Baseline study of the public transport system for Baia Mare Metropolitan Area

BASELINE STUDY

1.1. Special features of the Baia Mare Metropolitan Area

1.1.1. Area features

The baseline study is conducted on the Baia Mare metropolitan area.

The main study area is the administrative territory of the Baia Mare Metropolitan Area, but the analysis is extended to different territorial levels and is differentiated as follows:

- **The main study area** includes, besides Baia Mare, the neighbouring localities included in the Baia Mare Metropolitan Area, with which it has spatial-functional and socio-economic relations with significant impact on mobility. At this level, an average level of data disaggregation is used, relevant for traffic modelling and project and action identification

The Baia Mare Metropolitan Area association was founded on 02.04.2012 and functions as an intercommunity development association, where Baia Mare has the role of polarizing centre. The association consists of Baia Mare Municipality, 5 towns and 13 communes in the area of the city: Baia Sprie, Cavnic, Seini, Șomcuta Mare, Tăuţii Măgherăuş, Cerneşti, Cicârlău commune, Coaş commune, Coltău commune, Copalnic Mănăştur, Dumbrăviţa commune, Groşi commune, Mireşu Mare commune, Recea commune, Remetea Chioarului commune, Satulung commune, Săcălăşeni commune, Valea Chioarului commune. Of these localities, in the First Development Area, at a distance of 15 km from the municipality, Baia Sprie, Dumbrăviţa, Groşi, Săcălăşeni, Recea, Tăuţii Măgherăuş are situated. These are caught in the first stage of development, 2014-2020, and the localities in the Second Development Area - 2020-2030.

- **Extended territorial context** – it includes the entire urban functional area of Baia Mare, Maramureș County and the North – West region, for which minimum data is provided. Relevant influences and conditions at EU and national level are also taken into account.

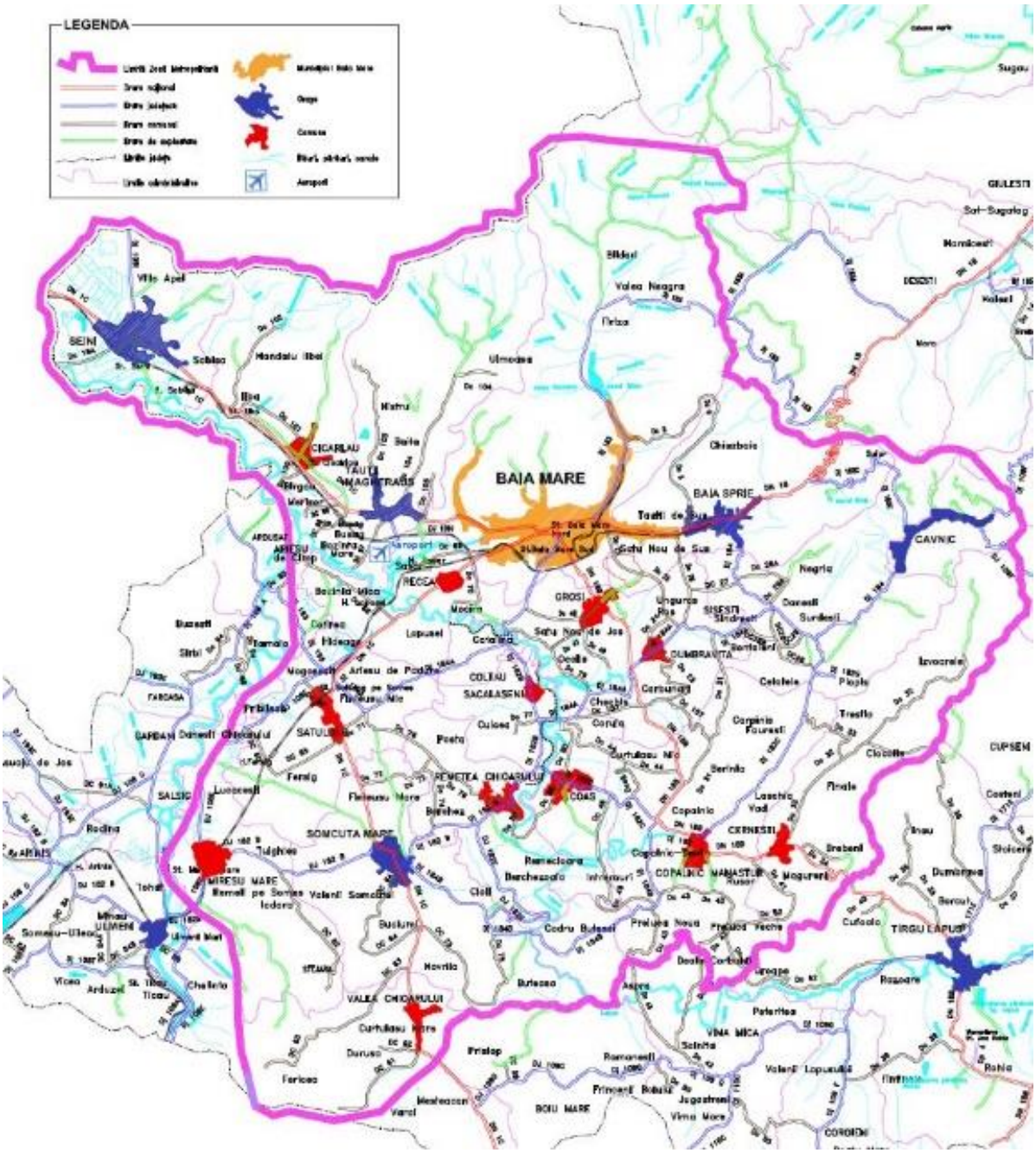


Fig. 1.1.1. Baia Mare Metropolitan Area
Source: ZM Baia Mare

1.1.2. Review of spatial planning documents

According to the National Territorial Planning, Baia Mare is scheduled to be located at the intersection of the highway with the express road. The city is located on a corridor of connectivity with areas of economic importance: Centre Region – Maramureș Region connects the OR5 Corridor with Maramureș and Halmeu and Petea borders on the Turda line – Cluj Napoca, Gherla, Dej, Baia Mare, Satu Mare.
Travelling by rail is the proposed high – speed line (160 km/hour) connecting Satu Mare to Dej. Concerning the waterways, the city is located in the proximity of a navigable water course on Someș, between Satu Mare and Dej. Baia Mare also has an airport that operates domestic flights, currently in rehabilitation.

Fig. 0.1. National Urbanistic Plan
Source: http://www.mdrap.ro/en/dezvoltare-teritoriala/amenajarea-teritoriului/amenajarea-teritoriului-in-context-national/-4697

Romania's National Master Plan for Transport

The road map of the master plan shows that Baia Mare is connected to Someș express road linking the border with Ukraine (Halmeu) to the border with Hungary (Petea) from Sărățel – Bistrița and Cluj Napoca – Turda. The railway map of the document shows that the city is located on the TEN – T Comprehensive network, but also on the Satu Mare – Dej railway line proposed for rehabilitation at the designed speed.

Baia Mare is part of the Macro – Development 1 Region of Romania, located in the northern end of the country. The macro – region is the fourth type of regional division created in Romania in 1998 and corresponds to the NUTS level of division of the Member States of the EU.

The Maramureș County Spatial Planning of 2008 states that even though the county is located within the national space and outside the European transport corridors, it also has a network of communication routes with wide openings at national and international level. Speaking of roads, the analysed territorial unit is crossed by national road DN1C and European road E58: border with Ukraine – Halmeu – Livada – Baia Mare – Dej – Bistrița ,

which will become more fluidized after the construction of the highway A1 Petea – Satu Mare – Baia Mare – Mireșu Mare – Dej – Bistrița – Vatra Dornei – Suceava. Highway 4 (400) provides the rail links of the region on Dej – Jibou – Baia Mare – Satu Mare. Also, Maramureș County has an international airport situated in Baia Mare.

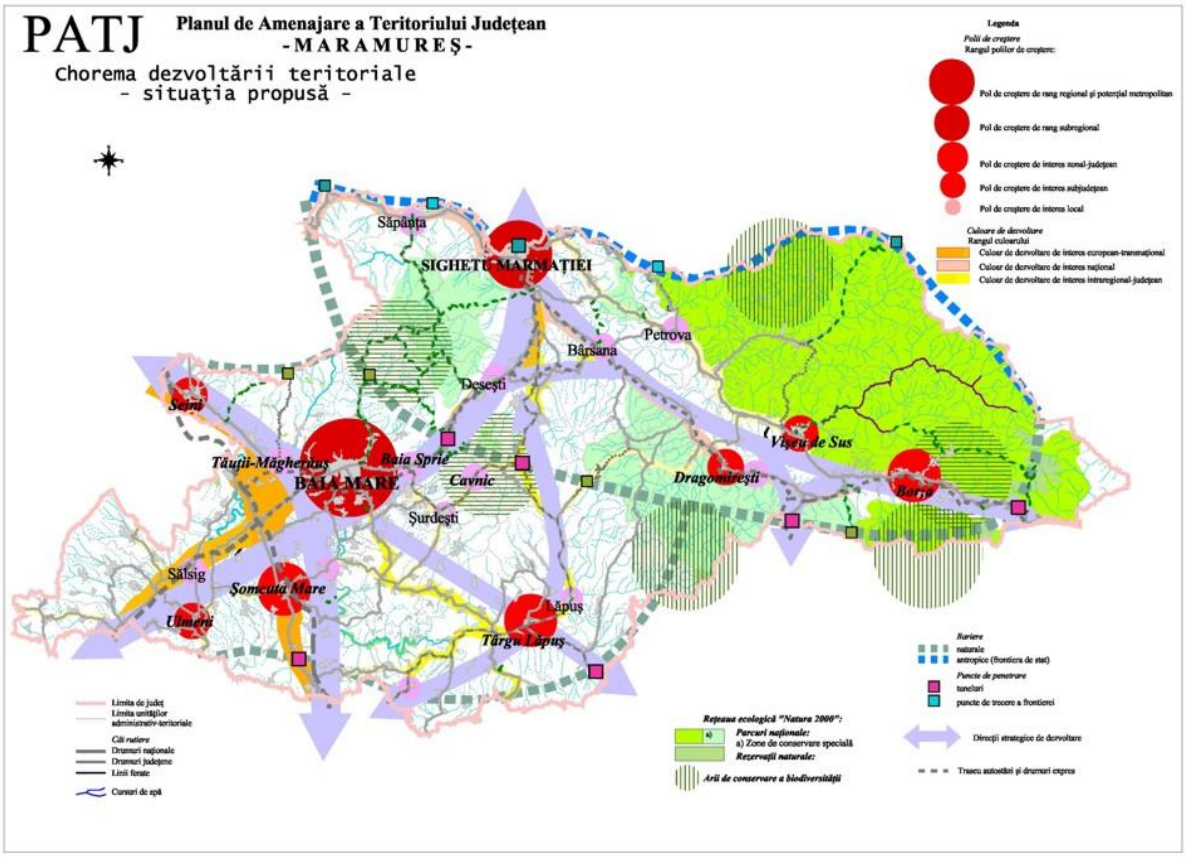


Fig. 0.2. Maramureș County Urbanistic Plan

Source: http://www.cjmaramures.ro/activitate/urbanism/reactualizare-plan-de-amenajare-a-teritorului-judetean-patj-judetul-maramures

The most important material and human flows connect Maramures County with Transylvania both by road and by rail.

The County Urban Plan sets the strategic transport networks for Maramureş County, seeing that the economic development of a territory depends on the efficiency of the transport and communications sector:

- Corridor: county limit Suceava - Borşa – Moisei – Rozavlea – Bârsana –
- Budeşti – Cavnic – Baia Mare – Hideaga – Ardusat – Gârdani – Ariniş – county limit Sălaj
- Corridor: county limit Suceava – Borşa – Moisei – Rozavlea – Bârsana – Budeşti – Cavnic – Baia Mare – Hideaga – Ardusat – Gârdani – Ariniş – county limit Sălaj;

- Corridor : Sighetu Marmaţiei – Săpânţa – Giuleşti – Mara – Izvoarele – Valea Neagră – Firiza – Baia Mare – Copalnic Mănăştur – Târgu Lăpuş – Coroieni – county limit Sălaj;
- Corridor : Vişeu de Jos – Petrova – Sighet – Baia Mare – express road [Baia Mare – Satu Mare – Vaja (Ungaria)].

The **Maramureş Development Strategy 2009-2014** specifies that Baia Mare is a county seat and an important urban centre in northwest Romania. Baia Mare is one of Romania's development poles, with significant potential for regional and extra-regional influence.
Baia Mare's Sustainable Development Strategy 2013-2023 proposes opportunities to transform the city of Baia Mare into a developmental pole on the foundation of knowledge: "The city that teaches!" is the logo that Baia Mare has adopted following the implementation of CityNet (2001), which is based on modern concepts of knowledge and information management, change and quality.

Baia Mare is the third regional centre as importance in the North – West Region, as well as the connecting link between the northwest and northeast borders of Romania, according to Baia Mare Metropolitan Area Urbanistic Plan. The main objectives of the Integrated Territorial Strategy of the Baia Mare Metropolitan Area are:

- Development, upgrade and improvement of local public transport;
- Improvement and development of transport infrastructure;
- Development of new residential areas, according to European standards.

Baia Mare General Urban Plan
Baia Mare Municipality approved the General Urban Plan by the Decision no. 349/1999 which proposes as major objectives on public transport:
- optimizing intersections;
- parking facilities;
- expanding public transport with the introduction of ecological transport;
- completing the street tram;
- traffic modelling to match existing road profiles;

Priority development axes for – Improving transport infrastructure and urban mobility:

- Development of road infrastructure;
- Strengthening the role of the Baia Mare International Airport;
- Development of intermodal transport systems;
- Measures to improve urban mobility and urban traffic.

Means to achieve the axes:

- Connection to the national transport corridors (express road, express road Petea – B.M. Borșa)
- Completion of the ring road;
- Upgrading urban roads;
- Extending the road network towards the hard – to - reach areas of the city;
- Upgrade and endowment of the Baia Mare airport infrastructure;

- Developing intermodal transport points;
- Developing territorial connectivity networks with the European space;
- Increase of the urban accessibility through the rehabilitation and upgrade of the public transport infrastructure and public transport within the entire Baia Mare urban system;
- Making multi – storeys parking lots and promoting commercial or service residential centres;
- Making the public transport system environmental friendly;
- Ensuring public lightning
- Ensuring an efficient transport between residential areas and work;

According to the General Urban Plan of Baia Sprie, the network of parking lots, sidewalks and small streets has a length of approx. 116.67 km, out of which11.78 km are communal roads and 104.89 are streets. Rail transport is inexistent, the nearest railway station being in Baia Mare, about 10 km away.
The main access points to the city are: National Road 18, connecting Baia Sprie to Baia Mare and Sighetu Marmației and County Road 184 Baia Sprie – Cavnic (County Road 109 F) which intersects with National Road 18 inside the locality. The connection to Mogoșa resort and Șuior tourist base is provided by County Road 183C, starting from National Road 18. County Road 5 also strarts from National Road 18 and crosses the village Chiuzbaia, leaving the administrative territory in the west direction. From National Road 18 also starts County Road 25 to the south at the boundary between Tăuții de Sus and Baia Mare, crossing Satu Nou the Sus locality on N- W- S- E direction towards Ungurași, in the eastern part of Tăuții de Sus.

According to the **General Urbanistic Plan of Tăuții Măgherăuș,** the road access is made via National Road 1C (Baia Mare). County Road 109 J to Baia Mare Airport, Communal Road 97 to Bozânta Mare, Communal Road 103 to Nistru Communal Road 104 to Băița and Ulmoasa, Communal Road 105 to Apa Sărată locality.
The Baia Mare – Satu Mare railway crosses the city of Tăuții Măgherăuș, with a stop in Bușag.
The only airport of Maramureș County is in Tăuții Măgherăuș. It is located 10 km from Baia Mare and 1.25 km from National Road 1C.

According to **Seini City's General Urban Plan**, Seini's total road network is 71 km of national/ European road, 6 km of county road and 54 km of street network. The national and county roads and paved and fully operational. As for the urban streets, the city has only 25 km of upgraded streets, the equivalent of 46.3% of the total street network, the rest of the roads being in various stages of practicability (mostly cobbled roads or land).

According to Cavnic City's General Urban Plan, the only means of communication is the road, formed on the County Road 184 that crosses the city, Cavnic being located on the County Road Baia Sprie – Cavnic and has connection to County Road 109F Budești – Cavnic and County Road 182C which is connected to Târgu Lăpuș through Copalnic Mănăștur.

1.1.3. Analysis of the social, demographic, economic and geographic profile

The population of **Maramureș County** is decreasing, considering an analysis of the past 10 years, reaching 527.663 inhabitants in 2014. This is due to the decrease in natural growth as a result of reduced birth rates, homelessness and job cuts by massive layoffs in mining, metallurgy, machine building, woodwork, textiles and other industries.
The share of the urban population for 2014 was 60.34%, while the corresponding share of the rural environment was 39.66%.

The resident population at July 1st 2015 of the Baia Mare Metropolitan Area: **244.775** inhabitants (Baia Mare, Baia Sprie, Cavnic, Seini, Șomcuta Mare, Tăuții Măgherăuș, Cernești, Cicîrlău, Coaș, Cotlău, Copalnic Mănăștur, Dumbrăvița, Groși, Mireșu Mare, Recea, Remetea Chioarului, Satulung, Săcălășeni, Valea Chioarului).

The population of **Baia Mare Municipality** is also descending; for 2010 – 2015 there was a decrease of about 2.44%. The population of Baia Mare in July 2015, according to the National Institute of Statistics, was 147.954 inhabitants. Over the past 15 years, the average is 152.892 inhabitants.

The migration movement of the population

As for home and resettlement departures, an analysis for 2000 – 2015 taking into account the difference between home departure and resettlement notes that the values are negative throughout the analysis period.

Workforce

In **Maramureș County,** for 2015, the active population accounted for 38% of the total population at county level. Also for 2015, for Maramureș County, the employed population represented 96% of the active population (the active population was 202.800 inhabitants and the employed population was 195.700 inhabitants). In 2015, the percentage of the unemployed was 10%.

Gross domestic product

In **Maramureș County,** for 2013, the gross domestic product was approximately 10.212,4 million RON. Compared with the previous year, the increase was of about 5%. For 2013, Maramureș County's GDP represented 14.28% of the GDP of the North – West Region (holding the third position in the region) and 1.56% of the GDP of the whole country. In terms of GDP per capita, Maramureș County occupied position no. 31, with a value of approximately 4039.5 EURO/ capita (for 2011).

1.1.4. Analysis of the infrastructure, the impact of transport services on the population, on the attractiveness of the area and on economic development

Baia Mare is the third regional centre of regional importance in the North – West Region, as well as the main connecting link between the northwest and north - eastern borders of Romania, according to Baia Mare Metropolitan Area Urbanistic Plan.

The road network includes 2 national roads (National Road 1C – European Road 58, National Road 18), 15 county roadways and 34 communal roads. The total length of the public roads is 468 km. Out of this total, national roads are fully upgraded, 80 % of local roads are upgraded and 30% of communal roads are upgraded. The connection with the north - eastern area of the county is provided by the County Road 183 and the connection with the southern area of the county is provided by County Roads 183, 182, 184 A, 182 B, 182C.

The railway has a length of 82 km, consisting of a single, non - electrified track. The territory is crossed by line 400 Satu Mare – Baia Mare – Jibou – Dej, a railway section not adapted to traffic in accordance with the European standards in force, with level crossings having no road traffic signalling devices, no barriers and are unguarded.

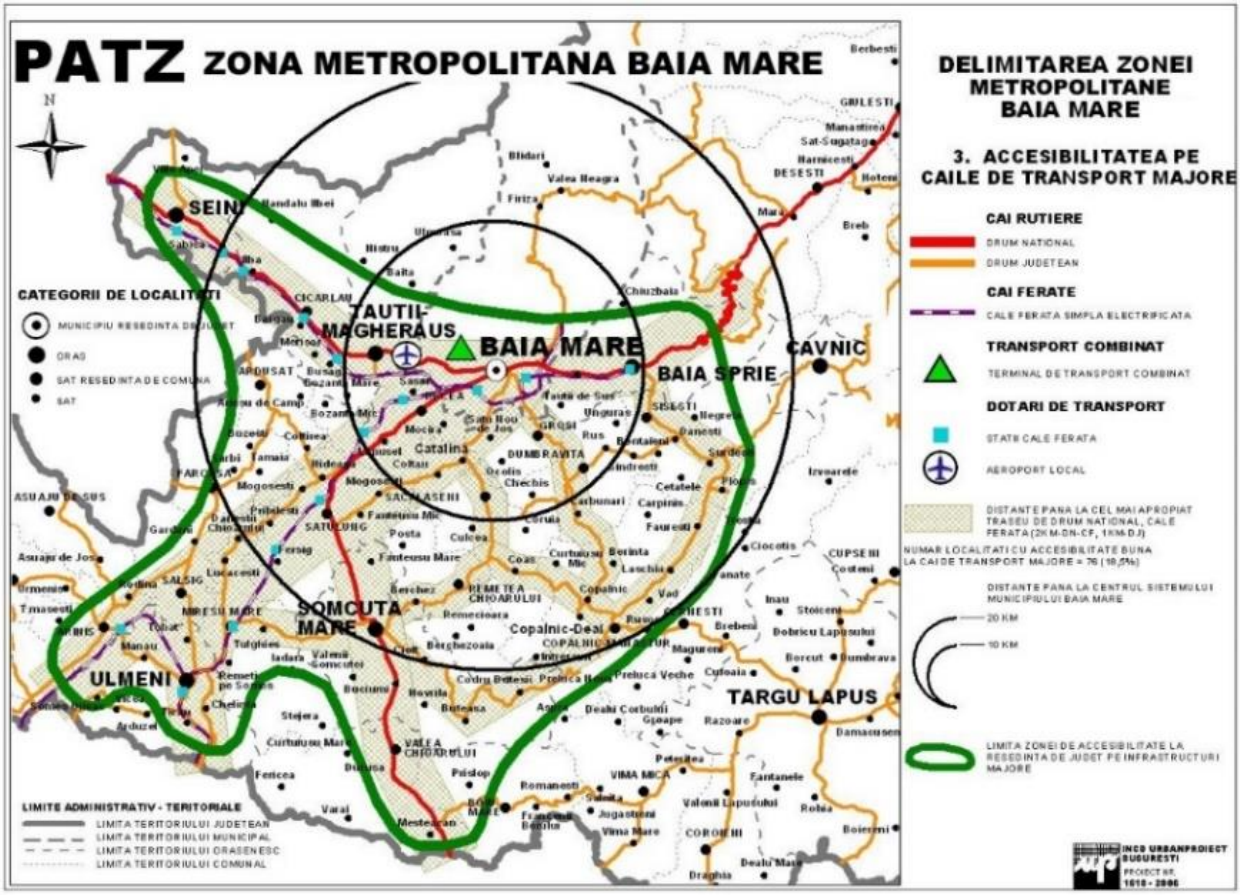


Fig. 0.3. Baia Mare Metropolitan Area Urbanistic Plan
Source: MA Baia Mare

National Road 1C enters Baia Mare from two directions, being the main entrance road connecting other localities, both at regional and national level. From the West, National Road 1 C connects Baia Mare – Satu Mare, the distance between them being 60 km, and from Baia Mare – Cluj Napoca in the southwest, the distance being 150 km. In the southern part of the city there is a connection with other localities, which is done through the National Road 18 B. This road intersects with National Road 1 C in Cășeiu, where the large traffic is redirected towards Dej, Bistrița Năsăud (National Road 17C) or Cluj Napoca.

For **Baia Mare Municipality**, the total existing street network has a length of approximately 214.6 km, corresponding to 380 streets divided into four functional categories, depending on the structure of the asphalt and the overall width of the street.

Categorie	Nr.străzi	Procent din total
Categoria I	7	2%
Categoria II	51	13%
Categoria III	105	28%
Categoria IV	217	57%
TOTAL	380	100%

Table 0.1. Road categories for the Baia Mare Metropolitan Area
Source: SUMP Baia Mare

Considering the type of road structure, 77,4% of the streets in Baia Mare City are asphalted, 10,5% of the streets are paved and 5,8% are concrete. The rest of 6,3% are pebbled, broken rocks and ballast.

For one business day, evaluated on the basis of the data gathered in the Sustainable Urban Mobility Plan, the comfort of the travel is a medium one, the level of the service being assessed at C level, with an average hourly rate of 1.500 vehicles per day. At peak hours the main generating elements for traffic are the intersections, where the capacity is limited by the traffic regulations where there are no traffic lights. The average speed is approximately 33 km/ hour.

No.	Indicators	2010	2011	2012	2013	2014	2015	2016
1.	Turnover of public transport operators (Euro)	5.205.643	5.542.780	5.731.875	6.616.243	6.807.469	7.101.861	6.890.331
2.	Percentage of workforce in the public transport sector (%)	0,84	0,82	0,77	0,67	0,62	0,63	0,60
3.	Number of public transport operators (road transport)	5	5	5	5	1	1	1
4.	Investments for local roads (Euro)	5.179.607	7.965.512	6.859.807	7.130.666	7.889.529	5.945.546	11.742.618
5.	Number of public transport lines	27	26	30	28	36	36	37

6.	Number of public transport road trips (thousand)	169,1	166,4	176,2	165,8	193,6	205,2	205,7
7.	Mileage of public road transport (million)	3,5	3,4	3,5	3,5	4,28	4,47	4,4
8.	Number of passengers (road transport) (million)	18,7	15,3	17,3	19,9	23,5	27,13	26,66
9.	Number of registered cars in Baia Mare per capita (number)	0,32	0,31	0,30	0,31	0,31	0,32	0,35
10.	Number of cars registered in Baia Mare (number)	48.203	46.344	45.480	46.062	46.356	47.730	50.841

Table 0.2. Baia Mare Metropolitan Area indicators regarding public transport
Source: National Institute of Statistical Data, Maramureș County Council, Baia Mare City, S.C. URBIS S.A.

1.1.5. Legal analysis of the constituent documents of the Contracting Authorities

Following the individual analysis of each article in the Constituent Act and the Statute of the Baia Mare Metropolitan Area Intercommunity Development Association, referring to the content of the Constitutive Act – Framework and Statute for the community services of public utilities stipulated in G.D. no. 855/2008 as amended and supplemented, as well as the content of the specific legislation, in was found that in order to have a good correlation between the current legislative context and the constituent acts of the Association, a number of amendments are necessary. Thus, the Association's documents have been updated and approved (see Report 1).

1.2. Analysis of the features of public passenger transport for each region

1.2.1. Analysis of the public passenger transport offer – infrastructure, means and service, including technical conditions

To meet the need for mobility, for the metropolitan area, the carrier uses a network of busses, trolleys and mini – busses.
The localities of the Baia Mare Metropolitan Area who benefit from the services of the public transport operator (S.C. URBIS S.A.) are: Baia Sprie City, Tăuții Măgherăuș City, Recea

Commune, Groși Commune, Dumbrăvița Commune, Săcălășeni Commune, Coaș Commune.
The other localities within the metropolitan area benefit from public transport through the County Transport Program, which is in the competence of the Maramureș County Council.

Fig. 1.2.1. The localities in the metropolitan area serviced by S.C. URBIS .SA.
SOURCE: SUMP Baia Mare

At a metropolitan level, the number of active line counts is:
- Baia Sprie -> 3 bus lines;
- Tăuții Măgherăuș -> 4 bus lines;
- Recea -> 4 l bus lines;
- Dumbrăvița + Groși -> 2 bus lines;
- Săcălășeni + Groși -> 1 bus line;

  Coaș -> 1 bus line, from 2016.

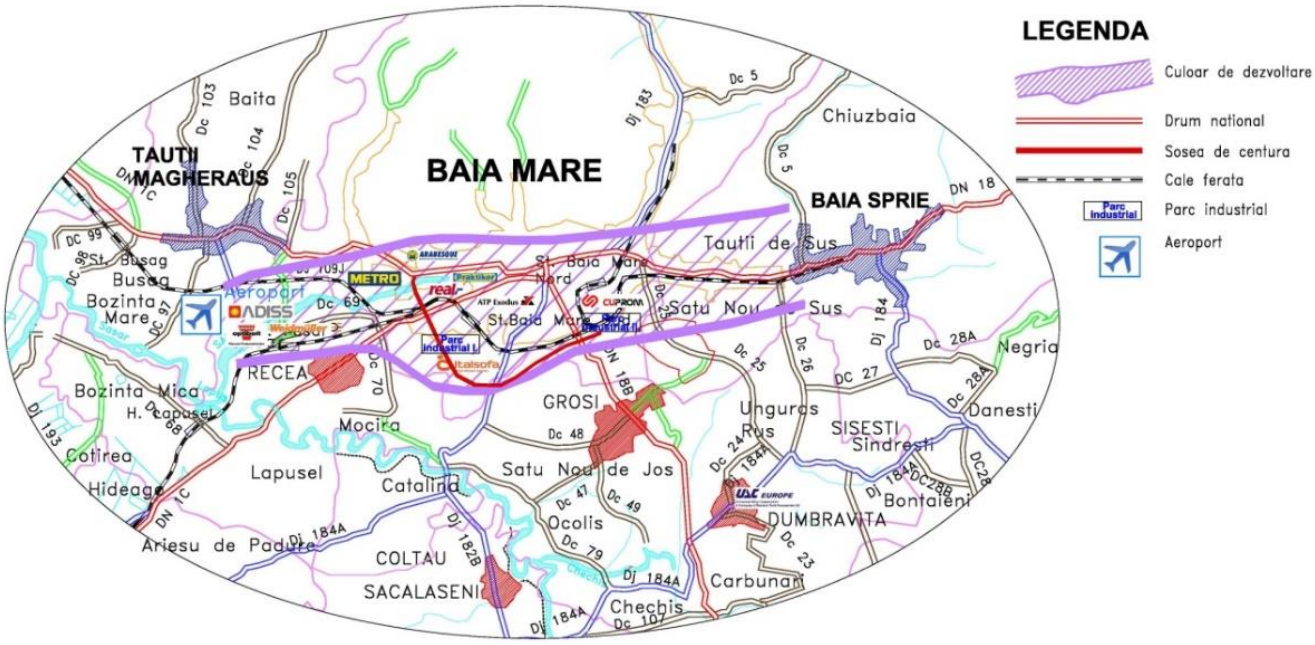


Fig. 1.2.2. Map relevant from the point of view of local public transport (Baia Mare + Metropolitan Area)
Source: SUMP Baia Mare

As for the 7 localities of the metropolitan area, the number of means of transport used is 26 busses and a mini - bus:
- Baia Sprie -> 10 busses and a mini - bus;
- Tăuții Măgherăuș -> 4 busses;
- Recea -> 4 busses;
- Dumbrăvița + Groși -> 4 busses;
- Săcălășeni + Groși -> 3 busses;
- Coaș -> 1 bus.

The means of transport were allocated according to the transport demand, so Baia Sprie City (17.076 inhabitants) has 10 busses and a mini – bus, and Tăuții Măgherăuș City (8.048 inhabitants) has 4 busses.
Considering the length of the bus lines of the metropolitan area:
Baia Sprie:
- Line 8-32,2 km Baia Mare (Dorna)-Baia Sprie and back (15,2 km in Baia Mare);
- Line 14-9,6 km IMMUM-Satu Nou de Sus;
- Line 21-15,0 km Chiuzbaia-Baia Sprie and back.

Tăuții Măgherăuș:
- Line 6-28,0 km Main bus station - Merișor and back (35,0 km Urbis - Merișor and back);
- Line 7-24,7 km Main bus station - Băița and back (32,9 km Urbis - Băița and back);
- Line 13-36,5 km Main bus station - Nistru and back (44,7 km Urbis - Nistru and back);
- Line 29-28,2 km Main bus station - Bozânta Mare and back (36,4 km Urbis - Bozânta Mare and back).

Recea:
- Line 12-16,6 km Main bus station - Lăpușel and back (28,1 km Urbis - Lăpușel and back);
- Line 24-10,2 km Main bus station - Mocira and back (21,7 km Urbis - Mocira and back);
- Line 28-12,4 km Main bus station - Săsar and back (23,9 km Urbis - Săsar and back);
- Line 27-28,1 km Main bus station - Bozânta Mică and back (39,6 km Urbis - Bozânta Mică and back).

Dumbrăvița + Groși:
- Line 22-34,4 km Piața Izvoare - Unguraș and back (40,8 km Autogara - Unguraș and back);
- Line 16/26-30,4 km Piața Izvoare – Groși - Chechiș and back (40,8 km Autogara – Groși - Chechiș and back).

Săcălășeni + Groși:
- Line 17/23-36,0 km Piața Izvoare – Ocoliș - Săcălășeni and back.

For the metropolitan area, the transport operator has provided a number of bus lines to integrate and increase the accessibility of the localities that revolve around Baia Mare. Through regular means of transport, residents of neighbouring areas can have easy access to the city and can travel to potential jobs, educational institutions, hospitals etc.

Considering the lines allocated by the public transport operator, the central point towards which most of the transport serving the metropolitan area is the Main bus station (Gării street, no. 2). Considering the configuration of the bus lines, they often have a radial shape, the main role being the directing the passenger to the Main bus station of the municipality.

Urban Area (Baia Mare Municipality)
For the transport demand at city level, the transport operator uses 18 bus lines (11 of which are mobilized to meet the mobility needs to/ from the economic units in the industrial areas), 2 trolley lines and 2 mini – bus lines.

The number of means of transport used in the operating area of Baia Mare is: 37 busses, 18 trolleys and 6 mini – busses.

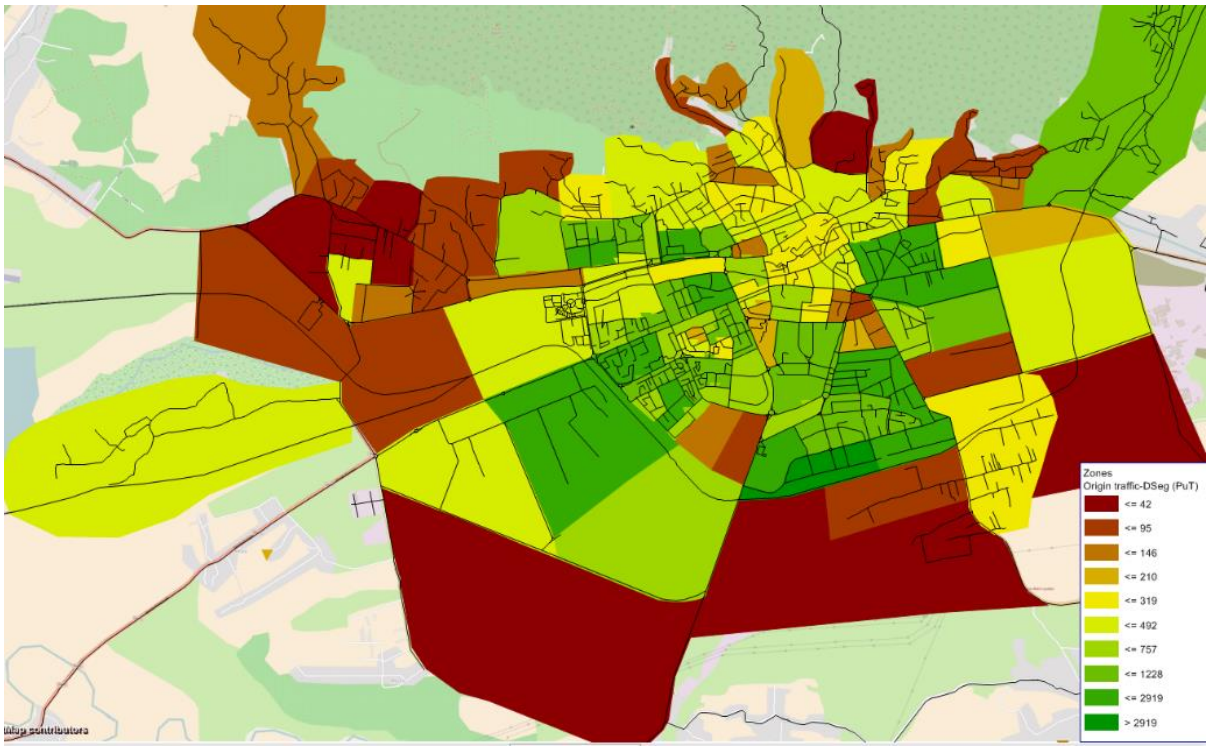


Fig. 1.2.1. Spatial distribution of journeys made with public transport, 2015

Source: SUMP Baia Mare

Accessibility is closely correlated with the transport offer, described by the public transport lines detailed below. To illustrate the accessibility of the current transport system, the figure below describes the length of the access to the public transport system. It is found that in Baia Mare, 44% of the population has access to a public transport station in less than 5 minutes walking distance (acceptable distance to access a public transport system for a medium – sized city).

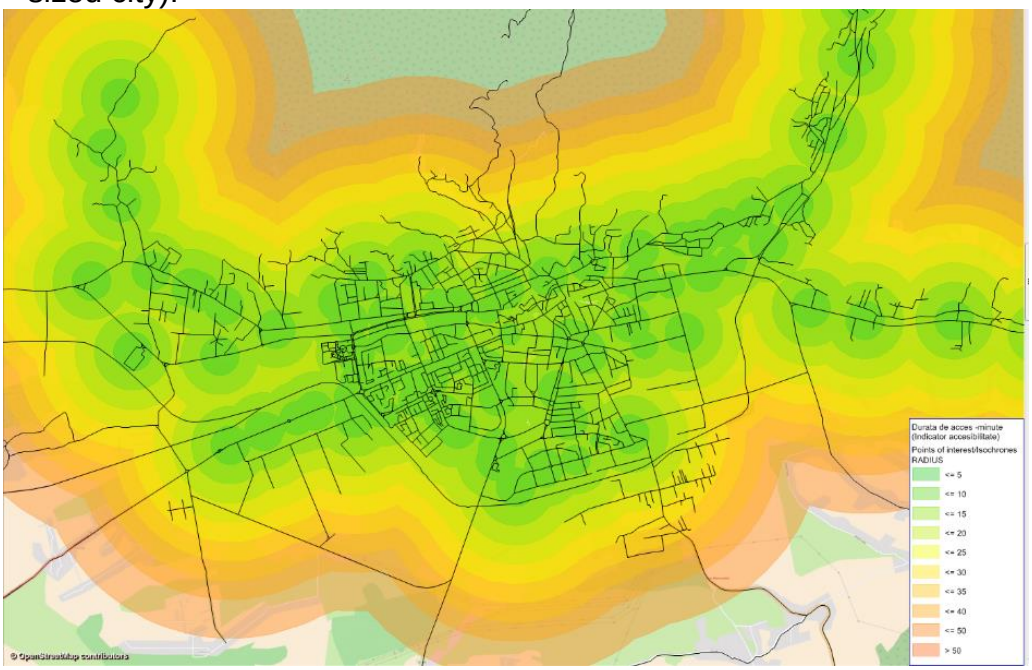


Fig. 1.2.2. Access lenght to the public transport system 2015

Source: SUMP Baia Mare

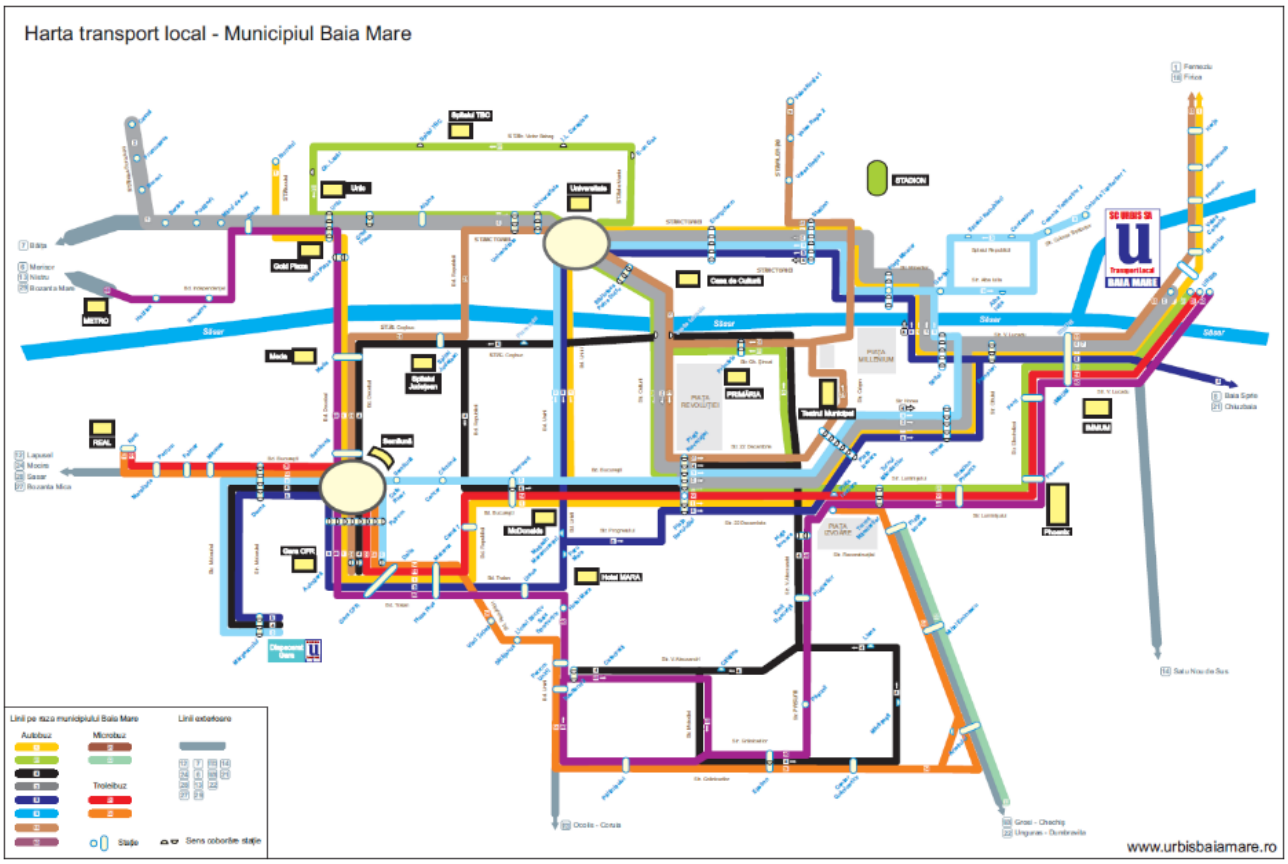


Fig. 1.2.3. Map of public transport lines
Source: SUMP Baia Mare

To service the areas in the municipality, the transport operator has allocated a series of routes, present in figure 1.2.3.

For Baia Mare Municipality, the operator has provided 13 public transport lines serving mostly urban areas, but also integrates Firiza and Baia Sprie with a transport system that allocated bus lines to these areas.
The line characteristics, the number of stations, are highlighted in the table below (table 1.2.1.)

Linia de transport public	TUR	Număr stații	Nr. Kilometri TUR	RETUR	Număr stații	Nr. Kilometri RETUR
Linia 1	E.P.Săsar - Bifurcare Baraj	22	13,541	Bifurcare Baraj - E.P. Săsar	23	13,915
Linia 3/11	URBIS/ V.Babeș - Victoriei	11	7,067	Victoriei - URBIS	11	5,713
Linia 4	Dorna - Grănicerilor	12	6,951	Grănicerilor - Dorna	12	7,255
Linia 4*	Dorna - Grănicerilor	11	5,925	Grănicerilor - Dorna	12	7,255
Linia 4 SD	Dorna - Grănicerilor	13	6,785	Grănicerilor - Dorna	12	7,255
Linia 5	URBIS - CASTEL	16	9,87	CASTEL-URBIS	17	10,314
Linia 5/7	URBIS - CASTEL - BĂIȚA	19	12,489	Băița - CASTEL - URBIS	15	8,777
Linia 8	Dorna - Baia Sprie	22	15,16	Baia Sprie - Dorna	23	16,096
Linia 9	Dorna - Strada Alba Iulia	12	7,227	Strada Alba Iulia - Dorna	13	7,055
Linia 18	IMMUM - Firiza	19	14,728	Firiza - IMMUM	19	14,727
Linia 18G	Gara - Firiza	27	19,594	Firiza - Gara	27	20,483
Linia 40	URBIS - METRO	22	11,744	MERO - URBIS	22	12,556
Linia 51	URBIS - REAL	16	7,691	REAL - URBIS	16	7,707

Table 1.2.1. Public transport lines in the urban area
Source: SUMP Baia Mare

The travel times for public transport in **Baia Mare,** at the level of frequent users' perception, is in average 25,4 minutes for a distance of about 5.28 km. The speed experienced by the traveller is about 13 km/hour. In terms of actual journey times, they are close to the perception of users, but they fall within the same value range. Thus, the commercial speed recorded at the level of the entire offer is about 16 km/ hour, being affected by the areas in the transport network where the volume/ capacity ratio is over 50%. In the public transport system, according to the transport model, the average travel distance is 3.62 km between the climbing station and the descent. Vehicle travel time is 13.6 minutes.

Regarding congestion in the urban public transport system, the commercial bus speed are not congested, organized in corridors at about 25 km/hour (according to the National Public Transport Union). Therefore, for the urban public transport system in Baia Mare, an average delay per km of about 1 min 38 sec. is estimated. For an average journey in a public transport vehicle, the average delay is 4 minutes 55 seconds per travel.

For the public transport lines presented, both for urban and for those serving neighbouring localities, there are 190 public transport stations, corresponding to busses, trolleys and mini – busses.

In terms of ricing for urban travel and between the city and the neighbouring localities, the carries has made available several types of travel tickets. The price of a valid ticket on Baia Mare and Firiza routes varies between 2 and 7.5 lei, the average being 2 lei for a trip.
For other localities, the price of the ticket is 2.5 lei/ trip within the locality and an average price of 4 lei for a trip from the localities to Baia Mare (the validity of the ticket is 60 minutes).

For travel subscriptions, there are social categories that are exempt from paying public transport, for example pensioners aged over 70 years. Pensioners aged less than 70 and students benefit from a 50% discount from the total subscription price. All the discounts are available for the routes in Baia Mare and Baia Mare – Firiza.

The general prices vary depending on the distance and multitude of possibilities offered by the subscription (one way access or general access for all the routes), depending on its validity.
The most expensive subscriptions are 175 lei, valid for one month and for Baia Mare – Săcălășeni and Baia Mare – Bozânta Mică routes.

1.2.2. Analysis of the management of the public passenger transport system

In 2012, the member localities of the Association approved through Local Council Decision that the Association can exercise in their names and on their behalf the duties related to the public transport service. Subsequently, through the General Assembly's decision of the Association no. 8/ 19.10.2012, the means of management for the local public transport system was approved, by delegating the management of the service to one or more transport operators on the basis of a management delegation contract, and the development and approval within 6 months of an opportunity study to substantiate the best solutions for the delegation of service in order to sign the delegation contract for the management of the service.

Based on the study, through a decision of the Baia Mare City Council (17/29.05.2013), Baia Sprie, Tăuții Măgherăuș, Dumbrăvița, Groși, Recea and Săcălășeni approved the feasibility study the delegation of the management of the public transport service, the management delegation contract, service regulation, service specifications, the goods to be put in concession through the contract, the empowering and mandating of the Baia Mare Metropolitan Association to approve, award and conclude in the name and on behalf of the member localities the delegation contract to manage the service of the public operator S.C. URBIS S.A. Also, in 2013, S.C. URBIS S.A. became a regional transport operator, state – owned company with the Baia Mare City Council having the majority shareholding.
Thus, now the local public transport service is carried out on the basis of the Contract for delegating the management of the local public transport service through regular trips no. **704/23.12.2013 and Additional Acts 1 to 10. By Addendum no.7** the public transport service was extended to Coaș. The public transport services are currently carried out in Baia Mare (City Council decision no. 179/29.05.2013), Baia Sprie, Tăuții Măgherăuș, Dumbrăvița, Groși, Recea, Săcălășeni and Coaș (Nov. 2016 – June 2017), under different settlement conditions. Except for the **Baia Mare – Coaș route, where the operator does not have an exclusive route** (the route is included in the County Transport Program and an operator authorised by the County Council still services it), **for the rest of the territory, the operator is exclusive.**

For Baia Mare Municipality, the operator recovers the costs of operating, rehabilitation and development of the public transport system, according to the contract, through tickets and subscriptions, and local public transport facilities granted by law and the local council of Baia Mare, as well as the operating subsidy from the local budget.

The amount of the operating grant to cover the difference between the costs incurred by the delegate and the amounts received by performing the public transport service granted by Baia Mare Municipality to the delegate **equals the difference between the expenses and the revenues of the local public transport activity on the administrative – territorial area of Baia Mare.**

For the other localities who benefit from public transport service, the operators recovers the costs of operating (not including the cost of rehabilitation and development coming from Baia Mare Municipality) through tickets and subscriptions and local public transport facilities granted by law and decisions of the local council.

The local transport program for the territorial administrative units is designed in such a way that, in relation to the approved tariffs for tickets and subscriptions, where will be no negative differences between the revenues and expenditures of the transport activity from the exploitation of these routes.

The operator communicates each month to the localities a centralized situation regarding the incomes and expenditures. The operator regulates quarterly the financial results recorded on all routes.
In the event that there is a negative difference between the revenues and expenditures related to the routes, **the operator will try to make the costs more efficient possibly leading to cutting off some of the routes.** For Coaș, the amount of public service compensation (operating grant) to be paid by Coaș from the local budget is the difference

between the expenses and the incomes related to the local public transport activity on the Baia Mare – Coaș route.

Regarding the tariff differences for the categories benefitting from transport facilities, according to national legislation and local council decisions, the calculation is made based on the monthly nominal lists for different categories or the nominal tables with the valid urban transport passes for the current month (only for students).
The operator pays a fee for the service in the amount of 1% of the total revenues from the direct collection of tariffs and subsidies from the users (minimum 50.400 lei).

The duration of the contract is 6 years, expiring on 23.12.2019. According to article 34', the contract can be amended and brought in line with national and EU regulations.

As a conclusion of the existing contract, the contract does not fully comply with regulation 1370/2007 and the legislation in force. A number of elements must be taken into account when amending it.
A new public service contract under Regulation 1370/2007 will be developed during 2018, a project being underway to establish the optimal modalities for contracting services at the level of the metropolitan area.

1.2.3. Analysis of the quality of public passenger transport services

The indicators for monitoring the quality of public transport services that are mandatory at least through national legal provisions in force are 10:

1. Routes cancelled for more than 24 hours
2. Number of trips, routes suspended by the fault of the operator
3. Number of passengers affected by the above situations
4. Respecting the Service Plan
5. Complaints – grounded/ resolved / unresolved
6. Environmental protection/ compliance with pollution standards
7. Average age of vehicles/ vehicles with accessibility and comfort facilities (with lowered floor, air conditioning, equipment for disabled persons)
8. Penalties paid
9. Compliance with legal provisions
10. Traffic accidents

For ensuring that the performance indicators are respected, they must be stipulated in the contract with the admissible values and means of solving situations in which they are not respected as well as established guarantees – which is not currently applicable.
The contract must contain the provisions of the national legislation in order to provide the localities the possibility to control the service and the compensation granted, through its content and calculation and settlement mechanisms according to Regulation 1370/2007.
Essentially, it is necessary to amend the existing contract and bring it in line with the regulations in force.

In regard to the **performance indicators for S.C. URBIS S.A.'s activity**, the indicators are as follows:

- Operational cost
- Turnover

- Work productivity
- Profit rate

The performance indicators are set by the S.C. URBIS S.A. Stakeholder's General Assembly during their term in office, based on the management contract, and their performance is ensured by the executive management of the company on the basis of the mandate contract signed with the Board of Directors, in order to monitor the degree of accomplishment.

The operational cost for the public transport service is the cost efficiency index per km spent. The resulting operational cost index will be corrected with the correction coefficient determined on the basis of the forecasted price increase index for the following year. In the calculation of the operational cost are included the direct operating costs (consumption of raw materials, services, energy, maintenance), labour costs, administrative and general expenses, capital repairs and replacement of equipment with a lifetime below the reference period (to be included in operating costs to the extent that they were not provided as investment cost).

Turnover includes the total amount of revenue from commercial operations, for instance local transport services produced over a specified period of time. The amount of turnover does not include financial income and exceptional income. Minimum turnover is the sum of fixed and variable costs.

Labour productivity is a basic synthetic indicator showing the efficiency of work. The labour productivity index for the public transport activity will be determined by reporting the production invoiced to the average number of employees, based on the following formula:

$$W(1) = \frac{\text{Invoiced production (current prices) in the previous year}}{\text{Average number of employees in the previous year}} \times K,$$

- where k is the correction coefficient to be established on the basis of the projected increase in prices for the references year. Invoiced production will also include subsidies against the reference price.

In analysing the achievement of objectives and performance indicators, account will be taken of the degree of assurance from the local budget of the need for free services and social assistance grant established under the law and the degree of non – assurance of added value tax to be recovered if it is the case.

The gross operating profit is obtained as the difference between the total operating income and the operating expenses. The profit rate is obtained by reporting the gross profit from the operating activity to the turnover achieved.

The formula is:

$$\text{Profit rate} = \frac{\text{Gross operating profit}}{\text{Turnover}} \times 100$$

1.2.4. Analysis of the financial situation of the public transport service

S.C. URBIS S.A. is an exclusive state – owned company with the majority stakeholder being Baia Mare City Council and is traditionally the public transport operator in Baia Mare Municipality. It functioned as an Autonomous Public Service Company until 1997 (City Council Decision no. 210) and as a Municipal Commercial Company until the end of 2013 (06.12.2013) when it was reorganized as URBIS S.A. – regional transport operator.

Currently, S.C. URBIS S.A. is a public body, a joint – stock company with Baia Mare Municipality holding 97.06% of the shares, Tăuții Măgherăuș City – 0,98%, Dumbrăcița Commune – 0,49%, Recea Commune – 0,49%, Groși Commune – 0,49%, Săcălășeni Commune – 0,49%.

The local public transport service, both for Baia Mare City as well as for the other administrative territorial units of the Baia Mare Metropolitan Area – Baia Sprie and Tăuții Măgherăuș cities, Dumbrăvița, Groși, Recea and Săcălășeni communes, is carried out by the public transport operator S.C. URBIS S.A., based on the management delegation contract no. 704/23.12.2013, which entered into force on 01.01.2014, signed for a period of 6 years.

S.C. URBIS S.A. owns the route licences and the related service documents for the entire Baia Mare Metropolitan Area, issued by the Authorizing Authority – the Local Transport Compartment of the Baia Mare Metropolitan Area Intercommunity Development Association.
According to operational and accounting situation, S.C. URBIS S.A. is presented as follows:

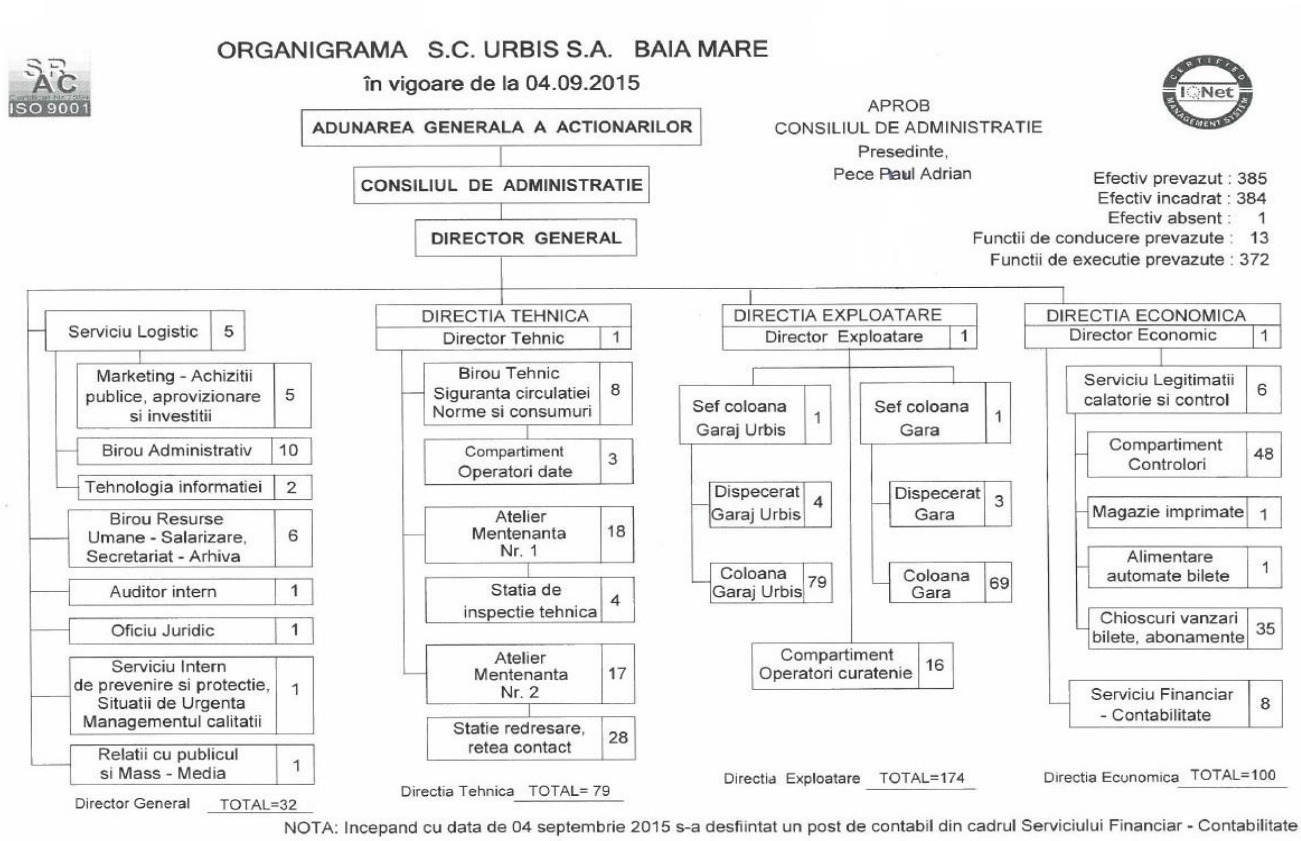
I. Resources at the end of 2016

A. Value of assets available to the operator:

Total,	53.684.121 lei
Out of which:	
Lands and landscaping	3.009.369 lei
Construction	8.467.401 lei
Equipment and machinery	42.023.666 lei
Fixed assets (investments)	146.151 lei

For the assets leased by the operator the payment is foreseen for the royalty due to the contracting authority – the Baia Mare Metropolitan Area Intercommunity Development Association. In the case of investments, when the contract is updated, they will have to be structured in two categories: own investments of the operator financed from own funds and investments of the contracting authority financed from the budgets of the member administrative territorial units, taking into account their different treatment in relation to the eligible cost/ km.

Human resources
According to the S.C. URBIS S.A. organigram, the total number of people employed is 385, out of which 372 employees and 13 managers.



Note that the ratio of the total number of staff related to the number of drivers (productive) is 385/148, which is 2.6 staff members for one driver.
The situation can be partly explained by the large number of technical staff for the maintenance of rolling stock with a length of service that exceeds in some cases the normal usage times and the lack of an automatic toll system leading to the reduction of the commercial staff.

II. Economic and financial results

The analysis of the operator's economic and financial results is based on data collected for 2016, as evidenced by the documents provided by <Baia Mare Metropolitan Area> Intercommunity Development Association and S.C. URBIS S.A., based on the premises that any conclusion must be associated with one calendar year.
In short, the situation of the main economic and financial indicators for 2016 is as follows:

No.	INDICATORS	Year 2016 - lei -	% out of total		
1	2	3	4		
1	**Net turnover out of which:**	**30,943,094**			
2	**a) Own revenues composed of:**	**19,570,475**	100	61.54	
3	- Production sold (tickets, subscriptions and various)	14,991,177	76.60		
4	- free contributions	4,579,298	23.40		
5	**b) Operating grants**	**11,372,619**		35.76	
6	**Other operating revenues**	**858,246**		2.70	
7	**Total operating income**	**31,801,340**		100	98.39
8	**Financial income**	**521,585**			1.61
9	**Total income**	**32,322,925**			100
10	Expenditure on fuel and lubricants	5,443,700	33.03		
11	Tires	341,701	2.07		
12	Expenditures on parts, materials and inventory items	1,306,545	7.93		
13	Energy, water, gas expenses	759,727	4.61		
14	Expenses with amortisation and commission	6,854,661	41.59		
15	Other operating expenses (balances with third parties, other taxes and fees)	1,775,635	10.77		
16	**Total material expenses**	**16,481,969**	100	55.21	
17	Salary expenses (ct 641,642)	11,033,217	82.52		
18	Expenses with social protection and assistance, other taxes on salaries	2,336,691	17.48		
19	**Total expenses with personnel**	**13,369,908**	100	44.79	
20	**Total operating expenses**	**29,851,877**		100	93.70
21	**Financial expenses**	**2,007,585**			6.30
22	**Total expenses**	**31,859,462**			100
23	**Operating profit**	**1,949,463**			
24	**Financial result**	**-1,486,000**			
25	**Gross profit**	**463,463**			

In conclusion, the operator's activity ended with a gross operating profit of 6.03% and a financial gross profit of 1.43%, influenced by a financial loss of1.486.000 lei.

The cumulative revenues from the cashing of the performed services represents approximately 50% of the exploitation costs, a general synthetic indicator which is registered in the average surface transport in Romania.

1.2.5. Identifying and detailing the factors that generate the development of public passenger transport

The factors that lead to the development of public transport are:

- Economic development of localities and attractiveness of the area
- Degree of urbanization of the area
- The number, structure and dynamics of the population over time
- The income of the population, for the supportability of a tariff that allows investments to be made
- Existence of regional/ local intermodal points (regional transport, rail, air)
- The national and European legislative framework
- Political will at the level of the administrative – territorial units for the integrated development of the transport system in the metropolitan area
- Accessibility of traffic management systems, tolling, information accessible to passengers
- The existence of an urban planning policy that provides accessibility to public transport
- The existence of street parking policies that facilitate public transport
- The existence of an integration policy with other mobility sectors (bicycle etc.)
- The existence of a policy deterring individual car transport
- Financial resources of local budget for investment
- Financing possibilities in the form of EU funds or loans
- Existing equipment and ability to adapt to the operator's demand
- The involvement of the Baia Mare Metropolitan Area into planning, management, monitoring and control of transport services
- Degree of technical competence at the level of the operator and local authorities
- The degree of assimilation and understanding of national and European good practices
- The degree of information and transparency when communicating with the population.

1.3. Identifying public transport stakeholders for each region

1.3.1. Analysis of the economic, social and institutional framework to highlight potential stakeholders

The way of organizing the local authorities in the <Baia Mare Metropolitan Area> Intercommunity Development Association (consisting in Baia Mare Municipality, 5 cities and 13 communes from its vicinity), the means of achieving public transport in two different ways: S.C. URBIS S.A. in Baia Mare and 7 other localities, and private operators licensed by the County Transport Program for 11 other localities – all of this creates the decisive framework for identifying stakeholders of public transport. The relation with other areas (regional and national transport, urban planning, traffic safety, funds for investment, media, environment) all create the full range of influence factors with which the main stakeholders interact in Baia Mare.

1.3.2. Means of identifying stakeholders and ranking them

A stakeholder is an individual, group or association affected – or able to influence – public transport.
Typical factors include businesses, public authorities, experts and special interests groups.
Depending on their role, they may be:

- **Main stakeholders** (people who are affected – positively or negatively – by public transport), for instance: locals, public transport operators, various social groups or professional associations, individual organizations etc.
- **Key stakeholders** (people who have the power or experience), for instance: people holding political responsibility (mayors, counsellors, other levels of authority), people holding financial resources, people with good reputation and relationship with the local community;
- **Intermediate stakeholders** (people who have an influence on the implementation of decisions or have an interest in this matter), for instance: associations, NGOs, police, mass media etc.

Based on these factors, a list of stakeholders were identified for the reference area.

1.3.3. List of key stakeholders

The main factors involved in the process of planning, organizing, operating, monitoring and controlling the provisions of public transport services in the metropolitan area:

Type of stakeholder	Name	Involvement in public transport
Public authorities and institutions	Baia Mare Metropolitan Area Intercommunity Development Association	Is mandated by local councils to carry out the public transport policy, the management and contracting of public transport services. Tasks of planning, coordination, monitoring, control, sanctions applied to public transport
	Local Councils: Baia Mare Municipality Baia Sprie City Tăuții Măgherăuș City Recea Commune Groși Commune Dumbrăvița Commune Săcălășeni Commune Coaș Commune	Decide on social policies, they finance the public transport service and public transport investments
	City Halls	Executive role, role in connecting public transport to other urban functions (parking policies, urban planning, traffic management, infrastructure management, payment of transport facilities for special categories of passengers, local police etc)
	Maramureș County Council	Sets the county transport program together with the localities members of the Association and integrates the county transport program with the public transport provided by S.C. URBIS S.A.

	County Police Inspectorate Maramureș	Traffic control entity
	Baia Mare International Airport	Correlation for public transport accessibility
	Romanian Railway System	Correlation for public transport accessibility
Business environment/ operators	S.C. URBIS S.A.	Local public transport operator with the role of providing public transport services
	Chamber of Commerce and Industry Maramureș, enterprises, retailers etc	Promoting public transport for business, institutions and employees to the detriment of individual car transport/ participants in programs which develop public transport
	Financers	Financing/ participating in programs which develop public transport
	Taxi operators	Integrating taxi operators to facilitate public transport development
	Providers of utilities and public services	Integration/ information to avoid critical situations in operations, promotion of public transport
	Transport consultants	Promoting public transport for businesses and implementing sustainable transport projects
Communities / local organisations	Locals	Beneficiaries of public transport, determining the need for public transport
	NGOs and associations	Promoting public transport
	Associations of local communities/ local interest groups/ public transport users group	Promoting public transport
	Representatives of people with disabilities	Making public transport accessible
	Associations of drivers, bicycle users and pedestrians	Promoting
Educational and scientific institutions	Maramureș County School Inspectorate	Determines the need for travel for special categories (students)
	Universities	Determines the need for travel for special categories (students)
Mass media	Newspapers, magazines, radio, tv	Promoting public transport, good practice coverage and transport service
NGOs and associations	Targeting all interest groups in the reference area	Promoting public transport in the interest of different categories of public transport beneficiaries

1.4. Making an analysis of the regional and national policies, outlining the lessons and initiatives for sustainable public transport

1.4.1. Review of strategic and policy documents – international, national and regional

Filling in the provisions of spatial planning documents

The existing documents at EU, national, regional, county and metropolitan level in the field of transport and mobility proposed an integrated approach to urban development, an analysis of functional relationships between localities, cooperation between different sectors of activity.

Europe 2020 Strategy

Europe 2020 is the EU's growth strategy for the next ten years. In practice, the European Union has set five major objectives: employment, innovation, education, social inclusion and environment/ energy, to be achieved by 2020. Member states have adopted their own national targets for achieving these objectives. Various actions at Eu and national level support the strategy.

Green Paper – Towards a new culture on Urban Mobility (Green Paper on European Urban Transport, EC 2007, EP 2008)

The European Commission sets a new European Mobility Agenda, respecting local, regional and national responsibilities in the files, and community support in seeking and implementing sustainable development solutions, promoting the exchange of good practices and optimising funding instruments.

Urban Mobility Action Plan (2009)

The Urban Mobility Action Plan proposes 20 measures grouped in 6 themes to support local, regional and national authorities in promoting sustainable urban transport as a tool for tackling climate change and fostering social cohesion.

The White Paper on Transport – 'Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system', European Commission (2011)

The White Paper proposes 20 transport improvement initiatives to be pursued between 2011 and 2030 so that by 2050 the conventionally fuelled vehicles used in urban transport and 50% of road freight transport over 300 km are transferred to other modes of transport such as rail or waterway transport.

Urban Mobility Package – Together for Competitive Urban Mobility that uses Resources Efficiently, European Commission (2013)

The Package introduces the concept of a Sustainable Urban Mobility Plan and builds the basis for the European Platform on Sustainable Urban Mobility Plans, aiming at coordinating EU – level cooperation on further development of the SUMP and related instruments.

National Strategy for Sustainable Development of Romania for 2013 – 2020 - 2030

The document follows the methodology proposed by the European Commission and represents a joint project of the Romanian Government, through the Ministry of Environment and Sustainable Development and the United Nations Development Program, through the National Centre for Sustainable Development.

The Strategy is the result of the obligation assumed by Romania as a member state of the EU according to the objectives agreed at a community level, especially those stipulated in the Accession Treaty, in the Lisbon Strategy for development and workforce and in the renewed EU Strategy for Sustainable Development from 2006.

1.4.2. Policies and measures to promote public transport, nationally and locally

Regional Operational Program 2014 – 2020

The Regional Operational Program 2014 – 2020 aims to increase overall economic competitiveness and improve the living conditions of local and regional communities by supporting the development of the business environment, infrastructure conditions and services, ensuring a sustainable development of the regions, capable of delivering a sustainable development of the regions which use resources with care and capitalize on their innovation potential and technological progress.

In the **2014 – 2020 Joint Operational Program Romania – Ukraine,** the cooperation area includes the counties of Botoșani, Suceava, Tulcea, Maramureș, Satu Mare (Romania) and Odessa, Ivano Frankivsk, Zakarpatska, Chernovtsy (Ukraine). The area under consideration can benefit from thematic objective 7 – Improving accessibility in the regions, transport development and common transport networks and systems.

The Northwest Region Development Strategy 2014 – 2020 aims as second priority the increase of accessibility of the region and the mobility of its inhabitants, goods and information. To achieve this goal, thee directions are being developed: making a sustainable transport system and ensuring access and integration in major transport networks at EU and international level, improving access to ICT, quality and use of these networks by the private and public environments, and ensuring access to energy and connection to EU networks.

In the **Maramureș County Development Strategy 2009 – 2014** it is specified that access to and from Maramureș County has three main directions: Cluj (through Dej), Satu Mare (through Baia Mare or Sighetu Marmației) and Suceava County (through Borșa). Due to the current state of the road, but also because of physical limitations of the traffic capacity and the speed of travel, the access to and from Maramureș County is difficult, taking into account the travel time and traffic safety.

Baia Mare Integrated Urban Development Strategy (SIDU)

Baia Mare is an **Urban Development Pole** and a county seat, a status that shows that the city acts as a regional and local pole of growth, irradiating development for its surroundings. It is the 16th city in Romania based on number of inhabitants, according to Eurostat.

Compliance with sectoral strategic documents

Baia Mare is a Rank II city according to Law 351/2001 on the approval of the National Territory Arrangement Plan – Section IV of the Localities Network. According to G.D. 998/2008 the city has been designated an urban development pole. The city has an area of 235.73 sq.km, with a density of 524.91 inhabitants/sq.km.

The Baia Mare Mobility Plan and the Baia Sprie Mobility Plan

The main objectives of the public transport policies are to improve the service and attractiveness of the networks, which motivate the users to make a change in their modal choice. Another objective is to encourage the development of sustainable travel behaviours by improving the exploit and communication with the traveller. Moreover, these policies aim

to make transport services more efficient and more cost – effective, to improve transport routes and waiting times.
SUMP has as main objective to create a public transport system that highlights the advantages of the transport network, especially through the attractiveness of the transport fleet. ..... It also improves complementary means of transport to provide high – quality public transport services for all categories of passengers, including students or people with disabilities.
An important aspect is the focus on the traveller, who must have at his disposal means of transport dedicated to all types of users, and a welcoming waiting area.

List of project to promote public transport:

Value of investment	Action	Project name
32,000,000 euro	Adapting the fleet to current user's need and energy efficiency requirements	Replacement of the fleet (hybrid and electric busses and trolleys) in Baia Mare Municipality and Baia Mare Metropolitan Area
9,500,000 euro	Encouraging the development of sustainable mobility behaviour by increasing comfort in public transport waiting areas	Upgrading public transport stations with electronic panels and implementing e-ticketing system
4,400,000 euro	Extending the network of bus stops to include points of interest	Upgrading the existing bus stations and creating new ones
3,912,500 euro	Developing an eco-friendly transport system by implementing a new trolleybus line	Linking Săsar and Gării neighbourhoods through a trolleybus line

Source : SUMP Baia Mare

1.4.3. Legal constraints impeding the development of public transport

The legal constraints that hinder the development of public transport are closely related to the possibility of direct financing of the public transport by Baia Mare Metropolitan Area and the payment of co mentation. Currently, the financing is done directly from the local budgets of the local public transport beneficiaries.

1.4.4. Challenges faced by public transport operators in terms of infrastructure, skills and added value

S.C. URBIS S.A. is interested in financing:
- To upgrade own equipment and streamlining the technological processes of operation and maintenance
- Upgrading the fleet

- Implementing computer programs and internal record systems for service planning, resource management, revenue management etc
- Training different staff members, from the management to the drivers and controllers, both to improve the relations with the passengers as well as to make work and operations more efficient.

1.4.5. Tools and support measures to improve operating conditions

A first component may be building capacity planning and activity monitoring by purchasing planning and fleet management software. Also, some tools are needed to implement the new Public Service Contract, for instance maintenance procedures etc.
Another component which proved its efficiency is learning from good practices and experience exchanges with other operators from different countries, which involve technical visits to those operators, exchange in experts of various fields of work, action plaqns as results of the findings.

1.4.6. Factors of public transport development in rural areas

When taking into account rural areas, **accessibility to public transport services and the support of Local Councils** to provide the service is crucial for the development of the localities, given the fact that increased mobility leads to social inclusion, access to work and poverty reduction.
Thus, **it is necessary to educate the decision makers of those localities in order to understand the importance of those aspects** and to **identify local sources of financing for supporting disadvantaged categories to benefit from public transport**.

1.5. SWOT analysis

The analysis evaluates the internal and external factors of the reference area as well as its position in local and regional context. This analysis aims to highlight the strengths and weaknesses of the community in relation to existing opportunities and threats.

Strong points

- Peri – urban development of cities and cooperation between local public administrators through an integrated transport system in the Baia Mare Metropolitan Area
- The existence of an experienced transport operator
- Good road and rail accessibility
- Existing technical expertise of the Baia Mare Metropolitan Area Association
- Existence of European Road E58 and National Road DN18
- Air access (Maramureș International Airport)
- The relatively high level of modernization of public roads in Maramureș County (34.78%) compared to regional average (27.9%) and national average (27.24%)
- High degree of urbanization (Baia Mare, Baia Sprie, Tăuții Măgherăuș)
- The existence of green areas in the cities
- Existing revenues for establishing the local budget from taxes/ dues, loans/ financial credit/ credibility and from making investments that bring additional revenues to the local budget (for instance Baia Sprie photovoltaic park)

- A road network that ensures good accessibility between the localities in the mountainous area
- Balanced and diversified coverage of the territory by road
- Applying measures to improve priority roads (national roads) to EU standards.

Weak points

- No ring roads in some cities (Baia Mare, Baia Sprie)
- Obsolete fleet of public transport
- Few intermodal points
- newly developed areas in the cities that are not accessible to public transport
- Peripheral districts isolated due to accessibility deficiencies
- Relatively low level of modernization of city streets
- Road and rail accessibility reduced in comparison to national standards and border (over 10 hours of transport to the capital, for 558 km)
- The marginal position of major traffic axes in the couth (Cluj) and west (Oradea and Satu Mare)
- Non – interoperable and obsolete railways
- Insufficient number of parking spaces in the areas of interest.

Opportunities

- Updated national legal framework regarding the implementation of Public Service Contracts in line with Regulation 1370/2007
- Similar situations in other metropolitan areas in Romania regarding the provision of public transport services at regional level
- Sources of funding for existing investments in the form of EU loans or funds
- Political will in the administrative- territorial units to develop the transport system in the metropolitan area
- Proximity to the border with Hungary and Ukraine
- Upgraded national road Baia Mare – Târgu Lăpuș
- Construction of the express road Baia Mare – Sighetu Marmației
- Electrification of the Baia Mare railway with Hungary and Bucharest
- Development of the Satu Mare – Baia Mare urban axis and making the express road Nyireghyaza – Satu Mare – Baia Mare
- The existence of the General Transport Master Plan which contains investments for the Baia Mare Metropolitan Area – express road Dej – Baia Mare – Halmeu/ Petea, 2035
- Due to its positioning, it is a link between the East and West of Romania (National Road DN18)
- Territorial and cross- border cooperation.

Threats

- Misunderstanding the relation between financing of public transport services and social policy by the actors involved

- Reduced administrative capacity at local and regional level (Baia Sprie, Tăuții Măgherăuș etc)
- Non – compliance with accessibility requirements for public transport
- Peripheral location of the area in national context
- Isolation to pan – European transport corridors
- Decreased accessibility due to eccentric location and natural barriers
- Delays in finishing the projects for the development of national and county road infrastructure
- Sectoral and administrative – territorial priorities are different.

1.6. Analysis and identification of key regional experiences and lessons

1.6.1. Good practices

In recent years, Baia Mare implemented a series of projects and measures that can be considered as good practices and are endeavoured to improve the efficiency of public transport activity, improve the quality of services and travel relations, prepare future investments in public metropolitan transport.

1. **Testing electric busses**
   During 2015, for a week, the operator tested an electric bus of Turkish origin, but the results were unsatisfying because of the flaws. In March 2017, the operator carried out a second test with a Solaris Urbino 12 bus, which was the "Bus of the year" in 2017. The power supply was done at the headquarter of the operator via a plug – in system, using the conventional electrical equipment available on the bus. Depending on the routes travelled, the Urbino 12 bus made almost 190 km with one supply. The bus was closer to meeting the operating requirements, but more autonomy was still needed between refuels.
   The third test took place in the winter of 2017. The test was performed on an electric SOR bus, having an autonomy of 280 km for extra – urban routes and 240 km in urban routes. Its capacity of up to 85 people or 92 people for the 11 metre model bus is comparable to a classic 12 metre bus model.

2. **GPS mounting and probes for all busses**
   In order to improve the monitoring of the position and movement of busses and stopping diesel leakage, S.C. URBIS S.A. installed in 2014 GPS devices and lithrometric probes in the bus tanks on all its busses. Thus, there is a real – time monitoring of the km travelled as well as fuel consumption.

3. **Video cameras on all busses**
   Another measure took by the operators was mounting video cameras on the fleet to monitor passenger's access to the means of transport, to avoid unpleasant situations when boarding and getting off the busses, and to increase the safety of travellers during their travel. By making this investment, the operator wanted to ensure a high level of safety for the passengers and to increase attractiveness in public transport.

4. **Passenger surveys on the quality of public transport**

S.C. URBIS S.A. operator conducts online surveys on different aspects of the quality and satisfaction level of the provided transport service. Thus, we can observe the interest of the operator to quantify the passenger's satisfaction and provide services at the best quality possible. This action, along with the permanent improvement of the website to provide transparency and information for the users, are important steps taken by the operator to observe the monitoring indicators of the service.

5. **Adapting the on – demand transport offer by monitoring the flow of passengers**
   By using this method, the operator aims to maximize the efficiency of the service, thus organizing its activity to achieve a satisfying transport offer. Between 2014 and 2017, the operator periodically monitor the flow of passengers, especially on the metropolitan routes outside Baia Mare, in order to optimize the routes and reduce the expenses. The monitoring was done using own personnel (controllers) and after the monitoring, proposals were made to the contracting authority – I.D.A. Baia Mare Metropolitan Area.

6. **Software to improve operational and financial management**
   Through own efforts, the operator has developed a series of computer programs dedicated to transport activity and adapted to their own needs. An example is the program for calculating roadmaps and management of the activity of the drivers.
   In order to improve the operational process, S.C. URBIS S.A. has developed a software to improve roadmap calculations and keep track of drivers. Similar examples are the programs keeping an evidence of the elderly people benefitting from discounts and free rides in public transport, the evidence of fixed assets etc.

7. **Display of the transport schedule in each bus stop in Baia Mare**
   In all bus stations in Baia Mare, the schedule for all routes was displayed, both for working and non – working days.
   This measure is primarily intended to inform passengers about the public transport schedule to increase the attractiveness and predictability of the service. The contracting authority can also monitor the quality indicators such as delays on the route and even passenger's complaints regarding delays.

8. **Events to increase visibility and promote public transport: Santa Claus' Bus**
   Every year since 1997, marking winter holidays, S.C. URBIS S.A. provides free transport for children on Santa's Bus. This social event is carried out in cooperation with Baia Mare City Hall and aims at promoting public transport. The bus is coated with Christmas decoration, tree branches, dolls and other decorations, is driven by Santa Claus and transports the children for free on a certain route. For the past two years, the bus was driven by a woman Santa, and children received gifts.
   This measure aims at improving the image of public transport and bring the young generation closer to it.

1.6.2. Selection of good practices from OptiTrans

Most relevant good practices:

Testing electric busses

This action is considered relevant as good practice as a means of testing eco – friendly busses, in order to prepare for future investments.

Mounting GPS and probes on all busses

To improve the service in spite of the lack of financial resources for large investments in fleet management, this is a good example of implementing low – budget measures with a major impact on performance monitoring and cost control.

Making software to improve operational and financial management

For the management and improvement of the service, these measures aimed at improving the internal records have the goal of improving the decisions taken and the better management of the business, thus making it a good practice.

Events to increase visibility and promote public transport: Santa Claus' Bus

As a promotional and marketing action, this is a good example of how public transport is a part of the community life and is present amongst the locals.

1.7. Technical and economic analysis of public transport

1.7.1. Cost per km and eligible costs

As seen from the analysis of the existing documentation, the revenue from the financial reportings of the year 2016 also includes revenue from other activities, representing periodical technical inspections for vehicles for third parties and special routes, without separately identifying the costs associated with these services.

Regarding the operating costs, it was not possible to identify their distribution by types of vehicles: busses, trolleys and mini – busses, so that a cost per km for each type could only be determined – see Annex 4. A detailed analysis is also necessary to be carried out of the eligibility of each type of cost of the operator, in conjunction with the analysis of the internal management in order to determine the exact eligibility of the operating costs and the measures to be taken to determine the correct cost/ km when signing the public service contract in 2019.

The distribution of the costs per member of the Association who benefit from public transport services was made using the same cost/ km, not taking into account the possible differences between the structure of the route, the number of stations, the type of means of transport used.

1.7.2. Legal analysis of documents demonstrating the fulfilment of the conditions of art. 28 par. 21 of Law 51/2006

From the interpretation of art. 28 par. (2.1) of Law 51/2006 regulating the community services of public utilities with subsequent amendments and completions, which is a law that provides the unitary legal and institutional framework in the field of public services in Romania, it is clear that the <Baia Mare Metropolitan Area> Intercommunity Development Association having as objective the activity of public utility services on the basis of the mandate given by the member localities may entrust, by direct assignment to the public operator, the management of the delegation contract, observing the cumulative conditions as provided by art. 28 par. 2(1) of Law 51/2006, conditions to be fulfilled both on the date of the awarding of the management of the delegation contract and during the term of the contract.

Requirements:

- The exercise of direct control and a dominant influence on strategic decisions and / or exercising it on their own structures in direct management;

Because the regional operator S.C. URBIS S.A. is a public enterprise whose share capital is wholly owned by the administrative – territorial units members of the Baia Mare Metropolitan Area Association and has the status of regional operator according to Law 51/2006, through its management – the General Assembly of the Shareholders consisting in representatives appointed by the territorial units approved by local council decisions, with Baia Mare Municipality holding the majority of shares and the Board of Directors made up from members appointed by the general meeting of the shareholders – direct control and dominant influence on the strategic decisions of the operator.

- The regional operator carries out exclusively activities in the sphere of public utilities services meant to meet the needs of the general interest of the users within the company, respectively the units that entrusted it with their management of the service.

This requirement is currently not met, because the operator is also engaging in activities for third parties. For the award of the future Public Services Contract, it is necessary to remove other activities not covered by the public service contract, which are not likely to be provided even separately, from the activity of the operator.

- The share capital of the regional operator is wholly owned by the territorial administrative units of the association, excluding the participation of private capital in the social capital of the regional operator.

Considering that in the present, S.C. URBIS S.A. is a public enterprise, a joint- stock company, with Baia Mare holding 97.06% of the total shares, Tăuții Măgherăuș – 0.98%, Dumbrăvița – 0.49%, Recea – 0.49%, Săcălășeni – 0.49%, the last legal requirement is fulfilled.

1.7.3. Possible measures for state aid

For avoiding the incompatible state aid, the analysis mush comply with **the four ALTMARK criteria:**

- Existence of clearly defined public service obligations;
- the way of calculating the compensation mush be established in advance, in an objective and transparent manner, to avoid giving an economic advantage;
- the amount of compensation must not exceed what is necessary to cover all or part of the cost incurred in fulfilling the public service obligations, taking into account the relevant revenues and a reasonable profit for the fulfilment of the obligations;
- in the case of direct allocation, the level of compensation required should be determined on the basis of a cost analysis that a typical, well managed and suitably endowed enterprise with the necessary resources would have incurred to meet these obligations, taking into account the relevant revenue and a reasonable profit for the fulfilment of the obligations;

Essentially, full compliance with the compensation calculation in accordance with the Annex to the Regulation 1370/2007 and its provisions also ensures that state aid is avoided. As Regulation no. 1370/2007 is not currently complied with and the calculation is not verified, the compensation may generate state aid.

The eligibility of costs also involves verifying funding sources of financing public transport and investment.

The compensation for public services is any benefit, particularly financial, granted to operators directly or indirectly from state resources during the period of implementation of a public service obligation or in relation to that period to cover the net costs of fulfilling an obligation of public service, including a reasonable profit.

State resources are those set out in **point 3.2 – state resources in the European Commission Communication 2016/C 262/1** on the notion of state aid as referred to in art. 107 (1) of the Treaty on the Functioning of the European Union, and represents all public sector resources, of which:

- direct grants
- loans
- guarantees
- direct investment in enterprise capital
- benefits in kind

- the firm and concrete commitment to ensure the continued availability of state resources
- renouncing state revenues
- etc.

Thus, in the next period, when developing the new Delegation Contract, a profound analysis of all aspects of the calculation of the compensation, cost eligibility including the financial resources used to set up and finance the service and the operator, it is best to take measures in compliance with the national and European legal provisions.

2. Synthesis of the Baseline Study with recommendations

The public transport in the reference area is carried out at reginal level, with regularity but with different accessibility for certain adjacent localities, with an obsolete fleet of transport busses, trolleys and mini – busses. S.C. URBIS S.A. is a regional operator with an important history in providing local and now regional services, which needs financial resources for the internal management of the operation and long – term development. The current service contract is signed between <Baia Mare Metropolitan Area> Association and S.C. URBIS S.A. for the transport service in Baia Mare and 6 other localities, members of the Association, but it is not in conformity with Regulation 1370/2007, so the new contract will have to provide all the tools for improving the service and the predictability of the operating costs, revenues and of course, will need thorough monitoring and control tools to improve the performance indicators of the service.

Recommendations on public transport

The current transport program has frequencies which do not encourage public transport to the detriment of private transport. The proposal is to increase the attractiveness of public transport by reorganizing the transport program (routes, frequencies etc) and introducing small or medium capacity electric means of transport.

The peri – urban public transport is insufficient and creates traffic problems at the city entrances. The proposal is to restructure/ reorganize the public transport in the reference area. The measures consist in identifying a transport offer correlated with the need for peri – urban mobility. Increasing the capacity of the <Baia Mare Metropolitan Area> Intercommunity Development Association to deal with the activities that imply the implementation of the new contract, monitoring and controlling the compliance of the public transport program.

In order to ensure the implementation of the proposals in the forthcoming period for the new Public Services Contract in accordance with the provisions of the European Commission Regulation no. 1370/2007 and the current legislation, steps must be taken to reorganize the accounting records from 2018 to meet the need to comply with the requirements arising from those regulations.

As a first step, immediately after the approval of the 2017 balance sheet – considered as the base year for the preparation of the new contract – it is required that the synthetic bookkeeping be broken down into the appropriate analytical accounts.

It should be noted that the results each year after the implementation of the new Public Service Contract will be subject to an independent technical – economic audit to analyse the veracity of the compensation granted. Making investments in e- ticketing systems, fleet management and granting priority to the public transport vehicles in intersections are tools to increase the attractiveness, the operational capacity and to adapt to demand.

A second step is increasing public transport demand identified in the Sustainable Urban Mobility Plans can be achieved through the purchase of efficient and eco – friendly means of transport, improving the attractiveness and quality of service, to discourage private car transport and reduce pollution.

A third step is reanalysing the number and structure of the personnel in accordance with the tasks at hand which result from adapting the operator's activity to the requirements of the new legislation as an obligation for public transport services.

A fourth step is upgrading the management concept of the operator, including through the use of programming and evidence systems using current computing techniques.

A fifth step is database preparation and systematization of the information for the selection of representative performance indicators to be provided in the new service contract, indicators to be established taking into account the SMART criteria, namely:

- **Specific** to the activity**;**
- **Measurable**, being expressed in terms of quantity or value;
- **Affordable,** easy to identify;
- **Relevant** to the intended purpose;
- **The time** it takes or the period to which it refers.

3. Bibliography and List of interviewed stakeholders

1. Romanian National Strategy of Territorial Development
2. Romanian National Transport Master Plan
3. Maramures County Territorial Development Plan
4. Baia Mare Metropolitan Strategy of Territorial Development
5. Baia Mare City Integrated Strategy of Development
6. Baia Mare City Sustainable Urban Mobility Plan
7. Baia Sprie Town Sustainable Urban Mobility Plan
8. Tăuții Măgherăuș Town Sustainable Urban Mobility Plan
9. Administration Plan of Public Transport Company S.C URBIS S.A.
10. European Regulation 1370/2007 regarding public transport services
11. Romanian Law 51/2006 regarding public utility services
12. Romanian Law 92/2007 regarding public transport services

No.	ORGANIZATION	PERSON	POSITION
1.	BMMA ASSOCIATION	Paul PECE	Executive Director
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3.	BMMA ASSOCIATION	Radu GRAUR	Financial Expert
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