

CiViTAS
Cleaner and better transport in cities

ÚSTÍ NAD LABEM
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Ústí nad Labem

T49.1 Road Safety Audit & Actions

May 2012



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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 coordinated 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 (PT) 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 Ústí region.

Ústí nad Labem is an important industrial centre of north-west Bohemia. The city's population is 93859 living in an area of 93.95 km². 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.

3. Background to the Deliverable

In 2004, resolution of the Government approved the National Road Safety Strategy (NRSS), which, in accordance with the strategy of the European Union, defines ambitious objectives in safety improvements, such as reducing the number of deaths resulting from traffic accidents between 2002 and 2010 by half.

However, these objectives have not been met over this period and it appears that neither mere changes to and tightening of legislation nor introduction of harsh penalties (realised via the system of negative points for drivers) is sufficient to bring about the desired effect.

These objectives and other improvements in road safety can only be achieved if participation and engagement towards the problem and development of subsequent solutions is addressed by all relevant parties, including ministries of the Czech Republic, regions, municipalities, and citizens.

On 10th August 2011, the Government of the Czech Republic adopted resolution no. 599 on the National Road Safety Strategy for the period 2011 to 2020. This resolution requires authorities of regional offices and municipalities with extended jurisdiction to ensure implementation of instruments defined in the Strategy.

The system for increasing road safety is based on three pillars:

- vehicles
- road users
- road infrastructure

None of the basic pillars can be disregarded. The fourth supplementary pillar is represented by the rescue services reducing seriousness of consequences of traffic accidents.

It is necessary to continue in the effort to increase transport safety and focus primarily on prevention, traffic education and safety of the road infrastructure, instead of addressing safety issues only once traffic accidents have occurred or following public pressure to do so.

Preventive measures include improvements of the infrastructure and removal of deficiencies presenting a safety threat. It is appropriate to preserve the system of restrictions, but supplement it with thorough traffic training not only for children and future drivers, but also for established drivers, cyclists and pedestrians.

3.1 Summary Description of the Task

Ústí nad Labem designed actions resulting from the safety audit performed in the city within the CIVITAS ARCHIMEDES task 11.5.3 Safety Audit.

It is related mainly to the following tasks:

- Measure 40, task 4.15 Drive Safely Campaign
- Measure 49, task 11.5.4 Traffic Speed Reduction
- Measure 49, task 5.11 Traffic Speed Reduction Publicity Campaign

These primarily utilise knowledge gathered from implemented safety inspections of localities with majority of road accidents, on major roads and near school facilities, experience with

organising public campaigns and results from the research study of speed reduction in the city.

4. Outputs of the Task

4.1 Exploiting Results of the Road Safety Audit

The final report from the Safety Audit (task 11.5.3) identifies specific road safety deficiencies, mainly:

- list of places with a statistically high rate of traffic accidents
- list of places with potential safety risks on major roads
- list of places with potential safety risks by school facilities

It further contains proposals for improving these deficiencies and shortcomings. The conclusions were submitted to the relevant authorities, which are:

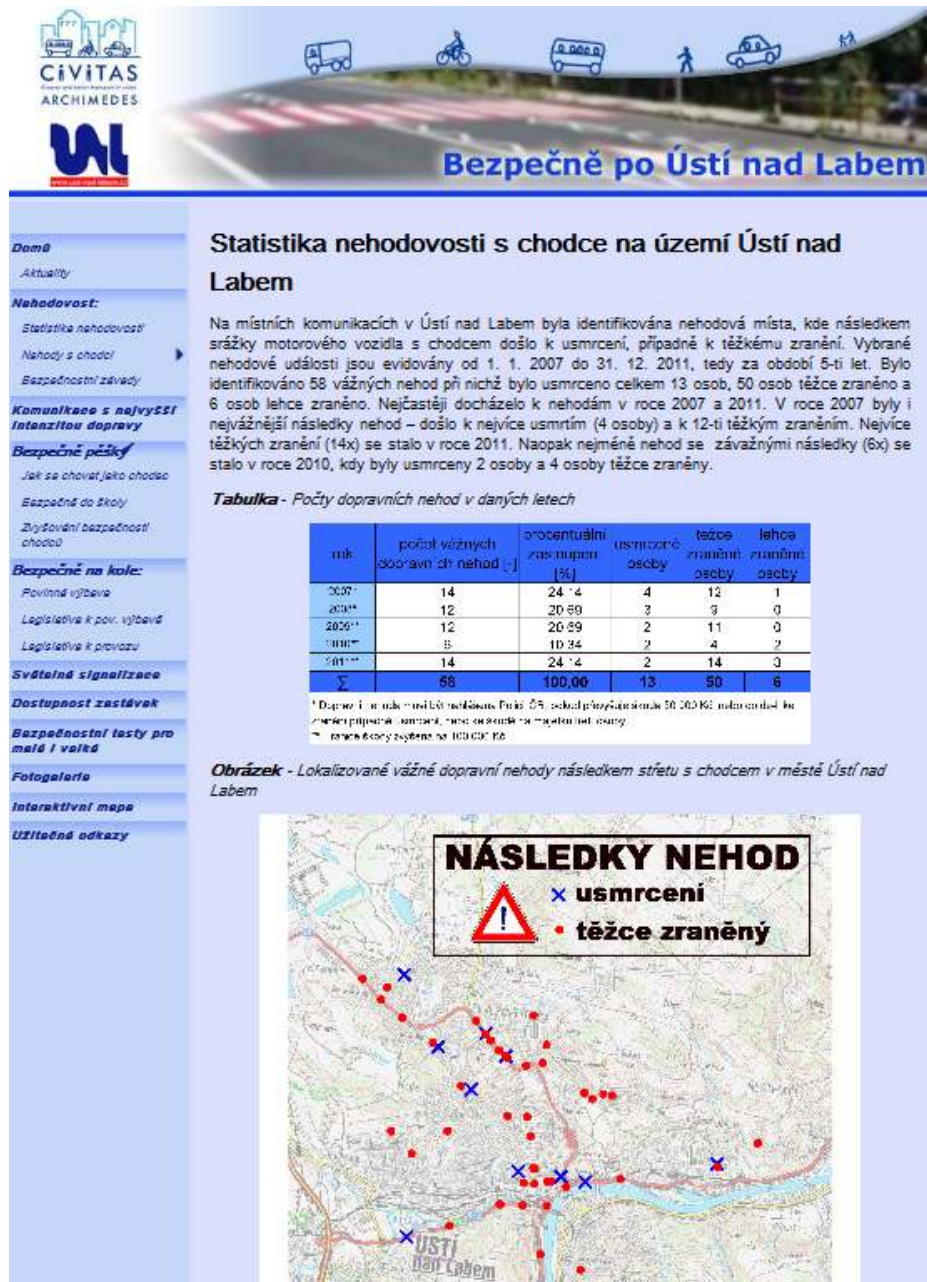
- the city of Ústí nad Labem, owner of the road network
- Urban Services (Městské služby), administrator of the road network
- NTD Group, administrator of traffic light devices
- Municipal Police
- other, as appropriate

The document is used as a basis for road maintenance, determination of priorities for required repair works, decision-making in road network development. Outputs of the document serve as a source of information for public.

4.2 Promotion of Results

The website dedicated to road safety in Ústí nad Labem (www.bezpecnepousti.cz) has been updated with measure results and with up-to-date information. The newly provided information includes data about traffic accidents on the city territory and statistics about the trend of casualties and consequences of traffic accidents (deaths and injuries) in the period 2007-2011. The text is supplemented by summary charts and statistical tables. A new chapter was added, dedicated to analysis of accidents with pedestrians and resulted injuries. Analysed data are from the period of years 2007-2011. They are accompanied by tables and maps of accidents.

Figure 1 - Updating the road safety website with newly gathered and processed data



Statistika nehodovosti s chodcem na území Ústí nad Labem

Na místních komunikacích v Ústí nad Labem byla identifikována nehodová místa, kde následkem srážky motorového vozidla s chodcem došlo k usmrcení, případně k těžkému zranění. Vybrané nehodové události jsou evidovány od 1. 1. 2007 do 31. 12. 2011, tedy za období 5-ti let. Bylo identifikováno 58 vážných nehod při nichž bylo usmrceno celkem 13 osob, 50 osob těžce zraněno a 6 osob lehce zraněno. Nejčastěji docházelo k nehodám v roce 2007 a 2011. V roce 2007 byly i nejvážnější následky nehod – došlo k nejvíce usmrtím (4 osoby) a k 12-ti těžkým zraněním. Nejvíce těžkých zranění (14x) se stalo v roce 2011. Naopak nejméně nehod se závažnými následky (6x) se stalo v roce 2010, kdy byly usmrceny 2 osoby a 4 osoby těžce zraněny.

Tabulka - Počty dopravních nehod v daných letech

rok	počet vážných dopravních nehod	procentuální zastoupení [%]	usmrcené osoby	těžce zraněné osoby	lehce zraněné osoby
2007	14	24,14	4	12	1
2008	12	20,69	3	9	0
2009	12	20,69	2	11	0
2010	5	10,34	2	4	2
2011	14	24,14	2	14	3
Σ	58	100,00	13	50	6

Obrázek - Lokalizované vážné dopravní nehody následkem střetu s chodcem v městě Ústí nad Labem

Results of the road safety audit have been further published on the local CIVITAS website on the city webpage www.usti-nad-labem.cz/civitas and on the Facebook page www.facebook.com/civitas.ul.

4.3 Designing the Action Plan

The road safety situation in Ústí nad Labem is similar to other cities in the Czech Republic, with numerous deficiencies and risks. It is necessary to systematically remove these deficiencies and prevent creation of new ones. It is necessary to utilise various tools, both preventive (safety audits and inspections, traffic training) and reactive (repairs and maintenance).

The issue of improving road safety concerns transport infrastructure, transport as a process and all road users. Therefore, synergy between many subjects is required, including owners and administrators of roads and facilities, operators of transport systems, police, individual drivers, cyclists and pedestrians.

For the purpose of management and control aimed at reduction of negative effects of transport, the Action Plan for Road Safety Improvements in Ústí nad Labem was created (please see the chapter 5). This strategic document defines goals and priorities in the field of transport safety in the city. It also outlines appropriate instruments for such improvements and stresses the need for traffic supervision. Furthermore, the action plan assigns responsibilities for individual actions.

The action plan was created in accordance with the resolution of the Government of the Czech Republic No. 599 from 10th August 2011, on the National Road Safety Strategy for 2011 - 2020, and with the Action Programme, which is the annex of the 1st National Road Safety Strategy for 2011 - 2020.

5. Action Plan for Road Safety Improvements in Ústí nad Labem

5.1 Analysis

5.1.1 Strategy for Development of Transport in Ústí nad Labem

The Strategy for Development of the City of Ústí nad Labem for the Years 2007-2015, approved by city authorities, contains basic knowledge, visions and goals of the city, weak and strong points and opportunities. It is the basic document, which is followed by the SUTP for Ústí nad Labem. Therefore, also individual action plans are based on common and very specific knowledge and defined tasks are aimed at their effective implementation.

Most importantly, these background data include the following fields:

Status and characteristics of the city transport

Traffic intensity on major roads in the city centre significantly affects the surrounding urban life, and implementation of a city bypass is currently not realistic. Finishing the highway D8 will help to release some of the transit transport, but it will not solve the city traffic issues completely. The optimisation solutions require drastic traffic calming, restrictions for individual motor transport in built-up areas and consistent preference for environmentally sustainable transport modes, in particular expansion of the PT system supported by development of cycle and pedestrian transport.

Traffic load on numerous local roads in built-up areas is disproportionately high and requires application of construction and organisational solutions, leading to traffic reduction. The current Master Plan of the city and concept of the territorial plan for the Ústí region do not involve any major territorial reserve for reconstruction of some of the existing backbone transit roads. It only involves plan for a series of relocations and new constructions within the city road network, which, together with implementing organisational measures, can reduce intensity of mainly transit traffic passing through the city.

SWOT analyses

Major prevailing weaknesses:

- Lack of urban backbone cycling infrastructure (the only exception is the Elbe Cycle Route);
- Existing transport and industrial structures in the city, and hilly terrain of the territory prevent efficient development of pedestrian transport;
- High traffic load in the city centre, primarily personal automobile transport;

- Inappropriate solution of numerous urban roads and crossroads, which correction requires significant financial resources;
- Insufficient interconnection of existing cycle and pedestrian routes in the area.

Major prevailing threats:

- Growth of traffic intensity in the city after opening of the highway D8 (Prague – Dresden);
- Failure to complete a complex road network in vicinity of the city;

Visions for city transport development

Variant 1) Ústí nad Labem as a prosperous, healthy and safe city, benefiting from its advantageous geographical location, attractive for investors and visitors, with a competitive economy based on the industrial tradition, with the growing education and qualifications of the population and with modern operating authority;

Variant 2) Ústí nad Labem as a prosperous, healthy, and safe city, benefiting from its advantageous strategic business location and industrial traditions, with dynamic (sustainable) development based on increasing attractiveness of the area for external investments associated with motivation and effective utilisation of potential of its citizens, economic subjects and city authorities.

According to the Strategic Plan of Ústí nad Labem, the city authority is aiming to **improve conditions for sustainable development of transport in the territory of Ústí nad Labem**. Its priorities include:

- improvements of the existing transport infrastructure in the city;
- development of the transport infrastructure in the city;
- implementation of measures improving road safety;
- elimination of deficits of the road infrastructure;
- development of sustainable transport.

Strategy

A complex solution of road transport in the city requires significant financial resources, given the nature of relief in the city. **It is therefore necessary to focus primarily on removal of deficits, which do not meet requirements for traffic safety and fluency.**

For specific issues, such as worsened operating conditions due to weather conditions, closures or accidents, it is appropriate to utilise modern transport technologies and systems (telematics).

Priorities for the road safety strategy are:

- improve safety level on roads in the city
- enhance awareness of road users
- improve conditions for cycle transport
- improve conditions for pedestrian transport
- Increase safety for vulnerable road users, primarily children

5.1.2 Identification of Measures

In order to effectively address road safety issues, specifically traffic accidents in the city, it is necessary to apply systematic strategy in cooperation with road managers, PT operators, Municipal Police, Police of the Czech Republic and administrative authorities.

Solutions are divided according to their focus;

- on vehicles
- on users
- on the infrastructure

and according to their orientation:

- preventative measures
- reactive measures
- educational - training measures
- surveillance
- repression

Priority is given to preventive and educational measures, although reactive and repressive measures unfortunately cannot be omitted in a successful safety policy.

5.1.3 Main objectives in Road Safety

Objective 1) Achieve reduction in the number of victims of road accidents and in heavy and deadly injuries through complex measures;

Objective 2) Approve the medium-term strategy to increase safety of transport in the city until the year 2020, with clearly defined actions and financial resources;

Objective 3) Strictly follow actions set by the updated National Road Safety Strategy (NRSS) within the medium-term strategy;

Objective 4) Continuously analyse traffic accidents in the city, identify their major causes, course of accidents, their participants, consequences, accident locations and circumstances;

Objective 5) Carry out periodic safety inspections of accident localities and define proposals for elimination of risk factors;

Objective 6) Each project to be approved by the city, which relates to transport situation or significant traffic changes, must be subject to an independent safety audit;

Objective 7) Periodically repeat safety inspections of roads in order to preventively identify road safety issues and deficits and propose, preferably, low cost solutions for their elimination;

Objective 8) Install calming elements (physical and psychological) on specific locations with potential safety threats;

Objective 9) Support traffic training for drivers and other groups of road users;

Objective 10) Increase efficiency of supervision through patrolling, speed measurements, control of red light passage, etc.

Objective 11) Strengthen and streamline repression, especially regarding aggressive behaviour of drivers, excessive speeding, and driving under the influence of alcohol and drugs;

Objective 12) Systematically organise traffic educational campaigns;

Objective 13) Increase the number of traffic light controlled crossings with signals for pedestrians;

Objective 14) Increase the number of traffic light controlled intersections;

Objective 15) Implement roundabouts wherever possible in terms of spatial and purpose requirements;

Objective 16) Remove railway level crossings where possible, improve their equipment primarily by installing protecting gates for passage, ensure suitable visibility conditions and clarity of signs;

Objective 17) Constantly create and improve conditions for movement of pedestrians outside and across roads (sidewalks, pedestrian paths, underground passages, signalled crossings, protective islands, Z crossings);

Objective 18) Constantly create and improve conditions for movement of cyclists, preferably outside automobile traffic lanes, through separate paths and dedicated cycle lanes;

Objective 19) Consistently facilitate safe transport space along road infrastructure with regard to permitted speed level, eliminate and avoid fixed obstacles along roads, or ensure their adequate protection;

Objective 20) Maintain and develop safety of children and youth, though traffic education and ensuring safe environment around schools, safe conditions for cycling, safe access to places of interest, etc.

Objective 21) Verify and improve orientation of drivers passing through intersections and turning lanes, especially under adverse conditions (night, fog, worn out traffic marks, etc.);

Objective 22) Regularly monitor status of vertical and horizontal traffic signs, in terms of completeness, visibility, clarity etc.

Objective 23) Utilise available tools of intelligent transport systems to increase safety of road users by providing traffic information, alerts, management and supervision;

Objective 24) Improve conditions of PT stations by ensuring safe access and environment in the area;

Objective 25) Carry out supervision of technical conditions of vehicles and load in order to minimise impact of vehicle conditions on occurrence of traffic accidents and their consequences;

Objective 26) Support modification of the city road network into such allowing maximal segregation of dominant traffic flows from pedestrians and cyclists, PT stations, schools and cultural facilities;

Objective 27) Prioritize investments into safety measures, based on assessment of potential improvements, costs and benefits of each measure;

Objective 28) Harmonise speed of vehicles in the city with regard to safety requirements, needs of pedestrians, cyclists and services in the territory;

Objective 29) Keep surface properties of roads at such quality to avoid occurrence of road accidents due to skid properties, inequality, bumps and holes;

Objective 30) Apply winter maintenance to ensure passability of roads and avoiding sudden changes of driving conditions resulting in losing control over a vehicle even when adjusting driving speed to adheres conditions;

Objective 31) Within the road safety care system, establish requirements for a “secure, forgiving and clear” (self-explanatory) road;

Objective 32) Ensure safety of public transportation in the city and actively examine technical conditions of vehicles and safe behaviour of drivers, perform training, health inspections, control of alcohol and other substances, etc.

5.2 Specific Actions

5.2.1 Prevention

Prevention addresses objectives 1, 2, 3, 4, 5, 6, 7, 8, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 26, 27, 28, 29, 30 and 31. These objectives may also be classified as reactive measures when addressing treatment of accident locations. Prevention is specifically targeted at the following objectives:

Objectives 5, 6 and 7 - safety inspections and audits

- Implementation of the measure K1 of the NRSS “Application of the European directive for safe infrastructure 2008/96/ES and its extension on the other road network”
- Regular and repeated monitoring of road safety conditions of the existing infrastructure
- Precautionary identification of potentially safety issues already from the stage of a project
- Fast remedy of identified safety deficiencies

Objectives 8, 26, 28 – traffic restrictions

- Implementation of the measures K3 of the NRSS “Construction of bypasses of cities and towns”
- Implementation of the measures K4 of the NRSS “Installation of traffic calming elements on inner city roads”
- Implementation of the measures K9 of the NRSS “Gradual reconstruction of the road network based on principles of self-explanatory and forgiving roads”
- Establishing a network of subordinated roads for transit traffic
- Leading transit traffic outside heavily populated and densely build-up areas in the city
- Eliminating conflicts between individual, public, cycle and pedestrian transport

Objectives 13, 14, 15, 16, 17, 18, 19, 21 – organisation of transport

- Implementation of the measures K5 of the NRSS “Modifications of intersections”
- Implementation of the measures K7 of the NRSS “Securing railway crossings”
- Implementation of the measures K9 of the NRSS “Gradual reconstruction of the road network based on principles of self-explanatory and forgiving roads”
- Implementation of the measures K10 of the NRSS “Modification of the road space for vulnerable road users”
- Adaptation of the road infrastructure to local conditions and traffic

Objectives 13, 14, 15, 16, 17, 23 – traffic management

- Implementation of the measures K7 of the NRSS “Securing railway crossings”
- Implementation of the measures K8 of the NRSS “Application of road telematics for traffic monitoring and management”
- Application of management elements for more efficient use of the infrastructure
- Development and modernisation of traffic light signals
- Implementation of ITS elements - dynamic traffic management, immediate reaction to operating forces

Objectives 4, 5, 6, 7, 8 – removal of potential accident threats

- Implementation of the measures K1 of the NRSS “Application of the European directive for safe infrastructure 2008/96/ES and its extension on the other road network”
- Implementation of the measures K2 of the NRSS “Application of relevant laws and related legislative regulations for safer road infrastructure”
- Implementation of the measures K5 of the NRSS “Modifications of intersections”
- Implementation of the measures K6 of the NRSS “Quality improvements of traffic signs, road equipment and surface properties of roads”
- Implementation of the measures K10 of the NRSS “Modification of the road space for vulnerable road users”
- Installation of traffic calming elements (physical and psychological) on specific locations with potential safety risks
- Analyse real causes of increased casualties and adopt adequate measures
- Monitor efficiency of realised measures in longer time periods

5.2.2 Enforcement

Enforcement addresses objectives 10, 11 and 25, specifically:

- Implementation of the measures U7 of the NRSS “Increase law enforcement”
- Implementation of the measures U8 of the NRSS “Supervision on compliance with traffic rules”

- Implementation of the measures U10 of the NRSS “Strengthen legislative penalties for dangerous and risk behaviour threatening other road users”
- Enforce penalties for violation of traffic rules
- Repress aggressive behaviour
- Apply only warning in case of less serious offences in order to achieve educational impact
- Ensure coordination of traffic supervision by the Police of the Czech Republic and the Municipal Police of the statutory city of Ústí nad Labem
- Ensure compliance with permitted speed limit, especially in places with frequent movement of pedestrians, such as roads in the vicinity of school facilities, and generally on long straight road sections in the city
- Focus on motor vehicle drivers to respect vulnerable road users (pedestrians and cyclists)
- Focus on cyclists to respect pedestrians, especially on sidewalks.

5.2.3 Traffic Education

Traffic education addresses objectives 9, 12 and 20, specifically:

- Implementation of the measures U1 of the NRSS “Preventively affecting all road users through education and training activities”
- Implementation of the measures U2 of the NRSS “Reducing behaviour risk factors of road users by preventive information activities”
- Implementation of the measures U3 of the NRSS “Emphasising influence of alcohol and addictive substances on safety of all road users”
- Implementation of the measures U4 of the NRSS “Legislative support for improvements of traffic education at driving schools”
- Implementation of the measures U5 of the NRSS “Ensuring support for implementation of the National Road Safety Strategy”
- Implementation of the measures U9 of the NRSS “Influencing vulnerable road users”

Traffic education of children and youth

- Provide personal and material support for traffic education of pre-school and school children, and youth
- Equip and maintain the city traffic court for children
- Support and organise lectures, traffic competitions and other traffic training activities for children in the city, preferably in an entertaining way (e.g. cycle race for children)

Traffic education of drivers

- Impose the need to perform quality traffic training at driving schools, carry out quality control and gather feedback

- Inform the public about new trends in the field of transport and on the actual development of transport in the city
- Perform preventive safety campaigns, in both explanatory and discouraging formats (e.g. presenting consequences of traffic accidents, etc.)
- Emphasise influence of alcohol, drugs and excessive speed on occurrence and consequences of road accidents

Behaviour principles for pedestrians

- Perform an educational campaign focused on correct behaviour of pedestrians
- Explain how to prevent conflict situations
- Focus on high-risk and vulnerable road users, primarily elderly, handicapped persons, people with visual impairments, wheelchair users, etc.
- Emphasise principles of safe road crossing, visibility, eye contact with a driver, etc.

Behaviour principles for cyclists

- Perform an educational campaign on correct safe cycling
- Increase awareness on relevant valid legislation, e.g. related to obligatory equipment of a bicycle or obligations of cyclists
- Increase awareness on how to reduce risks of accidents
- Promote usage of safety helmets, reflective accessories a proper cycle gear
- Provide and promote information about cycling routes in the area and paths suitable for cycle transport

Information, education and promotion

- Organise information campaigns about road safety issues in the city in various forms (paper leaflets, posters, press, radio, local TV, websites, social networks, etc.)
- Continuously update the website dedicated to road safety in the city (www.bezpecnepousti.cz) with safety data gathered in the city, statistics, localisation of road accidents, safety warnings and advices, etc.

5.2.4 Supervision

- Supervision exercised by the Police of the Czech Republic and the Municipal Police of Ústí nad Labem
- Implementation of the measures V1 of the NRSS “Ensuring effective state expert supervision and suitable technical conditions of vehicles”
- Ensure coordination between individual supervising units

5.2.5 International and Domestic Cooperation

- Develop cooperation with cities abroad, utilise best practise and experience

- Utilise results of CIVITAS ARCHIMEDES
- Actively search and try to engage in other European projects dealing with road safety in cities
- Search for support and funding for implementation of measures increasing road safety
- Actively participate in domestic and international projects, activities, conferences, workshops and competitions aimed at road safety improvements
- Continuously keep awareness of city authorities and responsible personnel about road safety issues in the city

5.2.6 Financing and Resources

- Provide continuous funding from the budget of the city, region and state
- Apply for funding from the European Union and other European funds
- Define responsibilities for specific actions, identify persons in charge

5.2.7 Time Schedule

- Create a timetable of actions in order to meet the short-term and long-term objectives

5.3 Broader Relations

These specific actions listed above were designed on the basis of results processed from other CIVITAS ARCHIMEDES tasks, primarily:

- Measure 49, task 11.5.3 Safety Audit
- Measure 40, task 4.15 Drive Safely Campaign
- Measure 49, task 11.5.4 Traffic Speed Reduction
- Measure 49, task 5.11 Traffic Speed Reduction Publicity Campaign

The Safety Audit performed in the city revealed existing safety issues on local roads, and solutions for their recovery were designed. Methodology for road safety audits suitable for the city was developed, and further inspections and safety improvements were proposed for implementation. Specific actions addressing prevention of traffic accidents were designed (please see the chapter 5.2.1).

Experience with organising road safety campaigns (tasks 4.15 and 5.11) facilitated development of measures suitable for traffic education in local conditions (please see the chapter 5.2.3).

Analysis of traffic speed reduction and the traffic speed reduction publicity campaign realised in the city helped to develop suitable methods for supervision and enforcement of compliance with traffic rules and with safe behaviour on urban roads (please see the chapters 5.2.2 and 5.2.4).

Participation of the city in the CIVITAS project revealed further possibilities for transport improvements, and specifically road safety improvements, which was incorporated into the proposal for further exploitation (please see the section 5.2.5).

Evaluation of efficiency of proposed tools for safety improvements is in progress via cost benefit analysis. These results will be in detail described in the final evaluation document of the joint measures 40&49 Road Safety Measures. Based on these results, road safety actions proposed in the Action Plan will be assigned relevant level of priority for their implementation in the city and will be submitted to city authorities for approval and further development.

6. Conclusion

Within the task, a strategic document was elaborated for the city in order to set specific actions towards road safety improvements. It will be submitted to city authorities for approval and for specification of individual requirements set by the document, such as responsibilities, assigned financial and personal resources, and final time schedule of implementation of proposed tools. It is essential to systematically fulfil objectives identified in the document.

Furthermore, update of the website dedicated to road safety issues in Ústí nad Labem was performed, based on the task results, gathered data and proposed measures for safety improvements. Information are continuously published and improved.

In the future, it will be necessary to further exploit conclusions from safety audits, which should be regularly performed in the city, and systematically eliminate identified deficits. It is also necessary to repeat evaluation of implemented safety improvements, apply preventive actions and corrections of newly identified safety issues.

The city will continue in dissemination of road safety information and will provide traffic education and promote correct and safe behaviour on roads, with special care for vulnerable road users, primarily children, pedestrians, cyclists and elderly people in the city.