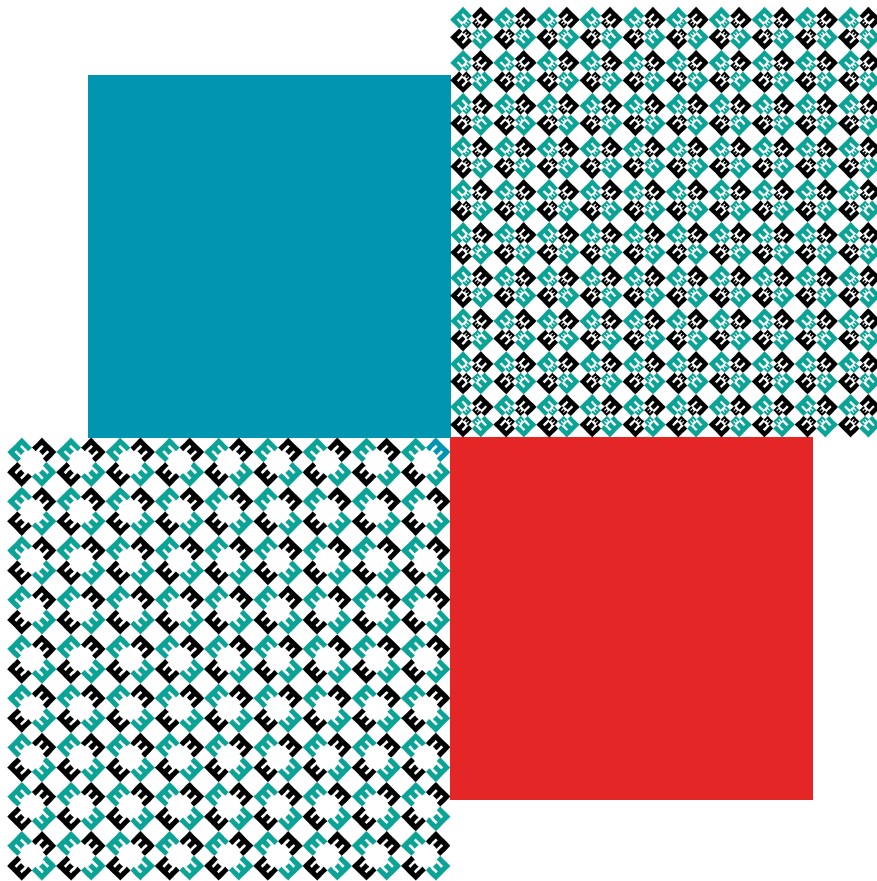




# ENERGY EFFICIENT URBAN TRANSPORT

A summary of the SusTrans roundtable meetings  
in the V4 region



Partners



Supported by



# ENERGY EFFICIENT URBAN TRANSPORT

## A summary of the SusTrans roundtable meetings in the V<sub>4</sub> region

Supported by the International Visegrad Fund

November 2012

### Authors

Barbora Hanzlova (Centrum pro dopravu a energetiku, CZ)

Vincent Váczí (Energiaklub, HU)

Dr. Miroslava Mikusova (Žilinská univerzita v Žiline, SK)

Wojciech Szymalski (Zielone Mazowsze, PL)

Partners



## FOREWORD

As part of the “Cooperation for sustainable transport in the V4 region”, an international project supported by the International Visegrad Fund, four national level roundtable meetings were organised during the spring and summer of 2012. The main theme of these roundtable discussions was “Energy efficient urban transport”, and the purpose was to initiate communication among the various transport decision makers and stakeholders in each country. The analysis of the national transport strategies in the V4 countries (which forms a part of this same project) have shown that the concept of energy efficiency is poorly represented in the field of national transport decision making, or if the fundamental documents do contain several references to energy efficiency, in practice it is hardly a predominant influencing factor.

In order to identify on the one hand why such a lack of attention can be experienced in connection with this important issue, and on the other hand to shed light on all the positive initiatives that have already appeared in each country’s urban transport, roundtable discussions have been organised throughout the four countries. These meetings have been conducted according to a very similar methodology and the topic has been discussed along the same guidelines and among the same kind of decision makers and stakeholders.

This document contains the summary and the evaluation of the four roundtable meetings, which serve with valuable practical information on how to facilitate the integration of energy efficiency and on a larger scale sustainability into the urban transport systems of the V4 region.

## TABLE OF CONTENTS

1.	OBJECTIVES .....	4
1.1.	Actuality of the topic – the EU expectations.....	4
2.	ROUNDTABLE MEETING IN HUNGARY .....	5
2.1.	Basic information.....	5
2.1.1.	Participants of the roundtable meeting in Hungary.....	5
2.1.2.	Course of the meeting.....	5
2.2.	Presentations .....	6
2.2.1.	Energy efficiency in the national transport policy (Vincent Váczi, Energiaklub).....	6
2.2.2.	Climate change, transport, cities, EU, the Visegrad region (Dr. Tamás Fleischer, MTA Research Centre For Economic and Regional Studies).....	6
2.3.	Results of the meeting.....	6
2.4.	Subtopic no. 1 – The predominance of passenger car transport .....	7
2.5.	Subtopic no. 2 – vehicle technology.....	8
2.6.	Subtopic no. 3 – transport planning, traffic management.....	8
2.7.	Subtopic no. 4 – Raising awareness.....	9
2.8.	The following steps .....	10
3.	ROUNDTABLE MEETING IN THE CZECH REPUBLIC.....	11
3.1.	Basic information.....	11
3.1.1.	Participants of the roundtable meeting in the Czech Republic.....	11
3.1.2.	Course of the meeting.....	11
3.2.	Presentations .....	12
3.2.1.	Energy efficiency in transport – strategies and goals (Barbora Hanzlova, CDE).....	12
3.2.2.	Cycling in Ceske Budejovice Municipality (Jan Michl, Municipality Ceske Budejovice).....	12
3.2.3.	Public transport information system by Olomouc Transport Company (Vladimír Menšík, Transport company Olomouc) .....	12
3.2.4.	Public transport development in the Zlin region (Věra Fuchsová, coordinator of public transport in the Zlin region).....	13
3.2.5.	Project Civitas, Brno Municipality (Iva Machalova, Municipality Brno) .....	13
3.2.6.	District Prague 19, Kbely (Jan Hazlbauer, Municipality Prague 19) .....	13
3.3.	Results of the meeting.....	14
4.	ROUNDTABLE MEETING IN POLAND .....	15
4.1.	Basic information.....	15
4.1.1.	Participants of the roundtable meeting in Poland.....	15
4.1.2.	Course of the meeting.....	15
4.2.	Results of the meeting.....	16
4.2.1.	Overall assessment of the meeting.....	17
5.	ROUNDTABLE MEETING IN ŽILINA.....	18
5.1.	Basic information.....	18
5.1.1.	Participants of the roundtable meeting in Žilina .....	18
5.1.2.	Course of the meeting.....	18
5.2.	Results of the meeting.....	19
5.2.1.	Identified issues, barriers and deficiencies .....	20
5.2.2.	Suggestions for improving the current situation.....	20

## 1. OBJECTIVES

The main topic of the roundtable meetings was energy efficiency and energy saving in urban transport, while the aim of the meetings on the one hand was to reveal the obstacles and conflicts that hinder progress in this field, and on the other hand to identify the available possibilities and tools for the more successful reducing of energy consumption. For the sake of this common objective we believe that the comprehensive participation of the transport sector is highly important.

The aim of the roundtable meetings was the motivation of stakeholders to...

- discuss the main priorities of transport efficiency on a strategic level;
- introduce the methodology, the results and the implementation of the (strategic) elements aiming transport efficiency in their own respective fields;
- point out the main priorities and interest of the given field and to indicate the points where they see the need and/or the potential for improvement in efficiency;
- identify conflicts between the various interests and work towards solution;
- explore the possibilities of cooperation among the various territories of transport, etc.

Dates of the national roundtable meetings

20/4/2012 Žilina, SK

15/5/2012 Warszawa, PL

18/5/2012 Prague, CZ

13/6/2012 Budapest, HU

### 1.1. Actuality of the topic – the EU expectations

As a first step it is important to note that the concept of transport energy efficiency forms an organic part of both the EU and the national transport policy aspirations, thus the professional sphere is inevitably obliged to deal with this issue. *“The paramount goal of European transport policy is to help establish a system that underpins*

*European economic progress, enhances competitiveness and offers high quality mobility services **while using resources more efficiently.** In practice, **transport has to use less and cleaner energy [...]**”* – states the **EU White Paper 2011**, which serves as the framework document for the European transport policy. In order to reach these comprehensive aims it specifies the following policy targets:

- Reducing transport **CO<sub>2</sub> emissions by 60% by 2050;**
- Significantly reducing **oil dependency;**
- Preventing the further growth of **traffic congestions.**

These three objectives are closely related to the aspects of energy efficiency and energy saving, which connection is highlighted also by the impact study of the White Paper as it associates the three objectives with the following objectives: less energy consumption, cleaner energy use and improved infrastructure use.

A further important statement of the document is that the aimed 60% reduction in CO<sub>2</sub> emissions cannot be reached merely by technological intervention, consequently other tools, e.g. **mobility management** also become indispensable. This shows why it is important to have a complex approach to the topic and consequently why the roundtable meeting was designed to be multi-faceted.

## 2. ROUNDTABLE MEETING IN HUNGARY

### 2.1. Basic information

**Organizer:** Energiaklub

**Date:** 13<sup>th</sup> June 2012

**Venue:** Hotel Mercure Korona, Budapest, Hungary

**Moderator:** Gyula Tóth (Energiaklub)

#### 2.1.1. Participants of the roundtable meeting in Hungary

NAME	ORGANIZATION
Ámon Ada	Energiaklub
Angyal László	Miskolc City Transport, Inc.
Babós Gyula	Pro Urbe Ltd.
Bakcsi Máté	Budapest Transport Centre
Dr. Fleischer Tamás	MTA Research Centre For Economic and Regional Studies
Dr. Fülepi Tímea	Széchenyi István University, Győr
Gyürk Tibor	Volánbusz, Inc. (regional public transport operator)
Ivány Dániel	Kerékpáros Magyarországért Szövetség (Cycling Hungarian Alliance)
Jakus József	Federation of National Private Transporters – NiT Hungary
László János	Hungarian Cycling Club
Lovas Károly	Autóklub (Car Club)
Lukács András	Levegő Munkacsoport (Clean Air Action Group)
Dr. Merétei Tamás	Institute For Transport Sciences Non-profit Ltd.
Oláh András Béla	Corvinus University of Budapest
Dr. Paár István	Institute For Transport Sciences Non-profit Ltd.
Dr. Pongrácz Tamás	National Transport Authority
Szedlmayer László	BKV, Inc. (Budapest Public Transport Company)
Szendrő Gábor	Technical University of Budapest
Dr. Szoboszlai Miklós	Institute For Transport Sciences Non-profit Ltd.
Dr. Török Ádám	Hungarian Scientific Association for Transport/ Technical University of Budapest
Tóth Gyula	Energiaklub
Váczai Vincent	Energiaklub
Varga Judit	Ministry of Rural Development

#### 2.1.2. Course of the meeting

The Budapest roundtable meeting was initiated with a brief introduction to the Sustrans Project and to its funder, the International Visegrad. The opening was followed by two presentations. The first one gave a summary of the importance of transport energy efficiency and how this concept is represented in the national legislation. The second presentation described the development of the EU and national level transport policy, with special regards to sustainability components.

Following the presentations the practical part of the meeting begun, where the participants of the roundtable formed two groups and discussed the four subtopics of the Hungarian meeting (described later). After the discussion of these subtopics the moderators of the groups summarised all the information gained from the participants and all the lessons learnt during the conversation. The meeting was concluded with an informal lunch where the participants could indulge in networking.

## 2.2. Presentations

### 2.2.1. Energy efficiency in the national transport policy (Vincent Váci, Energiaklub)

The statements of the Unified Transport Development Strategy 2007-2020 (UTDS) of Hungary, serving as a pillar for the national transport policy, unequivocally support the fact that this topic needs to be managed in a distinguished manner.

The UTDS sets the goal of improving energy efficiency: *“Our aim is the enhanced moderation of environmental loading along with the increasing of mobility. [...] The improvement of energy efficiency, the increasing of the rate of renewable energy use is indispensable in accomplishing the EU targets and in improving the quality of life.”* The concept of energy efficiency is featured in several parts of the strategy, e.g. in the chapter on passenger transport, the field of sustainable intervention highlights the following: *“satisfying the need for mitigating global climate change, i.e. the systematic and tool-oriented increasing of energy efficiency, the enhanced use of renewable energy sources in transport and altogether the reduction of the final energy use in transport.”*

Thus it is clear that the improving of energy efficiency is not an optional task, but a definite obligation prescribed by national legislation. Consequently we believe it is important to feature the matters in dispute more stressfully in the national transport policy decision making and professional work, and to have them incorporated into the general thinking according to their true significance.

### 2.2.2. Climate change, transport, cities, EU, the Visegrad region (Dr. Tamás Fleischer, MTA Research Centre for Economic and Regional Studies)<sup>1</sup>

“The White Paper appears to mark an environmental offensive, with aims of a 60 per cent cut in carbon dioxide emissions by 2050 and a fall in the use of traditional fuels in urban areas. The emission-

<sup>1</sup> based on Tamás Fleischer: Transport and sustainability, with special regard to the EU White Paper of 2011

reducing objective is coupled with ten development goals, but as a whole these reflect the results of the scenario analyses of the impact assessment only weakly, fail to further phased attainment of the goals, and in several places offer ill-considered, unverifiable criteria as targets.”

“The valuable part of the document lies in the application of distinct transport segments at spatial levels that reflect the integrated transport outlook. These could, if developed more thoroughly, play an important part in future transport strategies.”

“The other priority objective, of attaining a Single European Transport Area, remains unsupported and is not in harmony with the sustainability conditions or the White Paper’s system of goals. Part of the reason is that this matter has never been maintained, re-examined or adjusted to conditions on the EU political side since the 1992 treaty, so that the objective as applied to transport services can only be pursued to a similarly rudimentary standard.”



1. picture: Dr. Tamás Fleischer introducing the environmental aspects of the EU White Paper on transport 2011

## 2.3. Results of the meeting

The roundtable meeting in Budapest can be considered successful, as it was attended by high level representatives of the governmental and scientific sphere as well as the market and the non governmental sphere (the list of participants can be found in chapter 2.1.1.).



2. picture: Participants of the Budapest roundtable meeting

The roundtable can be considered outspokenly successful when considering the fact that several conflicts and obstacles had been unearthed. Consequently the professionals gained a broader view on the clashes need to be taken into account, furthermore several recommendations, solutions and inspiring examples were shared as well, which are worth considering and if possible, putting into practice by adapting them to the national circumstances. The following pages contain the summary of the occurrent obstacles and solutions. It is important to note that the summary does not form the consensus of the roundtable meeting, but rather a collection of issues and an attempt to address them. The aim of the summary is the collective representation of the various views; consequently certain statements may contradict one another.

## 2.4. Subtopic no. 1 – The predominance of passenger car transport

### **How can the proportion of more sustainable transport modes be increased in the modal split of passenger transport?**

Sustainable urban transport is an indispensable precondition of the liveable city, which is efficient both environmentally and energetically. However, it is necessary to reach consensus regarding the parameters of the liveable city. Defining the target numbers of the transport modal split is an important requirement for a more effective cooperation within the transport sector.

Modal shift is an important tool of energy efficiency and energy saving. Possible alternatives for passenger car transport and road freight transport are public transport and rail freight transport respectively. Price sensitivity plays a key role as well, as the proportion of the passenger car transport will decrease in such an economic situation in which it is not payable to travel by car. However, this also requires a more modern and larger public transport supply in order for it to become an attractive and satisfying alternative. This includes the optimizing of the ticket system and making it user friendly.

Not the vehicle, but the human is the basic element of transport. Besides transport, urban planning plays a role as well in connecting the citizens with the services.

It is a question to what extent do the global economic aims support the sustainability aims. It is difficult to change the current state as long as the aim of the national economy is growth and the car industry serves as its engine, furthermore as long as owning and using a passenger car is considered as a point of honour in society (the forecasts of the trends of growth in vehicle numbers have continuously under-estimated the situation prevailing in reality).

The car industry provides a significant part of the GDP. If the aim is to decrease the proportion of the passenger car transport, the question arises how this process would influence the volume of the national car production. To explore this relationship, complex economic analyses are required, as there not necessarily is a direct cause and effect coherence between these. In case there is, further analyses may help estimate whether other industry branches (e.g. bus production) would appear or start booming, which are capable of substituting the fall out in car production.

Road tariffs can be more effective than fuel taxes, since the prior would apply to hybrid, electric, LPG vehicles as well, which are also road users. In case the vehicle fleet was suddenly replaced by electric or LPG vehicles, the government would lose



significant revenues which is not in its interest, and would aim to replace these. A significant replacement in the vehicle fleet would bring forth the assessment of taxes on alternative fuels as well.

## 2.5. Subtopic no. 2 – vehicle technology

### **Which are the most efficient transport tools of the future in respect of energy and costs?**

#### *Comparing vehicles with different operation*

It is very important to have access to those information/studies, which compare the energy efficiency, environmental and economic characteristics of vehicles with different operation on the basis of complete life cycle studies (e.g. including the costs and environmental load related to the generation and transportation of electricity in the case of electric vehicles). It is absolutely uncertain that when taking the results of the complete life cycle analyses into account, those solutions would prove to be the most efficient and environmentally friendly, which currently are generally considered to be so. The costs and the environmental load caused by the production and the decomposition of the vehicles also have to be taken into consideration.

It is necessary to take into account the need for the service infrastructure for electric or LPG vehicles. As long as these are not provided, fleet replacement will be uneconomic for entrepreneurs.

The relation between environmental harm and energy efficiency is worth consideration as well: even though modern passenger vehicles consume less and are less air-pollutant, still the overall CO<sub>2</sub> emissions have increased, for which the quantity of operating vehicles and the frequency of their usage is responsible (rebound-effect).

#### *Public procurement*

It is a fundamental problem with the public procurement of vehicles that the energy efficient, modern vehicles are always more expensive, while

economic aspects gain priority in the decision making and evaluating mechanism, despite the fact that on the long term the less expensive solution is not necessarily the most cost efficient.

However, the criteria of public procurement are a question of political will. Private entrepreneurs have their way difficultly due to the strict procurement conditions that apply to them. The method supported by the state is not proportionate in its prescriptions that apply to small and large enterprises. However, the development of the green public procurement system might yield some improvement in this field.

#### *Energy use*

If the replacement of older public transport vehicles is not possible, there are other options to achieve more effective energy use to a certain extent. E.g. in the case of trams a 15-20% energy consumption reduction can be realised by modernising the drive. Another possibility is the use of certain fuel additives, which improve the emission factors of the vehicle and at the same time lessen fuel consumption. These options should be taken into account by public transport operators. However, the fact that there are no calls and tenders solely for energy efficiency purposes is a hindrance in utilizing support designed for modernizing the public transport fleet.

## 2.6. Subtopic no. 3 – transport planning, traffic management

### **What kind of planning/management tools can help decrease the need for transport and ensure the continuous flow of traffic?**

The aim is to enable access to the given service with the least transport possible. Besides transport planning, urban planning plays a key role as well.

It is necessary to have the **urban politics** define the goals, for which the transport planning needs to find the solutions (not the other way around). The continuous and mutual **communication** between these two fields is indispensable for the liveable city.

The decentralized, intelligent node communication systems rate as up-to-date systems today, as they can be customized according to the given traffic conditions. However, this is only viable if the central control is in one hand. In the case of nodes controlled simultaneously by several parties, more harmonizing is necessary.

Giving priority to the public transport (e.g. by bus lanes) is favourable for buses, but it is a hindrance for passenger car traffic (e.g. due to the unused road surface). However, practical examples show that the presence of dedicated bus lanes does not necessarily slow down the flow of overall traffic. It is practical to combine various tools, e.g. bus lanes + traffic-dependant regulation, intelligent lanes etc.

Unlike the former „axioms,“ the „green wave“ and the traffic-dependant regulation are combinable.

The shopping malls erected in the place of former city edge factories generate new mobility needs, which strengthen the importance of conscious urban planning.

School and workplace mobility plans, car sharing, etc. and the combination of these can effectively contribute to the development of a liveable city in the aspect of transport. **Another possibility for decreasing the need for transport is home-based or location independent work, which** is able to render a certain amount of daily travels unnecessary.

## 2.7. Subtopic no. 4 – Raising awareness

### **How can sustainable transport modes be made more attractive?**

The promotion of alternative transport modes is a question of communication. The main objective of communication is the overwriting of hardened stereotypes in the heads of planners/decision makers and users as well.

Positive, confirming communication messages which offer solutions are more effective in facilitating the changes, while trying to reach road

users in a manner of confronting them with the facts and calling them to account does not inspire but infuriate.

Negative communication has a role during emergency situations, e.g. smog alert.

It is important, however, to use positive communication messages only if the message is backed up by reality, whether speaking of P+R systems or public transport supply.

### *Cycling*

The following messages are essential for promoting cycling:

- The bicycle is not (exclusively) a sportswear, and it is not „the transport tool of the poor“. The image of people riding expensive bikes in elegant/fashionable clothing can be a catchy campaign element.
- Cycling is economic, it is a way to save money and it is an environmentally friendly transport mode.
- Cycling is trendy and it is the new urban status symbol (see the world famous Cycle chic blog).
- It is important to have decision makers and leaders set an example: in certain settlements the mayors themselves ride their bike to work in a suit.
- Cycling needs to be communicated as an advantageous public transport mode (e.g. the community cycle network in London).

Reservations against cycling: cycling can be circumstantial if the necessary workplace infrastructure is not available (changing room, shower, bicycle-rack etc.), which makes cycling unattractive to a lot of people.

### *Public transport*

The precondition of promoting public transport is to have the appropriate supply provided. It is risky to promote P+R systems if the public transport company would be unable to manage the excess traffic.

However, the development of an appropriate communication strategy is primarily a question of approach and only secondarily a financial issue. The example of Bogotá suits this idea: the communication message (which is in line with reality) is that public transport is up to par and comfortable, it is highly valued and its socially accepted, it is not in the least embarrassing to switch from passenger car to public transport.

Raising awareness needs to be combined with other tools, like developing an appropriate parking system. The lack of the latter has a negative impact on such important economic branches as tourism, since the city cannot provide the arriving tourists with sufficient parking places.

## 2.8. The following steps

Based on the lessons learnt we find it important to continue working towards a consensus on transport energy efficiency with a similarly broad participation.

We consider it a fundamental task for the profession to reach consensus regarding the interpretation of the concepts energy efficiency and energy saving, and as a result to create a widely accepted unified definition, which may serve as the basis of the elaboration and realization of targets (e.g. the target numbers of the favourable modal split in urban passenger transport, the extent of support given to public transport with traffic management tools etc.).

The further lesson learnt from the roundtable is that it is necessary to facilitate the deepening of cooperation between science and decision making. Formulating the technological aspects of the future scenario for transport is a major challenge due to the “severe symptoms” of the sector, and this is especially true when it comes to the selection of the technologies to be favoured. It is indispensable to use the already available, comprehensive complete life cycle analyses to support the decisions.

### 3. ROUNDTABLE MEETING IN THE CZECH REPUBLIC

#### 3.1. Basic information

**Organizer:** Centrum pro Dopravu a Energetiku (Centre for Transport and Energy - CDE)

**Date:** 18<sup>th</sup> May 2012

**Venue:** Klub Techniku, Prague, Czech Republic

**Moderator:** Aleš Kuták (Transport Federation)

##### 3.1.1. Participants of the roundtable meeting in the Czech Republic

NAME	ORGANIZATION
Jana Ehrlichová	Ministry of Industry and Trade
Věra Fuksová	Coordinator of public transport in Zlin region
Barbora Hanžlová	Centre for Transport and Energy (Centrum pro Dopravu a Energetiku)
Jan Hazlbauer	Municipality Prague 19
Aleš Kuták	Transport Federation
Jitka Loosová	Ministry of Industry and Trade
Iva Machalová	Municipality Brno
Jaroslav Martínek	national coordinator for cycling strategy
Vladimír Menšík	Transport company Olomouc
Jan Michl	Municipality Ceske Budejovice
Alexandra Novotná	Ministry of industry and trade
Prousek Tomáš	Ropid, Organizer of Prague public transport
Miroslav Penc	Transport company Prague
Klára Sutlovičová	Centre for Transport and Energy (Centrum pro Dopravu a Energetiku)
Michaela Valentová	Institute for Environmental Policy
Václav Kříž	Auto-mat

##### 3.1.2. Course of the meeting

The roundtable was divided into three main parts. The introductory part defined the topic, gave an overview of relevant strategies at the European and national levels and provided a view of future funding possibilities (via the Czech Republic's Operational Programme for Transport). The second part consisted of five best practice examples from four different cities and one region from all across the Czech Republic. In the last section all participants discussed the priorities for achieving energy efficient urban transport.

Barbora Hanzlova (CDE) introduced the 'Sustainable transport in the V4 region' project, its goals, project partners and activities. She also

introduced her organization Centre for Transport and Energy and the Visegrad Fund.



3. picture: participants of the roundtable meeting in Prague

## 3.2. Presentations

### 3.2.1. Energy efficiency in transport – strategies and goals (Barbora Hanzlova, CDE)

At the European level there is an emphasis on energy efficient transport. The following strategies are the most relevant to this: EUROPE 2020, A European Strategy for Smart, Sustainable, and Inclusive Growth; the White Paper, A Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system.

The White paper also includes quantified goals: a cut in carbon emissions in EU transport by 60% by 2050 and cities without cars that use conventional motor fuels.

At the Czech national level the basic strategic documents are: Transport policy and the State energy policy, both of which include measures on energy efficient transport but are rather general. According to the second phase of Transport sector strategies, the Operational Programme Transport 2014-2020 will be set, therefore it is necessary to ensure that the strategy includes measures on better energy efficiency and will give them the necessary priority.

### 3.2.2. Cycling in Ceske Budejovice Municipality (Jan Michl, Municipality Ceske Budejovice)

Company bikes – a 10 year old idea: within the city of Ceske Budejovice employees have been using bikes for business trips, initially using bikes from the lost property department.

In 2000-2001 ten new bikes were bought for the programme. The interest was enormous, and now new bikes will be bought. Full servicing of bikes is also provided. Employees ride hundreds of kilometres per year on these bikes.

In Ceske Budejovice there is a lot of car traffic, and it is faster to use the bike; local policemen also use them (the city also purchased bikes for them), and there are also special bike patrols to look after the safety of bikers.

The city also provided bikes for a city owned recreational house in Sumava, but the initiative proved not to be effective in this case: bikes were stolen, there was no technical service, and cyclists could get hurt.

In 2003 a land use plan for cycle traffic was approved in Ceske Budejovice – the plan involved building new cycling trails (in uptown parts of the city) and cycling routes (as part of the transport backbone).

Unfortunately there is not enough space for both car drivers and cyclists. Furthermore there are problems with regulatory requirements for transport.

At a cost of CZK 260 million, 70 km of cycling trails and routes were built, with one third of this paid for by the State transport infrastructure fund.

### 3.2.3. Public transport information system by Olomouc Transport Company (Vladimír Menšík, Transport company Olomouc)

In order to support public transport in Olomouc, preference is given to public transport vehicles on 14 crossroads. When a public vehicle (tram or bus) is delayed over 1 minute, it registers with the crossroad controller and the controller will enable passage of the vehicle passage as quickly as possible. This system functions appropriately in 90% of the cases (in about 10% of the cases the controller does not react to the demand of the public vehicle).

The experiences with this system after five years of operation is that travel times have become shorter (the time schedule had to be adjusted), drivers had to get used to it, and passengers did not make much comment.

Another part of the project is an information system for passengers – 21 stops are provided with easily accessible information for passengers (they also indicate delays): passengers have become used to it and they demand instant discipline of the transport company when necessary, especially in the city centre. Also an

expansion of services for blind and handicapped people (with information on accessible low-floor public vehicles) has been achieved.

All the information is provided in the form of wireless communication, the dispatcher can send any information to the stops, furthermore information panels are also inside vehicles. The intelligent markers are powered from the public network (this connection was expensive).

### **3.2.4. Public transport development in the Zlin region** (Věra Fuchsová, coordinator of public transport in the Zlin region)

A SWOT analysis carried out on the public transport in the Zlin region showed that the vehicle stock was obsolete, the number of passengers was decreasing, there was a lack in transfer terminals and parking places, and traffic congestions occurred.

In order to overcome these weaknesses, quality standards of public transport were made, taking into account the size of the municipality.

A conception of time schedules arrangement was developed in order to support the smooth transfer of passenger from trains to buses and reverse without waiting or missing the next connection – there is a cooperation agreement between the regional administration and the municipalities (different subjects are ordering transport services), e.g. in Zlin there is an integrated transport system; the best interconnections of rail and urban transport are in Uherske Hradiste.

The creation of a complex clearance and information system is currently under way – this will provide information on all connections including trains and information for customers. Fuel-saving measures have also been initiated. During crossroad controls drivers receive instructions not to move from the stop if there is a red light at the crossroad ahead of them.

### **3.2.5. Project Civitas, Brno Municipality** (Iva Machalova, Municipality Brno)

Civitas is a common project with the Brno Transport Company, in which project electricity savings in trams and trolleys are achieved through heating regulation. All heating is connected to a

central control system: if the immediate electricity consumption is too high, the heating turns off for a moment (it does not affect the comfort of passengers). As it is a research project, its proven measures will be applied elsewhere.

The primary motivation for launching the project was to save money. The transport company pays the electricity supplier a fixed amount of money for a fixed amount of electricity: if the consumption exceeds this amount, the price for additional electricity is much higher. Thanks to this project they manage with not exceeding the limit often. The overall financial savings so far are more than EUR 65000; the costs of the technology were EUR 60000.

### **3.2.6. District Prague 19, Kbely** (Jan Hazlbauer, Municipality Prague 19)

The main points of sustainable transport in Kbely are the following:

- Connection of cycling trails to already existing cycling routes going to Prague centre and reverse;
- the construction of recreational hinterland;
- the ambition to lead the trails as much as possible through green and off road areas;
- the ambition for trails without motorised transport;
- the connection of bike trails to paths along bio-corridors, inspired by old field trails.

2010 was the first stage of realizing the plans – the backbone route A44.

A 6 km long skating circuit is also planned to be constructed. Furthermore out of 19 km long cycling routes, 9 km are cycling trails. The goal is to have 34 km of cycling routes of which at least the half is without motorised transport.

Accession to the Uherskohradistska Charta is also an important step.

None of the above would be possible without the financial support from Prague Municipality.

### 3.3. Results of the meeting

The following questions were the basic topics of the roundtable meeting:

- **What are the priority measures in order to increase the energy efficiency of urban transport?**
- **What hinders their implementation?**
- **What are the possibilities of cooperation among particular sectors/stakeholders?**

The following ideas, issues, proposals and good examples were the results of the discussion:

#### *Issues*

- Those who make decisions regarding public transport probably never use it.
- Due to bad political decisions, people use public transport less and rather use cars.
- IDOS (online route finder) – it is problematic to find the best connections when the system is divided according to what place is the service for (urban transport, trains, regional transport)
- Citizens of Brno complained about noisy cyclists – they hindered the construction of a cycling route along a gardening zone.
- There is no clear goal stating that will for lowering the trend of individual car transport, Prague is not implementing measures to attract people to use public transport, e.g. car sharing, support of pedestrian traffic etc.
- Prague P+R parking places are insufficient; Prague and the Central region do not cooperate together.

#### *Good examples*

- “We travel with David” – a project in Plzen, regular routes with a man on wheelchair in order to find out where the problems are.
- Lowering ticket prices is a chimera – it does not bring more passengers to the urban public transport system.
- In Ceske Budejovice the fuel savings achieved by the purchase of bikes were equivalent to the consumption of two

cars. Currently the city is currently is considering the setting up of a city owned bike rental scheme.

#### *Ideas and proposals*

- Preparation of a national cycling strategy – call for participation.
- When planning a street one has to plan first the space for the pedestrians, then for cyclists, then for cars.
- Stress the positives of urban transport, not only the negatives!
- Interconnection of administrative offices – building authority, that approves the platforms and transport companies that know the needs of people on wheelchairs.
- Simpler legislation.
- Bike rentals work well only when the identity of the lender is clear.

In conclusion, the participants agreed on the following key points:

1. The continuity of the public transport system is problematic: the political situation changes every four years.
2. None of the current land use plans limit individual car transport.
3. The reality does not match that which is laid down in the strategic documents.
4. The importance of the public acceptance of new measures, the need for communication (active cooperation with the public).
5. The need to reduce the overall number of private car transport (shorter trips).
6. The importance of P + R parking places at key locations, where there are transfer points for urban public transport (for cars and bicycles).
7. The importance of attractiveness of hubs.
8. Future adjustment of the EU Funds – the need to keep an eye on the financing of public transport and other measures.

## 4. ROUNDTABLE MEETING IN POLAND

### 4.1. Basic information

**Organizer:** Zielone Mazowsze Association (Green Mazovia – ZM)

**Date:** 15<sup>th</sup> May 2012

**Venue:** Office of Zielone Mazowsze, Warsaw, Poland

**Moderator:** Wojciech Szymalski (president of Zielone Mazowsze), Dariusz Kraszewski (expert of Zielone Mazowsze), Jacek Grunt-Meyer (external expert from Warsaw University)

#### 4.1.1. Participants of the roundtable meeting in Poland

NAME	ORGANIZATION
Roman Głaz	Ministerstwo Środowiska, Departament Ochrony Powietrza, Wydział Ochrony Atmosfery (Ministry for Environment)
Marcin Jaczewski	Ministerstwo Transportu i Gospodarki Wodnej (Ministry of Transportation, Construction and Maritime Economy)
Krzysztof Rytel	Centre of Sustainable Transportation (Centrum Zrównowzonego Transportu)
Leszek Cisło	Bureau of Road Technology and Communication (Biuro Drogownictwa i Komunikacji)
Marta Skowron	Bureau of Environment Protection, City of Warsaw (Biuro Ochrony Środowiska, Urząd m.st. Warszawy)
Marcin Kozon	Public Transport Authority (Zarząd Transportu Miejskiego)
Patryk Bielecki	Warsaw Pedestrian Initiative (Warszawska Inicjatywa Piesza)
Alicja Zajackawska	Green Mazovia (Zielone Mazowsze)
Jacek Grunt-Meyer	University of Warsaw (Uniwersytet Warszawski)
Dariusz Kraszewski	Green Mazovia (Zielone Mazowsze)

#### 4.1.2. Course of the meeting

The National roundtable event took place on the 15<sup>th</sup> May 2012 in Warsaw in the office of Zielone Mazowsze Association. It was a discussion panel with short presentations as introductions to the discussion. The main aim of the panel was to motivate the invited guests to take up active work on energy efficiency in transport in Warsaw and Poland. During the panel the most important obstacles and possibilities for realization of few energy efficiency enhancing instruments were identified.

Zielone Mazowsze had the leading role in specifying the presentations and discussion topics. The event started with the introduction of the project SUSTRANS, the concept of energy efficiency and the role of different instruments in enhancing energy efficiency of transport. Following this the

discussion was divided in three parts, each dedicated to the different instrument of making transport policy more energy efficient: on-street parking pricing, low-emission zones, traffic calming. The reason of choosing these instruments for discussion was their relevance to the current Warsaw and Poland transport policy issues, and their important role in improving energy efficiency in transport mainly through the discouraging for use of private car.

Each part of discussion was moderated by a different expert in the following order: Wojciech Szymalski (president of Zielone Mazowsze), Dariusz Kraszewski (expert of Zielone Mazowsze), Jacek Grunt-Meyer (external expert from Warsaw University).





4. picture: presentations at the roundtable meeting in Warsaw

## 4.2. Results of the meeting

The main conclusions of the panel are detailed in the following.

There are a lot of problems with the implementation of discussed instruments due to the improper national law:

- Regulations concerning on-street parking pricing are too strict and the maximum level of the price set in national law is too low. As a result of the meeting the representative of the Ministry of Transport declared to check whether there is a chance to push for the change of this law at this stage and promised to stay in touch with the association. The representative of the ministry of environment declared that the ministry will try to push for the changes if the amendment will be prepared. There was also a plea from the Ministry of Transport to try and make the problem more visible by inviting other cities for pushing towards the change, as apparently only Warsaw and Krakow are working towards this change.
- Regulations concerning low-emission zones and traffic calming are insufficient and local councils are reluctant to realise ideas without having any delegation from the national law. As a result of the meeting the association decided to discuss on the meeting of interregional air pollution council of the regional marshal office

representatives the issue of traffic calming and an appeal for the revision of the law in favour of traffic calming.

The reluctance of the citizens also causes problems:

- Concerning on-street parking pricing in Warsaw the most important problem lies with the citizens in the city centre. The yearly citizen fee for parking in paid parking zones in Warsaw is the lowest among Polish cities, but there is no will from City Council to change it, even though the bureau pushed for it a year ago. As a result of the meeting it was proposed to make a comparison of this issue among Polish cities and promote it widely in Warsaw press.
- Concerning low-emission zones there was an issue raised: the low-emission zone could be questioned as an instrument, as it creates discrimination among citizens for better and worse and thus could not be in line with the Polish Constitution. It was also discussed that the name of the instrument could be misinterpreted as dedicated to the communal emissions (emission from housing), so for the promotion purposes it should be named "low-emission transport zones". There was a proposal to introduce such zones into the spatial planning system.
- Concerning traffic calming it was identified that the reason why it is not popular is because the only real technological solution allowed in Polish law is the speed bump, which is very unfriendly to the user of the road and is very often very badly built. It was proposed that the Ministry of Transport should carry out more promotion of traffic calming among citizens and engineers (through guidelines), similarly to how it is realised in the project of "the Dutch Town in Puławy", but the reaction of the ministerial representative was not clear.
- There are no other elements of the traffic system ready for the implementation of the proposed instruments. As the most important lacking elements guests of the meeting enumerated: no ring roads of cities

(esp. in Warsaw), insufficient system of P&R (however the biggest one operates in Warsaw), not enough public off-street parking spaces (e.g. underground parking), and insufficient bicycle infrastructure.

Other instruments for enhancing energy efficiency proposed on the meeting were:

- stricter control of cars during the periodical (yearly) technical service;
- teleworking and e-government;
- easier access to the system of paid parking (through SMS or e-pay);
- system of public bikes (city bikes);
- implementation of fees for environment use for car users in city centre.

#### **4.2.1. Overall assessment of the meeting**

The meeting was successful and brought about several interesting possible solutions and possibilities of continuation. Several participants declared to work actively towards the discussed issue in the future in cooperation with the association. The most important contact was established in the Ministry of Transport.

## 5. ROUNDTABLE MEETING IN ŽILINA

### 5.1. Basic information

**Organizer:** Žilinská univerzita v Žiline

**Date:** 20<sup>th</sup> April 2012

**Venue:** Hotel Diana, Žilina, Slovakia

**Moderator:** Jozef Gnap

#### 5.1.1. Participants of the roundtable meeting in Žilina

NAME	ORGANIZATION
Marián Gogola	Občianske združenie Mulica (cyclist NGO)
Branislav Šarkan	Žilinská univerzita v Žiline (University of Žilina)
Katarína Hubová	Višegrádsky fond (International Visegrad Fund)
Vladimír Rievaj	Žilinská univerzita v Žiline (University of Žilina)
Hana Jurkovicová	Ministerstvo dopravy, výstavby a regionálneho rozvoja Slovenskej Republiky (Ministry of Transport, Construction and Regional Development)
Jozef Gnap	Žilinská univerzita v Žiline (University of Žilina)
Martin Jerguš	Združenie prevádzkovateľov hromadnej osobnej dopravy osôb v mestských aglomeráciách SR (Association of public transport operators in urban areas of the Slovak Republic)
Radovan Hužvík	Košický samosprávny kraj (Kosice Self-governing region)
Ján Bariencik	Dopravný podnik Mesta Žiliny, a.s. (Transport enterprise of the city of Žilina, Ltd.)
Ján Šimko	Dopravný podnik Mesta Žiliny, a.s. (Transport enterprise of the city of Žilina, Ltd.)
Gejza Sacko	Slovenská autobusová doprava Michalovce, a.s. (Slovak bus transport Michalovce, Ltd.)
Peter Janus	Dopravný podnik Mesta Prešov, a.s. (Transport Company of Prešov, Ltd.)
Ivan Mokry	Žilinský samosprávny kraj (Žilina Self-governing region)
Miroslava Mikušová	Žilinská univerzita v Žiline (University of Žilina)
Vladimír Konečný	Žilinská univerzita v Žiline (University of Žilina)

#### 5.1.2. Course of the meeting

The roundtable meeting in Žilina (Slovakia) was attended by decision makers and representatives from the most important bodies related to transport and energy efficiency: Ministry of Transport, Construction and Regional Development of the Slovak Republic, Association of Public Transport Operators in urban areas of the Slovak Republic, transport departments of 8 Slovakian self-governing regions, Mulica NGO, the Bus Transport Association, Slovak Bus Transport, Ltd., Urban Transport Company Ltd., Transport Company of Prešov, University of Žilina, Transport Research Institute Ltd., Slovak

Energy and Innovation Agency, and transport enterprises of the city of Žilina.

The meeting was divided into two main parts. In the first part of the roundtable meeting the following topics were introduced:

- The SusTrans project and its significance in promoting the reduction of energy consumption and the increasing of efficiency of transport in the Visegrad region;
- The results of the analysis of the strategic level transport documents in the Slovak

Republic in relation to the energy efficiency of transport;

- The benefits of increasing the energy efficiency of transport.

The second part continued with the discussion of the following topics:

- What are the main obstacles and deficiencies that prevent the elaboration or implementation of urban transport efficiency policy measures and the realization of transport efficiency projects?
- What kind of tools do the stakeholders possess, that could be used for improving transport energy efficiency?
- Identifying possibilities of cooperation.

## 5.2. Results of the meeting

The following issues, needs and ideas were discussed and identified during the roundtable sessions:

- The current state of transport infrastructure in the Žilina self-governing region, using the funds of the Operational Programme Transport and Regional Operational Programme intended for road reconstruction and the building of an integrated System for data collection (traffic performances, state of road network).
- Transport continuity in relation to energy intensity.
- Setting of the Operation Programme Transport (in the previous programming period, funds for building Integrated Transport Systems – IDS – were allowed to be used in only 2 self-governing regions).
- In the Slovak Republic the main topic is energy security, with focus on such issues as the self-sufficiency of Slovakia in the production of electric energy and dependence on supplies of oil and natural gas.
- The efficiency of electrical vehicles (not just in the case of buses and trolley buses

but with focus placed on the disparity in prices for the acquisition of new vehicles).

- The need for solutions for static traffic.
- The need for improving the state of 2nd and 3rd class roads.
- The need for renovating rolling-stock (according to practical experiences the consumption of new HD vehicles with 2 years of operation is approx. 30% lower).
- In Žilina more than 70% of the passengers are transported by trolley buses. At the moment the transport enterprise of the city of Žilina (DPMŽ) is focused on the renovation and purchasing of trolleys. It is necessary to complete the traction line. There are possibilities to obtain grants by EBOR (bonus rate by reducing power consumption – currently implemented in Prešov).
- Transport enterprise of the city of Žilina (DPMŽ) as a unique transport company in the Slovak Republic is responsible also for public lighting in Žilina. In the near future it is planning to replace the lights system in cooperation with the company Siemens (this holds the possibility of achieving an energy saving of 50%).
- Regarding trolley transport it is necessary to focus on restoring the traction network infrastructure, and not just on the renewing of vehicles. Neither should the transferring of energy to the grid be forgotten (sub-stations in the construction of capacitor-trapped energy is not returned to the vehicles but goes to substation) – examples of Switzerland, Russia. It will be implemented in Prague in near future.
- The need for detailed definitions of parameters for calculating performance for tables required by the Ministry of Transport, Construction and regional Development of the SR (no materials or methodology are provided).

### 5.2.1. Identified issues, barriers and deficiencies

When summarizing the identified issues, the following obstacles proved to be the most important ones.

Both legislative and practical support for the implementation of energy efficient mobility is missing. The most of the strategic documents in the legislative form are applied insufficiently, inefficiently, in an unsatisfying manner or are not implemented at all. Consequently it is necessary to adjust the Operation programme to the realistic needs at both regional and local levels, and to support the development of integrated transport plans and projects.

In the Slovak republic the programme for supporting cycle transport is missing (in the Czech Republic an updated version of this already exists).

It is necessary to support the preference of implementing electric modes in public transport (VHD) as well.

In the law on railways the requirements for supporting the implementation of energy efficient vehicles are missing.

Plans do not contain references to evaluate the use of bio-fuels.

The following points were also identified as significant issues that hinder the improvement of transport energy efficiency:

- High acquisition cost of trolleys (the producers nearly hold monopoly on trolleys).
- Lack of national and European support concerning the benefits of implementing energy intensive transport. There is a lack of support for energy intensive transport in the price.
- The import of used vehicles from abroad is unregulated.
- There is a common deviation between and the Programme Declaration of the

Government and its implemented measures.

- During the implementation of the Integrated Transport System (IDS) the specific schedules, sanctions for breach of planes and etc. are not specified.
- The construction plans of the trolleybus transport system are missing from the strategic documents (in the case of medium sized cities as well).

### 5.2.2. Suggestions for improving the current situation

During the roundtable meeting all participants declared their support to cooperate in the SusTrans project, and the following areas and necessities were identified:

- implementation of hybrid vehicles (with regard to the self-sufficiency of the SR in production of power). Launching PPT projects for building the network of charging stations;
- More support for cycle transport; the adjustment of HD vehicles to make them able to transport bikes (Vodné dielo, Žilina); the model of the city of Nitra could be used as an example;
- Intensive communication with the relevant ministries (Ministry of Transport, Construction and regional Development of the SR, Ministry of Environment of the SR, Ministry of Economy of the SR);
- Organization of trainings and courses aimed at driving techniques leading to a reduction in fuel consumption (the main impact on trolleys); as the training centres do not possess the latest means of transport, such training should be realised directly with the producers of these vehicles; implementation of targeted support for these kinds of trainings (grants and etc.);
- The graduation of motor vehicle taxes according to CO<sub>2</sub> emission levels (for purchasing cars or on an annual basis) and the introduction of toll for all roads (payment per kilometres travelled, On Board Unit in all vehicles);

- legislative adjustment of the Integrated Transport System implementation (which currently does not determine concrete terms, sanctions and etc.).
- implementation of relevant measures at city levels (creating transport “General”, in which the target shares of modal split in the city over the next 20 years will be defined);
- implementing measures for making public transport more favourable: priority lanes for buses, school buses, models of free public transport (especially in smaller towns – see examples from abroad);
- transport plan service processing of town Žilina with reference to public transport; creation of an Act for the preference of public transport use (e.g. as in Germany);
- Establishment of the organization of Integrated Transport System co-ordinators at the regional level (organizations constituted by representatives of several bodies in order to ensure impartiality in legislation and regulation);
- changing the legislation concerning public procurement; incorporation of energy efficiency (environmental) aspects into the Public Procurement as selection criteria; modifying the law on railways in the fall trolleys and rail tractions.
- Allocating resources for the renovation of the rolling-stock in the future programming period.
- Call to the government for the improved setting of the National Strategic Reference Framework of the SR (NSRR SR).
- Internet sales of tickets (the current complexity of tariffs complicates the implementation of integrated transport system).
- Building of intelligent terminals for stops and interchanges (Regional Operational Programmes provide funding for this in the Czech Republic).

# RESEARCH COMMUNICATION TRAINING

FOR DECISION-MAKERS, STATE ADMINISTRATION,  
COMPANIES AND HOUSEHOLDS

ABOUT HUNGARIAN AND INTERNATIONAL CLIMATE  
AND ENERGY POLICIES, ENERGY-EFFICIENCY  
AND RENEWABLE ENERGY SOURCES



**ENERGIACLUB**  
CLIMATE POLICY INSTITUTE  
APPLIED COMMUNICATIONS

[www.energiaklub.hu](http://www.energiaklub.hu)