starting database provided by Chamber of Commerce, selecting the relevant ones for the analysis of FUA.

Sector	Sector - subtype	Description	outcome of the 1st analysis	Ateco	nr of record
Agricolture	Agricolture	Agricultural producers, farmers, etc not relevant for urban area logistics flows	Not to be considered	01 - 03	55
Manifacture	Manifacture	Various types of artisans and industries	Industrial flows	13 - 39	3275
	Commerce - used vehicles and car dealers	Used vehicles and car dealers - not relevant for urban area logistics flows	Not to be considered	45.11	289
Commorce	Commerce - street vendors and e- commerce	Commerce - street vendors and e-commerce - not relevant for urban area logistics flows	Not to be considered	47.8; 47.9	960
Commerce	all kinds of shops, wholesale trade	all kinds of shops, wholesale trade	Commerce (Distributive flows)	10; 11; 45 - 47	5106
	Agents, funeral and other irrelevant material flows (eg. Professional studies)	Agents, funeral and other irrelevant material flows (eg. Professional studies) - not relevant for urban area logistics flows	Not to be considered	49 - 54; 55; 57 - 93; 46.1	2952
construction industry	construction industry	Builders, painters, electricians, etc not relevant for urban area logistics flows	Not to be considered	41 - 43	3196
Porterage	Porterage	Porterage - not relevant for urban area logistics flows	Not to be considered	42	42
Transport and storage	Transport and storage	Transport and storage	Transport and storage	49; 52; 53	595
Hotels, Pub, Food services, Catering	Hotels, Pub, Food services, Catering	Hotels, Foreign accommodations, Food services, Catering	Hotels, Pub, Food services, Catering (Distributive flows)	55; 56	2085
Laundries and hairdressers	Laundries and hairdressers	Laundries and hairdressers - not relevant for urban area logistica flows	Not to be considered	96	195
				Total record	18.750

Fig.3 - starting database categorization

Therefore, the relevant population for the survey, split into three databases is:



Nace	cluster	Entire population	survey target	Cross - section %
Data base 1				
С	Manifacture	3.275	-	
Data base 2				
Н	Transport and storage	595	30	5,04%
Data base 3				
G	Commerce	5.106		
I	Hotels, Pub, Food services, Catering	2.085	370	5,15%
	TOTAL	11.061	400	

Fig.4 - Subdivision of the starting database into 3

According to the results contained in the above chart, the final dimension of the cross - section is 400 interviews distributed as follows:

- No interviews to manufacturers and artisans:
- 370 interviews to Commercial activities, Hotels, Pub, Food services and Catering:
 - proportionally distributed in the FUA according to the commercial distributive structure of the zone (as described in the following paragraphs);
 - \circ if possible, selected from activities with equity at least of 10.000 euro;
- 15 interviews to transport operators short listed including:
 - Operators also from the area external to FUA but bordering;
 - With relevant equity;
 - With important market share;
- 15 interviews to logistic operators:
 - \circ $\,$ Operators also from the area external to FUA but bordering;
 - With relevant equity;
 - \circ With important market share.





4. Zoning and cross-section stratification

The following chart shows the distribution of the number of productive activities per ateco 3 digit code along each postal codes included into the FUA (the commercial/distributive structure of each postal code).

																						not relevant	
																						supply	
Etichette di riga	45.2	45.3	45.4	46.2	46.3	46.4	46.5	46.6	46.7	46.9	4/1	47.1	47.2	47.4	47.5	47.6	4/./	55.1	56.1	56.2	56.3	cnain	I otale complessivo
25010	35	3	3		5	20	4	12	27	2	1	11	13	2	12	8	29		39		31	15	272
25014	19	1	_	2	3	17	1	8	21	4		9	11	1	4	6	18	1	19	2	26	17	190
25020	44	3	1	4	12	23	2	12	49	2		13	16	2	15	1	30	1	40		29	16	327
25030	29	5		1	2	20	Э	21	20	1		10	20	4	15	10	30	1	44		44	10	317
25060	15	2		1	/	13		/	12	1		4	10		8	6	9	1	17	4	18	13	144
25062	28	1	4		8	12	1	8	21			5	16	1	8	8	18		22	1	23	6	191
25064	23	2		2	6	21	3	13	29			/	24		13	9	35	1	38	1	24	20	2/1
25073	15				2	8	1	6	5	1		5	8		4	3	11		14		13	4	100
25075	12			1	2	6		3	20			10	12	1	10		14		23	1	22	/	151
25080	4			1	2	2	2	2	1			1	6		4	1	13		1		4	4	54
25082	8				2	6		1	8	2		1	5		3	1	6		9	1	11	4	68
25100	4	2		2	3	12	4	7	7			2	9	10	5	10	23		21		15	10	136
25121	14	4	1	3	13	33	1	19	27	8	1	20	49	10	29	29	184	4	98	2	118	27	694
25122	5	1	2	2	17	38	1	10	23	9		65	40	13	42	34	164	5	120	2	114	19	726
25123	13	4	1	3	10	25	5	12	21	3		18	29	6	17	17	53	4	62	_	74	18	395
25124	34	1	3	8	25	105	23	54	101	9		21	56	11	23	22	86	9	94	5	142	40	878
25125	41	14	3	2	35	110	12	33	56	8		25	35	11	14	12	45	2	56	2	60	24	600
25126	31	8	2	4	7	41	6	20	29	8		31	- 33	4	15	9	48	1	57		48	19	421
25127	24	2	1	1	5	13		8	14	1		5	36	2	12	16	27		33	1	60	15	276
25128	23	5	1		7	30	5	22	35	4		22	42	5	20	23	79	5	58	1	83	20	490
25129	3					2		1	2				3				1		2		4	2	20
25131	3				1	2	3	2	6			3	3		1	1	5		7		6	1	44
25132	8				1	5		4	3	3		1	6	1	2	1	5	2	9		6	4	61
25133	4	2			1	6			3			3	2		1	4	8		22		21	2	79
25134	10	2				7		2	7	1		6	10	1	2		8	1	15	1	9	3	85
25135	12	2	2		4	12	2	6	7			9	9	2	5	3	10	2	17		8	6	118
25136	6		1		2	4		1	3			7	4		7	4	5		14		17	7	82
Totale complessivo	467	70	25	37	182	598	81	294	563	67	2	314	507	77	291	251	978	40	957	20	1030	339	7190

Fig.5 - Number of productive activities per ateco 3 digit and postal codes

Simple data analysis shows that the 50% of these activities are concentrated into 4 ateco code

- 56.3 (15.03%) Pubs
- 47.7 (14.28%) Specialized retailer
- 56.1 (13.97%) Restaurant and catering
- 46.4 (8.73%) Wholesalers of consumer goods

And over the 80% is concentrated in 8 ateco code; the four already listed above plus:

- 46.7 (8.22%) Specialized wholesalers
- 47.2 (7.40%) Retailer of feed, beverage and tobacco
- 45.2 (6.82%) Maintenance of car and van
- 47.1 (4.58%) Not specialized retailer
- 46.6 (4.29%) Wholesalers of machinery and equipment

To define zones the eight most populated ateco code cluster have been taken into consideration for each cap. The % of the number of activities the single code on the total amount inside each single postal code; final elaboration is in the chart below; cells are colored in case of percentage higher that the average FUA value and not colored in case of under the average percentage value.

Etichette di riga	56.3	47.7	56.1	46.4	46.7	47.2	45.2	47.1	46.6
25124	17%	10%	11%	13%	12%	7%	4%	3%	6%
25122	16%	23%	17%	5%	3%	6%	1%	9%	1%
25121	18%	28%	15%	5%	4%	7%	2%	3%	3%
25125	10%	8%	10%	19%	10%	6%	7%	4%	6%
25128	18%	17%	12%	6%	7%	9%	5%	5%	5%
25126	12%	12%	14%	10%	7%	8%	8%	8%	5%
25123	20%	14%	16%	7%	6%	8%	3%	5%	3%
25020	9%	12%	13%	7%	16%	5%	14%	4%	4%
25030	15%	13%	15%	8%	9%	7%	10%	3%	7%
25127	23%	10%	13%	5%	5%	14%	9%	2%	3%
25010	12%	11%	15%	8%	11%	5%	14%	4%	5%
25064	10%	14%	15%	8%	12%	10%	9%	3%	5%
25062	12%	10%	12%	6%	11%	9%	15%	3%	4%
25014	15%	10%	11%	10%	12%	6%	11%	5%	5%
25075	15%	10%	16%	4%	14%	8%	8%	7%	2%
25060	14%	7%	13%	10%	9%	8%	11%	3%	5%
25100	12%	18%	17%	10%	6%	7%	3%	2%	6%
25135	7%	9%	15%	11%	6%	8%	11%	8%	5%
25073	14%	11%	15%	8%	5%	8%	16%	5%	6%
25134	11%	10%	18%	9%	9%	12%	12%	7%	2%
25133	27%	10%	29%	8%	4%	3%	5%	4%	0%
25136	23%	7%	19%	5%	4%	5%	8%	9%	1%
25082	17%	9%	14%	9%	13%	8%	13%	2%	2%
25132	11%	9%	16%	9%	5%	11%	14%	2%	7%
25080	8%	26%	14%	4%	2%	12%	8%	2%	4%
25131	14%	12%	16%	5%	14%	7%	7%	7%	5%
25129	22%	6%	11%	11%	11%	17%	17%	0%	6%
Totale complessivo	15,03%	14,28%	13,97%	8,73%	8,22%	7,40%	6,82%	4,58%	4,29%

Fig.6 - % of nr of productive activities for eight main ateco 3 digit code, on total activities per zip code

A simple analysis to look for postal code with the same sequences of higher and lower values that the average shows that there are only few possibility to combine postal code in a unique zone and those few possibility are:

- bring together 25122 and 25121 (the city center)
- bring together 25126 and 25132 (Brescia west side)
- bring together 25133 and 25136 (Brescia north side)

According with this elaboration the FUA will be divided into 25 zones (23 which coincide with postal codes and 3 zip codes unified together) and the following chart show the population split between zones and main relevant ateco 3-digit code

|--|

Etichette di riga	56.3	47.7	56.1	46.4	46.7	47.2	45.2	47.1	46.6	47.5	Totale comp
City center	232	348	218	71	50	89	19	85	29	71	1212
25124	142	86	94	105	101	56	34	21	54	23	716
25125	60	45	56	110	56	35	41	25	33	14	475
25128	83	79	58	30	35	42	23	22	22	20	414
BS west side	54	53	66	46	32	39	39	32	24	17	402
25123	74	53	62	25	21	29	13	18	12	17	324
25020	29	36	40	23	49	16	44	13	12	15	277
25030	44	38	44	25	26	20	29	10	21	15	272
25127	60	27	33	13	14	36	24	5	8	12	232
25010	31	29	39	20	27	13	35	11	12	12	229
25064	24	35	38	21	29	24	23	7	13	13	227
25062	23	18	22	12	21	16	28	5	8	8	161
25014	26	18	19	17	21	11	19	9	8	4	152
BS north side	38	13	36	10	6	6	10	10	1	8	138
25075	22	14	23	6	20	12	12	10	3	10	132
25060	18	9	17	13	12	10	15	4	7	8	113
25100	15	23	21	12	7	9	4	2	7	5	105
25135	8	10	17	12	7	9	12	9	6	5	95
25073	13	11	14	8	5	8	15	5	6	4	89
25134	9	8	15	7	7	10	10	6	2	2	76
25082	11	6	9	6	8	5	8	1	1	3	58
25080	4	13	7	2	1	6	4	1	2	4	44
25131	6	5	7	2	6	3	3	3	2	1	38
25129	4	1	2	2	2	3	3		1		18
Totale complessivo	1030	978	957	598	563	507	467	314	294	291	5999

Fig.7 - distribution of number of commercial activities per zone and main ateco 3 digit codes

Using the chart below as driver to split the cross - section between zones and main relevant ateco 3 digit code the following chart shows the final sample stratification

Cross - section											
stratification	56.3	47.7	56.1	46.4	46.7	47.2	45.2	47.1	46.6	47.5	TOTAL
City center	14	21	13	4	3	5	1	5	2	4	72
25124	9	5	6	6	6	3	2	1	3	1	42
25125	4	3	3	7	3	2	3	2	2	1	30
25128	5	5	4	2	2	3	1	1	1	1	25
BS west side	3	3	4	3	2	2	2	2	1	1	23
25123	5	3	4	2	1	2	1	1	1	1	21
25020	2	2	2	1	3	1	3	1	1	1	' 17
25030	3	2	3	2	2	1	2	1	1	1	' 18
25127	4	2	2	1	1	2	1	0	0	1	' 14
25010	2	2	2	1	2	1	2	1	1	1	' 15
25064	1	2	2	1	2	1	1	0	1	1	12
25062	2	1	2	1	1	1	2	0	0	0	' 10
25014	2	1	1	1	1	1	1	1	0	0	' 9
BS north side	2	1	2	1	0	0	1	1	0	0	8
25075	1	1	1	0	1	1	1	1	0	1	' 8
25060	1	1	1	1	1	1	1	0	0	0	' 7
25100	1	2	2	1	0	1	0	0	0	0	' 7
25135	0	1	1	1	0	1	1	1	0	0	6
25073	1	1	1	1	0	1	1	0	0	0	6
25134	1	1	1	0	0	1	1	0	0	0	5
25082	1	0	1	0	1	0	1	0	0	0	' 4
25080	0	2	1	0	0	1	0	0	0	0	4
25131	1	1	1	0	1	0	0	0	0	0	4
25129	1	0	0	0	0	1	1	0	0	0	3
Totale complessivo	66	63	60	37	33	33	30	19	14	15	370

Fig.8 - Cross-section stratification





5. Traffic counts

The traffic count operative flow is the following:

- In the FUA of Brescia there are two main system of traffic flows already working (the one of the Province and the one of the municipality directly managed by Brescia Mobilità), so the first step (already completed) has been to map the available data, that are:
 - The Municipality of Brescia has three different level of point of traffic counts, with data daily updated:
 - Traffic count point inside Brescia but outside the "Restricted traffic area" that just count the number of vehicle without taking care of what type of vehicle is;
 - Traffic count point at the access point of the "restricted traffic area" that just count the number of vehicles but do not consider different type;
 - There are also four traffic count point at the access point of the "restricted traffic area" that count the number of vehicles per type (cars, motorbikes, bus, van, truck etc.).

The following map shows the localization of each traffic count point (blue spot outside the "restricted access traffic" area and red spot inside):



Fig.9 - Traffic count point of the Municipality of Brescia





 Also the Province of Brescia has a traffic monitoring system¹ composed by 47 counting point. The nowadays available data are updated to the end of 2015 and there is not separate counting per type of vehicle. Five of these counting points are located inside the FUA: two in Brescia, and the other three in Poncarale, Concesio and Nave). More detail about localization are available at the map at this link:

```
http://www.provincia.brescia.it/sites/default/files/allegati/documenti/1062/monitoraggio
_150_2015.pdf
```

- The second step is the definition of the 6 traffic count point to prepare the data set requested by the Sulpiter methodology:
 - As the most populated zones in term of commercial activities are the "city center" (see fig.
 6) and the neighboring zip codes, four traffic point selected will be those that count traffic at the access point of the "restricted traffic area" and that count the number of vehicles per type of it (cars, motorbikes, bus, van, truck etc.);
 - The other two countingpoint will be defined by matching map of traffic count point available and zoning and the two that better can show flow at the FUA borders.
- The third step: in the two-selected point will be organized a two days' manual traffic count to complete already available data with two days of count separated per type of vehicles.
- Final step will be collection of data in excel database to transmit to the lead partner

The first step is already finisched, the second step will be finisched by the end of May '17; the third (manual count organization) will be finisced by mid-June '17 and the excel database will be sent to the LP by the end of June '17.

¹<u>http://www.provincia.brescia.it/cittadino/viabilita-e-strade/monitoraggio-del-traffico</u>





6. Annex

ANNEX I - Ateco 3-digit relevant code for distribution flows analysis

	Struttura Ateco 2007
Codice Ateco 2007	Descrizione
G	COMMERCIO ALL'INGROSSO E AL DETTAGLIO; RIPARAZIONE DI AUTOVEICOLI E MOTOCICLI
45	COMMERCIO ALL'INGROSSO E AL DETTAGLIO E RIPARAZIONE DI AUTOVEICOLI E MOTOCICLI
45.1	COMMERCIO DI AUTOVEICOLI
45.2	MANUTENZIONE E RIPARAZIONE DI AUTOVEICOLI
45.3	COMMERCIO DI PARTI E ACCESSORI DI AUTOVEICOLI
45.4	COMMERCIO, MANUTENZIONE E RIPARAZIONE DI MOTOCICLI E RELATIVE PARTI ED ACCESSORI
46	COMMERCIO ALL'INGROSSO (ESCLUSO QUELLO DI AUTOVEICOLI E DI MOTOCICLI)
46.2	COMMERCIO ALL'INGROSSO DI MATERIE PRIME AGRICOLE E DI ANIMALI VIVI
46.3	COMMERCIO ALL'INGROSSO DI PRODOTTI ALIMENTARI, BEVANDE E PRODOTTI DEL TABACCO
46.4	COMMERCIO ALL'INGROSSO DI BENI DI CONSUMO FINALE
46.5	COMMERCIO ALL'INGROSSO DI APPARECCHIATURE ICT
46.6	COMMERCIO ALL'INGROSSO DI ALTRI MACCHINARI, ATTREZZATURE E FORNITURE
46.7	COMMERCIO ALL'INGROSSO SPECIALIZZATO DI ALTRI PRODOTTI
46.9	COMMERCIO ALL'INGROSSO NON SPECIALIZZATO
47	COMMERCIO AL DETTAGLIO (ESCLUSO QUELLO DI AUTOVEICOLI E DI MOTOCICLI)
47.1	COMMERCIO AL DETTAGLIO IN ESERCIZI NON SPECIALIZZATI
47.2	COMMERCIO AL DETTAGLIO DI PRODOTTI ALIMENTARI, BEVANDE E TABACCO IN ESERCIZI SPECIALIZZATI
47.4	COMMERCIO AL DETTAGLIO DI APPARECCHIATURE INFORMATICHE E PER LE TELECOMUNICAZIONI (ICT) IN ESERCIZI
47.5	COMMERCIO AL DETTAGLIO DI ALTRI PRODOTTI PER USO DOMESTICO IN ESERCIZI SPECIALIZZATI
47.6	COMMERCIO AL DETTAGLIO DI ARTICOLI CULTURALI E RICREATIVI IN ESERCIZI SPECIALIZZATI
47.7	COMMERCIO AL DETTAGLIO DI ALTRI PRODOTTI IN ESERCIZI SPECIALIZZATI
47.9	COMMERCIO AL DETTAGLIO AL DI FUORI DI NEGOZI, BANCHI E MERCATI
1	ATTIVITÀ DEI SERVIZI DI ALLOGGIO E DI RISTORAZIONE
55	ALLOGGIO
55.1	ALBERGHI E STRUTTURE SIMILI
56	ATTIVITA DEI SERVIZI DI RISTORAZIONE
56.1	RISTORANTI E ATTIVITÀ DI RISTORAZIONE MOBILE
56.2	FORNITURA DI PASTI PREPARATI (CATERING) E ALTRI SERVIZI DI RISTORAZIONE
56.3	BAR E ALTRI ESERCIZI SIMILI SENZA CUCINA