

**CiViTAS**  
Cleaner and better transport in cities

**ARCHIMEDES**

AALBORG • BRIGHTON & HOVE • DONOSTIA-SAN SEBASTIÁN • IAȘI • MONZA • ÚSTÍ NAD LABEM

## Ústí nad Labem

R39.1 – Study of Public Transport Users in Ústí nad Labem

August 2010



THE CIVITAS INITIATIVE  
IS CO-FINANCED BY THE  
EUROPEAN UNION

<b>Project no.</b>	TREN/FP7TR/218940 ARCHIMEDES
<b>Project Name</b>	ARCHIMEDES (Achieving Real Change with Innovative Transport Measure Demonstrating Energy Savings)
<b>Start date of the Project</b>	15/09/2008
<b>Duration:</b>	48 months
<b>Measure:</b>	No. 39: Public Transport Promotion Campaign in Ústí nad Labem
<b>Task:</b>	11.4.5: Understanding Public Transport Users
<b>Deliverable:</b>	R39.1 Study of Public Transport Users in Ústí nad Labem
<b>Due date of Deliverable:</b>	14 <sup>th</sup> October 2009
<b>Actual submission date:</b>	24 <sup>th</sup> August 2010
<b>Dissemination Level</b>	Public
<b>Organisation Responsible</b>	Ústí nad Labem
<b>Author</b>	Kateřina Oktábcová
<b>Quality Control</b>	Dalibor Dařilek
<b>Version</b>	1.0
<b>Date last updated</b>	24 <sup>th</sup> August 2010

# Contents

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1 BACKGROUND CIVITAS .....	4
1.2 BACKGROUND ARCHIMEDES .....	5
1.3 PARTICIPANT CITIES .....	5
1.3.1 <i>Leading City Innovation Areas</i> .....	5
<b>2. ÚSTÍ NAD LABEM .....</b>	<b>5</b>
<b>3. BACKGROUND TO THE DELIVERABLE .....</b>	<b>6</b>
3.1 SUMMARY DESCRIPTION OF THE TASK .....	6
<b>4. UNDERSTANDING PUBLIC TRANSPORT USERS .....</b>	<b>7</b>
4.1 PUBLIC TRANSPORTATION IN ÚSTÍ NAD LABEM .....	7
4.1.1 <i>Charter Buses</i> .....	7
4.1.2 <i>Railway Network</i> .....	9
4.1.3 <i>City Buses and Trolleybuses</i> .....	10
4.2 PUBLIC TRANSPORT IN THE CITY – BUSES AND TROLLEYBUSES .....	11
4.2.1 <i>Historical Development of Public Transportation in Ústí nad Labem</i> .....	12
4.2.2 <i>Functions of the Public Transport in Ústí nad Labem</i> .....	13
4.2.3 <i>Tariff and Dispatch System</i> .....	14
4.3 CITY PUBLIC TRANSPORT SURVEY IN ÚSTÍ NAD LABEM .....	17
4.3.1 <i>City Public Transport Before and After the Optimisation</i> .....	18
4.4 SURVEY OF THE PUBLIC OPINION ON THE CITY PUBLIC TRANSPORTATION .....	25
4.4.1 <i>Results of the Survey</i> .....	26
4.5 SUMMARY .....	28

# 1. Introduction

## 1.1 Background CIVITAS

CIVITAS - cleaner and better transport in cities - stands for City-VITALity-Sustainability. With the CIVITAS Initiative, the EC aims to generate a decisive breakthrough by supporting and evaluating the implementation of ambitious integrated sustainable urban transport strategies that should make a real difference for the welfare of the European citizen.

**CIVITAS I** started in early 2002 (within the 5th Framework Research Programme);  
**CIVITAS II** started in early 2005 (within the 6th Framework Research Programme) and  
**CIVITAS PLUS** started in late 2008 (within the 7th Framework Research Programme).

The objective of CIVITAS-Plus is to test and increase the understanding of the frameworks, processes and packaging required to successfully introduce bold, integrated and innovative strategies for clean and sustainable urban transport that address concerns related to energy-efficiency, transport policy and road safety, alternative fuels and the environment.

Within CIVITAS I (2002-2006) there were 19 cities clustered in 4 demonstration projects, within CIVITAS II (2005-2009) 17 cities in 4 demonstration projects, whilst within CIVITAS PLUS (2008-2012) 25 cities in 5 demonstration projects are taking part. These demonstration cities all over Europe are funded by the European Commission.

### Objectives:

- to promote and implement sustainable, clean and (energy) efficient urban transport measures
- to implement integrated packages of technology and policy measures in the field of energy and transport in 8 categories of measures
- to build up critical mass and markets for innovation

### Horizontal projects support the CIVITAS demonstration projects & cities by:

- Cross-site evaluation and Europe wide dissemination in co-operation with the demonstration projects
- The organisation of the annual meeting of CIVITAS Forum members
- Providing the Secretariat for the Political Advisory Committee (PAC)
- Development of policy recommendations for a long-term multiplier effect of CIVITAS

### Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme “of cities for cities”
- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living ‘Laboratories’ for learning and evaluating

## 1.2 Background ARCHIMEDES

ARCHIMEDES is an integrating project, bringing together 6 European cities to address problems and opportunities for creating environmentally sustainable, safe and energy efficient transport systems in medium sized urban areas.

The objective of ARCHIMEDES is to introduce innovative, integrated and ambitious strategies for clean, energy-efficient, sustainable urban transport to achieve significant impacts in the policy fields of energy, transport, and environmental sustainability. An ambitious blend of policy tools and measures will increase energy-efficiency in transport, provide safer and more convenient travel for all, using a higher share of clean engine technology and fuels, resulting in an enhanced urban environment (including reduced noise and air pollution). Visible and measurable impacts will result from significantly sized measures in specific innovation areas. Demonstrations of innovative transport technologies, policy measures and partnership working, combined with targeted research, will verify the best frameworks, processes and packaging required to successfully transfer the strategies to other cities.

## 1.3 Participant Cities

The ARCHIMEDES project focuses on activities in specific innovation areas of each city, known as the ARCHIMEDES corridor or zone (depending on shape and geography). These innovation areas extend to the peri-urban fringe and the administrative boundaries of regional authorities and neighbouring administrations.

The two Learning cities, to which experience and best-practice will be transferred, are Monza (Italy) and Ústí nad Labem (Czech Republic). The strategy for the project is to ensure that the tools and measures developed have the widest application throughout Europe, tested via the Learning Cities' activities and interaction with the Lead City partners.

### 1.3.1 Leading City Innovation Areas

The four Leading cities in the ARCHIMEDES project are:

- Aalborg (Denmark);
- Brighton & Hove (UK);
- Donostia-San Sebastián (Spain); and
- Iasi (Romania).

Together the Lead Cities in ARCHIMEDES cover different geographic parts of Europe. They have the full support of the relevant political representatives for the project, and are well able to implement the innovative range of demonstration activities.

The Lead Cities are joined in their local projects by a small number of key partners that show a high level of commitment to the project objectives of energy-efficient urban transportation. In all cases the public transport company features as a partner in the proposed project.

## 2. Ústí nad Labem

Ústí nad Labem is situated in the north of the Czech Republic, about 20 km from the German border. Thanks to its location in the beautiful valley of the largest Czech river Labe (Elbe) and the surrounding Central Bohemian Massive, it is sometimes called 'the Gateway to Bohemia'. Ústí is an industrial, business and cultural centre of the Ústecký region.

Ústí nad Labem is an important industrial centre of north-west Bohemia. The city's population is 93,859, living in an area of 93.95km<sup>2</sup>. The city is also home to the Jan Evangelista Purkyně University with eight faculties and large student population. The city used to be a base for a large range of heavy industry, causing damage to the natural environment. This is now a major focus for improvement and care.

The Transport Master Plan, initiated in 2007, will be the basic transport document for the development of a new urban plan in 2011. This document will characterise the development of transport in the city for the next 15 years. Therefore, the opportunity to integrate Sustainable Urban Transport Planning best practices into the Master Plan of Ústí nad Labem within the project represents an ideal match between city policy framework and the ARCHIMEDES project.

The project's main objective is to propose transport organisation of the city, depending on the urban form, transport intensity, development of public transport, and access needs. The process, running until 2011, will include improving the digital model of city transport that Ústí currently has at its disposal. The plan will have to deal with the fact (and mitigate against unwanted effects that could otherwise arise), that from 2010, the city will be fully connected to the D8 motorway, running from Prague to Dresden.

### 3. Background to the Deliverable

The city of Ústí nad Labem is served by 16 bus lines and 11 trolleybus lines, 3 night bus lines and 2 cycle-buses on 251 stops. Ústí nad Labem Public Transport Company, as a sole provider of PT services in the city, operates all 66 buses and 67 trolleybuses, from which 40 buses and 9 trolleybuses are low-floor vehicles and 8 buses are partially lowered. During working days, city public transport is used by 144 649 passengers, on Saturdays by 68 385 and on Sundays by 51 860 passengers on average.

#### 3.1 Summary Description of the Task

Ústí nad Labem has a target to support the use of transport modes alternative to personal vehicles, such as public transport. Understanding public transport users in their diverse needs, different purposes to travel to different destinations in various periods of time is necessary to reach any improvements in this particular area. Detailed analysis of the current state of public transport in Ústí nad Labem was undertaken to reveal:

- the deficits in the quality of services offered,
- lack of served areas and
- limitations in covering passenger needs.

The study was undertaken monitoring the number of people who use the public transport system in Ústí nad Labem. The aim was to identify areas where public transport is poorly used and where improvements can be made. An analysis was conducted to determine the appropriate solutions reducing mobility barriers and enabling increased use of sustainable modes by vulnerable users. The results will serve as input material for the Ústí nad Labem Sustainable Urban Transport Plan. According to the findings of this study, a publicity campaign will be held promoting the use of public transport, increasing the awareness of the services and initiating a modal shift towards the sustainable transport.

## 4. Understanding Public Transport Users

### 4.1 Public Transportation in Ústí nad Labem

Almost all parts of the city are currently covered by public transport. Buses and trolleybuses cover most of the major transport links. Connection of the city with surrounding municipalities is provided by regional charter buses. Other cities and more distant areas are linked by the railway network. Individual modes of public transport are not yet incorporated into an integrated transport system (ITS).

#### 4.1.1 Charter Buses

Charter buses ensure the connection of Ústí nad Labem with the surrounding towns. Although, the number of passengers transported to and from these areas is significantly smaller than the volume transported by the city public transport, the importance for the accessibility of the city from the surrounding areas is crucial. For long distance transport, charter buses have only supplementary function, whereas the majority of transport is realised by the railway system.

1- Number of passengers transported by charter buses in Ústí region (in thousands of people)

Year	2003	2004	2005	2006	2007
<b>Passengers</b>	18 937	30 371	21 704	19 667	14 723

2 - Number of charter bus connections operating in Ústí region

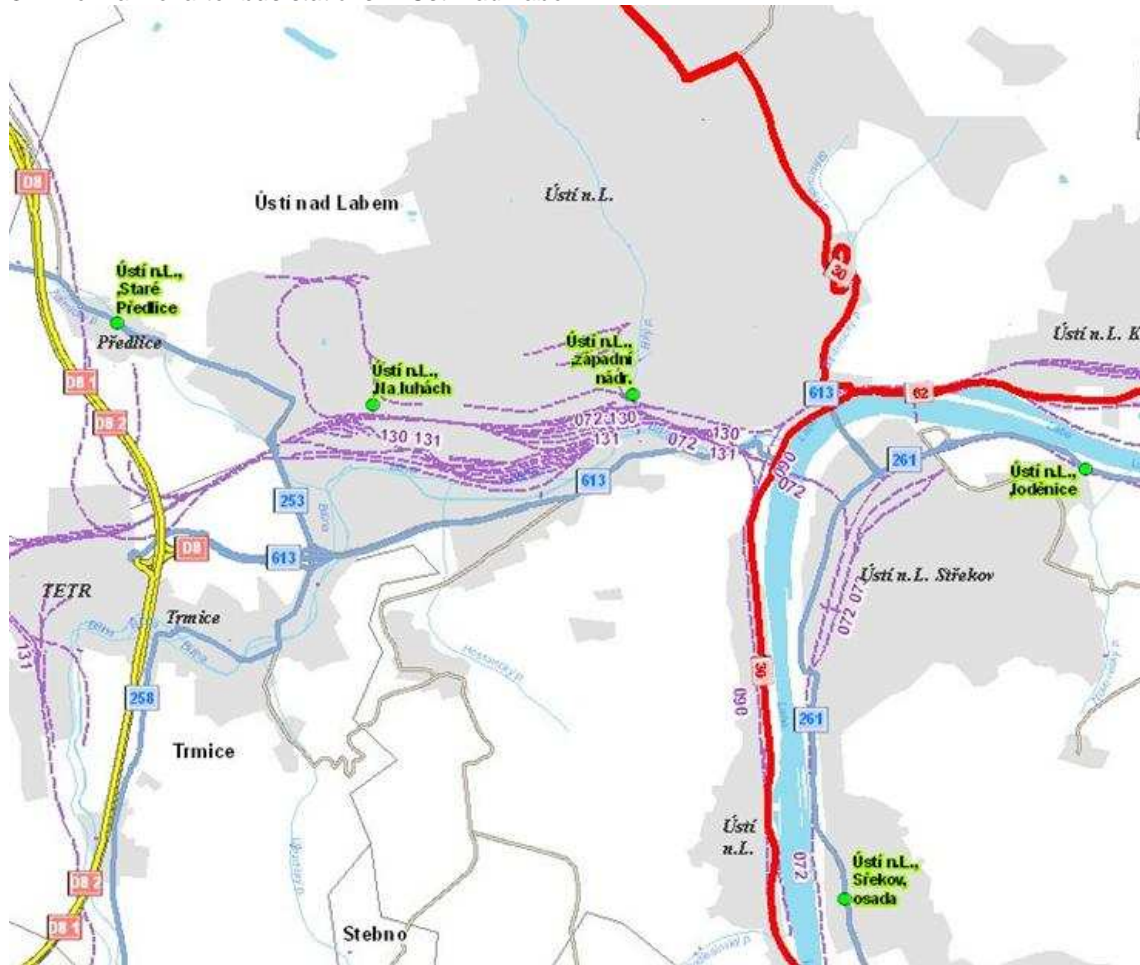
Year	2003	2004	2005	2006	2007
<b>Working days</b>	16 365	16 350	16 460	17 502	16 118
<b>Saturdays</b>	3 835	3 691	3 709	4 213	3 914
<b>Sundays and holidays</b>	3 974	3 945	3 962	4 362	4 045
<b>Total no. of connections</b>	<b>24 174</b>	<b>23 986</b>	<b>24 131</b>	<b>26 077</b>	<b>24 077</b>

Distant and regional charter buses operate using the main city public transport station or separate stations (shown in figure 3). Charter bus stations in the city are following:

UL Main bus station, UL Main railway station, UL West railway station, Děčínská, Střeliv railway station, Střekov, Brná, Sebusín railway station, Sebusín, Církvice, Sklárna, Na Luhách, Kamenný Vrch school, Kamenný vrch, Hraničář, Hilarova, Bělehradská, Elba, Kočkov, Na Kopečku, Bukov, Municipal stadium, Beethovenova, Hospital, Staré Předlice, Božtěšická, Božtěšice community, Strážky, Loděnice, Brewery, Všebořice shopping centre, Bukov rondel, Pod Holoměří, Bukov sanatorium, Masaryk Hospital, Severní Terasa, Neštěmice, Mojžíř settlement, Mojžíř and Veselí.



3 - The main charter bus stations in Ústí nad Labem



The main transfer points between the regional bus transport and railway transport are at the following stations:

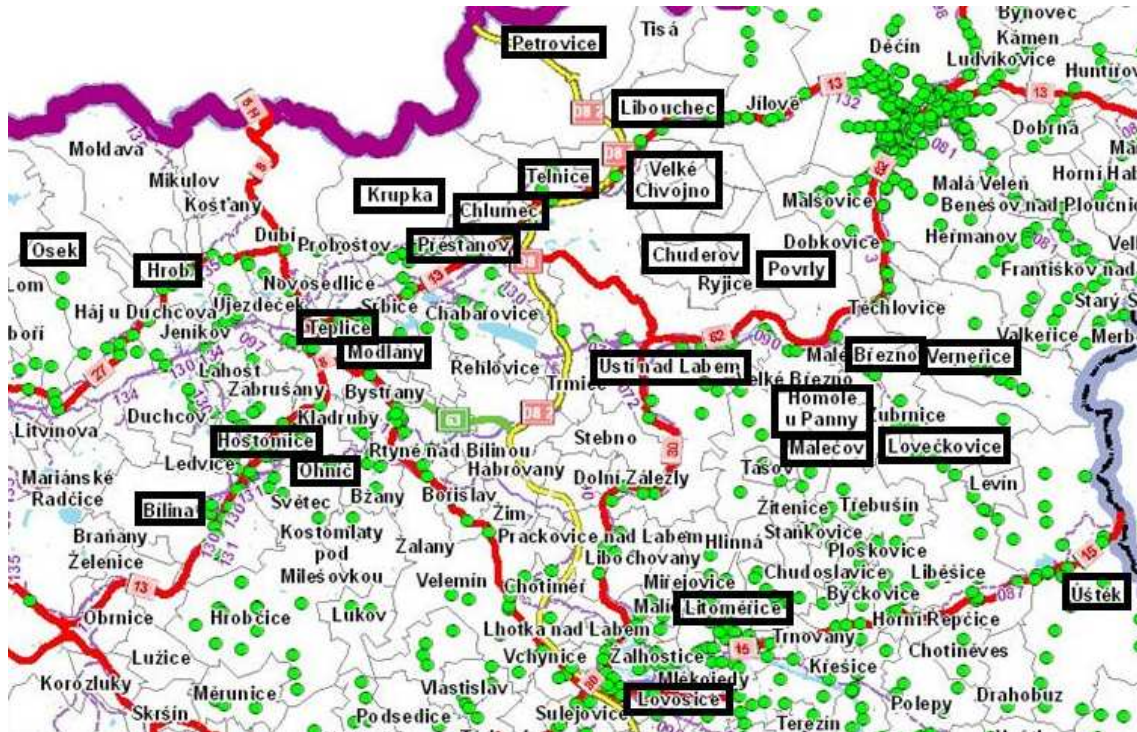
UL Main bus station, UL Main railway station and UL West railway station.

Regional charter buses are connecting Ústí nad Labem with the following localities: Žatec, Louny, Lovosice, Osek, Hrob, Krupka, Soběchleby, Přestanov, Chlumeč, Telnice, Petřivice, Krásný Les, Libouchec, Chuderov, Velké Chvojno, Cerná, Žežice, Povrly, Český Bukov, Velké Březno, Lovečkovice, Verneřice, Úštěk, Homole u Panny, Suletice, Leština, Malečov, Rýdeč, Litoměřice, Modlany, Teplice, Ohnič, Bílina, Bohosudov, Hostomice.

(For a visual representation please see the map in Annex 1 – item 1)



4 – The main localities served by regional charter buses from Ústí nad Labem, where all the bus stations are marked green (for a map of the whole region please see Annex 1- item 1)



Distant charter buses are connecting Ústí nad Labem with the following cities: Plzeň, Žatec, Most, Teplice, Česká Kamenice, Děčín, Praha, Jablonec nad Nisou, Liberec, Nový Bor, Vrchlabí, Špindlerův Mlýn, Pec pod Sněžkou, Litoměřice, Hradec Králové, Jičín, Mladá Boleslav, Česká Lípa, Vrchlabí, Jilemnice. Transport companies operating these buses are ČSAD Plzeň, DPUK, ČSAD Jablonec, CAR-TOUR, Zlatovánek and ČSAD Semily.

(For a visual representation please see the map in Annex 1 – item 2)

#### 4.1.2 Railway Network

Ústecký region has the densest railway network in the Czech Republic, (please see figure 8 for the network around Ústí nad Labem and Annex 1 – item 3 for the whole railway network). Ústí nad Labem is an important railway junction with four railway stations serving major international connections Berlin-Vienna and Berlin-Budapest-Belgrade-Sofia (Balt-Orient). The 1<sup>st</sup> transit railway corridor leads from the state border to Děčín – Ústí nad Labem – Praha – Břeclav to the state border as a part of the 4<sup>th</sup> trans-European multimodal corridor. The city is served by passenger trains (motorised and electric), rapid trains, express trains, EuroCity, InterCity and EuroNight.

5 - Number of passengers (in thousands) transported by train per year

Year	2003	2004	2005	2006	2007
Number of passengers	8 524	8 762	10 392	10 103	9 527

## 6 - Number of train connections operating in Ústí region

Year	2003	2004	2005	2006	2007
<b>Working days</b>	5 763	5 762	5 564	5 642	5 594
<b>Saturdays</b>	4 885	4 833	4 298	4 384	4 524
<b>Sundays and holidays</b>	4 930	4 802	4 280	4 393	4 564
<b>Total no. of connections</b>	<b>15 578</b>	<b>15 397</b>	<b>14 142</b>	<b>14 419</b>	<b>14 682</b>

## 7 - Type of trains operating in Ústí nad Labem

Label	Type	Label	Type
EC	Euro City	Ex	Express
IC	Inter City	R	Rychlík
SC	Super City	Sp	Spěšný vlak
EN	Euro Night	Os	Osobní vlak

National railway lines leading through Ústí nad Labem are:

072 Lysá nad Labem – Ústí nad Labem west station (the line S3)

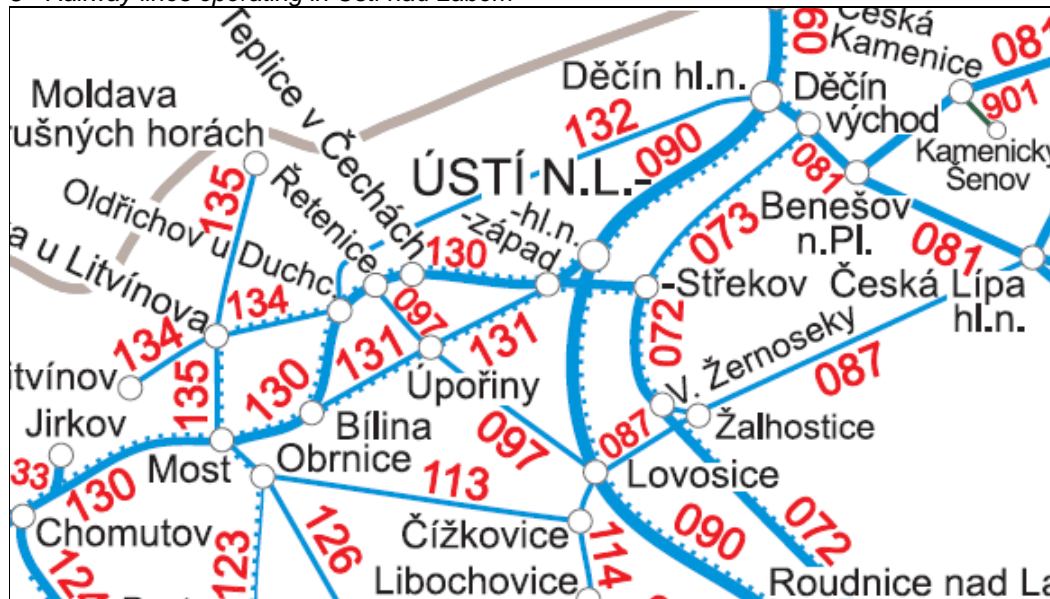
073 Ústí nad Labem main station – Děčín east station (the line S7)

090 Praha main station – Děčín main station (the line S2)

130 Ústí nad Labem main station – Chomutov (the line S1)

131 Ústí nad Labem main station – Bílina (the line S5)

## 8 - Railway lines operating in Ústí nad Labem

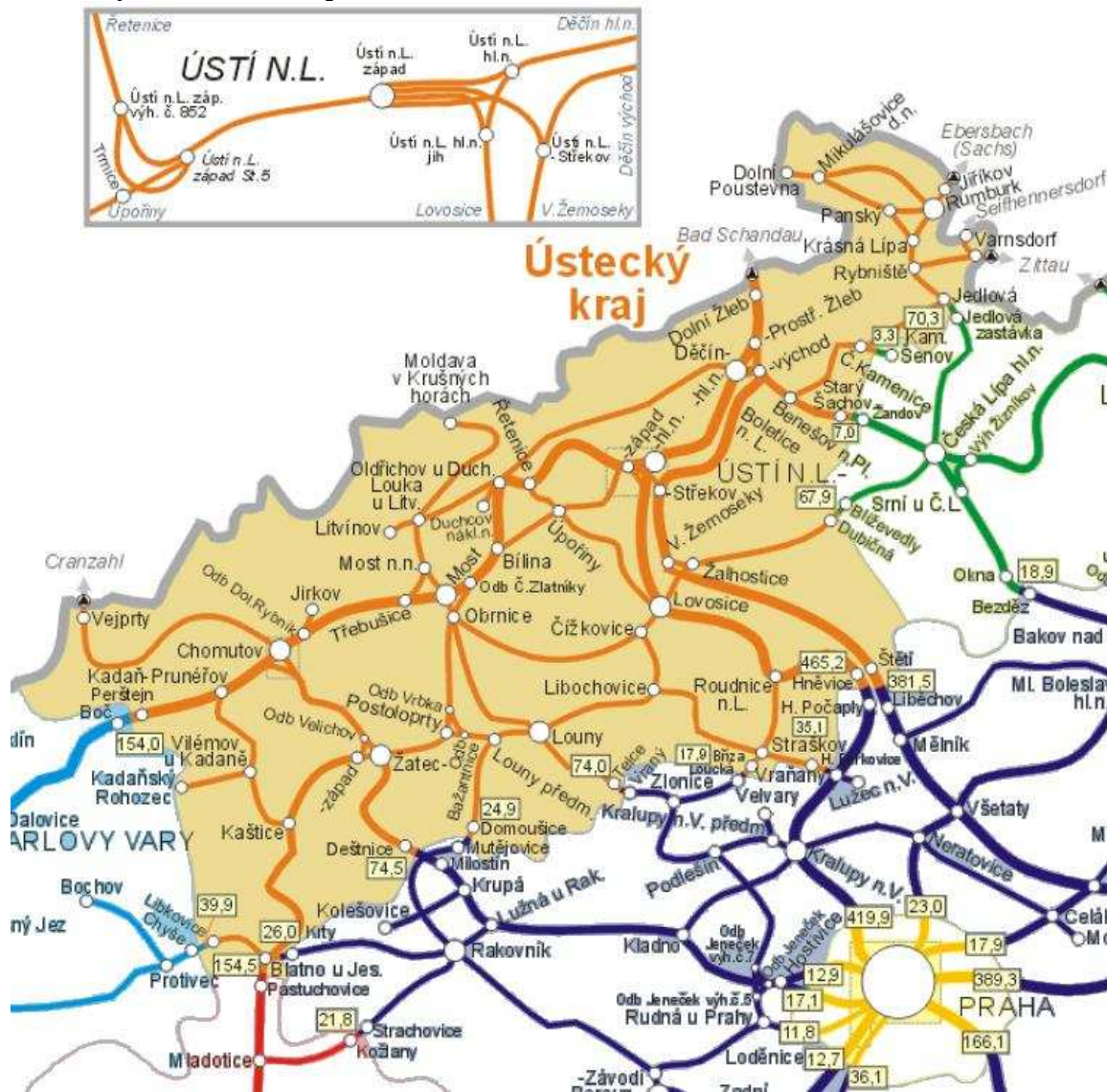


## 4.1.3 City Buses and Trolleybuses

City public transport achieved by buses and trolleybuses is the only kind of transport under the powers and regulation of Ústí nad Labem statutory city. The City is the sole shareholder of Ústí nad Labem Transport Company. Other modes of public transport are under the jurisdiction of the Ústí region. Therefore, the study is aimed mainly at the city public transport.



9 - Railway network in Ústí region



4.2 Public Transport in the City – Buses and Trolleybuses

Almost all parts of the city are currently served by public transport, mainly buses and trolleybuses. Trolleybus routes lead through the major part of the inner city area while buses (which have a supplementary function) serve mainly the outskirts. Connection between the city and the surrounding towns and villages is provided by regional bus services. The link with other cities in the region and more distant areas is ensured by rail services. The public transport in Ústí nad Labem is not integrated into the united transport system.

#### 4.2.1 Historical Development of Public Transportation in Ústí nad Labem

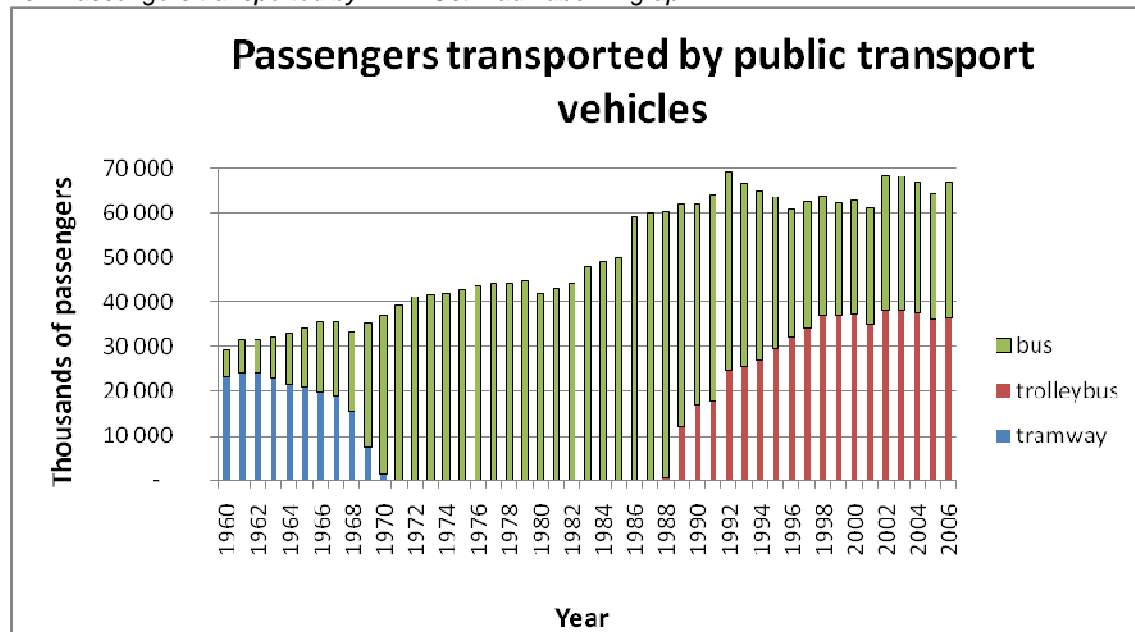
Regular public transport was introduced in Ústí nad Labem in the year 1899. On the 1st July, an electric street railway with 1 000 mm gauge was put into operation. The railway was leading from the historical centre to Krásné Březno, Předlice, to the hospital and to Špitálské square.

Later, the railway network was extended to Bukov, the Main railway station, Telnice, Neštětice, Zdymadla, Vrkoč, Chabařovice, Klíše, Děčínská, Vaňov and Sřtekovská station. Between the years 1912 and 1964, the railway was used for transport of passengers, mail, coal and other raw materials and goods.

The general tendency to reduce the tramways in the 1950s and 1960s influenced also Ústí nad Labem, which gradually abandoned all the tramway tracks between the years 1954 and 1970, and replaced them by bus lines. The first city bus appeared in Ústí nad Labem already on the 9<sup>th</sup> November 1929. It was soon serving not only the city itself, but also quite distant towns, such as Adolfov and Jílové. These services to more distant places were overtaken after the World War II by the state company ČSAD (Československá státní autobusová doprava).

During the 1970s and 1980s, many new settlements were established on the outskirts. The bus services could not meet the growing transport demand, so the electric traction was restored. The first trolleybus line number 51 was operated between the areas Holomeř and Stříbrníky from 1<sup>st</sup> July 1988, followed by other lines connecting the city parts Všebořice and Severní Terasa (1<sup>st</sup> February 1989), Dobětice (12<sup>th</sup> December 1991), Krásné Březno (30<sup>th</sup> April 1992), Klíše (5<sup>th</sup> May 1993), Staré Předlice (1<sup>st</sup> September 1994) and Neštětice (28<sup>th</sup> August 1995). In April 1998, the tariff was changed to time tickets and transfer tickets. Finally, the trolleybus lines to Globus (1<sup>st</sup> June 2004), Severní Terasa (3<sup>rd</sup> January 2005) and Sřtekov (9<sup>th</sup> December 2007) were put into operation.

10 - Passengers transported by PT in Ústí nad Labem - graph



The number of passengers transported by public transport vehicles between the years 1960 and 2006 according to the yearly report of the Ústí nad Labem Public Transport Company from the year 2006 is presented in figure 10.

Currently, Ústí nad Labem Public Transport Company is providing the public transport services in the city. It has 2 depots located in Předlice for buses and in Všebořice for trolleybuses. The services are covering the city well except for two sparsely inhabited areas Budov and Bánov. The backbone network consists primarily of trolleybus lines serving all the inner city parts. The only exception is Střekov, where the establishment of a new trolleybus line is already planned. As noted above, buses have rather a complementary function.

#### 4.2.2 Functions of the Public Transport in Ústí nad Labem

Public transport in Ústí nad Labem has various functions:

- to transfer people to their work destinations:
  - Public transport provides the link mainly among the housing estates and industrial centres in Všebořice, Neštětice, Severní Předlice, Jižní Předlice and Střekov. Share of residents travelling to work by different means of transport in Ústí region is presented in the following table.
- to transfer children and students to schools
- to connect the residential areas with business centres and shopping centres
- to transfer inhabitants to the medical, cultural and sport centres and other points of interest
- to ensure the interlink with the rail network:
  - Public transport users can transfer from bus and trolleybus lines on train or vice-versa on the stations Brozánky, Dolní Zálezly, Elektrárna, UL Main railway station, Koštov town, Krásné Březno, Mírové square, Mojžíř, shopping centre Květ, Řehlovice, Sebužín, Stadice, Střekov, Svádov and UL West railway station.
- to connect different parts of the city:
  - Public transport services are provided in residential areas according to the number of inhabitants. The city parts with the highest number of population, according to the census from the year 2001, therefore with the highest number of PT passengers are: Severní Terasa (21 989 inh.), Krásné Březno (14 294 inh.), Střekov (10 894 inh.), Klíše (7 119 inh.), Bukov (6 623 inh.), Neštětice (5 670 inh.), Mojžíř (4 831 inh.), Všebořice (3 387 inh.), Trmice (2 299 inh.) and Předlice (1 573 inh.).
- to connect the city with the surrounding towns and cities:
  - Ústí nad Labem provides the public transport to Trmice, Chabařovice, Chlumeč, Koštov, Stadice, Hliňany, Habří, Řehlovice, Brozánky, Habrovany, Radejčín, Dubice, Dubičky, Újezd, Hostovice, Stebno, Milbohov, Suché, Podlešín, Chvalov, Nová Ves, Kojetice, Strážky, Svádov, Božtěšice, Skorotice, Habrovce, Strážky, Neznabohy, Přestanov, Chlumeč, Brná, Církvice, Roudníky, Strádov, Dolní Zálezly, Chvalov, Vaňov and Ryjice.

11 – Percentage of residents travelling to work by different means of transport in the major cities of Ústí region

Municipality	Walk	City PT	Train	Charter bus	Driving a car	Riding in a car	Cycling
<b>Ústí nad Labem</b>	<b>13,4 %</b>	<b>50,6 %</b>	<b>1,5 %</b>	<b>5,5 %</b>	<b>15,3 %</b>	<b>2,7 %</b>	<b>0,6 %</b>
Děčín	21,4 %	33,5 %	3,1 %	6,1 %	18,4 %	4,3 %	1,8 %
Teplice	24,3 %	29 %	2,6 %	8,2 %	20,6 %	4,1 %	2 %
Most	17,9 %	37,4 %	1,4 %	12,4 %	16,3 %	4,6 %	0,7 %
Chomutov	25,6 %	25,3 %	2,7 %	10,6 %	15,9 %	5 %	3,4 %
Louny	40 %	12,6 %	2 %	12,5 %	14 %	4 %	4,7 %
Litoměřice	43,6 %	2 %	6,7 %	9,5 %	17,9 %	5,3 %	4,4 %
<b>Ústí region (approximately)</b>	<b>29 %</b>	<b>23 %</b>	<b>4 %</b>	<b>15 %</b>	<b>20 %</b>	<b>5 %</b>	<b>4 %</b>

The public transport network in Ústí nad Labem consists of 251 stations. The central stations in the city are Divadlo, UL Main railway station, Hraničář, Mírové square, Poliklinika and Revoluční (Please see the scheme of Ústí nad Labem public transport network in Annex 1 – items 4 and 5 – before and after reorganisation).

12 - City public transport stations with a specific function

Barrier-free PT stations	PT stations with transfer to train	PT stations with ticket machines
Bukov	Brozánky	Divadlo
Divadlo	Dolní Zálezly	Dobětice
Dukelských hrdinů	Elektrárna	Dukelských hrdinů
Hraničář	Hlavní nádraží ČD	Hlavní nádraží ČD
Karla IV	Koštov obec	Hraničář
Krajský soud	Krásné Březno	Chabařovice kostel
Městský stadion	Mírové náměstí	Chlumeč
Poliklinika	Mojžíř	Kamenný vrch
Šafaříkovo náměstí	OD Květ	Mírová
V Zeleni	Řehlovice	Mírové náměstí
Všebořická	Sebuzín nádraží	Novosedlické náměstí
Západní nádraží ČD	Stadice	OD Květ
ZPA	Střekov nádraží ČD	Poliklinika
	Svádov nádraží	Revoluční
	Západní nádraží ČD	Severní terasa
		Skalka
		Stará škola
		Střekov nádraží ČD

#### 4.2.3 Tariff and Dispatch System

Head of the Ústí nad Labem Public Transport Company decided on the 28<sup>th</sup> November 2007 (with effect from 1<sup>st</sup> February 2008) about the tariff system valid for the current public transport in Ústí.



### 13 - Tariff for city public transport tickets

Period of validity	Type of the ticket	Price	
		Basic fare	Discount fare
30 minutes	Transferable	15 CZK	8 CZK
60 minutes	Transferable	19 CZK	10 CZK
24 hours	Transferable	65 CZK	32 CZK

#### Basic fare applies to:

- Passengers, who reached the age of 15 and who are not entitled to free transportation or cannot prove the entitlement.
- Passengers, do not prove the entitlement to a discount.

#### Discount fare applies to:

- Children 6 to 15 years old, while children aged 10 to 15 years are obliged to prove the entitlement for the discount by providing the valid identification card issued by the PT Company indicating the appropriate name, photograph, personal data (name, date of birth); age of a child can be proven by the valid passport.
- One person accompanying a baby under the age of 3 years and proving this age by a valid identification card, for example by a health insurance card, a birth certificate or a passport of the child .
- Passengers receiving retirement pension or disability pension, who prove the claim by providing a valid identification card issued by the PT Company and a coupon marked with a corresponding specific number in a value of 5 CZK, or who provide valid identification card issued by another provider of transport services with their name, date of birth, photograph, stamp of the issuing organisation and the type of pension granted. Validity of a coupon for passengers entitled for full disability pension is limited by the date 30<sup>th</sup> June of the relevant year. To extend the validity for another year, a person is required to submit verification of existing claim for receiving the full disability pension from the qualified organisation for the next period.

#### Additional sale of tickets by a driver of the PT vehicle:

A passenger is enabled to buy a transferable ticket for 30 minutes in a value of 15 CZK with a surcharge of 3 CZK. The ticket is legitimate for transport of all persons who do not qualify for fee transportation, for luggage and for dogs.

#### SMS tickets

From the 1<sup>st</sup> July 2008, it is possible to buy a ticket for the city public transport via a mobile phone (SMS). The price of the text message is 15 CZK and the ticket is valid for 40 minutes.

#### Time permits

A time permit consists of an identification card and a time coupon and is non-transferable. A time coupon is an evidence of a payment for a relevant period and verifies a claim for a discount. Time coupons are available only after submitting a valid identification card. Time permits are divided into 4 categories.

14 - Ticket prices (in CZK) for different categories of passengers valid in Ústí nad Labem

category	Children 6 to 15 years old	Children and students 15 to 26 years old	Citizens basic	Citizens with discount
7 days	43	85	75	130
15 days	75	120	120	230
30 days	120	205	220	410
90 days	325	475	585	1 060
180 days				1 985
365 days				3 710

All the details of transportation conditions are listed on the website of Ústí nad Labem Public Transport Company [www.dpmul.cz](http://www.dpmul.cz).

### Transferable tickets

Transferable tickets can be purchased for 2 periods.

15 - Price of transferable tickets

period	price
30 days	700 CZK
90 days	1 750 CZK

Charge for transporting luggage is the same throughout the PT network, which is 10 CZK.  
Charge for transporting a dog without a container is 10 CZK.

### Transportation free of charge

Passengers entitled to use public transport for free are numerous. They must have a valid permit or identification card to allow them travel for free.

Those entitled passengers are from the following groups:

- children under the age of 6 years
- disabled residents, including their guide and a dog accompanying the disabled person
- members of the European Parliament elected in the Czech Republic
- members of Parliament and senators of the Czech Republic and judges of the Constitutional Court
- Municipal Police officers of Ústí nad Labem, Trmice, Chabařovice and Chlumec on duty
- holders of a certificate issued by the Central Committee of the Czech Union of Freedom Fighters, the Confederation of Political Prisoners of the Czech Republic, the Association of Former Political Prisoners of the Czech Republic and the Central Board of the Association of Supporting Technical Battalions– military force labour camps
- citizens declared as entitled for Extrajudicial Rehabilitation
- persons over the age of 70 years

Items transported by public transport for free include the following:

- hand baggage and easily portable things, which can be kept on a lap or stored in the passenger's compartment beneath the seat
- a stroller/push chair with a child
- folded stroller/push chair, golf clubs
- a service dog ( i.e. Guide dog/hearing dog)

- e) a dog transported in a container with an impermeable bottom up to the size 30 x 40 x 70 cm
- f) luggage with dimensions up to 30 x 40 x 70 cm
- g) a pole-shaped luggage up to the length of 150 cm and to 20 cm in diameter
- h) a board up to the size 100 x 100 x 5 cm
- i) a shopping bag on wheels
- j) a wheelchair

### 4.3 City Public Transport Survey in Ústí nad Labem

In order to determine the quality of public transport services in the city, Ústí nad Labem requested their comprehensive analysis, which was performed in 2009 by the company Czech Consult. Based on the results of the report, city public transport was optimised on the 1st September 2009, followed by further minor operative changes resulting from the study.

The public transportation was analysed in the following range:

- Survey of all-day transport volume on all PT lines during working hours in regular operation periods in November 2008
- Survey of all-day transport volume on all PT lines in usual traffic intensity during a weekend in November 2008
- Survey of all-day transport volume on all PT lines of public transport in the traffic peak during working hours in November 2008
- Survey of directional relationships and transfer links in usual traffic intensity during working hours in November 2008

During the surveys, the transport demand was mapped out for all lines based on transfers of passengers on all stations and the number of passengers onboard on sections in-between (during both peak and off-peak traffic periods). The survey of directional relationships and transfer links was realised by questioning the passengers waiting on the public transport stations or passengers travelling on less frequented public transport routes (directly in the vehicle).

16 - Number of PT passengers counted during the field survey

Number of passengers transported by PT per day			
Line	Wednesday	Saturday	Sunday
2	128	57	56
3	7484	4819	3958
4	703	123	100
5	7614	2015	1949
6	563	270	168
7	802	0	0
9	1828	1153	832
11	12294	6602	5143
12	2442	845	722
13	2926	1376	1064
14	130	0	0
15	1186	484	349
17	4381	586	516
18	999	0	0

Number of passengers transported by PT per day			
Line	Wednesday	Saturday	Sunday
19	2565	631	494
26	166	55	53
51	10114	6741	5038
52	8331	4424	3285
53	9480	388	138
54	11529	6990	4816
55	9633	6388	4282
56	13287	7346	5321
57	9393	5007	4571
58	2472	0	0
59	1601	0	0
60	20119	9706	7216
62	2149	2011	1593
101	178	250	107
102	117	107	88
103	13	11	1
<b>Total</b>	<b>144627</b>	<b>68385</b>	<b>51860</b>

Optimisation was realised on all the city public transport lines (all the bus and trolleybus connections operating in the city). State of the lines before and after the optimisation is presented in the following section. (A visual representation can be made through comparison of items 4 and 5 in Annex 1).

#### 4.3.1 City Public Transport Before and After the Optimisation

##### 1) BUSES:

##### **Line 2:** U Vozovny – Předlice Kolonie – Předlická – Předlice Kolonie – U Vozovny

- Before: The route of the line was short (only 3 km). It was predominantly serving the industrial zone Předlice. It was operating during working hours, mainly in the traffic peak, transporting passengers to and from work. Transfer to lines 12, 57 and 102 was possible from the station U Vozovny.
- After: The line was cancelled. Later, based on practical experience, it was restored in December 2009 in the following route: Mírové náměstí - Revoluční - Trmická - Bělský Městek - Stará škola - Václavské náměstí - Koštov konečná. It operates on working days.

##### **Line 3:** Mírové square - Divadlo - Kaufland - Nové Předlice - Stará Škola - Václavské square - Koštov - Důl 5. květen

- Before: The line was serving the town Koštov, providing its connection with the city centre. It was transporting mainly passengers to and from work in Důl 5. květen and in the industrial zone Trmice. Transfer to train was ensured on stations UL Main railway station, Mírové square, Elektrárna, and Koštov. The line allowed transfer to all the other public transport lines. It was poorly occupied in early morning hours and late evening hours. During the working hours, some connections were overloaded but mostly the occupancy was low, especially on weekends.
- After: The route was not changed. Intervals and time tables were adjusted accordingly.

**Line 4:** Divadlo - Nové Předlice - Václavské square - Koštov - Stadice - Habří - Řehlovice - Brozánky - Habrovany - Radejčín - Dubice – Dubičky

- Before: The line was serving the southeast area of the city, connecting it with the centre. Transfer to train was ensured on stations Koštov, Stadice, Řehlovice, and Brozánky. It was connected with all the other lines except the numbers 2, 5, 26 and 103. During working days, connections were overloaded. Several connections were low occupancy on weekends.
- After: The route was extended to the village Dubičky. Stations Dílny ČD and Na Luhách were cancelled. Time schedules were adjusted. The line operates every day.

**Line 5:** Všebořice shopping centre – Pod Holoměří – Severní Terasa – Mírová – Stříbrníky – Výstupní – Krásné Březno

- Before: The line was serving mainly areas Severní Terasa, Krásné Březno, and Všebořice, connecting it with the city centre. It ensured transfer to train on station Krásné Březno. It is connected with lines number 7, 11, 15, 18, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 101 and 103. During working days, around five connections were overloaded. Otherwise, the line was well balanced.
- After: The route was not changed. Interval was shortened to 10 minutes during peak hours. Operating time on working days was extended to 10 pm.

**Line 6:** Divadlo – Nové Předlice - Trmice - Hostovice - Milbohov - Stebno - Suchá - Podlešín – Chvalov

- Before: The line was connecting the city centre with certain surrounding towns. Transfer to train was ensured on station UL West railway station. The line was connected to all the other lines except numbers 2, 5, 19, 26 and 103. The occupancy was low, especially on weekends.
- After: The route was not changed. Time schedules were adjusted. Stations Dílny ČD and Na Luhách were cancelled.

**Line 7:** Mírová - Malátova - Poliklinika - Klíše lázně - Nové Předlice - Stará škola - Důl 5. Květen

- Before: The line was primarily transporting passengers from residential areas Severní Terasa, Stříbrníky and Klíše to and from work in the industrial zone Předlice. Transfer to rail network was ensured in the station Elektrárna. The line was operating only during working days, with several low occupied connections.
- After: The route was not changed. However, operating hours were adapted to suit the working hours in the industrial zone Trmice.

**Line 9:** Divadlo – Krajský Soud – Střekov railway station – Novosedlické square – Střekov – Nové Crematorium – Nová Ves – Kojetice

- Before: The line was connecting the city centre with the surrounding areas. It allowed transfer to train on stations Mírové square, Main railway station and Střekov railway station. Many connections were underutilised, mainly on weekends - 45% on Saturdays and almost 70% on Sundays.
- After: The route was extended towards Divadlo, Kaufland, Za Válcovnou and Vozovna DP. Residential areas Nová Ves and Kojetice are served on more regular basis. The interval between connections in areas Klíše and Za Válcovnou was set to 30 minutes in peak hours and 60 minutes in off-peak periods. The line operates every day.

**Line 11:** Přestanov – Stradov – Chlumeč – Všebořice shopping centre – Bukov – Poliklinika – Divadlo – Střekov railway station – Brná – Sebužín – Církvice

- Before: The line was connecting the city centre with the towns on the outskirts. Some connections were operating on shorter route. Transfer to train was ensured on stations Mírové square, Main railway station, Sebužín and Střekov railway station. The line was connected with all the other lines. During working days, several connections were overloaded while some connections were rarely used. Most connections on weekends were underutilised.
- After: The line ends at the station UL Main railway station (the route to Brná and Církvice is served by the line number 17). The interval between connections was set to 30 minutes on working days at 4-5 AM and at 9-11 PM, on weekdays and holidays at 4-7 AM and at 9-11 PM.

**Line 12:** Divadlo – Vozovna – Nové Předlice – Staré Předlice – Chabařovice – Roudníky – Chlumeč – Stradov – Přestanov

- Before: The line was connecting the city centre with certain towns on the outskirts. It transported mainly residents to and from work in the industrial zone Předlice. Transfer to train was enabled on stations UL West railway station and Nové railway station. The line was connected with all the other lines except numbers 2, 5, 19, 26 and 103. No connections were overloaded. Several connections were underutilised, both during working days and on weekends.
- After: The route was extended towards the city centre. Stations Chabařovická, Ocelárná, Besta and Chabařovické Strojírny were marked as “stop on demand” at all times. The station Nové Nádraží was cancelled. The interval was changed to 30 minutes in peak hours and 60 minutes in off-peak periods.

**Line 13:** Dolní Zálezly – Vaňov – Pražská – Zdymadla – Divadlo – Olšinky – Svádov – Olešnice

- Before: The line connects the city centre with certain towns on the outskirts and ensures the transportation of residents to and from their work destinations. Transfer to train is enabled on stations Main station, Svádov, Mírové square and Dolní Zálezly. The line is connected with all the other lines of the city public transport. No connection is overloaded, some connections underutilised, mainly during the morning and evening hours.
- After: The route starts at the station Divadlo and ends at the station Revoluční. The interval was extended to 30 minutes in peak hours and 60 minutes in off-peak hours. Selected connections were replaced by the line 26 on the route Revoluční – Pod Svahem – Divadlo.

**Line 14:** Dolní Zálezly – Vaňov – Pražská – Zdymadla – Divadlo – Bělehradská

- Before: The line was connecting the city centre with certain towns on the outskirts and served the residential area Hornická – Stará. It had a parallel route with the line 13. It transported mainly students and children. The time schedule corresponded with beginning and ends of schools in the area and operated only during working hours. Transfer to train was provided at the station Dolní Zálezly. The line was connected with all the other lines. Several connections were underutilised.
- After: The line was cancelled. The village Dolní Zálezly is served by the line number 15.



**Line 15:** Divadlo – Všebořice – Kpt. Jaroše – Božtěšice – Skorotice – Habrovice – Strážky – Neznabohy

- Before: The line was connecting the city centre with certain towns on the outskirts. It was connected with all the other lines. Some connections were operating only on a part of the route. No connections were overloaded. Some connections were underutilised in the morning and evening hours during working days and especially during the weekend - 55% on Sautrdays and 68% on Sundays.
- After: The route leads from villages Strážky, Habrovice, Skorotice, Božtěšice to stations Božtěšická, Masarykova nemocnice, Hilarova, Divadlo and Vaňov in Dolní Zálezly. The interval was set to 30 minutes in peak hours and 60 minutes in off-peak hours and on holidays. The village Dolní Zálezly is served only on working days except for summer holidays.

**Line 16:** (Neznabohy) - Strážky - Habrovice - Skorotice - Božtěšice – Všebořice

- Before: The line did not exist.
- After: This is a newly established line designed for transporting children to and from educational facilities Bukov and Všebořice and other residents to the hospital in Kpt. Jaroše. The line operates only on working days, except for summer holidays.

**Line 17:** Střekov railway station – Mírové square – Divadlo – Klíše Lázně – Za Válcovnou – Předlice Kolonie – Vozovna – Klíše Lázně – Divadlo – Main station – Krajský Soud – Střekov railway station

- Before: This circle line was connecting the city centre with certain outskirts. Transfer to train was enabled on stations UL Main railway station, Střekov railway station and Mírové square. The line was connected with all the other lines. No connection was overloaded. Some morning and evening connections were underutilised.
- After: The route was changed. It leads through stations (Předlická) - (Předlice Kolonie) - Vozovna DP - Chemopharma - Sigma - Klíše Lázně - Kaufland - Hraničář – Divadlo - Střekov railway station - Brná - (Církvice). The interval was set to 30 minutes. During summer months, extra connections were added on the route Divadlo – Brná. The line operates every day.

**Line 18:** Všebořice – Bukov – Klíše Lázně – Nové Předlice – Václavské square – Důl 5. Květen

- Before: The line was primarily ensuring transport of residents to and from their work destinations in the industrial zones Předlice, Důl 5. Květen and power station in Trmice. It operated only on working days and the time schedule corresponded with the business hours. One connection was overloaded and several connections were underutilised. The line was connected with all the other lines.
- After: The line operates on more regular basis, corresponding with the working hours of the industrial zone Trmice.

**Line 19:** Koštov Konečná – Důl 5. květen - Main railway station – Pekařská – OD Květ – Sibiřská – Ryjice

- Before: The line was connecting towns Ryjice and Koštov and the residential area Neštěmice with the city centre. It was transport mainly passengers to and from work in Důl 5. květen and in the industrial zone Trmice. Transfer to train was ensured on stations Mírové square, UL Main railway station, Elektrárna and Koštov. The line was connected with all the other lines. Connections were serving different parts of the route at different times, mostly between stations Důl 5. květen – Sibiřská and Trmická – Sibiřská. One connection was overloaded during working hours. Some connections

were underutilised in morning and evening hours and especially on weekends. The line was supported by the additional line number 19, operating only on working hours from the station Nad Zámkem to the final station UL Main railway station.

- After: More connections were added to serve the area Trmice through the station Nad Zámkem. The line operates on more regular basis. The interval on weekends and on holidays was set to 2 hours and was modified to fit the visiting hours of the hospice Ryjice.

**Line 23:** Dobětice - Mírová - Severní Terasa - Hornická - Poliklinika - Klíše Hvězda - Chemopharma - Vozovna DP

- Before: The line did not exist.
- After: This new line replaced the night line 103 on the entire length of the route.

**Line 26:** Divadlo – Drogerie – Japex – Hostovická – Pod Svahem – Hostovická – Japex – Drogerie – Divadlo

- Before: The short circle line connects the city part Hostovice with the city centre. It is connected with all the other lines of the city public transport. No connections are overloaded. Several connections are underutilised during working days, some on Saturdays and Sundays.
- After: The line was cancelled. The area Pod Svahem is served by the line 13.

## 2) NIGHT BUSES:

**Line 101:** Vozovna DP – Klíše Lázně – Poliklinika – Divadlo – Jungmannova – Krásné Březno – OD Květ – Mojžíř - Skalka

- Before: The night line operated only between 00:00 am - 4:00 am. It served the city parts Neštěmice, Krásné Březno and Mojžíř. It ensured transport of residents to work in the industrial zone in Předlice and connected the city parts with the city centre at night. Transfer to train was ensured on the stations UL Main railway station, Krásné Březno, Mírové square and Mojžíř.
- After: The route is unchanged. Time schedules were modified to follow operation of trains.

**Line 102:** Chlumeč – Chabařovice – Nové Předlice – Václavské square – West railway station – Divadlo – Krajský Soud – Brná – Kamenný Vrch – Střekov II

- Before: This night line operated only between 00:00 am and 4:00 am. It was connecting towns Chlumeč and Chabařovice with the industrial zone Předlice and with the city centre at night and served the residential area Střekov. Transfer to train was ensured on stations UL Main railway station, Mírové square and Střekov.
- After: The route is unchanged. Time schedules were adjusted to follow operation of trains. Operating times of connections serving Předlice and Chabařovice were modified.

**Line 103:** Dobětice – Mírová – Severní Terasa – Hornická – Poliklinika – Klíše Hvězda – Chemopharma – Vozovna DP

- Before: This line operated only once a day from 4:26 am, transporting mainly residents of Dobětice, Stříbrníky, Severní Terasa and Klíše to work in the industrial zone Jižní Předlice.
- After: The line was cancelled. Transport services on this route are provided by the newly established bus line no. 23.

## 3) SPECIFIC BUSES:

**Line 20, cycle-bus:** Divadlo –Zadní Telnice – Adolfov – Krásný Les – Varvažov - Divadlo

- Before: The circle line, with a capacity of 36 bicycles, operated only under favourable weather conditions and only on weekends and on holidays between 3<sup>rd</sup> April 2010 and 31<sup>st</sup> October 2010 twice a day. During summer holidays, extra connections operated also on Wednesdays.
- After: The route was not changed. Interval of connections was adjusted.

**Line 21, cycle-bus:** Divadlo – Nakléřov – Petrovice – Tisá - Divadlo

- Before: This new circle line, with a capacity of 36 bicycles, operated only under favourable weather conditions and only on weekends and holidays between 3<sup>rd</sup> April 2010 and 25<sup>th</sup> October 2010 twice a day. During summer holidays, extra connections operated also on Wednesdays.
- After: The route was not changed. Interval of connections was adjusted.

**Linka 10 – skibus:** Divadlo - Lipové - Telnice, železniční stanice - Zadní Telnice**Linka 20 – skibus:** Divadlo - Adolfov - Tisá, kult. dům - Divadlo

## 4) TROLLEYBUSES

For all the trolleybus lines, the interval between individual connections was set as follows:

Day in a week	Time period	Interval
Working days	4-5 am, 9-11 pm	30 minutes
Saturdays	4-7 am, 9-11 pm	30 minutes
Sundays and holidays	4-8 am, 9-11 pm	30 minutes

**Line 51:** Mírová – Hilarova – Mírové square – Jungmannova – Krásné Březno – OD Květ – Skalka

- Before: The line served the residential areas in Severní Terasa and Krásné Březno and connected the city centre with the harbour. It is connected with all the other lines. Transfer to train was ensured on the stations Mírové square, Krásné Březno and OD Květ. Morning and evening connections on weekends were underutilised.
- After: The route is unchanged. Line operates with low-floor vehicles. Intervals were adjusted.

**Line 52:** Severní Terasa – Mírová – Orlická – Malátova – Mírové náměstí – Poliklinika – Klíše Lázně – Poliklinika – Mírové square – Malátova – Orlická – Mírová – Severní Terasa

- Before: The circle line connected the city centre with the residential area in Severní Terasa. Transfer to train was ensured on the station Mírové square. It was connected with all the other lines. Some connections were overloaded during working days. Morning and evening connections and many connections on weekends were underutilised.
- After: The route is unchanged. Intervals were adjusted

**Line 53:** Severní Terasa – Mírová – Hornická – Hilarova – Mírové square – Malátova – Stříbrníky – Dobětice

- Before: The line was connecting the city centre with the residential area in Severní Terasa and was serving the town Dobětice. Transfer to train was ensured on the

station Mírové square. It was connected with all the other lines. Some morning and evening connections were underutilised during the working days. On weekends, the line operated only at night.

- After: The route is unchanged. Intervals were adjusted

**Line 54:** Všebořice – Kpt. Jaroše – Bukov – Poliklinika – Mírové square – Malátova – Stříbrníky – Dobětice

- Before: The line was connecting the city parts Všebořice, Bukov, Dobětice, and the residential area Skřivánek with the city centre. Transfer to train was ensured on the station Mírové square. It was connected with all the other lines. One connection was overloaded during working days. Some connections on weekends were underutilised.
- After: The route is unchanged. Line operates with low-floor vehicles. Intervals were adjusted.

**Line 55:** Severní Terasa – Mírová – Hornická – Mírové square – Výstupní - Žežická

- Before: The line was connecting the residential areas Severní Terasa, Krásné Březno, Skřivánek and Hornická-Stará with the city centre. The line transported mainly residents to and from their work destinations. Some connections operated on shorter routes. Transfer to train was ensured on the station Mírové square. It was connected with all the other lines. Two connections were overloaded during working days. Morning and evening connections were underutilised.
- After: The route is unchanged. Intervals were adjusted.

**Line 56:** Všebořice – Bukov – Poliklinika – Mírové square – Výstupní – Krásné Březno – Pod Vyhlídkou

- Before: The line connects the city parts Všebořice, Klíše, Bukov, Krásné Březno and the residential area Pod Vyhlídkou with the city centre. It allows transfer to train on the stations Mírové square and Krásné Březno. It is connected with all the other lines of city public transport. Some connections are overloaded during working days. Some connections in morning and evening hours on weekends are underutilised.
- After: The route is unchanged. Intervals were adjusted.

**Line 57:** Staré Předlice – Nové Předlice – West railway station – Mírové square – Krásné Březno – OD Květ – Mojžíř

- Before: The line connected the city parts Mojžíř and Neštěmice with the city centre and transferred mainly residents to work in the industrial zones in Neštěmice, Krásné Březno and Předlice. Transfer to train was ensured on the stations West railway station, Mírové square, Krásné Březno, OD Květ and Mojžíř. It was connected with all the other lines. Some connections were overloaded during working days. Morning and evening connections were underutilised.
- After: The route is unchanged. Intervals were adjusted

**Line 58:** Skalka – OD Květ – Krásné Březno – Výstupní – Mírové square – Poliklinika – Klíše Lázně – Poliklinika – Mírové square – Výstupní – Krásné Březno – OD Květ – Skalka

- Before: The circle line transported mainly residents of Krásné Březno, Klíše and Neštěmice to their work destinations. Therefore, the line operated only on working days. Transfer to train was ensured on the stations Mírové square and Krásné Březno. It was connected with all the other lines. No connection were overloaded. Some connections in morning hours were underutilised.
- After: The route is unchanged. Intervals were adjusted to suit school hours of the residential area Klíše.

**Line 59:** Pod Vyhlídkou – Krásné Březno – Jungmannova – Mírové square – Poliklinika – Mírové square – Jungmannova – Krásné Březno – Pod Vyhlídkou

- Before: The circle line connects the city parts Klíše and Bukov, and the residential areas Krásné Březno and Pod Vyhlídkou with the city centre. It allows transfer to train on the stations Mírové square and Krásné Březno. It is connected with all the other lines of city public transport. The line operates only on working days. No connection is overloaded. Some morning connections are underutilised.
- After: The route is unchanged. Intervals were adjusted to suit school hours of the residential area Klíše.

**Line 60:** Mírová – Severní Terasa – Pod Holoměří – Poliklinika – Mírové square – Kamenný Vrch – Novosedlícké square – Karla IV

- Before: The line connected the city parts Severní Terasa and Střekov with the city centre. It mainly transported residents to their work destinations in Střekov. Transfer to train was ensured on the station Mírové square. It was connected with all the other lines of city public transport. Some connections operated on shorter routes. Some connections were overloaded during working days. Morning and evening connections were underutilised.
- After: The route is unchanged. Intervals were adjusted to be consistent with the line number 62. Number of connections was lowered in the directions towards Divadlo – Pod Holoměří – Severní Terasa – Mírová.

**Line 62:** Globus – Nové Předlice – West railway station – Mírové square

- Before: The line connected the shopping centre Globus with the city centre. Transfer to train was ensured on the station Mírové square. It was connected with all the other lines. All the connections were moderately utilised, operating on working days and on weekends at the same time schedule. Transfer to train was enabled in the stations West railway station and Mírové square. The line was connected with all the other lines.
- After: The route was extended towards Karla IV – Divadlo. Intervals were adjusted to be consistent with the line number 60. The line operates every day.

Since 1st September 2009, the entrance to the public transport vehicles is allowed only through the front door on the **lines 4, 6, 12, 13, 15** at all times and on all the other lines after 8 PM. The restriction was applied to prevent transportation of illegal passengers without valid travel documents. Access to all the major trolleybus lines in peak hours is allowed by all the doors.

#### 4.4 Survey of the Public Opinion on the City Public Transportation

Ústí nad Labem residents were surveyed on their views of the city public transport services and PT optimisation realised by the city on the 1<sup>st</sup> September 2009. The survey was carried out to identify the degree of satisfaction with the changes, to reveal problems and deficits of the public transport at present state and to propose improvements. Questionnaires were distributed to members of the public both in paper and electronic versions. Residents were incentivised to take part in the survey by having a chance to win free public transport permits for various periods of time. There was extensive media coverage in both the local press, on the radio, by posters displayed in the Information centre, on the City website and on the website of Ústí nad Labem CIVITAS ARCHIMEDES. The survey proceeded from December 2009 to February 2010. In part of the paper questionnaire there was a short introductory text about the CIVITAS ARCHIMEDES project, the measure and its goals.



Questions presented to residents included the following:

- How often do you use public transport and for what purpose?
- What would persuade you to use the public transport more often?
- Are you satisfied with the way routes of the city public transport lead through the city?
- Are you satisfied with the intensity of connections of the city public transport?
- Do you think the capacity of public transport vehicles is satisfactory?
- Do you think the public transport vehicles are clean enough?
- Do you feel safe in the public transport?
- Is it necessary for you to use low-floor vehicles?
- Do you feel the number of low-floor vehicles operating in Ústí nad Labem is sufficient?
- Are you satisfied with accessibility of public transport stations in the city?
- Do you prefer integrated tickets for all means of public transport?
- Do you use the car in combination with public transport?
- Do you use the combination bicycle with the public transport?
- What is for you the main source of information about the public transport?
- Which promotion campaign about the city public transport did you notice?
- Do you think that the public transport in the city is being promoted sufficiently?
- What extra public transport services would you appreciate?
- What is your opinion on changes to the city public transport realised on the 1<sup>st</sup> September 2009?

#### 4.4.1 Results of the Survey

426 respondents took part at the survey, from which 371 were anonymous. 296 questionnaires were filled in electronically. From the total number of evaluated questionnaires, around two thirds of respondents were satisfied with the way the city is served by the public transport (68%). Some exceptions appeared concerning serving the outskirts and concurring of connections.

##### 1) PT Usage

Around 88% of respondents are using city public transport daily, usually to get to and from school or work (57%), for leisure activities (14%) and for shopping (11%). Charter buses and trains are used rather irregularly for occasional free time activities and for visits. Daily trips to school or work are realised by train by 12% of respondents and by charter bus by 15% of respondents.

##### 2) Tickets

When using the city public transport, over the half of the respondents prefer to use time permits (54%), 26% use single paper tickets and 21% buy tickets via SMS, which illustrates quite a success in implementing this environmental friendly solution of a travel permit. It can be recommended to introduce SMS tickets for discounted fares for children and youth as requested by several respondents. The slight majority of respondents (about 54%) supported the establishment of an integrated transport system in city public transport, charter buses and trains (preferably with smart cards), divided according to tariff zones.

##### 3) Serviceability of the City

Number of respondents satisfied with the daily frequency of public transport (61%) is roughly double than the number of respondents who are dissatisfied (37%). Unfortunately, satisfaction with frequency of night services is significantly lower - approximately the same number of respondents is satisfied (38%) and dissatisfied (37%). In overall, respondents



expressed requirement to increase the number of connections especially around the time of the end of working hours and at night. Furthermore, the respondents often wanted better continuity of services (both within public transport and concurrence of charter buses and trains) and improved intervals between connections.

#### 4) Cleanliness

Respondents are satisfied with cleanliness of charter buses (92%), while public transport vehicles are considered clean only by 42% and trains by 32% customers. Mostly, passengers are concerned about the overall untidiness, about dirty seats and windows, about the impedimental advertisements on windows obstructing the view and about neglected maintenance of vehicles.

#### 5) Safety

Feeling of safety in public transport vehicles is quite high, confirmed by around two thirds of respondents (67%). At night, only 24% of respondents feel safe in buses and trolleybuses, 29% in charter buses and 32% in trains. Citizens frequently expressed their demand to ensure more strict control in public transport vehicles to avoid illegal passengers and passengers with inconvenient behaviour.

#### 6) Accessibility

Low-floor vehicles are preferred by two thirds of respondents (68%) and 52% of them are not satisfied with the current number with regard mainly to disabled people and mothers with strollers. Citizens further noticed that public transport stations with disabled access are concentrated only in the city centre. Also, public transport drivers were criticised for not stopping the vehicle close enough to the pavement, leaving a gap between the pavement and the vehicle, therefore the disabled access of the station and low-floor bus/trolleybus have no effect and the vehicle is difficult to reach by disabled and older people.

#### 7) Modal Split

Citizens generally do not use the combinations car - public transport. Furthermore, residents answered that most of them would not use the park and ride system in Ústí nad Labem with the necessity to park their car on the outskirts and travel to the city centre by alternative transport. Neither do respondents use the combination bicycle – public transport. In overall, bicycles are not used in the city due to safety threads on roads for cyclists, with no designated areas for cyclists, due to the lack of safe premises to store the bike in the city centre and also due to the fact that bikes are not allowed in buses and trolleybus with only few exceptions.

#### 8) Information

Local residents complained about insufficient and outdated information provided about the public transport, primarily inside vehicles and on bus stations, where it is often completely missing. The main source of information is internet (for 62% of respondents). The official web site of Ústí nad Labem Public Transport Company is demanded to be modernised and regularly updated. Public transportation is considered to be poorly promoted, which should be changed by Civitas Archimedes.

#### 9) PT Optimisation

About half of the respondents are satisfied with the changes to the public transport realised in September 2009. This result indicates, that these changes did not mean a significant improvement. On the other hand, passengers need some time to get used to new time tables.

## 10) Conclusion

Majority of respondents expressed their requirement to improve the existing services rather than to establish new ones. They favour purchase of new and modern low-floor buses and trolleybuses, better maintenance of vehicles and stations and improved delivery of information. Residents also prefer calming the city centre, excluding the traffic and establishing pedestrian zones (92%).

In general, residents are satisfied with public transportation but demand improvements and quality services equal to the price of the ticket. Graphs presenting the results of the survey are attached in Annex 2.

## 4.5 Summary

The goal of the study was to map the usage of public transportation in the city and to determine the public opinion of PT users on its services. It was based on a thorough analyses elaborated for the city in 2009 and on questioners distributed to wide public promoted by a campaign.

In total, Ústí nad Labem Public Transport Company in the city operates 16 bus lines, 11 trolleybus lines, 2 night bus lines, 2 cycle-buses and 2 ski-buses. The network consists of 251 stations. On average, 144 649 passengers are transported by the city public transport on a working day, 68 385 on Saturday and 51 860 on Sunday.

Recently, except lines 51, 52, 53, 54, 55, 56, 57, 58, 59 and 60, all the routes PT connections were optimised. The operating times were adjusted to correspond with beginning and end times of schools, opening hours of offices, businesses and services in the city, arrivals and departures of trains and working hours in factories. Intervals of individual connections were set to better correspond with each other. Some lines were cancelled or replaced. Lines 51, 54 and 60 are guaranteed to operate by low-floor trolleybuses to enable transportation of disabled passengers.

It was revealed, that several bus connections on lines number 3, 4, 5, 11, 18 and 19 and trolleybus connections on lines number 52, 54, 55, 56, 57 and 60 operate overloaded. Some lines are underutilised, mainly number 9, 15 and 19. Number of passengers transported between individual stations is presented in the following table.

## 17 - Average number of passengers transported by PT per hour

Hour	Wednesday		Saturday		Sunday	
	Transported passengers	Relative frequency	Transported passengers	Relative frequency	Transported passengers	Relative frequency
0	95	0,07%	270	0,39%	51	0,10%
1	82	0,06%	303	0,44%	46	0,09%
2	32	0,02%	54	0,08%	8	0,02%
3	123	0,09%	227	0,33%	119	0,23%
4	1 374	0,95%	758	1,11%	569	1,10%
5	5 885	4,07%	1 656	2,43%	1 287	2,47%
6	8 694	6,01%	1 999	2,92%	1 192	2,30%
7	13 009	8,99%	2 401	3,51%	1 197	2,31%
8	7 831	5,41%	3 832	5,60%	1 958	3,78%
9	8 300	5,74%	5 148	7,53%	2 717	5,24%
10	8 041	5,56%	4 915	7,19%	3 032	5,85%
11	7 963	5,51%	4 763	6,96%	3 148	6,07%
12	8 444	5,83%	4 460	6,52%	3 514	6,78%
13	11 368	7,86%	4 518	6,61%	4 060	7,83%
14	15 081	10,43%	5 251	7,68%	4 520	8,72%
15	13 224	9,16%	4 781	6,99%	4 656	8,97%
16	11 276	7,80%	4 756	6,96%	4 848	9,35%
17	8 602	5,95%	4 719	6,90%	4 408	8,50%
18	5 690	3,92%	4 199	6,14%	3 755	7,23%
19	3 761	2,60%	3 389	4,96%	2 860	5,51%
20	2 465	1,70%	2 443	3,57%	1 688	3,25%
21	1 805	1,25%	1 715	2,51%	1 196	2,31%
22	1 132	0,78%	1 281	1,87%	793	1,53%
23	352	0,24%	547	0,80%	238	0,46%
<b>Total</b>	<b>144 629</b>	<b>100,00%</b>	<b>68 385</b>	<b>100,00%</b>	<b>51 860</b>	<b>100,00%</b>

18 - Average passenger volumes on individual PT station in Ústí nad Labem in the year 2009 on a working day (Wednesday) and on a weekend (Saturday and Sunday)

Wednesday		Saturday		Sunday	
PT station	Transported passengers	PT station	Transported passengers	PT station	Transported passengers
Mírové náměstí	37994	Mírové náměstí	19554	Mírové náměstí	15147
Divadlo	26512	Divadlo	11472	Divadlo	8296
Hraničář	16185	Hraničář	5795	Revoluční	3742
Revoluční	12771	Revoluční	5646	Hraničář	3219
Poliklinika	7069	Globus	3107	Globus	2490
Stříbrníky	5233	OD Květ	2403	OD Květ	2040
OD Květ	4622	Všebořice obch.centrum	2363	Všebořice obch.centrum	1944
Krásné Březno	4453	Poliklinika	2164	Pivovar	1750
Krajská soud	4199	Pivovar	1964	Krásné Březno	1682
Hlavní nádraží	4140	Výstupní	1952	Mírová	1555
Pivovar	3798	Mírová	1941	Severní Terasa	1443
Výstupní	3747	Krásné Březno	1888	Mojžíř	1392
Globus	3584	Kaufland	1881	Stříbrníky	1389
Mírová	3496	Hlavní nádraží	1852	Výstupní	1387
Všebořice obch. centrum	3490	Stříbrníky	1734	Kaufland	1350
Masarykova nemocnice	3364	Prior	1681	Hlavní nádraží	1297
Dukelských hrdinů	2837	Gagarinova	1622	Poliklinika	1271
Severní Terasa	2818	Krajská soud	1607	Nové Předlice	1254
Beethovenova	2811	Severní Terasa	1591	Skalka	1186
Elba	2806	Skalka	1572	Gagarinova	1167

## 19 - Number of passengers transported between the major public transport stations in the city

From the station	To the station	No. of transported passengers
Revoluční	Divadlo	25 551
Divadlo	Hraničář	24 780
Mírové náměstí	Revoluční	24 061
Hraničář	Divadlo	20 970
Hraničář	Poliklinika	15 497
Revoluční	Mírové náměstí	14 919
Poliklinika	Hraničář	13 882
Divadlo	Revoluční	13 712
Vojanova, ZOO	Přístav	10 150
Přístav	Mírové náměstí	10 142
Přístav	Vojanova, ZOO	9 889
Mírové náměstí	Přístav	9 871
Poliklinika	Šaldova	8 156
Šaldova	Beethovenova	8 032
Šaldova	Poliklinika	7 742
Beethovenova	Šaldova	7 546
Krásné Březno	Pivovar	7 520
Divadlo	Mírové náměstí	7 278
Městský stadion	Bukov	6 832
Poliklinika	Kampus	6 700
Hraničář	Hilarova	6 622
Bukov	Městský stadion	6 516
Pivovar	Krásné Březno	6 516
Bukov	Bukov rondel	6 353
Kampus	Bezručova	6 263
Hilarova	Bělehradská	6 100
Pivovar	Jungmannova	5 975
Mírové náměstí	Důlce	5 867
Důlce	Stříbrnické nivy	5 799
Autoškola	Výstupní	5 771
Stříbrnické nivy	Důlce	5 675
Kampus	Poliklinika	5 671
Důlce	Mírové náměstí	5 664
Malátova	Stříbrnické nivy	5 560
Stříbrnické nivy	Malátova	5 525
Hilarova	Hraničář	5 512
Výstupní	Autoškola	5 455
Jungmannova	Pivovar	5 341
Bělehradská	Hilarova	5 320
Opletalova	Svádovský přívaz	5 190
Jungmannova	Vojanova, ZOO	5 060
Malátova	V Rokli	5 051
V Rokli	Malátova	5 036



Currently, traffic performance of the city public transport is 13,5 times lower than traffic performance realised in the city by personal vehicles.

20 – Current transport volume of individual modes of transport in the city in vehicle-kilometres per day

Transport mode	Transport volume
buses	10 404,0
trolleybuses	12 225,2
city PT total	22 629,2
personal vehicles	303 382,0

Usage of the city public transport in Ústí nad Labem is relatively high compared to similar cities in the Czech Republic, although improvements of services are still needed. A detailed overview of public opinion survey results is attached in Annex 2.

21 - Comparison of PT usage in similar cities in the Czech Republic

City	No. of inhabitants in 2007	Passengers (in thousands) transported by PT in 2007	Percentage of inhabitants transported by PT
České Budějovice	94 747	42 222	44,56 %
Liberec	98 781	30 809	31,19 %
Hradec Králové	94 255	38 224	40,55 %
Ústí nad Labem	94 565	52 318	55,32 %