CIVITAS PLUS - RENAISSANCE

Testing Innovative Strategies for Clean Urban Transport for Historic European Cities

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SKOPJE

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CITY OF SKOPJE

- Capital city, consists 10 administrative municipalities and the Skopje City Government with equal authorities, except for traffic matters
- 24 kilometers long, with urban building territory spread on 7,000 hectares
- City road traffic network - 211 kilometers of primary and secondary streets
- 506,926 inhabitants in 2005
- 202 Passenger cars/1000 inhabitants
- Fast development after the earthquake in 1963
- 90 traffic lights equipped intersections within the urban traffic network
- Until 2007 only 49% of the total traffic network foreseen with the Space Plan of City is being completed

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CITY OF SKOPJE

➢ The city’s transportation model is established for the actual Space Plan needs, according the 1998 traffic survey. *No traffic survey data has been made since then.*

➢ The current travel modal split is directed in opposite from the goals to achieve sustainable urban transport development. The results of this are: traffic congestion and loss of time, lack of parking spaces, high level of pollution and noise from the transport, high energy consumption.

➢ Public transport is organized and controlled by the City administration and it includes one public and two private companies (with rate split of 75/25 % of all bus lines).
Main problem that appears is the quality of transport services: very old bus fleet (public company with average of 17 years and private companies with average of 27 years old vehicles), small exploitation velocity (under 18 km/h) and mutual competition. The number of passengers decreased from 150M passengers per year in 1989 to only 45M passengers per year in 2007. The exact numbers of passengers from private companies are not available because they still use the old way of ticket paying inside the vehicles.

Considering these problems it was decided to incorporate the alternative mode of transport of passengers - light railway.

Several international workshops (TRANSPOWER) has been organized, experts have been engaged
Development of the city
- Location / size
  - northern part of the country
- Growth of the city
  - permanent from its beginnings
- Growth of the city’s economy
  - periodical during centuries
  - permanent after II World War
- Population characteristics
  - permanent mixed population
- Historical importance of the city
  - on the crossroads from East to the West
The development of the transport problem

- How the city’s traffic network has been developed
- The emergence of transport and environment/energy problems
- The transport impacts on the historic city – the biggest one after the 1963 earthquake and the afterwards general rebuilding of the city’s central zone and its traffic network
How the planners have responded to these problems in the past (city development plans, cultural heritage plans, transport plans, etc)
- 1912-13 - the first Master Urban Plan
- Regular Master Plans from 1964-65

What have been the important political factors?
- Skopje City Council has been and is responsible for spatial development of the city and bringing out Master Space Plans
Summary of the CIVITAS “baseline” transport problems in SKOPJE:

**BASIC PROBLEM:** Unsustainable transport system:

- High and increasing percentage of trips by PA, low and decreasing number of trips by environmentally friendly modes (PT, bicycle)
- Traffic congestion and loss of time
- High level of pollution from motor vehicles
- Low attractiveness of public transport (old vehicle fleet, low reliability of service)

**CONSEQUENCES:** Transport is currently a significant factor of the city’s low quality of life and the city’s unused potential to promote its historic and tourist potential
The CIVITAS vision for SKOPJE – measures that can help to make a turn

MEASURE 4.5: Plan for sustainable urban transport (WP Influencing travel behavior)

Objectives:
- to develop well-defined, long-term, viable transport plan, that would support the sustainable development of the city and its transport system
- to use the experience from other cities, to identify and promote more environmentally friendly transport modes suitable for Skopje
- to provide access, but also to protect the historic, cultural and other sensitive sites

Problems addressed:
- unsustainable modal share
- traffic congestion and loss of time
- traffic pollution
- unattractive sites of interest in the city
The CIVITAS vision for SKOPJE – measures that can help to make a turn

MEASURE 8.3: Intelligent traffic management and control in the city centre of Skopje
(WP Transport telematics)
Objectives:
- to enable safe, efficient and sustainable mobility of individual motor vehicle users as well as of public transport vehicles in the city centre corridor by establishing the traffic management and control centre

Problems addressed:
- traffic congestion and loss of time
- traffic pollution
- unattractive sites of interest in the center city
The CIVITAS vision for SKOPJE – measures that can help to make a turn

MEASURE 8.4: AVL and real time passenger information (WP Transport telematics)
Objective:
- to increase the quality of service and the attractiveness of PT
Problems addressed:
- low PT passenger ridership
- low service reliability

MEASURE 1.5: Conversion of diesel to CNG buses (WP Alternative fuels and clean vehicles)
Objective:
- to identify a technical solution for converting the existing diesel bus engines to CNG
Problems addressed:
- air pollution
- high prices of energy and high operational costs
The SKOPJE measures seen within the CIVITAS project structure

Similar measures suggested by:

Perugia:
- Clean fuel technology on PT fleet
- Sustainable commuting strategies
- Traffic monitoring control center

Bath:
- Clean fuel technology
- Mobility management, marketing, information, education
- Innovative telematic systems for traffic management and traveller services – Gallileo applications
The SKOPJE measures seen within the CIVITAS project structure

**Szczecinek:**
- Campaigns promoting public transport and cycling
- Traffic surveillance at selected intersections

**Gorna Orahovica:**
- Conversion of PT buses to LPG, Biodiesel
- Integrated plan for sustainable transport and public awareness/education
Measuring the impacts

MEASURE 8.3: Intelligent traffic management and control in the city centre of Skopje
- travel times
- loss of time at intersections for PT vehicles
- public acceptance

- MEASURE 8.4: AVL and real time passenger information
- reliability of service (number of on-time bus trips)
- response to service interruptions
- public image
Measuring the impacts

- **MEASURE 1.5: Conversion of diesel to CNG buses**
  - reduction of operational costs
  - reduction of pollution per vehicle
  (Impact assessment by comparing before and after data.)

**MEASURE 4.5: Plan for sustainable urban transport**
- The impacts can not be assessed at the end of the project, since it requires implementation of the plan
- However, some of the expected impacts could be estimated (change of modal share, less pollution, better access to city’s historical and other important sites)
Raising awareness in SKOPJE

• promotion and information of project activities through the media (TV, radio, press, Internet)
• involvement of relevant institutions and the general public in the process of adoption of the Plan for sustainable transport
• official promotion of the start of the work (ITSC, AVL, CNG buses)
Disseminating the results

- printed plan and its digital version on internet for sustainable transport system will be available to other cities and relevant institutions

- reports on findings and solution about AVL and CNG conversion will be available to other PT operators and all interested in this problem

- report on findings and solutions about the ITSC will be available in both printed and digital version
Conclusions

1. The transport system of Skopje, currently is not in line with the concept of sustainable development – it needs well-planed actions and public support for those actions

2. The four measures proposed within this project would help to address the most problematic elements of the transport system (the traffic congestion in city center, low attractiveness of public transport, high pollution from transport, access to historic and cultural sites)

3. The CIVITAS project and the great number of experienced partners, give an opportunity for exchange of knowledge and results, which is a good base for successful project realisation
Thanks!

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