

CIVITAS

Cleaner and better transport in cities

POINTER

Deliverable 1.4.1
Reports of Site Visits -
Ústí nad Labem
13-14 June 2012

Civitas POINTER:
GOPA-Cartermill (WP1 leader)

10 July 2012



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Report of site visit

Title	Site visit Ústí nad Labem (ARCHIMEDES)
Place	Ústí nad Labem (Czech Republic)
Date	13-14 June 2012
Prepared by	Walter Koehn (GC)
Purpose of meeting	Site visit
Issue date	10 July 2012
Next meeting	No further meetings planned at this stage

List of attendees (not all present throughout the site visit)

No.	Org.	Name
1	POINTER	Walter Koehn (GOPA-Cartermill)
2	ARCHIMEDES	Site Leader: Dalibor Dařílek (Head Department of Transport in Ústí nad Labem)
3	ARCHIMEDES	Measure leader and Dissemination Manager: Kateřina Oktábcová
4	ARCHIMEDES	Evaluation Manager: Jiří Landa

Agenda

Wednesday, 13 June 2012

Venue: Municipality of Ústí nad Labem, Velka Hradební 8, UNL, Czech Republic

Moderator: Kateřina Oktábcová

09:00	Introduction	Kateřina Oktábcová
09:30	Presentation of measures:	Kateřina Oktábcová
to		
19:00	M25: Short term parking scheme M26: Strategic traffic management M27: City centre access control M28: Noise reduction M39: Public transport promotion campaign M40: Drive safely campaign M49: Road safety measures M50: Mobility improvements M60: Cycle transport improvements M67: Efficient goods distribution	

Thursday, 14 June 2012

09:00	Demonstrations:	Kateřina Oktábcová
to	Traffic court for children	Dalibor Dařílek
13:00	Parking bays for supply vehicles Promotional PT vehicles Signalisation	
	Conclusions	

Introductory and general comments

Ms Katerina Oktábcová, measure leader and dissemination manager, acted as interpreter during the Day 1 introduction and coordinated or delivered most of the presentations. The actual visits on Day 2 were led by both Mr Dařílek and Ms Oktábcová. The slides used in the presentations of the measures were used in this report to complement the images and information on events that happened before the site visit. The Monitor wishes to thank them for their readiness to share project material.

There was also a supplementary presentation of the simulation software used (PTV Vision) but we have not included it in the present report due to the fact that the software itself is not part of any measure. Mr Dařílek rounded up the visit with conclusions and opening the dialogue for any further questions on the Monitor's side.

Report for each measure

Note: Pictures were partly provided by the project and are denoted with an asterisk ()*

Measure No. 25 – Short term parking scheme

General objectives:

- Develop the parking strategy in the city
- Plan the short-term parking system for the city centre and residential areas
- Improve conditions of parking in the city by e.g., establishing parking charges in the city

Status PPR3 (month 36):	Yellow
Assessment site visit (= MR):	Green

Status PPR3:

Task 11.3.3 (parking strategy research) completed

Task 3.7 (new parking scheme):

- The field survey of parking spaces and of traffic signs in the city centre was carried out, including number of parked vehicles, number of parking places, research for territorial reserves suitable for parking and analysis of the level of understanding on the paid parking system
- Analyses was conducted of how parking is regulated abroad and possible applications were proposed
- Behaviour of drivers parking in the city centre was analysed to determine their compliance with the valid legislation relevant for local parking
- Local land reserves suitable for parking premises were identified and proposed for implementation. The parking capacity was determined for both the current state and the future state according to the Master Plan of the city
- The complex solution suitable for the city centre was developed, including the proposal for scenarios to increase the number of parking places and change the parking policy in the city
- Park&Go premises were designed
- The research could not identify an optimal, low cost and realistic solution for the current parking problems in the city centre; only the negative impacts could be decreased
- Leaflets intended for residents and visitors of the city were distributed. The leaflets contained instructions for parking in the city centre, including a schematic map of parking premises and their capacity, location of ticket machines, overview of tariffs, location of ticket machines, etc.
- 'Before data' on perception of accessibility, capacity reserve and average modal split were collected and processed
- The evaluation of proposed solutions to increase the number of parking spaces is in progress
- Analysis of acceptance of implementation of the paid parking zones was conducted on the sample of local residents
- Learning history workshop for the measure was organised in M34

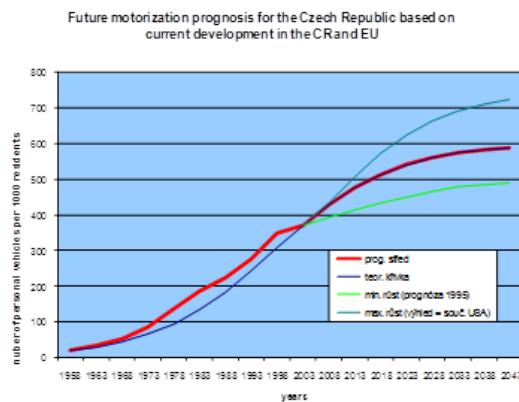
Conclusion:

More time than expected was needed for processing the results of the transport survey and the resulting proposal for a solution to parking problems in the city centre. The delay will have no effect on other tasks.

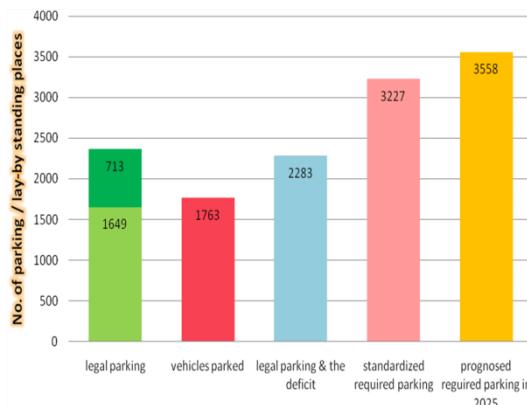
Task 3.7 will be finished in October 2011 (M38). Evaluation of ‘before data’ for measure 25 was completed according to plan

Site visit:

- As this measure entails research only, there could be no physical visit of the outcome. However, a presentation of the main findings gave a good overview of the problem issues and their possible causes.
- The baseline survey was conducted on different days of the weekdays and at different times during the period May to June 2009.
 - Data used from previous surveys in the city and from official records
 - Parking demand was calculated from the number of buildings and character of the commune multiplied by the motorisation index → see graph showing a sharply increasing trend starting in the 70’s and expected to flatten sometime as of 2020



- As the following bar chart suggests, the difference between present supply and demand is about 800 parking spaces. The situation is likely to worsen if motorisation continues and the amount of spaces stays unchanged (or decreases) → ‘pink’ minus “green” bars:



- The impact of the parking deficit is very visible, and translated into major inconveniences for drivers, residents, commerce, and transport authorities. Drivers, for example, tend to disregard road signs and park their vehicles on the driving lane; longitudinally (disregarding insufficient width of the road); inside crossroads; or illegally in residential areas.
- A significant problem arises when illegally-parked cars block the transit of larger vehicles, such as fire trucks, garbage trucks and ambulances.
- Residential areas apparently suffer as many of the buildings were conceived before the boom in motorisation and under the assumption of a relatively low percentage of cars per family. The consequence is that there is presently a significant deficit in spaces that cannot be easily coped with (at least not without the corresponding investment in infrastructure or stringent restrictions that would probably be widely unpopular). Moreover, drivers seeking a space in the city centre often end up in residential areas ...



- Proposed solutions to the parking problem include:
 - Regulation of existing legal parking spaces
 - Indication of parking lanes and parking bays on urban road
 - Visible indication of areas where parking is forbidden (road marking and signalisation)
 - Modification of selected streets to one-way roads to allow longitudinal parking on one side or on both sides.
 - Implementation of new parking places
 - Development of public garages
 - Police enforcement of traffic laws and monitoring
 - Implementation of paid parking zones



- Interesting to note that illegal parking is associated with a fine of up to € 80 (if cars need to be towed away). In general, however, drivers seem to assume that the probability of this happening to them is low and are therefore more willing to take the risk.
 - The new parking scheme (Task 3.7) entailed developing a comprehensive transport policy including:
 - Defining principles of parking management, parking policy and its effectiveness
 - Implementation of paid parking zones and establishing P&G premises on the perimeter of the city centre. Parking fees should take into account the specificities of both the city centre and the residential areas
 - The actions taken are meant to influence drivers' behaviour
 - To assess the general situation a typical residential area was surveyed (Dobětice) with following results:
 - The total number of legal parking places is 1,649, which covers only 76% of the parking demand
 - The total number of parking places available after implementing measures for parking improvements will be 2,362 (figure estimated using the transport model), which would cover the demand for parking by 108.9%
 - In such case, the overall improvement of the parking status is 32.9%
 - The calculated results would nevertheless be insufficient to match the motorisation forecasted by the Directorate of Roads and Highways of the CR (2%/year)
 - The parking reserve would be exhausted within four years
 - A more complex, long-term solution requires significant investments into collective garages and implementation of charged parking on public roads
 - Dissemination activities included information leaflets presenting the existing parking scheme (map) and parking possibilities; providing basic information about payment methods and rates. The leaflets are available to visitors, commuters and residents.
 - 6 parking spaces were created in the city centre to be used by delivery vehicles supplying local shops. The spaces were clearly marked by means of vertical and horizontal markings. Shopkeepers were instructed on the regulations and parking discs distributed to suppliers.
 - Evaluation: Data for impact assessment obtained through the transport model. Indicators used were:
 - capacity reserve (obtained from traffic survey, number of spaces according to valid legislation, and demand for parking;

- the perception of accessibility (expert estimation based on a subjective estimation of demand for parking);
- modal split (constant in residential area, whereas in the centre it was determined using the transport model and input from experts).

Note that the model does not enable calculation of pedestrian flows

- In conclusion,
 - numerous existing parking methods exist but only a few are suitable for the situation in Ústí nad Labem
 - any new parking strategy would have to compromise between the parking scheme, city traffic, public transportation and public opinion
 - any solution would have to be conveyed to the public through an intensive information campaign and requires the cooperation with the Police of the Czech Republic and the Municipal Police (control)
 - It is not possible to cover the present and future parking demand entirely, but the parking deficit can be at least minimised.

Measure No. 26 – Strategic traffic management

General objectives:

- Develop the strategic traffic management strategy for the city;
- Restrict traffic in the city to ensure only necessary trips through the centre;
- Propose solutions for improvements of the traffic flow and reduction of the environmental impact of traffic;
- Effective management of traffic at intersections;
- Establish a traffic control centre

Status PPR3 (month 36):	Yellow
Assessment site visit:	Green

Status PPR3:

Task 11.3.4: The task was completed in M34. The work included:

- Analysis of parameters of local road infrastructure;
- Analysis of the existing system of traffic management in the city in terms of: organization of traffic on local roads; traffic information and data processing and providing; management of parking; management of public transport, freight transport and emergency vehicles; monitoring system; payment system; maintenance and operation of transport infrastructure in the city;
- Analysis of crossroads and traffic light system;
- Analysis of traffic safety;
- Analysis of interconnection of individual systems and data transfer;

Task 3.8: The task was finished in M35. It was based on results of task 11.3.4. The work included:

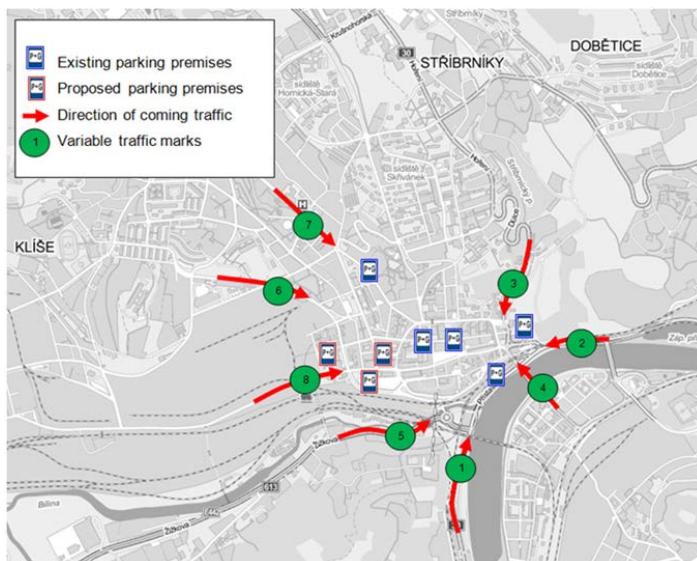
- Development of scenarios for Intelligent Telematic Systems (ITS) based on findings and shortcomings identified in task 11.3.4
- Proposal for individual subsystems for traffic management in the city
- Overall schemes proposed for the integrated ITS system
- Optimised interconnection of individual subsystems with the emphasis on the integration and data sharing in real time
- Proposed scenarios for traffic management in the city for standard operation and for emergency situations
- Evaluation of 'before data' was processed for traffic flow by vehicle type, average vehicle speed and average time in peak and off-peak periods
- Learning history workshop for the measure was organised in M34.

Site visit:

- In Task 11.3.4, there were essentially 2 main activities:
 - The analysis of the current management scheme for individual functional areas (management and organization of road safety; traffic information and data transfer; parking; PT; freight transport; transport surveillance systems; payments system; and the management and maintenance of transport infrastructure)
 - Identification of issues, needs and requirements
- Task 3.8 entailed a proposal for the architecture of the ITS system and suitable traffic management scheme. Specifically, to manage traffic via variable traffic marks and traffic light signals and in emergencies; information and data transfer; parking navigation; goods transport and freight vehicles; traffic surveillance systems; payment system within the transport system; and maintenance of transport infrastructure



- The proposal for the ITS includes:
- Development of the traffic light system (detectors enabling priority of way for PT, interacting with the current traffic flow, and the possibility to take into account exceptional traffic situations such as higher intensity before a football match)
- Improving the information system (e.g., through electronic notice boards)
- Proposal of a central traffic control station with integrated telematics and traffic regulations



The green dots (variable traffic marks) represent guidance for e.g., parking

- The new traffic management scheme would enable integration of all the existing subsystems and continuous real-time sharing of information. It can be considered a “desirable” solution for stakeholders in traffic
- The scheme will be especially beneficial during emergency situations; e.g. in conditions of extreme weather conditions (floods, ice and snow)

- For Evaluation, the selected indicators include traffic flows and average speed in peak and off-peak times; average and total fuel consumption according to vehicle types; emissions (CO, NO_x, CO₂, particulate). Most of these figures will be obtained from the transport model (except for CO₂ and particulate emissions)

Measure No. 27 – City centre access control

General objectives:

- Propose solutions for reduction of traffic volume, mainly in the city centre
- Find improvements for public areas by traffic calming measures
- Increase attractiveness of the city centre for pedestrians, cyclists and disabled people
- Ensure preference of public transport and decrease of individual transport usage

Status PPR3 (month 36):	Green
Assessment site visit:	Green

Status PPR3:

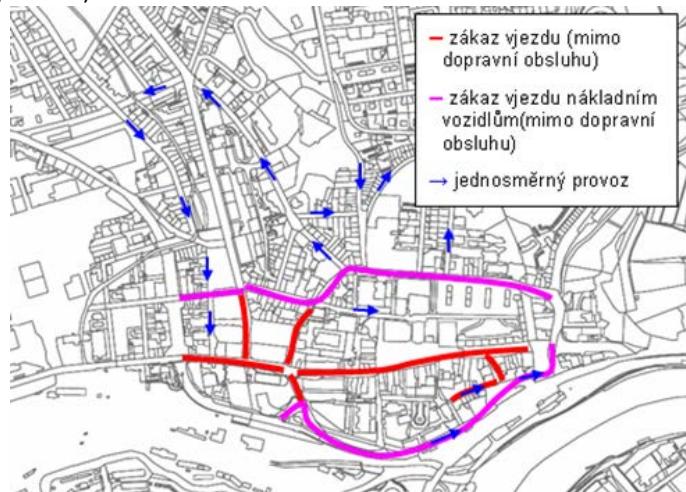
- Task 11.3.5 was finished in M22
- Evaluation of 'before' and 'after' data for traffic flow and modal split by vehicles, passengers and trips was calculated
- Learning history workshop for the measure was organised in M34

Site visit:

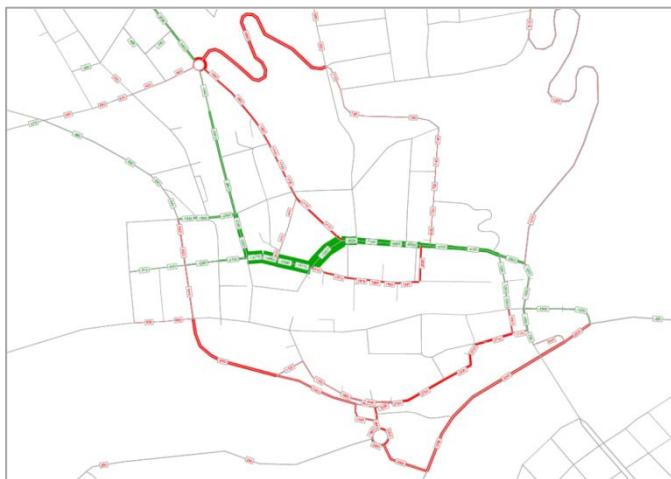
- As already explained in measure 25, the city centre – at least in certain main intersections and roads - presents a serious traffic problem that has been difficult to address. Access control is one of the possible tools to approach the problem
- Access restrictions would exclude transit traffic by implementing bypasses; restrict the entrance of vehicles into the city centre only to the necessary trips; find effective parking system; and implement a PT priority system
- To be specific, access restrictions could entail:
 - Zones with no traffic (except transport services, residents and PT), without freight vehicles, or zones restricted to vehicles with low emissions. One initiative is closing the major road in the city centre for all traffic (Pařížská street)
 - Optimisation of traffic light control system that could give priority to PT vehicles
 - Implementation of collective garages for Park & Go system around the city centre circuit
 - Establishing a pricing policy applicable to vehicles entering the city (e.g., parking zones in which prices would progressively increase from the outside areas to the city centre)
 - Calm zones (reduced-speed in which speed limit would be 30 km/h to improve safety of vulnerable users in the city centre)



Traffic board



City centre map displaying the routes with restricted access



*Improvement of traffic flows after restrictions.
Green line represents lower intensity; red line, high intensity*

Evaluation: → see table below

- The 'before data' corresponding to indicators of traffic levels and modal split were gathered from the on-site traffic census performed in the city by the Department of Transport, Ústí nad Labem Municipality in 2005 and 2010.

No.	Target	Rating
21 - Traffic flow peak	-15 %	***
22 - Traffic flow off peak	-15 %	***
27 - Average modal split - passengers	5 %	***
26 - Average modal split - vehicles	5 %	*
29 - Average modal split - trip	5 %	○
NA = Not Assessed O = Not Achieved * = Substantially achieved (at least 50%)		
** = Achieved in full *** = Exceeded		

- Data about traffic development were taken from the database of the Road and Motorway Directorate, Prague Technical Administration of Communications and the Statistical Office of the Czech Republic.
- Data about parking places were collected by direct observation and survey realised in the city centre within the measure 25 Short Term Parking Scheme.
- 'After' data for the modal scenario calculated through the transport model (access for transport services, TEMPO 30, P&G)

Measure No. 28 – Noise reduction

General objectives:

- Develop the noise map to identify problematic areas
- Reduce the proportion of residential areas exposed to noise
- Propose scenarios to reduce the noise level for day and night
- Target is reducing the traffic noise levels above 65 dB especially in residential areas such that a higher proportion of residences falls outside the critical >65 dB level

Status PPR3 (month 36):	Green
Assessment site visit:	Green

Status PPR3:

- Task finished in M19
- Evaluation including the CBA is in progress
- Calculation of 'before data' of noise perception, noise levels and freight vehicles moving in the evaluated area is completed
- Calculation of 'after data' for the proposed scenarios and their comparison with the Business-as-Usual is in progress
- Learning history workshop for the measure was organised in M28

Site visit:

- In order to achieve the objectives, the measure entailed developing a noise map of the city on the basis of noise generated by the current and predicted traffic. Roads with the highest level of noise were identified; and measures proposed to reduce traffic noise and reduce impact of noise for the most affected areas. The effectiveness of individual noise reducing scenarios was assessed
- The calculation of noise emissions was based on the hourly traffic volumes; type of roads; the proportion of freight vehicles using the road; the type of road surface; the speed of traffic flow; and the longitudinal gradient of the road
- Output was a noise map for the current state and forecast for the year 2025 (day and night)
- For the purpose of the study, 2 types of roads were identified: Motorways and local roads
 - Motorways proved to be the strongest source of noise. For these roads, noise can be isolated from residents (distance and preventive solutions)
 - The study suggests that for local roads leading directly through the residential areas and by main points of interest (offices, businesses, institutions, shopping centres, industrial zones etc.), the local traffic volume is difficult to reduce.
 - There seems to be more potential in reducing the noise levels by reducing the transit traffic through the city as well as the freight traffic
- The solution scenarios can be divided in 4 groups: do-nothing; bypasses at one or more critical locations; speed reduction; and freight traffic restrictions (exclusion)
- The construction of the complex of city bypasses proved to be the most effective solution in a long term (CBA up to the year 2042). This solution, however, has faced strong political resistance which has led to instructions to remove the bypasses from the options (until further notice) and refraining from giving any advice supporting the bypasses.
- The results further show that:
 - even a small reduction by 3 dB requires a significant decrease of the traffic intensity (about 50 %), which would be difficult to achieve in urban environment
 - Speed reduction is a suitable low-cost measure, although it is feasible only for free-flowing traffic without frequent or permanent congestion, where driving speed exceeds 30 km/h for passenger vehicles or 50 km/h for freight vehicles. At lower speeds noise of engines is predominant over the noise of tyres. Aerodynamic noise continuously increases with speed. The recommended measure therefore is speed reduction on roads near buildings, especially where freight vehicles move at higher speed than 50km/h
 - in this sense it would be more effective to synchronise traffic lights to maximise the throughput of vehicles, thereby increasing their average speed (and lowering noise at the same time)
 - excluding freight vehicles is effective, but not feasible in the short term
 - it would be appropriate to support the measures by suitable demand management strategies for individual transport aimed at reducing number of vehicles (parking restrictions, paid entrance, etc.)
- Other solutions for noise reduction:
 - Greenery, noise walls and changes to the construction technology of roads (e.g. better surface materials)
 - Traffic calming (speed bumps, narrow roads) and partial coverings (tunnels)
 - Increase as much as possible the legal distance between buildings and roads or natural terrain or artificial barriers. This would be benefit most critical areas with a high population density

- Renew vehicle fleet changing to low-noise alternatives
- Noise protection for buildings, including better insulation and noise resistant windows

Measure No. 39 – Public transport promotion campaign

General objectives:

- Understanding public opinion on the city public transport
- Developing a campaign promoting the most effective use of public transport
- Reducing the number of personal vehicles in the city, especially when used by a single person
- Supporting the use of collective transport modes
- Increasing awareness on PT services in the city for residents and visitors of the city
- Learning history workshop for the measure was organised in M34

Status PPR3 (month 36):	Yellow
Assessment site visit:	Green

Status PPR3:

Task 11.4.5 was finished in M19

- Answers for the public opinion survey on the city PT were processed
- Results were processed for development of the optimal PT promotion campaign in the city

Task 4.14:

- Design and implementation of the PT promotion campaign, based on the data from task 11.4.5, public survey, and the experience abroad
- The campaign promoting PT in the city was designed and implemented, including a public event on the square in the city centre, competitions for citizens, exhibition of the history of PT in the city, distribution of promoting materials for both residents and visitors. The campaign is in progress
- Learning history workshop for the measure was organised in M34
- Task 4.14 is delayed and will be completed in M39. Launch of the campaign was postponed to fit in the Mobility week and to start after the summer holidays, to reach as many residents as possible. The campaign is still in progress and new activities are being developed to increase its impact. The public campaign will be completed in M39. The delay will have no effect on other measures and evaluation of campaign effects is progressing

Site visit:

- The need for understanding the needs for PT stems from the combination of 2 trends; namely the increasing motorisation and the shift from PT to private vehicles. In terms of vehicle-kilometres per day, PT constitutes only a small fraction of the total 22.629 against 326.011, or less than 7%.
- Two surveys were conducted to explore the use of PT and the public opinion on the services provided:
 - The survey on PT usage and coverage explored aspects such as transport volumes, directional relations and PT transfer links. It also strived to identify specific problems and analyse the recommendations for improvements received by the operator (e.g., missing information, missing equipment at stations, poorly marked stations, neglected maintenance, advertisements covering view from windows, etc.)
 - The survey on the public opinion regarding provided services was conducted on PT vehicles and in the stations. Topics included payment methods, service coverage, cleanliness, attractiveness, safety, accessibility, modal split, and how information was communicated
- On the basis of the findings a promotion campaign was launched (Task 4.14). As reported, there were public events, workshops with students and seniors, exhibitions (history and development of PT in the city), competitions (promotional video, history of PT), training activities (training bus for children, education materials for traffic court), promotion in local media, and equipping PT vehicles with free WIFI for promotion purposes (hardware provided by the Municipality).



- The information brochures presented general information on PT in the city; but also gave useful data on touristic lines, night lines, and on the specifics of PT in the city centre
- Other material to promote public transport included leaflets, school time-tables, colouring books and other graphical products



Brochure with information on PT in the centre



Brochure addressed to tourists

- Besides the campaign and promotion activities other tangible results included:
 - The majority of PT connections in the city was optimised
 - The positive efforts of the PT company were Identified and promoted
 - Pavement kerbs were shaped to reach boarding edge of a PT vehicle (to enable smooth access)
 - Information is better communicated in vehicles, at selling points, and in stations
 - Equipment is gradually improved
- Evaluation:
 - Altogether the impression is that the public image on PT has improved as results of the actions taken and might help in stopping or reversing the trend of users shifting to other forms of transport
 - Measurements for the ‘before-data’ of the evaluation indicators were gathered during the period 2009 – 2010 and for the ‘after-data’ subsequent to the implementation of the campaign in 2012
 - Questionnaires were distributed to residents and were also available at public offices, on the city website and in local newspaper
 - The results show only marginal increases in both the awareness level and the acceptance level (from 46% to 49%, and from 50% to 51%, respectively. Despite the small change it is a positive change that should be further monitored in the future.
- Notes:
 - The DoW includes under the awareness indicator the “improved quality of buses”. This was not explicitly analysed although the information regarding quality of buses could be inferred from the users’ recommendation and is therefore not seen as a significant shortcoming in this measure
 - As discussed during the site visit, the use of PT is perceived as being in function of the stage in each individual’s life (teenagers have different needs than e.g., families with 3 small children). Further research could try to determine on how to best service and communicate on this basis

- The city does not yet foresee standardising the payment system across all forms of PT, but apparently there is a strong recommendation to proceed towards this goal
- Although buses seem to be the most cost-efficient means of PT (above trolley buses), the latter have been increasing in importance and volume; a trend which for political reasons is difficult to stop.
- The pending deliverable T39.1 has apparently already been uploaded on 28 Mar 2012 by Alan Lewis to the project's SharePoint

Measure No. 40 – Drive safely campaign

General objectives:

- Improve the road safety record
- Ensure safer environment for pedestrians and cyclists
- Reduce the amount of casualties caused by road accidents
- Increase obedience of road traffic rules in the city, mainly the speed limit

Status PPR3 (month 36):	Yellow
Assessment site visit:	Green

Status PPR3:

- An analysis was performed of both foreign and domestic campaigns concerning transport safety with a view to explore suitability for the public campaign in Ústí nad Labem
- Data from traffic in the city focused on traffic accidents and was processed for the campaign in cooperation with the Municipal Police
- Leaflets and brochures promoting safe traffic behaviour were designed to cover specific safety issues, such as speed limit, alcohol, pedestrians on zebra crossings, cyclists and children in the streets. The materials are being distributed
- Preparation of awareness-raising activities for the local university, high schools and seniors
- Learning history workshop for the measure was organised in M28
- Public campaign for safe driving in the city and safe traffic behaviour

Conclusion:

Task 4.15 is delayed. Launch of the campaign was postponed to fit in the Mobility week and to start after summer holidays, to reach as many residents as possible. The campaign is still in progress and new activities are being developed to increase its impact. The public campaign will be completed in M39. The delay will have no effect on other measures and evaluation of campaign effects is progressing

Site visit:

- The primary objective of the 'Drive-Safely' campaign was to raise awareness about causes and consequences of traffic accidents. The campaign include among other activities:
 - Public events (safe trips to schools, half-marathon)
 - Traffic training (equipment and training materials for local traffic court for children)
 - Workshops with students and seniors
 - Educational materials
 - Promotion in local media (newspaper, local TV, radio, web)
 - International conference on Safe Transport Infrastructure



- Traffic education for children entailed a knowledge tests with 23 questions on basic traffic rules. Children that failed in the test were asked to participate in the traffic court education. After successful completion of the practices in the traffic court children were awarded with CIVITAS presents. So far (June 2012), about 939 children from 30 schools and 1 children's camp participated in the testing, with almost 75% of the children performing as 'excellent' (36%) or 'good' (37%) at the first attempt (about 6% were assessed as having 'poor knowledge'. All children were successful in the end
- Information brochures about road safety addressed different targets; e.g., pedestrians, drivers, cyclists and PT users. → see pictures below



Examples of information brochures about road safety addressed to different targets

- Overall results show that
 - 'safe driving' and road safety in general can be taught to children through in-class preparation accompanied by practice (e.g., at the traffic court)
 - It is a good decision to start with 4th grade children as it is the age as of which they could start using a bike and having to be more conscious about safety on the streets
 - The actions taken are well received by city residents
 - The momentum gained should not be lost, for which it is recommended that the actions should be repeated periodically, also to stimulate more careful driving, and ensure a longer-term impact on safety
- Evaluation indicators included:
 - This measure is evaluated jointly with measure 49 (Road Safety Measures)
 - Awareness level (obtained from public questionnaires)
 - Acceptance level
 - Traffic rules violation level (data from speed controls by Municipal Police over the last 3 years)
 - Injuries and death caused by traffic accidents (data from road accident databases at the Police of the Czech Republic, 2009 – 2011)
- Note: Deliverable T40.1 (due by 31 Jan 2012) is supposed to have been submitted on 15 Mar 2012.

Measure No. 49 – Improved Traveller Information in Mo Road safety measures

General objectives:

- Reduction of the number of deaths and injuries caused by traffic accidents by 40-50 % by 2012
- Reduction of the traffic speed and the amount of accidents in the city
- Improvement of road safety in the city
- In the long-term, the city aims to increase the safety level on local roads, encourage walking and cycling in the city and improve the urban space

Status PPR3 (month 36):	Yellow
Assessment site visit:	Green

Status PPR3:

Task 11.5.3 (safety audit) was completed in M22

- Data were processed for the task 5.10 and for the Action Plan for Safety Improvements in the city

Task 11.5.4 (traffic speed reduction) was completed in M29

- Overview of individual calm zones, their characteristics including organization of transport and defined benefits and costs and specification of suitability for Ústí nad Labem was conducted
- TEMPO 30 zones were analysed and assessed for implementation in residential areas
- Analysis of suitable traffic calming tools for the city centre. Solutions for speed reduction in the city were recommended
- Before data for traffic violations, number of accidents and injuries and safety shortcomings are being processed

Task 5.10 (road safety audit and actions) is based on findings of the task 11.5.3 and is developing actions for improving safety on local roads

- Operation of the Web portal on road safety with the results of the road safety audit and other CIVITAS tasks
- Cooperation with transport experts to discuss solutions for accidents and safety risks
- Suitable physical and psychological mitigating are proposed, their effectiveness is assessed

Task 5.11 (Traffic Speed Reduction Publicity Campaign) was completed in M33

- Analysis of both foreign and domestic campaigns with the aim to improve road safety in a city were processed to design optimal campaign for Ústí nad Labem
- Results of the task 11.5.3 were processed for the campaign
- 3 days public event was implemented in the city centre
- Cooperation with the Police of the Czech Republic, BESIP (Ministry of Transport), Fire Brigade, Municipal Police and Paramedics
- Reports from road accidents were presented to the public, including pictures, videos, PowerPoint presentations, safety warnings advice on safe driving and educational leaflets
- Traffic accidents were simulated by crash-test vehicles, proper retaining systems were presented to the public
- A mobile traffic court was equipped for the Municipal Police and utilised for the public campaign - children practise traffic signs and correct traffic behaviour

Conclusion:

Task 5.10 is delayed. New activities for road safety improvements are being developed to increase effectiveness of the task. The delay will have no effect on other measures. Evaluation of the measures is progressing according to the plan.

Site visit:

- Further to the completion of tasks 11.5.3 (Safety Audit), 11.5.4 (Traffic Speed Reduction) and 5.11 (Traffic Speed Reduction Publicity Campaign), the project reports completion of Task 5.10 (Road Safety Audit & Actions) in month 44
- The Safety audit encompassed the following tasks:

- Research of local road accidents (Study of data from the records of CR Police; on spot inspections of individual localities by traffic experts; proposal for improvements; and plan for the implementation (priorities))
- Traffic measurements (monitoring by Municipal Police, traffic light signalization, and stationary radars)
- Analysing road safety conditions around school and preschool facilities: Directors of local schools and preschool facilities were contacted to discuss about safety. Topics addressed included the identification of potential safety hazards, possible improvement, areas with highest concentration of children near roads.
- Traffic experts performed safety inspections of the facilities and surrounding areas
- Assessment of results, proposal of solutions
- Plan for traffic training for children
- The traffic inspection made use of the so-called 'floating vehicle', which collected data (while in motion) from all the major roads in the city and assisted in confirming the safety threats or identifying new risks. Data meant to be analysed at a future time. The location of the vehicle was facilitated by GPS software



Interior of the floating vehicle



Images of risk areas

- Regarding the traffic speed reduction:
 - Drivers seem to ignore speed limits on a massive scale
 - A feasibility study was prepared for implementing calm zones in the city (comparison of residential, pedestrian and Tempo 30 zones). Speed reduction measures seem to be more suitable for residential areas; whereas pedestrian zones are more appropriate for the centre of town
 - Calm zones could be achieved through a combination of traffic signs, construction requirements, and related valid legislation in individual localities (42 suitable locations were identified)
- The traffic speed reduction publicity campaign was based on an analysis of best practice from similar campaigns realised in European cities
 - Specific actions included acquiring a mobile traffic court for children; organising public events promoting speed reduction and improved road safety; and implementing a web portal dedicated to road safety issues in the city
 - A 3 day event was organised from 26 to 28 May 2011 in front of the largest shopping complex in the city centre. It focused on issues such as speed reduction, safe driving, and the prevention of traffic accidents



- Presented tools to make drivers slow down included police vehicles and motorcycles, radars for speed measurements and rescue vehicles



- Rescue simulations included the evacuation of traffic accident victims, first aid practice, and the operations of rescue teams



- Examples of event support: cross country ski race across the city centre and cheerleaders promoted through the city web site, social networks, billboards, posters, leaflets, and local media

- On Day 2 we visited the 'Mobile Traffic Court' (already mentioned above), which was financed by CIVITAS for the Municipal Police. The location was a former palace which is now converted to offices and has a large enclosed park where children have the opportunity to receive instruction on safety, practice cycling in simulated traffic conditions, riding on scooters, taking the practice bus, etc.
 - As the name suggests, the Court is mobile and can be transported to other locations as required.



- Other 'exercises' included the understanding of traffic lights, pedestrian traffic cones, safety stop disks, zebra crossing, etc.



- 441 mainly 4th grade pupils have participated so far in the courses and practice sessions Successful children received a „Cycling License“ and CIVITAS presents; whereas children with low score would have to repeat the training

Points	Scale	No. of children	Percentage
29 - 37	Excellent!	162	36,7 %
26 - 28	Good!	119	27,0 %
21 - 25	You should practise more!	122	27,7 %
0 - 20	Let's train again!	38	8,6 %



- In Task 5.10 (road safety audit and actions) actions were developed for setting goals (suitable for local conditions) and improving safety on local roads. Specific actions were recommended, such as prevention; enforcement; traffic education; supervision; and international and domestic cooperation
- Resulting actions allowed for the formulation of priorities and goals, recommendation of tools, financing, responsibilities, timetable, prevention, and education
- In the website application on road safety in the city, advice and recommendations can be found on topics such as safe behaviour of drivers, pedestrians and cyclists; and an interactive map with dangerous locations and safety warnings. Link: www.bezpecnepousti.cz;
- Priority measures – Cost Benefit Analysis calculated (operating and capital cost)
- Indicators: awareness level (from public questionnaires), acceptance level, traffic rules violation level, injuries and death caused by traffic accidents
- Inspected road sections: drive-through safety inspections of main urban roads; identified black-spots – total number of identified critical locations (12); identified shortcomings – total number of identified risks (229)

- In the cost-benefit analysis the implementation of road safety improvements in 10 sample localities on major roads resulted in a Net Present Value of € 5.817.472. The analysis took into account costs (capital, operating and maintenance, and residual value) and benefits (reduction in the road accident rate and the implications on life and property) and used a planning horizon of 15 years.
 The statistic of 70 cyclists killed per year in the Czech Republic and other accident / fatalities data should be introduced in the analysis
- We note that the maximum alcohol level while driving is 0%, but enforcement is not widespread
- Deliverable T49.1 (due 31/01/2012) was submitted 17/05/2012

Measure No. 50 – Mobility improvements

General objectives:

- Improve accessibility of sustainable transport modes and services in the city to all
- Enhance public awareness about local transport
- Ensure better access to the transport information in the city

Status PPR3 (month 36):	Green
Assessment site visit:	Green

Status PPR3:

- Task was finished in M32
- Data from the field survey of local barrier-free routes and accessibility of all the major destinations, offices and facilities in the city centre were processed for the web application
- Web portal on access routes for residents with mobility restrictions were implemented, containing interactive maps with corresponding videos, pictures and detailed descriptions of individual sections in terms of quality of surface, narrow sections, traffic warnings and safety warnings for disabled citizens
- The campaign promoting accessibility of PT services in the city was implemented. Leaflets promoting accessibility of local transport and services were distributed
- Results from the mobility survey were processed to assess awareness level and acceptance level before and after the implementation
- Learning history workshop for the measure was organised in M34

Site visit:

- The identification of needs for mobility improvements (Task 5.12) was in part achieved through an ingenious system using a camera attached to the steering wheel of an electric step (scooter). The same height to the eye level of a wheelchair-bound person allowed the recording and analysis of the environment from their own perspective.



- The website application was provided free of charge to facilitate receiving feedback and expediting fine-tuning. It is aimed at disabled people and other vulnerable users such as elderly people, mothers with strollers, etc

- Access routes from start (PT station or parking lot) to destination (currently only offices, social services and medical facilities) are made available in printed form. A downloadable mobile phone application is being developed



- The web application offers useful information and pictures of; e.g., possible barriers on the route (edges, bumps, stairs, ramps, etc.); sections with poor visibility; videos of each route (showing the position on the interactive map, terrain height measurements, etc.); and detailed information on points of interest. Colours indicate level of accessibility: red representing a barrier /proposed for removal) and green free passage
- In addition to the above, the measure has achieved that that most of the access routes in the city centre are already barrier free; and that any shortcomings identified during the field survey were submitted to the relevant authorities (City Municipality, City District authorities, Directorate of Roads and Highways of the CR and Regional Authority of the Ústí region) for further evaluation and action
- As presented in the site visit, however, improving the quality of pedestrian routes and conditions for development of non-motorised transport and PT services has to remain a priority. The actions taken are furthermore leaving out visually impaired people – a challenge for the future. The same goes for tourists, as the website is only available in local language.
- The overall evaluation of the measure is based on a survey performed among city residents in 2009 and after the website implementation in 2011. Indicators were the awareness and acceptance levels; and the perception of accessibility. Final evaluation is in progress

Measure No. 60 – Cycle transport improvements

General objectives:

- Develop a cycle route network connecting individual areas of the city
- Provide information about cycle transport in the city on a web site

Status PPR3 (month 36):	Green
Assessment site visit:	Green

Status PPR3:

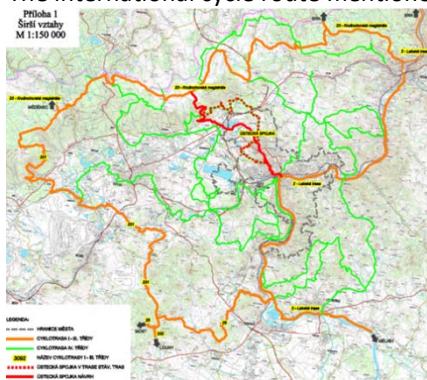
Task 11.6.3 was completed in M27.

- Feasibility study of linking the major existing cycle routes in the Ústí region was elaborated in 2 variants including construction requirements, assessment of the impact on the regional cycle transport development, description of individual phases of its implementation, financial assessment, project schedule and landscape planning
- The feasibility study was published on the city web site and was integrated into the Cycle web portal. Task 6.10 was completed in M29.
- Data from the field survey were processed into the interactive map database including videos, photos and detailed descriptions about local cycle routes, points of interest, cycling facilities and other issues for cyclists in the area.
- Coding of web sources, implementation of the graphical interface, editing of maps and debugging of the website features was conducted for the Cycle web portal

- Public testing in the form of a trial version was provided online, feedback was processed and the web portal is continuously being improved and updated with cycle related information
- Results from the mobility survey were processed and utilised
- Promotion of the Cycle web portal was realised via local media and the city web site
- Action planned for cycle transport improvements and results of the BYPAD audit were described on the web portal
- Public survey was conducted to assess awareness level, acceptance level and perception of accessibility before and after implementation of the measure. Data are compared and evaluation is in progress
- Learning history workshop for the measure was organised in M34

Site visit:

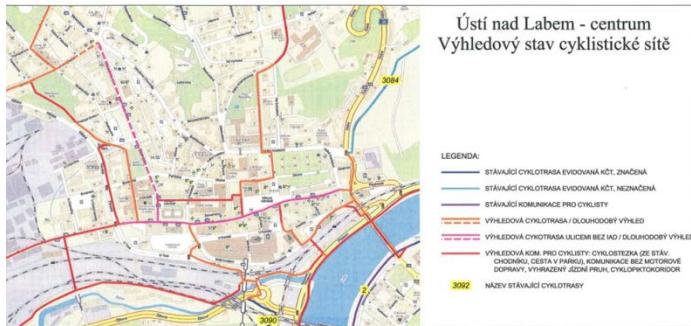
- The factual challenge concerning the use of bicycles is the topography (essentially a river basin surrounded by hills). Partly for this reason the cycling infrastructure is relatively poor and leads through roads with heavy motor traffic; and not in all cases having dedicated lanes or priority rules for cyclists. An exception constitutes the cycle route along the Elbe river
- Task 11.6.3 was completed in month 27. It included a feasibility study to connect the two international cycle routes by a new cycle route leading through the city
- A web portal for cyclists in the Ústí nad Labem was launched. See <http://cyklomapa.usti-nl.cds.cz>
- The international cycle route mentioned in the TOR was proposed – see red line in map below



- The Action Plan towards improving the cycling infrastructure was incorporated into the SUTP for Ústí nad Labem.
- Training of school children in safe cycling and traffic rules in progress. During the site visit we visited the Court (see above) and witnessed children being instructed and tested in a simulated traffic environment where they were interacting with vehicle and pedestrian traffic



- The proposed integrated cycling infrastructure connects the loose ends of the current cycle network; including the cycle routes on both sides of the river Labe; the routes leading to neighbouring regions; the routes between the towns around Ústí nad Labem with the city centre; and the tourist destinations



- The trial version of the city's cycling web portal was implemented. It includes information about cycling possibilities in the area, services, interesting destinations etc. – see:
<http://cyklomapa.usti-nl.cdsweb.cz>
- As with the website for impaired people, cyclists can with this application use an interactive map to explore all cycle routes and obtain information on safety issues; relevant videos (very good!) and pictures; as well as technical support and other services for cyclists. Users can in this way observe beforehand the route in both directions with indication of characteristics such as critical parts, uphill, downhill, road surface, descriptions, etc.



- Tasks to be completed include the implementation of: the Action Plan for cycle transport improvements of the SUTP; the solution proposed within the feasibility study connecting the international cycle routes in the territory (nothing built so far); the recommendations of the BYPAD to improve cycling policy in the city; and continuously update and improve the web portal for cyclists.
- There is no plan (yet) to make the interactive tool available on mobile phones, which would be useful as it could then be used while on the road.

Measure No. 67 – Efficient goods distribution

General objectives:

- Identify problematic areas in the city polluted by noise caused dominantly by freight transport
- Propose reducing solutions for noise pollution caused by freight transport in the city based on the results from the task 11.3.6 – Noise reduction.

Status PPR3 (month 36):	Yellow
Assessment site visit:	Yellow

Status PPR3:

- Results of the task 11.3.6 (Noise Reduction) were processed to develop noise reducing scenarios for the city based on the noise map and the traffic model PTV Vision simulating traffic load
- Scenarios regulating freight traffic in the city to decrease noise emissions and their assessment via traffic model is in progress, including the regulation of access for freight vehicles; regulation of sources

and destinations for freight transport; reduction of transit traffic; proposal for centralised distribution source; and regulation of access to the city by emission levels

- Before data were calculated on noise perception, noise levels and number of freight vehicles
- CBA and assessment of the effectiveness of proposed scenarios is in progress
- Learning history workshop was realised in M28

Conclusion:

Complexity of the problem and political and public disapproval with the proposed bypasses caused delays in the development of suitable solutions for traffic noise reduction. As reported, the delay won't affect the other tasks. Evaluation of the measures 28 and 67 is in progress, including the CBA. First evaluation results were delivered in M37.

Site visit:

- The location of the city centre (close to a railway junction, on the Elbe river, with the possibility to be directly connected to the D8 motorway between Prague with Dresden), and hosting a large number of businesses and industry on a relatively small area, has attracted significant heavy vehicle traffic with the associated high noise levels and other pollution
- The actions taken within this measure are partly based on the noise map developed in measure 28 (see above) and entail the identification of suitable (optimised) planning and traffic management solutions to address the demand for the distribution of goods
- Within the present economic and social reality of the city, however, measures such as prohibiting the entrance to all freight vehicles into the city centre or other significant limitations to the transit of freight vehicles is not politically feasible or recommended
- Freight traffic (noise) reduction could ask for e.g., charging for entry; limiting or prohibiting heavy freight vehicles in particular areas; establishing ecological zones; implementing noise barriers, insulation, tunnels, or using special materials; speed reduction tools; etc
- A major contribution would be achieved with the completion of the D8 highway for transit traffic; in this way preventing that vehicles travelling between Prague and Dresden have to unnecessarily ride through the city centre. The economic crisis, groups of environmentalists, and apparently also the intensive lobbying from the Deutsche Bahn, are hindering such major infrastructure works. Should there be comparable train and road options for freight transport, prices would likely drop for both; an outcome the DB would apparently wish to avoid or at least delay.
- Bypasses (in absence of the D8 works) alone would not fully alleviate the traffic problems in the city centre, because of freight delivered into the city centre
- Goods distribution centres are yet another possibility, but negligence and competition between local businesses is standing in the way of effective implementation. Retailers have sufficient choice for suppliers and do not wish to cooperate with each other
- The use of waterways for freight transport is at this stage not feasible in view of unstable (too shallow) water levels (the necessary dams and infrastructure have not been built).