



pro.motion  
sustainable mobility at home

creating liveable neighbourhoods  
while lowering transport energy consumption



## FINAL BROCHURE

“This is the final brochure from the PRO.MOTION project, whose 17 partner organisations in 12 European countries worked on energy efficient mobility in their own local context. The overall aim was to make it easier for citizens to choose sustainable modes for their every day transport and to enlarge the group of key actors integrating sustainable mobility and housing. I hope that you will find inspiration, ideas and tools that you can use to help citizens choose more sustainable transport where they live.”

*Anna Thormann, Co-ordinator of PRO.MOTION, October 2010.*

# TABLE OF CONTENT

---

|  |           |
|--|-----------|
| <b>EXECUTIVE SUMMARY .....</b>   | <b>3</b>  |
| <b>THE PRO.MOTION PROJECT .....</b>  | <b>5</b>  |
| What is the idea behind PRO.MOTION? .....  | 6         |
| What is PRO.MOTION about? .....  | 7         |
| The PRO.MOTION partnership .....   | 9         |
| <b>THE PRO.MOTION APPLICATIONS .....</b>   | <b>10</b> |
| Carpooling and scooter sharing campaign in Salerno .....   | 11        |
| The municipality of Murska Sobota .....  | 13        |
| Integration of mobility within Local Agenda 21 in Rosny-sous-Bois .....  | 15        |
| How to integrate mobility within Local Agenda 21 .....   | 18        |
| Promoting solutions to overcome existing barriers to reduce the use of the car in Sarriguren residential area .....                        | 21        |
| Green mobility in Hastrup – Different ways to address inhabitants to change their transport behaviour to more energy efficient modes ..... | 23        |
| 3na100 every drop matters – the car pooling site of Sofia .....  | 25        |
| Settlement “ALPHAWOLF” in Graz .....   | 27        |
| Implementation of the B+R and P+R facilities in Győr-Ménfőcsanak .....   | 29        |
| Sustainable Parking in Mixed Residential Areas .....   | 31        |
| Cycling connection from the residential area of Záturčie with the city centre .....  | 33        |
| Cloughjordan, Co. Tipperary .....  | 35        |
| District of Pārdaugava .....   | 38        |
| Raising awareness about sustainable transport modes .....  | 40        |
| Optimising the bus and cycle network .....   | 42        |
| <b>TRAINING ACTIVITIES .....</b>   | <b>45</b> |
| <b>FACTS &amp; FIGURES .....</b>   | <b>48</b> |
| <b>CONCLUSIONS .....</b>   | <b>50</b> |
| <b>PRO.MOTION PRODUCTS .....</b>   | <b>51</b> |

## IMPRINT:

**Authors:** Anna THORMANN, Fred DOTTER in co-operation with the PRO.MOTION partners.

**Publisher:** PRO.MOTION – Creating liveable neighbourhoods while lowering transport energy consumption

**Design & Conception:** Forschungsgesellschaft Mobilität – Austrian Mobility Research, FGM-AMOR gemeinnützige GmbH.

All photos are provided by the PRO.MOTION partners (unless otherwise noted) and approved for reproduction in this publication. Printed in Austria, 2010. The sole responsibility for the content of this publication lies with the authors. It does not represent the opinion of the European Communities. The European Commission is not responsible for any use that may be made of the information contained therein.

## EXECUTIVE SUMMARY

### Background

PRO.MOTION was a project within the framework of the Intelligent Energy Europe (IEE) programme of the Directorate General for Mobility and Transport (DG MOVE). The core activity was the application at 14 sites in 12 countries of various measures aimed at promoting sustainable transport.

The objective was to change mobility behaviour by influencing people's travel decisions where the most important ones are made: at home. This was achieved by addressing three levels:

- Improving conditions for sustainable modes
- Changing perception and increasing awareness of sustainable modes
- Encouraging people to adopt a less energy consuming lifestyle.

Training sessions were held in 10 countries with the aim of increasing awareness about combining housing with sustainable mobility.

### What has been done?

The main measures were:

#### Improvement of facilities on the basis of needs and demands (level 1)

- Improved connections by bicycle and for pedestrians
- Improved cycle parking where needed
- Improved routes for buses
- Regulation of car parking
- Bike & ride and park & ride facilities
- Car pooling services in both a large capital city and in smaller residential areas
- Organised CarSharing



#### Development of information tools on CO<sub>2</sub> emissions (level 2)

- CO<sub>2</sub> and cost calculators on transport
- "CO<sub>2</sub> scale" for events
- Info points at PT stops with information on CO<sub>2</sub> emissions saved
- "Tips and ideas for energy savings in terms of housing and mobility", leaflet for private users.
- Web site based route planner

#### Awareness raising activities were an integrated part of most applications (level 2)

- Campaigns on alternative modes; electric cars, electric bicycles, mobility week events, mobility exhibition, test bicycles
- School programmes on cycle safety, riding the bus safely, competitions and art creations
- Promotion of new facilities and services; mobility maps, welcoming pack, travel information pack, flyers, tv adverts, opening events
- Campaigns to involve people more actively: "Gym begins at home" and "Car free school campaign".

## EXECUTIVE SUMMARY

### Actions to mobilise and engage inhabitants and key actors (level 3)

- Consultation with inhabitants and end users
- Personal travel planning
- Analysis of different interests in the area
- Public meetings and working groups on concrete topics
- Round tables
- Multi stakeholder groups
- Processes with inhabitants and politicians

A full description of each application site, target groups, measures and results can be found in the "Code of Practice report" on our website.

### Training

PRO.MOTION partners designed and implemented training sessions based on the results of PRO.MOTION applications, our surveys on needs and wishes, together with results from a related IEE project ADD HOME ([www.add-home.eu](http://www.add-home.eu)). The target groups were local authorities or politicians, management / energy agencies, construction companies, transport providers, property management companies, tenant associations, spatial planners / architects and other institutions.

### Outcomes

The evaluation and monitoring of PRO.MOTION was carried out by using the SUMO methodology (System for evaluation of mobility projects) for all applications and questionnaires for the project process, the training and products.

We want to highlight how many people were involved and satisfied with PRO.MOTION services and offers:

### With the applications we successfully reached:

- 7,550 households in application sites recognise the personal benefit from using energy efficient transport modes
- 2,354 participants participated in 20 participative processes
- 625 individual travel plans were prepared for people and goods
- 3,426 pupils were involved in the 6 educational programmes
- 54,830 inhabitants requested mobility advice on web pages and in person

### Training sessions and dissemination activities successfully reached:

- 755 people participating in 10 national training sessions
- 487 decision makers and senior managers with training and dissemination activities
- 61 companies taking up energy efficient transport in their daily business and at least 2 municipalities integrating energy efficient transport in their LA21 process
- 58 national or provincial associations with communication of PRO.MOTION objectives, products and results

In addition there were 6 E-newsletters sent by direct e-mail to wide national networks and presentations at 12 European and national conferences.

**Energy savings from the measures implemented have been estimated at 4,695.74 tonnes CO<sub>2</sub> in the project life time.**

### For more information

[www.iee-promotion.eu](http://www.iee-promotion.eu)

#### Coordinator:

DGH, Det Grønne Hus, DENMARK

Ms Anna Thormann, [anna@detgroennehus.dk](mailto:anna@detgroennehus.dk)





# THE PRO.MOTION PROJECT

## WHAT IS THE IDEA BEHIND PRO.MOTION?

We all know we should be trying to reduce our energy consumption and lead a more sustainable lifestyle. Persuading us to do so, has long been one of the European Union's overarching policy objectives.

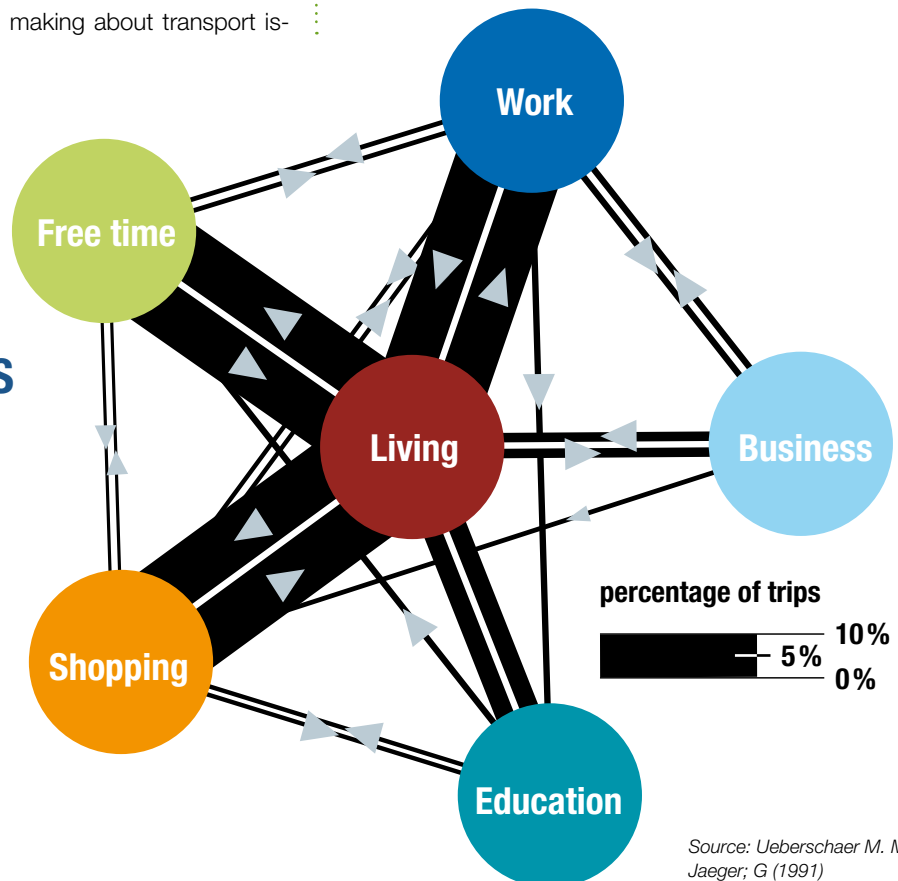
**Efforts to design transport systems usually focus on single trips such as to work or to school, PRO.MOTION wants to shift the focus back to people's homes, thereby making use of the big potential for energy efficient transport.**

The usual assumption that we travel to various destinations as part of one daily journey is incorrect. Instead of travelling from home to work, from there to shopping and right afterwards to a leisure activity, we usually travel from home to work and back, and subsequently from home to the shops and so on. Home therefore plays a central role where decision making about transport issues is concerned.

Indeed, up to 45% of energy use by households is related to transport and 80% of all trips start or end at home. This is a fact that has been largely neglected in most attempts to reduce private car use. A 1997 Austrian study showed that on average households with cars consumed 44,000 kWh of energy per year, of which 20,100 kWh was due to transport. In contrast, comparable households without cars consumed 27,500 kWh of energy per year, including just 3,600 kWh on mobility.

By promoting alternatives to the car and involving people in creating suitable energy efficient transport solutions, we hope to change their mobility behaviour, encourage them to make fewer trips and create liveable neighbourhoods.

### TRIP CONNECTIONS IN DAILY TRANSPORT



Source: Ueberschaer M. M.; Jaeger; G (1991)

## WHAT IS PRO.MOTION ABOUT?

**PRO.MOTION aims to change mobility behaviour by influencing people's travel decisions where the most important ones are made: at home.**

PRO.MOTION is a project within the framework of the Intelligent Energy Europe programme of the Directorate General for Mobility and Transport (DG MOVE). It is an application focused project with a wide variety of schemes in 12 countries aimed at coming up with practical measures to promote sustainable transport. The application sites range from small neighbourhoods and newly developed residential areas to whole city districts.

The aim is to facilitate energy efficient transport in the joint field of housing and mobility and to reduce the need for transport by providing services and facilities, which replace transport services.

**Home therefore plays a central role where decision making about transport issues is concerned!**

At home the decision about the mode of transport can be taken anew each time. So far however, despite the central role regarding decisions about transport, this fact has been largely neglected. Efforts to design transport systems usually focus on single trip purposes such as getting to work or to school. PRO.MOTION wants to shift the focus back to people's homes, thereby making use of the big potential for energy efficient transport.

**The conditions for more sustainable mobility patterns from home are both very promising and conflicting at the same time!**

Alternatives to the car, such as bicycles, public transport and walking offers benefits such as freedom of movement, reduced road congestion and no need to find a parking space. Finding a parking space would not be an issue and other decisions may be taken freely



as well. Nevertheless there are severe problems since, compared to the car, the accessibility of the alternative means of transport varies considerably. While the car is parked in or very close to the home, bicycles often need to be carried in and out of the building or are parked outside without protection from the weather. Public transport might require a walk of at least several hundred metres, as well as the purchase of a ticket.

That's why a crucial element of the project is raising awareness and motivating people to adopt a more sustainable lifestyle. As well as working with residents through one-to-one sessions or workshops, PRO.MOTION promotes a range of practical solutions such as travel plans, car sharing schemes and demand-oriented public transport to encourage people to try more energy efficient modes of transport. It is also working to improve infrastructural planning and organisational measures, such as pedestrian access and bicycle routes between neighbouring city districts.

**The most perfect match of housing and mobility in terms of sustainability is the idea of car-reduced or even car-free housing. It means more green space for the residents, more space for children to play, a convenient infrastructure for cycling and walking, a high level of traffic safety and mostly short trips to retail facilities.**

## THE PRO.MOTION PROJECT



The objectives to achieve this change in behaviour enable a comprehensive implementation of the project: PRO.MOTION aims to create new market opportunities, enlargement of the group of active actors, creation of awareness and change of perception in the main target groups to the topic and for each other, transfer of knowledge from other fields of transport and the creation of competence and knowledge amongst stakeholders.

### **PRO.MOTION tackles the main objectives with this approach:**

- **Improvement of the objective conditions such as infrastructural planning or organisational measures**
- **Raising awareness and correcting perception of energy efficient transport**
- **Motivating inhabitants to change their mobility behaviour to a more energy efficient one**

Other key tasks include educating key players. Here, the main targets are residents, though PRO.MOTION also addresses stakeholders in the fields of housing and mobility.

The goals of the project are developed to fit the needs of all the target groups. The most essential one to address is inhabitants representing the demand side. They offer the opportunity to affect all other stakeholders through changing their needs. Construction and property management companies provide the services requested by inhabitants and are the direct access for creating and offering suitable products. Energy agencies provide a perfect connection to all stakeholders and to knowledge in terms of energy saving in housing. Transport providers and mobility service providers complete the target group.

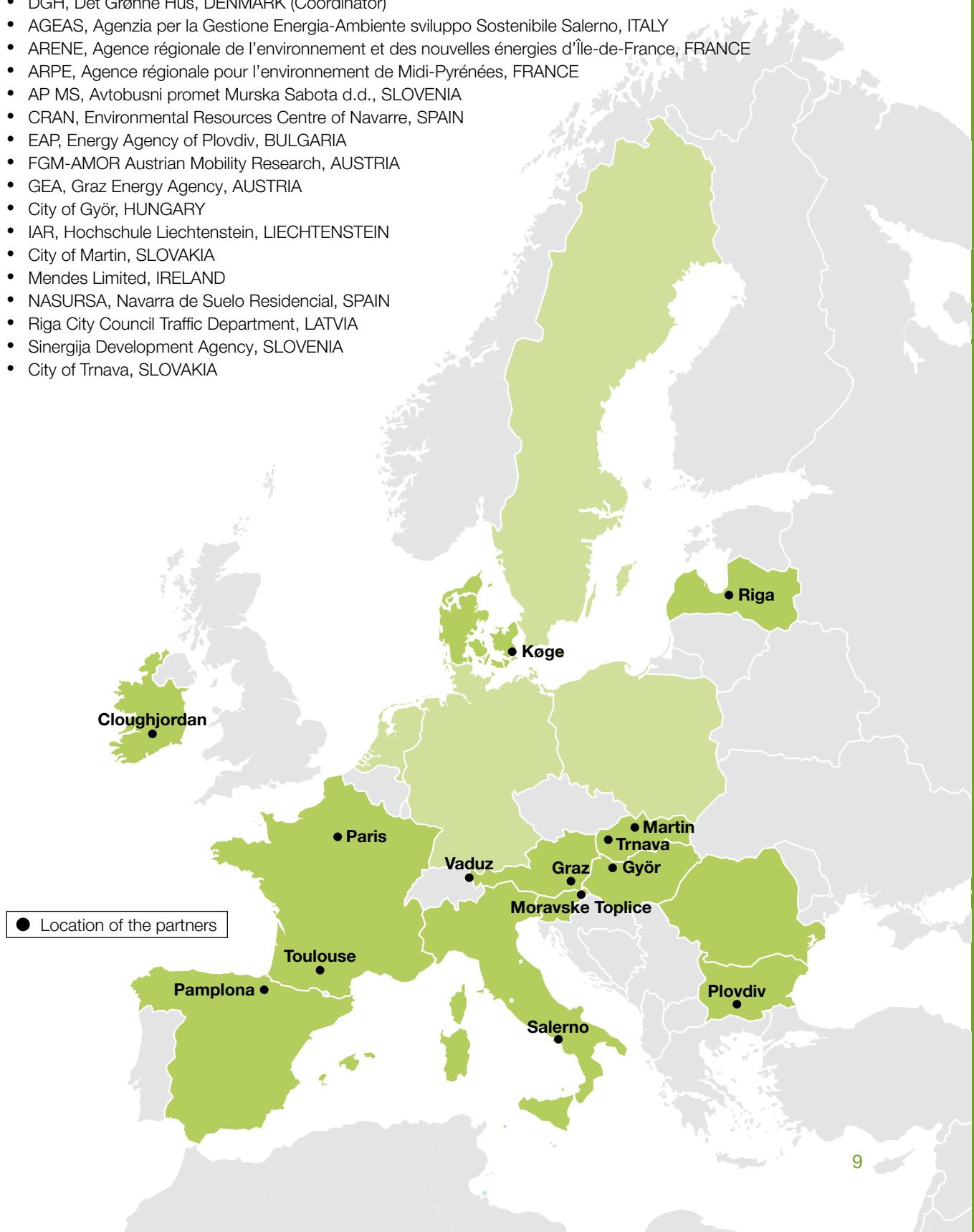
Public authorities are key actors. They are deeply involved in housing and transport and offer excellent possibilities to influence their conditions and to disseminate to inhabitants. Land use experts, tenant associations and local suppliers complete the group of key actors.



## THE PRO.MOTION PARTNERSHIP

The PRO.MOTION partnership consists of 17 partners from 12 countries

- DGH, Det Grønne Hus, DENMARK (Coordinator)
- AGEAS, Agenzia per la Gestione Energia-Ambiente sviluppo Sostenibile Salerno, ITALY
- ARENE, Agence régionale de l'environnement et des nouvelles énergies d'Île-de-France, FRANCE
- ARPE, Agence régionale pour l'environnement de Midi-Pyrénées, FRANCE
- AP MS, Avtobusni promet Murska Sabota d.d., SLOVENIA
- CRAN, Environmental Resources Centre of Navarre, SPAIN
- EAP, Energy Agency of Plovdiv, BULGARIA
- FGM-AMOR Austrian Mobility Research, AUSTRIA
- GEA, Graz Energy Agency, AUSTRIA
- City of Győr, HUNGARY
- IAR, Hochschule Liechtenstein, LIECHTENSTEIN
- City of Martin, SLOVAKIA
- Mendes Limited, IRELAND
- NASURSA, Navarra de Suelo Residencial, SPAIN
- Riga City Council Traffic Department, LATVIA
- Sinergija Development Agency, SLOVENIA
- City of Trnava, SLOVAKIA



● Location of the partners



# THE PRO.MOTION APPLICATIONS

The various applications implemented of the partners formed the core of PRO.MOTION. They ranged from small scale items, such as local travel information leaflets in rural Ireland, to developing strategic policy changes in LA21 processes in urban France. They covered both soft measures, such as campaigns on getting to school more sustainably in Denmark and infrastructural measures, such as new cycle routes in Slovakia. This chapter provides you with an overview on all implemented and planned applications within PRO.MOTION.

## CARPOOLING AND SCOOTER SHARING CAMPAIGN IN SALERNO

### AGEAS, Agenzia per la Gestione Energia-Ambiente sviluppo Sostenibile Salerno, Italy

On the one hand the AGEAS applications deal with the promotion of carpooling for short journeys between home and work-home, home from school, home-shopping-home and on the other hand they promote the culture of urbanization in the field of sustainable mobility. It was decided to operate in these areas as short journeys account for 70% of total trips in the car with the average of 1.4 passengers. Many professional technicians also call for training in sustainable design and for information about good practices in Europe.

Urban areas had a “growth disorder”. There existed no schedule that provided for the execution of works and intermodal interchange with other residential districts. The analysis of the movements of residents showed that 3 out of 4 used a car. New commercial developments implemented entire areas of car parks to convince people to use private cars.

The University, with some 56,000 members, does not offer students the possibility of sustainable mobility. 1 out of 4 employees of the Province of Salerno use public transportation, 3 out of 4 use their car.

The information campaign aims to solve the problems of travelling to and from shopping malls, and from the University and the settlements on the campus. The main problem to be addressed was that, during peak hours, a high percentage (83%) travel by car, with an average of 1.4 occupants.



**The application consists of an information campaign, training sessions and pilot projects with carpooling.**

The information campaign was developed to target families, students, workers/employees and housewives of the Province of Salerno. The used media comprised; posters, a survey, telephone interviews, information brochures and demonstrations as well as involvement of board members, newsletters and workshops.

The involvement of local administrators and leaders of the PA, included an information campaign through an informative newsletter, meetings and regional macro-division of the territory in order to have direct contact with all local administrations of the Salerno area (158 municipality about 5,000 km<sup>2</sup>). For technical engineers and architects meetings were organised that were split into different themes in order to meet their demands. One meeting aimed to engage and encourage junior engineers by considering the shortcomings of planning and one meeting was targeted to senior technicians.



## THE PROMOTION APPLICATIONS

### Steps taken

Before the course a workshop was held in which participants expressed their views about a concerted programme. Upon request, some issues were discussed in more detail.

At the end of the course a double evaluation was carried out. Participants returned a survey regarding their satisfaction with the course and the subjects covered. Other participants evaluated the course by writing a final paper that gave feedback the achieved level of awareness and knowledge about topics covered. 32 of the participants of the course were directors, 70 senior and 32 junior engineers.

The carpooling campaign involved about 250 workers in the province who have responded to the survey distributed originally to over 350 employees, at beginning of September 2008, 20 groups with 3 persons per car started to use carpooling for their travel to work. Scooter sharing was promoted through the start-up information campaign with the hydrogen scooter PIRODE for trips to and from the shopping areas. The university has implemented demonstration events at shopping malls preceded by leaflets and posters posted at the entrance and at public areas of the mall and the university.

### Energy savings

Starting in September 2008, 20 groups of three persons / car began to use carpooling for their trips to work; 10 families have started with carpooling to go to the commercial centre and 20 groups of 4 persons / car have started to use carpooling to get to the University. This means in only one week 43 tons of CO<sub>2</sub> have been saved in the first case, 18 tons in the second case and 91 tons in the third case.

### Lessons learned and out comes

Applications have shown that information campaigns alone will not solve the problem. A good campaign and good information definitely creates attention and presents a different perspective to the public. Regulatory barriers and the current global economic crisis have undermined the campaigns. The closure of some department stores has removed the sensitization, while the political changes at the university have led to other choices.

A subsequent survey, sent to participating households (500) showed positive results in terms of increased awareness. The same applies to the development of carpooling and scooter sharing for students of the University, where the final survey revealed that this subject received a lot of attention. For 55 % of the interviewees the main obstacles are related to the management of class schedules, for 20 % to the lack of suitable areas, for another 20 % to the lack of infrastructure links, and for 5 % to the of the termination of studies. From employees of the Province of Salerno that participated in the final survey, 65 % stated that they are willing to go to work using the carpooling system. 35 % stated it was not possible. 65 % out of these 35 % said it was due to incompatibility of their schedules with that of their colleagues, 30 % said they were travelling with their spouse or other family reasons and 5 % prefer to have more freedom of movement.

The course was rather more successful, and it was suggested to hold a post-graduate training and an update for the senior technicians. It was also suggested that manufacturers could support the implementation of a training course for entrepreneurs. The directors and officers of the PA from the final survey revealed that it is informative to be made aware of the barriers and the assessment of benefits of a sustainable land management brings economic and social implications in terms, less tax burden for the reduction of maintenance and / or sustainability of new residential neighbourhoods, and an increase in the demand for the purchase of new homes which is more visible.



## THE MUNICIPALITY OF MURSKA SOBOTA

### AP MS, Avtobusni Promet Murska Sobota, Slovenia



The municipality consists of 11 villages (Kupšinci, Veščica, Černelavci, Polana, Pušča, Satahovci, Krog, Bakovci, Rakičan, Markišavci and Nemčavci) and the town of Murska Sobota, which, with a population of 12,000 inhabitants is the largest settlement. Several regional roads cross the municipality and over 17,000 vehicles (16,000 of them cars) go through Murska Sobota each day. The average number of trips per person per day in Murska Sobota is 2.

74 % of all inhabitants of Murska Sobota need approx. 15 minutes or less to get to work, but almost 59% of inhabitants go by car to work. Short distance trips in Murska Sobota are also made by walking or cycling (37 %). The target group is the inhabitants of the municipality of Murska Sobota.

The main aim has been to present the inhabitants with public transport as an alternative form of mobility. The objective is for more inhabitants to use public transport instead of the car, leading to lower CO<sub>2</sub> emissions. In order to ascertain how the town bus services could be improved we carried out a survey, the results of which showed that there is a lack of information, that there is need for more bus stops, more bus routes and better frequencies in Murska Sobota. In response to this APMS has raised awareness about the existing "Sobočanec" route through leaflets, brochures, prize games, "park and ride", workshops and the installation of an infopoint.

### Key steps taken

Activities implemented to lower transport energy consumption:

1. Together with Sinergija we organised round tables/ events to present the PRO.MOTION project to the several stakeholders/representatives in the municipality of Murska Sobota, of energy agencies, Universities and faculties, secondary and primary schools, Police, Road Safety Council, ...
2. We carried out workshops with primary school children to inform them about public transport, especially about bus routes in Murska Sobota (how to get on the bus, how to read timetables, how to behave on the bus,...); all this was done in order to improve awareness that the bus is a safe way to travel and that there is no need for parents to drive their children to school by car;
3. We have improved information at bus stops with timetables and route maps;
4. We have informed the municipal council of Murska Sobota about the needs of inhabitants;
5. We have organised a prize game "mus na bus" in which we have promoted PRO.MOTION through t-shirts with the logo of PRO.MOTION on them;
6. We have organised a "park and ride" service on 22<sup>th</sup> September during European Mobility Week;
7. We have established an infopoint at the main bus station in Murska Sobota with information and comparison of CO<sub>2</sub> emissions as well as cost comparison between using the car or taking the bus;
8. Together with Sinergija we have organised a National conference entitled 'Moving way of life';
9. The activities implemented were also promoted and supported through the local media.

## THE PROMOTION APPLICATIONS

### Outcomes and lessons learned

We were successful in reaching our target group, the local inhabitants of Murska Sobota, through the activities implemented. We have collected information about the needs of inhabitants using surveys and questionnaires, which provided us with a good foundation for the further steps taken during the project.

We have learnt:

- It is necessary to give information about public transport on a continuous basis;
- Information about public transport must be detailed but simple to use, especially at bus stops;
- Information must be given in different ways in order to reach more inhabitants, using different media and activities;
- Children are a very important target group and it is necessary to have workshops with them, because many of their parents will take heed of their opinions. For example if children feel safe travelling by bus, their parents or grandparents will not drive them by car to school;
- It is necessary to follow the needs of inhabitants in order to adjust public transport provision; they are grateful and give useful suggestions, provided that their opinions and some of their wishes are accepted and also implemented);
- It is very difficult to change the perception of public transport and that is why it must be supported by the local authority; e.g. there is an opinion that public transport by bus is expensive, that it pollutes the environment and that it is old-fashioned to use public transport.



## INTEGRATION OF MOBILITY WITHIN LOCAL AGENDA 21 IN ROSNY-SOUS-BOIS

**ARENE, Agence régionale de l'environnement et des nouvelles énergies d'Île-de-France, France**

### Local context and rationale for application

The application site was the **City of Rosny-sous-Bois**, located on the North East of Paris (app. 41,424 inhabitants and 15,065 people in employment – source Census INSEE 2006).

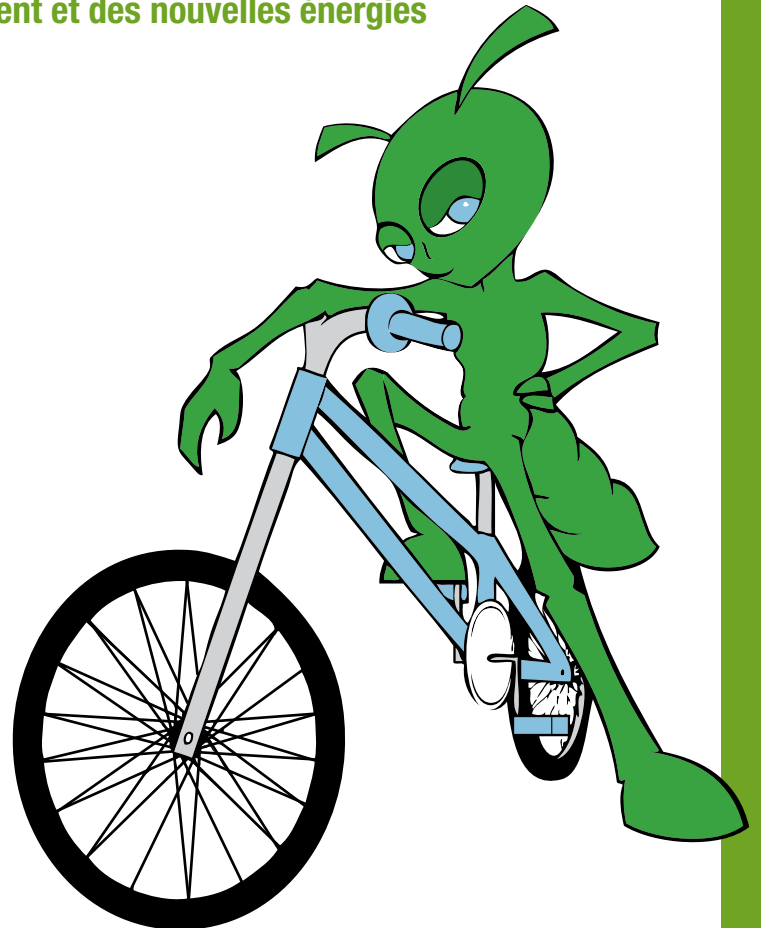
In terms of transport supply, the City is served by 2 highways, 2 train stations, several bus routes and a transport service for disabled people. Cycle paths, traffic calming and parking facilities are quite rare.

On average (modal split- EGT2001), there is a high use of car (car: 40%), but also of walking (38%), and less of PT (20%) and 2 wheels (bicycle and motorbike: 2%). The municipality wanted to be exemplary and the LA21 process received strong political support from the Mayor. Regarding the results of Deliverable 2.4, Cities engaged in LA21 are relevant target groups for PRO.MOTION: awareness on energy efficiency, open to participative processes, needs of examples on energy efficient transport. PRO.MOTION could be a good opportunity to create and disseminate “good mobility practice” for LA21. But the usual duration to prepare a LA21 (at least 18 months in the best case) was also a main obstacle.

The overall goals were to encourage and help Municipalities in Ile-de-France to better integrate mobility within LA21 in the process as well as in the contents of action plans.

The **objective of the application** was to assist the Municipality of Rosny-sous-Bois in integrating mobility within its LA21. The strategy had 3 main aspects:

- Integrate mobility within the LA21 process at each step with the representatives of the Municipality (directors, project managers, elected people)
- Involve inhabitants throughout the process
- Define and implement a plan of action regarding the three PRO.MOTION levels (mainly level 1 and 2).



### The participation of key stakeholders in mobility topics was organised according to the following 3 levels.

Decision level: 4 Steering committees were organised with representatives of Departments (directors, project managers), elected people and external experts (ARENE, City subcontractor for its LA21) to decide on the guidelines concerning the application.

Technical/executive level: 14 working groups (short meetings of 2 hours) were organised with a few representatives (directors, project managers) of Departments (Transport, LA21 and Communication). Working groups dealt for instance with the organisation of the mobility survey, the preparation of the participative process, awareness activities or communication.

## THE PRO.MOTION APPLICATIONS

Participative level: 9 participative activities were organised to involve inhabitants in the process of LA21 to better know their mobility habits and preferences, to discuss and to build jointly a plan of action and to implement it.

### Key steps taken

The key steps followed the usual steps and methods to prepare a LA21, integrating a participative process. For its communication, the City used a large range of media:

- flyers
- post or emailing of invitation
- posters and rollup posters in public spaces
- Mayor's newsletter
- City newspaper and website
- LA21 website: dedicated website to inform, raise awareness and associate inhabitants with the LA21 <http://www.developpementdurableosny93.com/>

### Kick-off of LA21

4 seminars presenting LA21 (definition, calendar, goals...) gathered 220 inhabitants and raised their awareness of sustainable development, in 4 different sites of the City.

### Status report

The 1st stage aimed to better understand the current situation in collecting information. An inventory was made on the locality, public policies and internal management. An awareness campaign on alternative modes was launched via 3 modes (bus, bike and carpooling) with the LA21 mascot (local e-TV and homepage of LA21 website).

### Strategic guidelines & objectives

A participative workshop on mobility was organised with 31 inhabitants to share the status report (incl. Mobility inquiry) and identify the initial steps to take.

"Mobility-Planning" was accepted as one of the 4 main strategic priorities at the political level (vote), such as Climate change, solidarity and eco-citizenship.

### Definition of an action plan

A 2<sup>nd</sup> participative workshop on mobility was implemented with 15 inhabitants to define 8 priority actions. In addition, 9 free contributions have been uploaded by inhabitants on the LA21 website.

The last proposal of the action plan dealt with "Mobility-planning" in 5 main priority measures:

- Urban Mobility Plan
- Enhancement of the existing local bus network
- Workplace Travel Plan for the City staff
- Walking buses to school (experimentation)
- Guidelines for new neighbourhoods focused on energy efficiency.

In addition, mobility might be concerned by 9 other potential measures proposed for the 3 other goals such as energy office in partnership with local energy agency, administrative services online.

After a technical review of the report, the LA21 action plan was validated on the 7<sup>th</sup> October 2010 in the municipal council. Regarding the PRO.MOTION levels, over the 13 possible actions on mobility and planning, 7 could impact level 1, 5 level 2 and 1 level 3.

### Implementation

Some pilot actions, focused on the City (eco-friendly management) or the awareness of inhabitants, have been implemented in the perspective of the future action plan.

1. Awareness and demonstration of electric bikes for inhabitants
2. Awareness campaign of City staff on eco-friendly behaviour including walking for short trips
3. City staff e-bikes pool
4. Creation of online services for inhabitants
5. Awareness event on mobility during open days at an educational farm.



### Energy savings

For the **City staff e-bikes pool**, we can estimate that 51 kg of CO<sub>2</sub> were saved by 2 months of use (46 uses) and following potential savings over a year:

- For 20 uses per month : 268 kg CO<sub>2</sub>/year
- For 30 uses per month : 402 kg CO<sub>2</sub>/year

For the 2 days event with Free PT (10,000 visitors; 15% or 1,500 persons or approx. 500 households, came by PT instead of car), we can estimate that 522 kg CO<sub>2</sub> were saved.

**Overall, the pilot actions saved 573 kg CO<sub>2</sub>.**

### Outcomes

#### Overall outcomes and impacts, we want to highlight:

- Inhabitants were involved throughout the process on mobility topics through information, survey, activities and a large range of media, especially a dedicated website;
- Awareness campaigns/event to accompany changes of behaviour and choices (demonstration, games...)
- Action Plan integrating the PRO.MOTION levels
- An Urban Mobility Plan scheduled (Master Plan) to plan and co-ordinate PT, cycling, walking, traffic and parking policies.
- Energy saving calculations scheduled for mobility measures
- A new member of the Transport Staff recruited with PT and mobility management skills during the application.
- Materials created to help decision makers and project managers.

### Key factors for success and for replication of the application

- Political support at Mayoral level
- Skills and know-how on transport and mobility (for mobility management)
- Give time to the first stage to understand clearly the current situation and share it with inhabitants



- An important detail! Pay special attention to the design of the mobility survey questionnaire and prepare arguments (agenda is seen as private topics) to collect enough relevant answers (for modal split)
- Acquaint the inhabitants with the definition of action plans to ensure acceptance and relevance of measures
- Championing by City staff and elected people
- Organise an early awareness campaign on alternative modes.

### Transferability issues

- Lack of existing data on mobility uses and transport supply: it will extend the duration and costs of the status report (approx. 3 months minimum in all for mobility survey)
- Lack of financial means to implement a survey on mobility uses, needs or wishes: the cost of mobility survey based on questionnaire could be high for small cities and villages.
- Underestimation of importance and time spent on status report and participative process: inventory but also participation need time to be successful.

# HOW TO INTEGRATE MOBILITY WITHIN LOCAL AGENDA 21

## ARPE, Agence régionale pour l'environnement de Midi-Pyrénées, France



### Local context and rationale for application

ARPE's application focuses on process, similar to ARENE's application, rather than actions to be implemented as the other partners have done. ARPE has helped municipalities to better integrate mobility in their LA21.

In order to achieve its objectives, ARPE decided to send a questionnaire to all municipalities in Midi-Pyrenees, involved in a sustainable development process. These 37 municipalities are members of the regional network of sustainable cities and regions, co-ordinated by ARPE since 1997. The municipalities were asked whether they would be interested in being assisted to integrate mobility aspects in their LA21 process through the project PRO.MOTION. In reply eight municipalities responded positively.

In order to select one municipality with which to work, ARPE applied different criteria and discussed with each of them to evaluate their motivation and their interest in participating in the project.

### The selection criteria, were, among others:

- the willingness of the elected people, mobility departments and technicians: their needs and expectations in the field of mobility
- the size of the municipality and the human and financial resources available
- the state of development of their LA21 plan
- the level of awareness on mobility

As a result of this selection process, Cornebarrieu was the municipality chosen.

It is a small town (5,600 inhabitants), situated in the South of France, in the suburbs of the regional capital Toulouse.

Over the last few years Cornebarrieu has been developing and welcoming new residents. Urban development causes an increase in car trips and the need to adapt the local road infrastructure. One new settlement is being developed "ZAC Monges-Croix du Sud" for completion in 2012.

80 % of the active population is working outside the city, in Toulouse or Blagnac, and 90 % of them go to work by car. Only 25 % are employed locally. The 2 main employers in the town are the aeronautics sector and a private health clinic. Cornebarrieu is a dormitory town dominated by intensive car use each morning & evening with 19,000 cars per day on 1 road. Inhabitants use their car to go to work but also to take their children to the nursery or to school. This causes serious additional problems of road safety.

All these aspects (the urban sprawl, the new settlement, the inhabitants' behaviour, road safety..) justified the choice of Cornebarrieu. Furthermore Cornebarrieu is engaged in a LA21 process since March 2007, but mobility was not clearly identified as a major issue to deal with. Nevertheless, in this small town, the elected officials have a strong willingness to integrate sustainable development in their daily activities and political decisions.

Other justifications were provided during the participative process of the shared analysis; several problems have been pointed out by the inhabitants, including:

- most of the active population works outside the town and use a private car to go to work, because public transport, carsharing or carpooling are not well developed or provided.
- bike lanes are insufficient and not well connected with each other and with public transport.

These remarks from inhabitants have shown that mobility is a concrete and daily preoccupation and that improvements are necessary.

### Key steps taken

First step: public consultation to better know the inhabitants' expectations. This used surveys, discussions with company managers, workshops and working groups with selected people (young, isolated people, elderly people.) in order to widen the consultation and connect to the whole population. A specialised consultant was engaged to lead this consultation. The results were then presented to the inhabitants during a public meeting.

Following this the politicians identified the major local issues and prioritised them. They were then presented to the inhabitants, who were invited to participate in a second public consultation process. New workshops and round tables were organised in order to propose concrete actions on the basis of the issues identified and retained at the political level. The feasibility of the actions proposed was assessed and then a public

meeting was held to inform people of the results and to launch the writing of the action plan. It consists of a detailed document in which each action is described: issues, departments involved, objectives of the project, expected results and performance indicators.

In parallel, for the other municipalities of Midi-Pyrenees not assisted individually, ARPE organised collective methodological support through training and workshops. During these sessions, the tools and the methodology applied in Cornebarrieu were tested. Consultants and public transport operators were invited to speak about their knowledge and experience, give information on mobility in general and practical recommendations. Exchanges between participants were encouraged to know how they take into account mobility in their locality and to benefit from their experience.

Around 20 municipalities attended these meetings and so have now the knowledge and the tools required for integrating mobility in their LA21 plan.

### Energy savings

Walking buses to school was one example of applications tested in different municipalities in Midi-Pyrenees.

#### For instance:

- 6 routes
- 60 to 70 children walk to school each day
- 40 parents volunteer to go with them
- Average distance covered: 42.5 km



## THE PRO.MOTION APPLICATIONS

### Results

- It is estimated that 14 kg of CO<sub>2</sub> are saved each day.
- The average for a school year: 2,600 kg for only 60–70 children.

Another action concerns the local council and its involvement in eco-responsibility. In 2009, the local council provided free public transport tickets to its employees and bought clean vehicles. 37 public transport routes were organised and combined with the use of clean vehicles (23 % of the bus fleet), 630kg of CO<sub>2</sub> were saved in 2009.

### Outcomes and lessons learned

#### Overall outcomes and impacts:

- The integration of mobility within the LA21 process is very different according to the municipality and the state of development of its LA21 plan,
- LA21 was taken as an opportunity to know better mobility demand and transport offer (mobility survey, database)
- Inhabitants were involved throughout the process on mobility topics through information, survey, participative and awareness activities.
- An action plan integrating the three PRO.MOTION levels
- In order to implement its action plan, the council needs to know better the mobility of its inhabitants, to give strategic guidelines on sustainable mobility, to better co-ordinate the different stakeholders' actions. The plan covers cycling and walking, parking management, local PT network, information, awareness and education.
- Energy saving calculations are scheduled for mobility measures.

#### Outcomes for dissemination:

- Recommendations on process (method and tools)
- List of participative activities
- Examples of actions to implement.

Thanks to the application and the training, ARPE (together with ARENE) developed materials to help decision makers and project managers. These products will be used to create a guidebook of recommendations with materials/tools.

### Key factors for success and for replication of application

- Political support at Mayoral level
- Human resources: project manager with mobility management skills and/or technical support from a specialised consultant
- Giving time to the first stage (diagnosis and public consultation) to understand clearly the current situation
- Acquaint the inhabitants with the action plan to ensure good acceptance and relevance of measures by inhabitants and politicians.
- Inform the local population about alternative modes of transport.

### Transferability issues

- Lack of technical competence on mobility within the local council (risk for small towns and villages)
- Lack of existing data on mobility uses and transport supply: it will extend the duration of the diagnosis
- Lack of financial means to undertake surveys on mobility uses, needs or wishes: the cost of mobility surveys based on questionnaires could be high for small towns and villages.
- Underestimation of the importance and time spent on the whole process: inventory and participation require time to be successful.

### Dissemination of lessons learned

#### The know-how was transferred by various means:

- Practical Training: on a "project training approach"
- Guidebook and materials: to increase the awareness of politicians about sustainable mobility throughout LA21 and to advise and support technicians in their implementation
- Final conference: to increase awareness, to make the materials better known and facilitate their use.



## PROMOTING SOLUTIONS TO OVERCOME EXISTING BARRIERS TO REDUCE THE USE OF THE CAR IN SARRIGUREN RESIDENTIAL AREA

**CRAN, Environmental Resources Centre of Navarre, Spain**  
**NASURSA, Navarra de Suelo Residencial, Spain**

### Local context and rationale for application

Similar to elsewhere, the metropolitan area of Pamplona has experienced urban sprawl, in particular with residential areas such as Sarriguren adding to this phenomenon.

Different analysis, including diagnosis of a sustainable mobility plan of this metropolitan area, has emphasised the relationship between urban and land models and the growth of car use. Thus it has been important to work to overcome already existing barriers related to a specific site (Sarriguren) and also to prevent future problems thereby inducing changes to planning and providing specific knowledge to planners.

It also highlighted the future role of Sarriguren as the main focus of origin and destination trips, because of its position and size (5,372 housing units and about 10,000 inhabitants at the end of PRO.MOTION). Overcoming infrastructural and social barriers to reduce car use there might therefore have a big impact on the area as a whole.

The urban planning conditions in Sarriguren are especially difficult for the potential development of sustainable modes of transport, because it is located in the municipality of Valle de Egüés, separated from the nearby neighbourhoods of Pamplona by a ring road and connected to the local road network by roundabouts where the safety of walkers and cyclist is not guaranteed and public transport does not have priority. For these reasons, Sarriguren was an interesting place to obtain useful conclusions.



The decision on the choice of application site was also influenced by the fact that Sarriguren had been planned to respond to a very high demand for public housing and as a pilot experiment to implement environmental improvements, though mobility problems were not anticipated. Consequently and especially because of a large proportion of inhabitants were forced to move there for economic reasons (95% of the housing is public), it was also important to provide resources. Finally, it was expected that the inhabitants, mainly people aged less than 40 and who had moved there recently, might be open to innovative proposals and might not have already established mobility patterns.

### Key steps taken

Key steps taken working in Sarriguren were as follows:

- Diagnosis of mobility patterns and conditions made by surveys of inhabitants, spatial and social analysis.
- Participative process was carried out involving inhabitants in workshops. Proposals were explained to stakeholders responsible for solutions (Municipality, Public Transport Authority and departments of the Government of Navarre).
- CRAN and NASURSA have set up two services for inhabitants: car pooling management and planning advice on daily journeys.
- Welcome packages were distributed and two promotional campaigns were implemented successfully: “Gym starts at Home” encouraging people to walk and cycle to the Municipal Sports Centre and “Walk to school” campaign to set up walking routes to access the Public Primary School.

#### **Key steps taken to promote urban and land planning orientation in favour of sustainable mobility were as follows:**

- Confirmation that, in order to prevent car dependency in Sarriguren, improvements in urban planning were necessary.
- A technical document was developed in order to orient urban planning in Navarre in favour of sustainable mobility in future planning processes.
- It was agreed that a planning checking list for planners would be useful for them and also for the evaluation of plans to be made by the Land and Urban Planning Department of the Government of Navarre.

### Energy savings

#### **CO<sub>2</sub> savings have been calculated as 8.92 tonnes in 3 years due to:**

- 2.3 more trips per inhabitant saved 8.5 tonnes of CO<sub>2</sub>.
- Gym starts at Home campaign saved 0.4 tonnes CO<sub>2</sub> in two months.
- Walk to school campaign saved 0.02 tonnes of CO<sub>2</sub> in one week.

### Outcomes and lessons learned

It is difficult to involve inhabitants in participative processes when they have just moved to a new neighbourhood. So the participation of about 40 people has been considered a success.

This success has been achieved through the involvement of stakeholders, on which solutions depend, by interviews and steering committee meetings and by providing local inhabitants with the results of the various processes and surveys. The locations for the meetings and the provision of childcare to enable parents to attend have also had a positive influence.

#### **Success of the two main promotional campaigns were achieved as follows:**

- “Gyms starts at Home” campaign were developed in collaboration with the municipality, important resources have been used, the campaign was promoted widely and its development based on participants’ own experience of the benefits from walking and cycling.
- “Walk to School” campaign came from parents during the participative process. The parents being predisposed to the idea, the age of the school (families had not already established mobility habits) and strong support offered to the parents’ association, as well as the involvement of the principal and teachers were the factors for this success.
- Orientation of urban and land planning in favour of sustainable mobility in Navarre was achieved through the involvement of all stakeholders in the definition of a checklist for planners and to evaluate plans. Agreement between professionals and Government on changing proceedings is the first step taken on deciding a new legislative framework.

## GREEN MOBILITY IN HASTRUP – DIFFERENT WAYS TO ADDRESS INHABITANTS TO CHANGE THEIR TRANSPORT BEHAVIOUR TO MORE ENERGY EFFICIENT MODES

### DGH, Det Grønne Hus, Denmark

The application site is a residential area around Hastrup with 4,700 inhabitants and mixed housing in one family houses, blocks and terraces. It also contains mixed functions. The area was selected due to the diversity of living and the density in the area that make it possible to improve conditions for sustainable modes. One of our aims was to meet people where they live and make them think of their transport. So from the beginning we tried to involve and engage inhabitants and stakeholders in the issue of mobility.

Main objective was to make inhabitants aware of their choice of mobility, make it easier to choose sustainable modes and make them change their mobility behaviour.

#### The mobility services offered were:

1. Improvement of conditions for sustainable modes (bus, bicycle, car sharing).
2. Awareness raising and motivational events.
3. An awareness campaign on school transport.

#### Improvement of bus, bike, car sharing

On the basis of user surveys it was planned to improve the bus service and the conditions for cycling. The bus service in Køge is soon to be changed dramatically from having many buses covering many streets to having few buses on the main streets with a much higher frequency and more direct routes. The bicycle stands at the railway station were planned due to the problems caused with more bicycles being parked around the station.

We planned to promote car sharing in the large social housing complex because we thought that car sharing would be a great offer for people on medium to low income and to reduce the need for parking spaces in the surrounding areas.



### Awareness events

To make inhabitants more aware of energy use from transport and energy efficient transport, DGH held a wide range of events to show specific solutions, arouse people's curiosity and invite people to test new mobility modes.

#### Awareness campaign "car free school"

Our effort to involve inhabitants and stakeholders in the topic of every day transport led us to address transport to school because the school is often located in the heart of residential areas and parents, teachers and pupils are concerned about traffic near the school.

## THE PRO.MOTION APPLICATIONS

### Key steps taken

Det Groenne Hus, as the LA21 centre in Køge, first established a project team with Køge Municipality traffic team in order to ensure competence in the project. We involved both stakeholders, such as housing societies, school principals, retailers, traffic department, health department, the car sharing club, the Danish Bicycle Foundation in Køge and inhabitants in developing ideas at the start of the project.

In order to get ideas on mobility services we made a survey on mobility behaviour, needs and wishes, together with a survey on the satisfaction with bus services. The school campaign was developed as a way to reach inhabitants and address a problem on transport in the neighbourhood.

The car sharing project was established with the Køge Housing Society for a 6 month test period.

A new plan for bus routes and frequencies was developed. The new strategy for buses was decided upon following a lengthy process with political involvement and public meetings. Implementation of the rerouting and rescheduling was delayed and will happen after the end of PRO.MOTION.

New bicycle stands at the station were planned and presented to the public and then built.

All events and offers were announced in the local newspapers or by direct information to the target group.

Towards the end of the project we introduced a mobile Mobility Office to take around the area with the aim of meeting inhabitants, promoting our projects and giving advice on sustainable modes.

### Energy savings

565 kg CO<sub>2</sub> is saved as a result of 1 week campaign involving 1,100 pupils. A minimum 106 tones CO<sub>2</sub> per year will be saved by implementing the new bus route and schedule.

### Outcomes

#### The overall outcome of the applications is that:

- Sustainable mobility was not previously considered by inhabitants. After two years of promoting sustainable modes inhabitants (32%) claim that they now consider their choice of transport and have also changed their mobility behaviour.
- The inhabitants (82%) are aware of and satisfied with the school campaign and the bicycle parking because it is relevant and useful.
- 630 households recognised personal benefit of the interventions.

### Lessons learned

Regarding reductions in energy use, the bus plays a major role, since the reductions will be quite large compared with those from school transport.

It was more difficult to influence car drivers to change their behaviour as the provision of bicycle stands and bicycle events interested people who were already cycling. The school campaign and the mobility office event outside a bakery early on Sunday morning addressed car drivers directly.

Involving the general public was also quite difficult as the theme was not of interest to them. So we tried to involve the school where it seemed more relevant to people to do something and it was possible to influence people through the provision of bicycles to try out and creative promotional activities and events.

The awareness events such as exhibitions and the mobile Mobility Office was more interesting and inviting for the general public than individual travel plans which were not easy to sell.



## 3NA100 EVERY DROP MATTERS – THE CAR POOLING SITE OF SOFIA

### EAP, Energy Agency of Plovdiv, Bulgaria

Sofia, the capital of Bulgaria, has a population of 1.5 million. It is relatively compact but a flight to the suburbs is definitely under way.

Sofia has a small metro system but most trips are made by bus and tram. There are now over 1 million cars; half of them are over ten years old and do not have catalytic converters. An additional 300,000 cars enter the city every day from outside the area. Cars are the largest users of energy and in the process they are the greatest air polluter. So, getting a reasonable number of cars off the road through carpooling was a real opportunity to cut into energy use.

Sofia has many problems; the population is growing and with the flight to the suburbs, car trips are increasing in number and length. The road infrastructure is not well-developed; traffic jams are now the rule rather than the exception and parking spots are few and far between.

Traffic crawls (average road speed – 19 km/h). There are no alternatives for most people to using the crowded roads. The buses are packed and you don't know when to expect one. Public transport is in a bad way. Our research showed that most people wouldn't use it even if petrol prices rise or if it were free. Neither would they use it even if there was a convenient place to park their cars before boarding the bus.

Half a million people every day travel to work by car – alone. The average return daily commute is 14 kilometres. At 10 litres per 100 kilometres by 270 working days a year... that's a lot of fuel consumption... plenty of opportunity for our carpooling Web site to make an impact. If we succeed in getting just 10% of car drivers to participate, the reduction in CO<sub>2</sub> emissions would be 20,000 tonnes per year ... a respectable achievement.



### Key steps taken

#### Analysis of the research on existing Web sites elsewhere in the world

- Identification of best practice
- Setting rules for participation – addressing important issues such as privacy, security, financial considerations
- Creating procedures for using the Website

#### Partnership building with local authorities, large employers, transport companies

- Identification of key partners
- Partnership agreement with the Municipality of Sofia
- Establishment of relationships with potential partners
- Negotiating agreements with key partners

#### Website Development

- Selection of Website developer delivering best value
- Negotiate and sign agreement with Website developer
- Translation and adaptation of Web pages
- Analysing monthly reports on Website usage

## THE PROMOTION APPLICATIONS

### Promotion of the Website

- Identification of key messages
- Development and placement of advertisements aimed at the travelling public
- Development of public relations plan to supplement advertising campaign
- Exploiting Internet opportunities to promote the carpooling scheme
- Negotiations with the Municipality of Sofia, Urban Mobility Centre, national Ministry of Environment and Water and other environmental and energy NGOs for publishing links to and from the carpool website on their websites

### Maintenance of the Website

- Tabulation of data provided monthly by Website developer/operator
- Translation of questions from and answers to users and potential users

## Energy savings

During its first year 3na100 helped to organise 1,331 trips thus saving 1,977 tonnes of CO<sub>2</sub>. A survey published on the site showed that 9% of the registered users (0.2% of daily car commuters) have organised a trip via the website.

## Outcomes and Lessons learned

The outcomes are measured in energy savings, economic benefit, environmental impact and transport performance. The effects are direct results from the application and dissemination.

- Needs assessment – Energy Agency of Plovdiv's (EAP) aim was to promote energy efficient carpooling for the economically active population of Sofia. To achieve this aim, EAP studied the demands and wishes of the employed population to involve them in mobility behavioural change through the implementation of energy efficient mobility measures. That's why EAP studied their mobility patterns, attitude towards alternative transport modes and, in particular, their readiness to implement an innovative carpooling scheme.
- The properly chosen application site – big enough, inhabited enough, with potential for energy and CO<sub>2</sub> reductions.



Picture: Denzel Mobility



## SETTLEMENT “ALPHAWOLF” IN GRAZ

FGM-AMOR, Austrian Mobility Research, Austria



Photo: © Paul Ott

The city area of Graz is for the largest part already covered with streets, buildings and green spaces. New housing developments are often situated on the edge of the city resulting in very attractive locations but unfavourable accessibility. Such a housing area, called “ALPHAWOLF”, has been developed in the north of Graz on the edge of the city district of Andritz approximately 1 km from the district centre of Andritz.

ALPHAWOLF is built on a small hillside. Its structure and location separates it physically from neighbouring residential areas. Once completed the settlement will have 150 housing units consisting of terraced houses and multi-storey houses. A bus route will be extended to serve the new area.

### **Accessibility by car, public transport and bicycle is very different from each other:**

- The street network grants direct access to the city centre as well as to the regional and national road network.
- The current public transport service is a bus route which connects the settlement with the district centre, where there are trams to the city centre, and also directly to the city’s main railway station.
- Dedicated cycle paths connect the city centre with the district centre of Andritz, but not to ALPHAWOLF.
- Neither is there a direct dedicated footpath connecting the settlement with Andritz.

## THE PROMOTION APPLICATIONS

### **This was the reason why the following tasks were envisaged:**

- Creation of short distance connections for walking within the fourth section of the settlement
- Providing delivery services e.g. with taxi associations, implementing bicycle services for maintenance of inhabitants' bicycles or organising joint shopping trips
- Implementing awareness campaigns on daily and leisure time trips by sustainable transport means such as an intranet information platform for the settlement with mobility information and the provision of information material promoting sustainable mobility for daily and leisure time activities

All households were surveyed in order to determine the current mobility patterns and behaviour as well as their wishes and needs regarding mobility and accessibility. All the inhabitants of ALPHAWOLF were the main target group for the activities.

The second target group consists of the city council, public transport companies, construction companies and property management companies. During the project several entities from Graz were contacted to participate in a multi-stakeholder group. Not all were part of every single action but they concentrated on the aspects of most interest to them during the applications phase of the project, such as:

- Information on leisure time trips by bicycle and public transport
- Supply of food by delivery or on-site sales
- Supply of bicycle delivery service.

### **The results of the survey were transferred into the following aims and objectives to attain a change in the mobility behaviour of the inhabitants:**

1. To increase the actual transport choices of the current inhabitants of ALPHAWOLF in favour of sustainable transport modes such as public transport, cycling, walking and alternative forms of motorised personal transport such as car-sharing and possibly carpooling.
2. To reduce the number of trips in total by clustering trips or substituting them with other services.

3. To increase the general awareness of the inhabitants of ALPHAWOLF concerning the economic, health-related and ecological effects of their individual mobility behaviour.
4. To increase awareness of sustainable transport from home within the city council, public transport companies, construction companies and property management companies

### **The objectives can be quantified with the following estimated target values:**

- The number of ALPHAWOLF households recognising the personal benefit of using energy-efficient modes of transport
- 1 settlement internet website with information on daily supply and delivery services as well as transport connections by bicycle and public transport
- increase in the modal split of public transport by 1 %
- increase in the modal split of cyclists by 5 %
- increase in the modal split of pedestrians by 1 %

The ALPHAWOLF website gives the inhabitants information on the accessibility of the district centre, the city centre and other points of interest by walking, cycling and using public transport. It gives information on the options for daily and period goods and services purchase within the district, also including social institutions and services such as medical care and day-care centres. Additionally, it provides links to the most interesting websites giving further information on sustainable mobility such as leisure time trips using public transport or cost calculations comparing the costs of using public transport and the private car per year.

**Further information on ALPHAWOLF can be found at [www.promotion-alphawolf.at](http://www.promotion-alphawolf.at).**



# IMPLEMENTATION OF THE B+R AND P+R FACILITIES IN GYŐR-MÉNFOCSANAK

## City of Győr, Hungary

The implementation and impact assessment took place in a residential area of Ménfőcsanak near Győr, which is the most developed town in Hungary outside Budapest. The number of inhabitants in the city is 130,000, with a total population of 200,000 including neighbouring villages. Ménfőcsanak has a population of 20,000 inhabitants

Győr is now experiencing a process of suburbanisation with many inhabitants moving to the outskirts of the city. In the last 5–10 years many young people (appr. 2,000) and young new families have moved to Ménfőcsanak. Ménfőcsanak is located next to two main roads, the road “83” and the main road “Győri” which is connected directly to the city centre of Győr. The new inhabitants of Ménfőcsanak live mostly the “Mediterrán 1” and “Mediterrán 2” housing areas. The new inhabitants from the new housing district and other people from the outer suburbs (neighbouring villages) mostly use the road 83, whereas a large number of people from the villages use the road “Győri”. This area also has good connections by bus, by train and by bicycle to Győr. Although there are many transport choices use of the car is still the highest percentage for everyday trips. This causes traffic jams during peak hours on both the 83 and the “Győri”.

The target group is the inhabitants of Ménfőcsanak. The stakeholders include Kisalföld Volán – public transport company, MÁV – Hungarian State Railway, road authorities, civic organisations, public authorities and decision makers.

The application was designed to improve the combination of transport modes (e.g. bicycle-bus, bicycle-train, car-bus, car-train) via improvement of intermodal interchanges (e.g. P+R & B+R) and also the improvement of public transport services and bicycle facilities, including parking.



## The key steps were the following

- A literature and internet search.
- Analysis of the current transport strategy, public transport strategy and the road network and master plan of the town.
- Analysis and quality check of the existing services offered by mobility suppliers and what was lacking. Identification of demographic patterns.
- Identification of target group (inhabitants of Győr-Ménfőcsanak) and stakeholders (public transport companies, public authorities, road organisations, politicians, civic organisations and decision makers. A survey about the mobility behaviour and the wishes and needs of the inhabitants.
- Planning of small and medium size P+R and B+R facilities.
- Sustainable mobility campaigns (e.g. bicycle demonstration, night bus services, special bus services, occasional bus and train services free of charge)
- Conferences and workshops for the target group and for the stakeholders.

## THE PROMOTION APPLICATIONS



### Energy savings

The calculation of CO<sub>2</sub> reductions was based on the research on the mobility behaviour of the inhabitants of Ménfőcsanak and furthermore on the calculation of the CO<sub>2</sub> emissions caused by the individual car drivers and buses.

600 people were asked about their mobility behaviour before and after the implementation of PRO.MOTION. 3% of the inhabitants changed their travel behaviour from car to an alternative mode.

8,200 inhabitants (41% of the inhabitants of Ménfőcsanak) commute (to Győr and back home approx. 2x10 km) by car on a daily basis.

The average amount of CO<sub>2</sub> emission caused by cars and buses in 2008 was: 863,425,100 g/year

3% of inhabitants (600 respondents) changed their commuting habit (from single car to bicycle or public transport or car pooling).

CO<sub>2</sub> emission in 2010: (-3%) is ~ 837,522,347 g/year  
These calculations exclude the percentage of people, who changed from car to bus!

### Outcomes and lessons learnt

The most important key success factors are the Involvement of decision makers and the general public. The best way to inform the public is through web sites and printed media (e.g. newspaper). The best way to inform politicians and decision makers is via presentations on the project to the general assembly or to the different city development commissions.

The best way to get people's attention and to motivate inhabitants to change their travel behaviour is through campaigns.

It was very important to support the action with research that showed real figures about the modal split before and after the project. It helped the monitoring process of the project also.

The transferability of the project results can be achieved through other IEE-EU project partners and other local municipalities or other municipalities, which have an interest in the topic (e.g. those that organise activities during European Mobility Week).

The transferability of the project results to other strategic plans (e.g. master plan, city development plan, public transport strategy plan) are also key factors.

The real P+R and B+R plan and the pilot action made the project's results more visible and understandable for the target group and for the stakeholders.

However the most important result of the project is the positive change of the behaviour of the inhabitants of Ménfőcsanak and the reductions in CO<sub>2</sub> emissions.

## SUSTAINABLE PARKING IN MIXED RESIDENTIAL AREAS

### IAR, Hochschule Liechtenstein, Liechtenstein

The implementation and impact assessment took place in a residential area of Vaduz/FL which also includes the small campus of the Hochschule Liechtenstein as well as some more institutions for public and private service. The application site is a neighbourhood of about 500x500 m. The structure of the area is part of a widespread regional sprawl without noticeable boundaries of a village or quarter. It has extremely low density, a mix of functions, public streets are according to motor design standards, and acceptable areas of green like woods, meadows and gardens. The only major complex in this area is the University itself: a rebuilt structure of a 19th century cotton spinning factory. It now includes a public event hall ("Mehrzweckhalle", with different stakeholders), a youth centre, and a ski museum. The stakeholders include students and employees of the University, the public authority (major), event organisers, neighbours, visitors to the Campus and the community of Vaduz in general.

The application will improve a pending project, whose current design is to provide conventional parking for peak hour demand. Comparable situations in the region will be chosen for calibrating.

### Key Steps

We had several meetings, round tables, discussions, presentations and a conference to inform our stakeholders (inhabitants, students, employees, neighbours, politicians).

We had discussions with local stakeholders (inhabitant, students, employees, neighbours, politicians). Parking fees are not a very popular topic and despite the fact that the reason for parking management are known; willingness to pay for parking, when you have to go there anyway for work, study, conferences and events,



is very low. We did not manage to implement parking management as resistance, especially among employees and students, needs to be overcome e.g. by holding information events, such as summer school, website and flyers.

We have chosen the indicator "participant" (number of people in a workshop, roundtable, and conference) in order to measure how many people we have reached with our information campaign. In addition, we counted the number of papers and flyers published. The CO<sub>2</sub> reductions are based on research expert estimations and assume that parking management measures have been fully implemented (car pooling, parking fees, etc.). The calculation is based on average values of a 7l/car per 100 km. The example is based on 15,000 commuters (daily) who commute 90km (to Liechtenstein and back home). If only 50 persons change their commuting habit (from single car to car pooling or public transport) the calculations are estimated as follows:

**50 persons x 5 times/week x 90 km x 48 weeks = 1,080,000 saved km/year**

**Reduced CO<sub>2</sub> emission: 1,080,000 km\* 173 g/km = 186,840,000 g (186,840 kg)**

These calculations illustrate potential emissions savings.



## THE PROMOTION APPLICATIONS



The most important success factor is the ongoing communication with stakeholders through different channels as described above.

The project covered some extremes that represent a very wide range of interest with polar opposites:

Most car drivers would confirm constant congestion. This is easily explained by the fact, that by definition most car drivers are on the site when it is congested, whereas in off peak hours, also by definition, only very few drivers are present to report the empty car park.

Decision makers, visitors and some employees share the congestion theory and thus support the plans for extending parking facilities, at least as long they are for free or nearly for free. As they feel less responsible for the surroundings, they care less about design and environment, and emphasise that parking can only be done on properly built car parks.

Neighbours complain about rare occasions of congestion, when all available ground in the area that can be parked on is used. However, they admit that this happens very rarely, and know that even the existing parking facilities are empty most of the time.

The Vaduz Council has to play contradictory roles: as landlord of the Mehrzweckhalle it favours even more use; as elected representatives of the residents it thinks of less use or even relocation to a less public transport oriented location; as owner of the car park it wants to take fees from their existing tenants (e.g. the University

of Liechtenstein), but offer free parking to possible future tenants (e.g. for events).

The public bus company sometimes offers free peak hour bus shuttle service from and to a distant car park; this causes additional bus traffic and is not acceptable to visitors who want to be free for spontaneous extension to their stay, e.g. private talks after the event.

The “greens” generally want to prevent everybody from using cars and do not care much about what will happen with or to the remaining car users.

Management will distribute some parking spaces by differentiated fees and according to bureaucratic criteria and administration, which has failed until now due to the complex disorderly and unpredictable user panel.

The public works and civil engineering authorities want to offer infrastructure according to the best possible technical standards, which, within motorised traffic street systems, means very expensive area and energy consumption. There is very little support for experimentation and innovation.



## CYCLING CONNECTION FROM THE RESIDENTIAL AREA OF ZÁTURČIE WITH THE CITY CENTRE

### City of Martin, Slovakia

Záturčie has been chosen for the solution of the cycling connection mainly for planning and territorial-technical reasons. This area with more than 6,000 inhabitants has good connections with recreation and sports facilities, but has very complicated traffic and pedestrian connections with other parts of the city and with industrial areas. Záturčie is separated from key destinations by major roads and the river Turiec. Due to the fact that Záturčie is purely residential with very few employment opportunities (minimal basic amenities of shops and services, elementary school and kindergarten), the inhabitants have to commute to work, education, culture, services and shopping outside the area on a daily basis. Current conditions in this area do not allow the use of alternative means of transport and therefore we focused on the implementation of pedestrian and cycle links, which would connect Záturčie with the other important parts of the city.

In order to achieve the given aim and on the basis of our knowledge of the urban form of Martin and Záturčie and on the basis of our own surveys, we carried out a questionnaire survey among the inhabitants, pupils and employees of the industrial factories and companies in the Eastern and South-western industrial parks.

During the meeting with the leaders of the manufacturing corporations, inhabitants, pupils, representatives of the local authority and specialists on land use planning, and on the basis of the questionnaire survey results, the principles and requirements on alternative transport development within the town associated with improvements for Záturčie were established.

The project also included educational-promotional meetings between the pupils of the school in Záturčie as well as throughout Martin with the aim of promoting the advantages of walking and cycling everyday within the town.



#### The result of this process was the proposal for cycle routes:

- Záturčie – embankment of Turiec – shopping centres Tulip and Turiec (from there extension to the historical centre)
- Embankment of Turiec – South-western industrial park
- SC Tulip – new city centre Košúty
- Centre Košúty – East industrial park (with connection of routes from the local area of Priekopa and from the town Vrútky) – Sučany
- Centre Košúty – Francúzskych partizánov Square – historical centre.

The first challenge was to resolve the most optimal routes on the basis of the evaluation of urban and territorial-technical conditions, the questionnaire survey results and discussions with employers. All the routes were designed in accordance with the topography of the town, but the biggest problem with the chosen routes related to the ownership of the land to be used.

## THE PROMOTION APPLICATIONS



### Main aims were

- improvement of the environment
- increase of safety
- reduced demand for parking
- improving the health of the inhabitants
- reduced demand for motorised traffic

### Key steps were

- questionnaire survey among inhabitants of Záturčie
- questionnaire survey in the manufacturing corporations
- meeting with the representatives of the local authority
- meeting with the local residents and in particular school pupils
- discussions with the specialists in the field of transport and development and environment protection, planning and architecture
- discussions with the leaders of the manufacturing corporations – seeking common solutions and co-operation during implementation
- active co-operation with the local cycle group, JUS
- promotion of aims and results:
  - in the local and technical press
  - on local television
  - at public meetings, e.g. mobility day, cycling days, day of the town),
  - attendance at local and international conferences, seminars and meetings
  - posters, promotional materials,
  - engagement of the elementary school – in the educational process
  - production of art by the elementary school pupils and publishing their paintings on postcards



### Within the proposed solutions the project achieved the following savings for one year:

|                                   |          |
|-----------------------------------|----------|
| CO <sub>2</sub> in t/km           | 137, 514 |
| Decreased amount of the driven km | 794,880  |
| Decreased gas mileage l           | 55,728   |
| Nox in t/km                       | 1,669    |
| Hydrocarbony t/km                 | 1,113    |
| CO in t/km                        | 5, 564   |
| MWh                               | 5 573    |

- The key problem was to specify the aim and the choice of the area so that the pilot projects in towns could convince first of all the local politicians and specialists and then the inhabitants about the correctness and expediency of this solution. The convincing arguments in favour are financial and energy savings.
- Co-operation with the manufacturing corporations and their involvement in identifying the solutions and their implementation are very important.
- It is necessary to seek the support also from local cultural and voluntary organisations and groups.
- The choice of the aims, their promotion and regular presentation of the results achieved in each phase of the work increases public interest and their co-operation. Finally it causes pressure on the local politicians and professional organisations to extend the implementation (in our case cycle routes) to the rest of the town/city.
- It is necessary to be able to implement the proposed solutions in as short a time as possible, always ensuring that the steps taken are logical so as to maintain public awareness and support.

## CloughJordan, Co. Tipperary

### Mendes Limited, Ireland

CloughJordan is located in North Tipperary in the centre of Ireland about 100 km west of Dublin and about 55 km northeast of Limerick. It is equidistant (16 km) from the two main towns in the area, Nenagh and Roscrea with the smaller town of Borrisokane about 10 km away. However, CloughJordan is regarded as “not being on the way to anywhere”; in other words it’s somewhere that one has to want to visit rather than find oneself passing through it. This has led to it being quite isolated albeit quite self-sufficient in the past.

CloughJordan is a small town of about 800 people (300 households). It is the location of an extension to the existing town, which contains Ireland’s first “Eco Village” housing about 300 people (130 households), which was due to be built from 2007 to 2009. However, this timescale has been considerably delayed and building of houses started in late 2009 with an uncertain completion date. The town itself comprises approximately 50 hectares with the residential part of the Eco Village being nearly 10 hectares.

CloughJordan is served by a rail line, which enables connections to the nearby towns of Nenagh and Roscrea as well as to Limerick and Dublin cities. There are also some limited local bus services operating on certain days of the week to a variety of local villages and towns, where connections can be made to the national inter-urban bus network. It is located about 10 km from a primary road, the N7, and a new motorway, the M7, is being constructed alongside the N7.

The target groups are the existing residents of CloughJordan and the existing and future residents of the Eco Village.



### Objectives

- to work with the existing and future inhabitants to ensure that they can live and work without having to own a car whilst guaranteeing their mobility
- to promote a range of sustainable mobility services, which will offer the opportunity to influence inhabitants to reduce their use of energy through sustainable transport use

### Key steps

- Identification of all local mobility services, covering local bus and train scheduled services, local private bus hire and taxis, local cycle shop and the local Car-Sharing offer.
- Production of local travel information leaflet and poster incorporating the above information. Distribution of the poster to key local shops and centres.
- Production of a leaflet on calculating car costs.
- Survey of the inhabitants’ mobility patterns, behaviour, wishes and needs. 178 households were sur-

## THE PRO.MOTION APPLICATIONS

veyed through online questionnaire and personal visits in the initial survey in 2008 and 38 households in the second survey in 2010. Both of the above leaflets were distributed to the households in Cloughjordan as part of both surveys.

- Contribution to the preparation of an Operational Plan for the local rural transport organisation in North Tipperary.
- Implementation of a CarSharing service with one small car in Cloughjordan.
- Production of a local travel information pack, which included an updated version of the local travel information leaflet, the car cost calculation leaflet, information about longer distance bus services, a modern lift giving service using mobile phones, cycling and walking routes, national public transport tax incentives and cycle purchase scheme, questionnaire and travel planning log.
- Implementation of a personal travel planning process with 100 households, which also involved the distribution of the local travel information packs.
- Development of an electronic cost and carbon calculator, which was not however tested during PRO.MOTION.
- Training workshop on personal travel planning and eco/clean driving.
- Conference on Smarter Travel in rural areas; presentations on sustainable transport services in rural areas followed by discussions on what sustainable travel applications should be implemented, how best to implement them and which organisations should be involved in implementing them.

## Results

The three applications, provision of local travel information, implementation of CarSharing service GoCar and personal travel planning process impacted marginally on the inhabitants of Cloughjordan and the delay in completion of the eco-village reduced considerably the number of people available to participate in the processes and services implemented during PRO.MOTION. However, those who did participate in the process and activities implemented reported satisfaction with the services and found the information provided to be very interesting and useful.

With regard to the provision of the local travel information, which encouraged people to consider modes of travel other than the car, a range of changes could be ascertained in the levels of car and bicycle ownership, use of the local bus services and ways of getting to school. The car ownership level decreased by 2.5% and bicycle ownership increased by the following: 7.3% owning 1; 1% owning 2; 1.1% owning 3; 6% owning 4. The number of passenger trips per month on local bus services increased by 6.5% between September 2008 and June 2010.

### General comments on PTP process

Saves time, fuel and energy

Produces stronger communities

Public transport more relaxing way to go

Shared driving helps to question the need for travel

Makes you think about trips and costs

Lower emissions

Facilitates greater efficiency and multi-purpose trips

Helps keep use of car to a minimum

Helps in considering options, reflecting on alternatives, questioning the need to travel

Planning ahead makes room for shared driving



### The ways to get to school changed quite markedly as follows:

- Car: 29.4% in 2008, 18% in 2010
- Bus: 29.4% in 2008, 10% in 2010
- Walking: 26.5% in 2008, 36% in 2010
- Cycling: 11.8% in 2008, 36% in 2010

With regard to the take up of the GoCar service, by the end of August 2010 when the service was withdrawn, there were 7 customers, one of whom had sold their car, one of whom had decided not to replace their car and one of whom had decided not to purchase a car. The other customers consisted of two people without a car and 2 people with a car in the household, but which was not always available for their use.

With regard to Personal Travel Planning (PTP), the majority (90%) of respondents found the information as supplied in the Travel Information Packs to be useful. This was considered to be a significant finding and points to the fact that households have rarely (if ever) received in one concise manner, relevant mobility and travel information. 50% of respondents indicated that they found the Travel Logs useful while 42% indicated that they did not find them useful. Asked about the PTP process as a whole, 49% of respondents stated that they were more likely to make more informed travel choices, 16% of respondents stated that they were less likely and 35% of respondents claimed that they did not know.

### Calculation of CO<sub>2</sub> reductions

Based on the changes in usage patterns and vehicle ownership, we have estimated a reduction in weekly travel by car of 1% and an increase of weekly travel by bus of 3%. This gives a total reduction of 1,939 tonnes of CO<sub>2</sub>/year compared to the level in 2008.

### Lessons learned

It is difficult to encourage people in rural areas to dispense with their cars and to adopt formal CarSharing as an alternative to personal ownership, although there is anecdotal evidence that informal arrangements are possible and practiced. A combination of both approaches might be more appropriate for rural areas.

There is considerable evidence to suggest that respondent awareness of the potential benefits of PTP is significant. The exercise also suggests that some facilitation is needed if households are to realise the benefits and to appropriate these. If anything the exercise has shown that providing a reflection space and framework helps economically, socially and environmentally. This also supports the value of providing local travel information in a comprehensive way.

On the basis of the exercise undertaken and of the responses received, it is considered that there is considerable scope for the development and design of an integrated Personal Travel Programme which needs to be embedded at community level in North Tipperary. It is evident that households are aware of its potential benefits but that greater strategic dissemination is required.

It is also considered that there is scope for the further integration of all existing public/community based transport services including the Rural Transport Programme services.

Rather than being viewed as an isolated issue, rural transport affects all aspects of life for those living in rural areas and a continued and sustained effort is required to ensure that the needs of those living in rural areas are adequately addressed and that existing resources are optimally used. Personal Travel Planning can assist in this process.



# DISTRICT OF PĀRDAUGAVA

## City of Riga, Latvia



Riga is the capital of Latvia and has around 714,000 inhabitants (1/3 of the country's population). The administrative territory of Riga covers 307 km<sup>2</sup> (including 21 % residential areas, 17 % industrial areas, 1.8 % streets and roads, 19 % parks, 15.8 % water). The River Daugava divides the city in two. The project application site is a district called Pārdaugava, located on the left bank of the river Daugava with a total area 120 km<sup>2</sup>.

There are 10 existing neighbourhoods with local centres (Bolderāja, Ilģuciems, Dzirciems, Imanta, Zolitūde, Pleskodāle, Beberbeķi, Āgenskalns, Bieriņi and Ziepniekkalns). According to the Riga Development Plan there will be 2 new centres: the new Riga City Centre (Ķīpsala) and Lucavsala. At the present time they are new development areas. As Pārdaugava has mixed and industrial areas the planned new administrative centre of Riga will include not only business functions but also adequate housing, recreation and administrative functions.

The main access into the city is by public transport - bus, minibus, trolleybus and tram. Neighbourhoods

such as Imanta, Zolitūde, and Dzirciems are connected with Riga City centre by train and a cycle path.

Two thirds of Pārdaugava's inhabitants use public transport and almost half travel by car (most of them go alone). In comparison with other modes of transport, cycling is currently much less used by Pārdaugava's inhabitants - 7% cycle regularly and 9% sometimes.

### Objectives

- Reduction of car use in modal split for daily and recreation trips
- To improve cycling conditions and promote cycling as an alternative transport mode for daily and recreational needs.
- To integrate inhabitants in cycling development by participation in the planning process.
- To make cycling more attractive and more visible to inhabitants of the area.
- To show cycling as an alternative transport mode.

### Key steps

- Survey of the inhabitants wishes and needs. 541 inhabitants who were existing and potential cyclists, ranging from 15 to 65 years of age and residing in Pārdaugava were surveyed.
- Based on surveys results a printed mobility map with suggested cycle routes within the project area and a brochure with the description of 4 cycle routes for recreation, leisure time with the description of surroundings and sightseeing points, as well as an interactive cycle map on the website of Riga City Council Traffic department were developed.
- A brochure on safe cycling was produced with key points highlighted.
- Pre-investigation study of the cycling path Centre-Torņakalns-Ziepniekkalns
- In conjunction with some cycling experts, representatives of Veloinformation Centre as well as with the municipality City Development Department solutions were offered on a detailed layout of the area.
- Cycling experts evaluated the printed brochures and suggested cycle path as well as pre-investigation study at a seminar/round table discussion at the end of the project.

### Results

The evaluation showed that 2.5% of the inhabitants in the project area would replace car trips by cycling after the activities implemented within the project lifetime, giving a total reduction of 9,958 tons CO<sub>2</sub>/year

### Lessons learned

New communication tools and methods are welcome, e.g. discussions with inhabitants and information about cycling possibilities on the internet. Printed materials have to be very brief and easy to understand. To increase the number of cyclists requires a dialogue targeted at citizens organised on a regular basis as well as supported by 2–3 awareness campaigns per year. One very significant point is cycling infrastructure – paths, stands and parking to be separate from other traffic.





# RAISING AWARENESS ABOUT SUSTAINABLE TRANSPORT MODES

## Sinergija Development Agency, Slovenia

The application site is the municipality of Beltinci with 2,687 households and 8,640 inhabitants. The municipality consists of eight settlements: Beltinci, Bratonci, Dokležovje, Gančani, Ižakovci, Lipa, Lipovci and Melinci. The municipality Beltinci is located in a rural area, 10 Km from the regional urban centre of Murska Sobota, where the main centres of education and employment are situated. Beltinci town is in the centre of the municipality.

Every working day 70% of the municipality's population (mainly workers and secondary school students) travel to Murska Sobota. The urban centre is not far, so it could be reached by bicycle. The residents could also use public transport to work/school or drive together (car-pooling).

The target group was the inhabitants of the municipality of Beltinci. The main aim was to present the mobility alternatives to the inhabitants and to change their travel habits. The objectives were to involve more inhabitants in using public transport, cycling to Murska Sobota and also to increase the number of people cycling over shorter distances.

According to Sinergija's analysis, the inhabitants of the Beltinci municipality are inclined to alternative modes of transport, especially to car-pooling. As for public transport, people are very passive and do not consider public transport simply due to lack of information. The main barrier is the lack of awareness about the sustainable transport modes and their advantages.

To overcome the information and awareness gaps, RA Sinergija has informed the inhabitants about all alternatives of sustainable transport modes in order to change their travel habits. We used the strategy of raising awareness through brochures, established website, workshops and new info point in Murska Sobota.



### Key steps taken

The following activities were implemented to reduce transport energy consumption:

1. Collaboration with the representatives of the Municipality Beltinci, who have been informed about the application of the project and also of the implementation of the project.
2. RA Sinergija has invited AP MS as a Public Transport Company to join the project as project partner, as it knows the most about public transport in the Pomurje region and also the situation nationally in Slovenia.
3. AP MS became the project partner and so the target group was extended to include the inhabitants of the municipality of Murska Sobota. The PRO.MOTION project and the activities were presented to the representatives of the Murska Sobota Municipality at the Round table event and at other events.
4. We organised Round tables/events to present the PRO.MOTION project and its activities and to get feedback from different stakeholders and the target group of the PRO.MOTION project in the Pomurje region. Different stakeholders/representatives were the participants, including energy agencies, Universities and faculties, Centre of Mobility Research, Institute of Public Health Murska Sobota, Ecological Centre of Pomurje region, Police, Road Safety Council.





5. All Sinergija's activities were supported by mass media throughout the project duration.
6. We established a one-stop-shop web page: [www.peljime.si](http://www.peljime.si) for improving the organisation of trips using sustainable transport modes.
7. We implemented a National conference under the title "Moving way of live".

### Energy savings

Calculated from the website users: carpooling = 24.2 tons of CO<sub>2</sub> saved

Calculated from the surveys at the beginning and the end of the project = 44.3 tons of CO<sub>2</sub> saved

TOTAL = 68.5 tonnes of CO<sub>2</sub> saved.

### Outcomes and lessons learned

Both the awareness and information campaigns were good tools for this application site, because mobility management was possible from the beginning of the project. Using dissemination events and Round tables we reached the target groups directly and presented them with sustainable transport modes, the website and real energy savings. We received the feedback from the target groups about the actual mobility management situation in Slovenia.

Events like European Mobility Week were a great opportunity to raise awareness about creating liveable neighbourhoods, while decreasing the transport energy consumption. Through the organisation of different events we learned that it's very positive to organise more events with similar topics together. The National conference was also very successful, as it was organised in the context of European Mobility Week 2010 in Murska Sobota, in conjunction with two other events on sustainable mobility. This helped to invite more participants and key stakeholders from the mobility field, such as Minister of Traffic of the Republic of Slovenia, representatives of other Ministries, municipalities, Energy Agencies, institutions and more.

Health and energy savings are becoming more important topics nowadays in Pomurje and attract more attention. During the awareness campaigns we paid special attention to inform people how they can change their mobility habits and what is the reflection of changing their mobility habits for their health, energy savings and living in sustainable neighbourhoods.

The workshops/educational programme implemented by RA Sinergija and AP MS for school children were also very positive and promising. Pupils/children are a very important target group, because they are our future and they can make some steps towards sustainable mobility and also to pass on the knowledge about sustainable mobility to their parents, grandparents, neighbours and general public.

# OPTIMISING THE BUS AND CYCLE NETWORK

## City of Trnava, Slovakia

The city of Trnava is the capital of the District of Trnava and the Region of Dolné Považie and is well situated from the viewpoint of road and rail transport. The City Council decided to provide for the methods which would aim to improve energy efficient transport modes. In 2010, the city of Trnava approved the programme of economic, social, cultural and environmental development of the city, which includes the strategic document "General transport plan" of Trnava published in 2008.

One way of making transport more ecological is the development of public transport especially in urban areas, where the negative effects of motoring are the strongest. Trnava City Council has decided to achieve maximum energy savings and environmental improvements through the optimisation of public transport and encouraging cycling.



### Optimising the bus network

The main aim of the optimisation is to streamline and enhance the attractiveness of public transport. Based on the survey for the General Traffic Plan it was noted that public transport is used inefficiently. Public transport trips comprise only 13.5% of all trips in Trnava. Optimisation of public transport is an application of the General Transport Plan, whose aims are set out below.

#### Increase quality of Public transport

- Attractive urban bus services
- The introduction of interval transport
- Preferential treatment for urban bus services over individual car transport
- Increasing the level of use of the bus service
- Improving the quality and culture of the bus service
- Saving costs and energy
- Improving air quality by modernising the fleet
- The creation of conditions for systemic action, depending on the development of the city

Optimisation of public transport has not yet been launched, since unforeseen problems arose with the provider – SAD Trnava, as well as a change in government that caused the blocking of contracts. The expected date of launch of the optimisation process is January 2011. The expected savings will be – CO<sub>2</sub> 345.6 kg/year.

The key factors for success are successful collaboration between the local authority and the provider of public transport. Results of the optimisation process can be disseminated through organising seminars for other municipalities in the country. Some problems may arise with a lack of funding for local authorities and public transport providers in the city.

## Cycle network

Based on the survey for the General Traffic Plan it was noted that cycle lanes are used inefficiently. Trips using cycle lanes comprise only 7 % of all trips in Trnava.

The main aim of building cycle lanes is to streamline and enhance the attractiveness of the cycling network.

Trnava has a suitable topography for cycling to work, school or shops. The main task is to build new cycle lanes, which provide the transfer from residential areas to the city centre. The aim is to highlight cycling as an ideal mode of transport in the city, which contributes to a safe ride through residential areas.

Trnava had 12 cycle lanes at the start of PRO.MOTION and 2 cycle lanes were built during the project; Veterná street and Zelenečská street with a total length of 1.8 km.

### Problems with development of cycle lanes in the city

- Slovak legislation
- Absurd demands from land owners

The Law allows land owners to demand prices for the land at the level of building land. The City Council will be suggesting a change in the Law to add cycle lanes to communications of public interest, which would ease the price negotiating process with the land owners and probably allow the possession of the land for a price determined by expert opinion. This would allow the creation of a network of cycle lanes in the next 3 years.

We cannot judge whether the number of people traveling by bicycle has increased, because the latest sociological research has not yet been carried out. The first sociological research was conducted in 2008 as part of the General Traffic Plan.

Cycle lanes are suitable for adults and children as well. The City Council organised "The transport day for children", on 23 June 2010, at the elementary school on Spartakovska Street in Trnava. The Transport day was for students of the third grade of elementary school. Children were divided into two groups. Each group received theoretical and practical knowledge.

The aim of the City Council was to familiarise the children with basic rules of the road traffic law, basic equipment rental, specific kinds of transport and their influence on the environment. They practiced their cycling skills in the Transport Playground having brought bicycles, in-line skates and scooters. The event was attended by 80 children. Children got reflective tapes for their wrists for passive protection for cyclists and pedestrians in poor visibility, as well as cards with the logo of PRO.MOTION.

On the day of transport, in addition to the project, team members also participated along with the traffic police, which ensured the actual lecture and practical exercises in the field of transport. Promotion and support of similar events builds awareness of how best to use energy-efficient vehicles and offers excellent conditions for their further development.

The City Council has an interest in spreading the ideas of PRO.MOTION even after the end of the project. It has decided to support the development and transport education, so the children could use the cycle lanes safely in everyday life. The result of the project will be the Transport Playground for children and establishment of a classroom for transport education. This project will be implemented in 2011 through a grant from the Slovak Foundation.





# TRAINING ACTIVITIES



Picture: Ariel da Silva Parreira / www.sxc.hu

# FACTS & FIGURES



# CONCLUSIONS



# PRO.MOTION PRODUCTS



## TRAINING ACTIVITIES

**In the following lines, you will briefly learn about the objectives, the set-up, the participants and the lessons learned from the training activities within PRO.MOTION**

### Background

Training and Education within PRO.MOTION was focused primarily on the design and implementation of training sessions. It was based on the results of the Work Package 2 Concept and Work Package 3 Applications, as well as the results from ADD HOME. Moreover, it has integrated the contents most in demand by the main target groups that were identified for this purpose. The actual work on this WP started in September 2009.

### Objective and rationale of the PRO.MOTION training

The purpose of the PRO.MOTION training was to raise the level of knowledge at the local, regional and national levels in two ways: First concerning the increase of knowledge and second in the numbers of people with that knowledge. The training sessions were designed to encourage followers to perform applications of their own and thus sustain the further extension of the project's energy saving effects after the project has ended.

PRO.MOTION has exploited the possibilities of extending the training content to the training carried out in other projects. This took up the target of the EU to strengthen management / energy agencies in the field of sustainable transport to make them future key players in this field. PRO.MOTION was built on the best practices of the IEE projects such as COMPETENCE, TREATISE, E-ATOMIUM and E-TREAM. Since the consortium included six partners that were actively involved in the above training projects, a strong link and a good design for this main target group were guaranteed.

PRO.MOTION was also linked closely to ADD HOME. Training was, whenever possible, combined with the



sessions planned in ADD HOME to create synergies in terms of resources, coverage of the stakeholder groups and content of the training. Additionally, the training materials of both projects were exchanged to broaden the reach of the projects. Cooperation was intensified for the dissemination of both projects, too.

The training sessions took place in each country, in order to avoid or minimise language barriers. Moreover, the context of the training was changed according to the national framework they were placed in. At the national level, exchange of experience was very relevant within the same country due to the fact that the same problems, legislation, price structure, etc. apply. There was a great advantage, therefore, in having close links between the stakeholders at national level.

PRO.MOTION partners worked closely with the respective national associations of the target groups and key actors to spread the training and dissemination effect in an optimum way.

**The training materials are available from the PRO.MOTION website [www.iee-promotion.eu](http://www.iee-promotion.eu)**

## TRAINING ACTIVITIES

### Training Needs Assessment

As part of the assignment, the Energy Agency of Plovdiv (EAP) carried out a target group analysis and training needs assessment (TNA) using questionnaires to enable meaningful design of a capacity-building programme. The target group analysis and TNA comprehensively identified focus areas for training.

- Seven target groups were identified:
- Local authorities or politicians
- Management / energy agencies
- Construction companies
- Transport providers (public transport organisations, bus companies, etc.)
- Property management companies
- Tenant associations
- Spatial planners / architects (including university students)
- Other institutions

### Setup of the PRO.MOTION training

EAP provided the PRO.MOTION partners with a blueprint for organizing the training, giving them more a guiding background than a strict schedule for how each session had to be organized. The blueprint gave further tips on the potential structure of a training session. The main points were the following: duration of the training, overall structure, implementing the event, tips for trainers, documenting the event, training evaluation and the like.

### Training components

The partners' assignment for the training programme includes the following main components, among others:

- Training session of 3–5 days
- Training in one day, topic by topic
- Seminar
- Discussions
- Site visit(s)
- Other (meetings, workshops)

The PRO.MOTION consortium developed and successfully conducted training programmes on the topic of sustainable transport and housing itself.

#### **The training covered the priority areas of:**

- Improvement of accessibility with public transport, cycling, walking and intermodal transport solutions
- Correction of planning deficits fostering the use of sustainable transport modes
- Mobility Services substituting and/or bundling mobility needs
- Mobility guarantee without private car use
- Parking management
- Creating awareness through information materials
- Awareness campaigns on the impact of car transport and the possibilities of sustainable transport
- Travel plans and mobility advice
- Motivation by the creation of ownership through participation
- Motivation by information
- Motivation by activities

### Training methodology

The trainings involved a lot of advance preparations and were highly participatory. The consortium representatives' teams continuously asked the participants' feedback during the training sessions to evaluate their understanding of the subject matter. The satisfaction level with the training and the trainer was also evaluated. An evaluation form was completed by each participant at the end of each session.

### Preparation of training notes and training materials

Training notes, training materials, evaluation forms, etc. were prepared in line with the PRO.MOTION Blueprint for organising, implementing and documenting a training session, a summer school or a site visit, and based on the experience of the partners.

Most training sessions were developed as half- or one-day sessions. As expected, even decision makers were able to join these for that time period more easily. ARENE, however, was able to hold three training sessions of two days each in Paris aiming to educate municipal experts on integrating mobility within Local Agenda21 (LA21), in the process as well as in the contents of the plan of actions, including mobility within new settlements.

### Participants at the PRO.MOTION training sessions

All in all, the PRO.MOTION training had 755 participants. The project succeeded in covering most of the defined target groups as participants in the training sessions:

- local authorities or politicians
- management / energy agencies
- construction companies
- transport providers
- property management companies
- tenant associations
- spatial planners / architects

### Lessons learned

During the PRO.MOTION training, the partners learned quite a lot on the set-up of the training, its content and target groups to suit the objective of transferring know-how about the PRO.MOTION activities and results, as well as the topic of mobility management in housing areas generally.

One major first lesson is that it is important to be innovative in developing ideas and integrating local services. Research on what is happening in the locality is a key to providing relevant and up-to-date information on local mobility services and activities. It is important to ensure that such smarter travel applications are included in local and regional development plans.

The energy experts and advisers need special training on mobility issues. They lack the necessary background

and know-how to be active in the field of transportation. They definitely have interest in the topic of sustainable mobility in residential areas and in general, and provided positive attitudes to sustainable transport modes and means. They were really engaged in both, the development of the work tasks as well as the discussion of the presentations.

Concerning the structure of the workshops, the group work was experienced especially positively, as were the exchange of experience and the discussion with the workshop leader. Technically, the best practise examples given were of great interest to the participants. Contents of training should include practicing to foster know-how transfer from the trainee to the other staff in order to optimize the dissemination within the municipalities' staff. Moreover, besides presentations of rationale and experience sharing, practicing the acquired know-how during the session with exercises, or even better, working with the trainees on their own mobility projects, is extremely important.

The design of the practical session could be improved by concentrating on single issues instead of including all potential aspects in the practical work. A possible solution could be to divide the practical part into a smaller showcase study or discussion and an exercise on one specific issue such as: how to change the conditions for the modal choice at home to an objectively equal level between the transport modes of walking, cycling, public transport and car use.

Training with the involvement of public officials / politicians is very useful. On the one hand, this is the easiest way to get decision makers to learn about the topic of mobility management in housing areas and at the same time to trigger follow-on activities by presenting activities and best practise examples. Obtaining commitment from city (institution) and representatives (individuals) on their participation to confirm interest and availability is the key to successful training on the topic. Future participants should be aware of training rules (to form a project team for instance) and of its benefits. It is advisable to provide upstream a clear educational programme in highlighting the benefits for the city and for each category of staff, in order to help LA21 managers to convince other representatives to register.

## FACTS & FIGURES

---

The evaluation and monitoring of PRO.MOTION was carried out in two ways. To evaluate the applications we chose to use the SUMO Evaluation method developed within earlier IEE projects. For the project process, the training sessions and materials we made tailored evaluations with participating parties and users.

SUMO worked as a framework for the work carried out by all partners - all the way from objectives, how to reach them, what kind of results and what kind of indicators to choose. SUMO is rather unique in this way and helped us to divide the process into targets, indicators and results at different levels. The primary idea is 4 levels to structure the analysis:

All applications in PRO.MOTION have their own SUMO evaluation report, where all levels have been addressed. For more information see "PRO.MOTION Evaluation Report" on the web site. Different methods were used for each of the targets and the indicators for their monitoring. One of the methods was a "before-after" analysis of the patterns and behaviour of the target group.

The SUMO evaluation scheme facilitated a common language between project partners and thereby proved to be a useful tool to monitor and evaluate across all applications. Within PRO.MOTION a lot of resources have been used to train partners in using the scheme, and this will be an added value to future IEE projects where PRO.MOTION partners participate.

### 1. Background: External and Personal factors

#### 2. Services promoted:

- a. Useful achievements
- b. Awareness of mobility service
- c. Degree of use of mobility services
- d. Satisfaction with the offer

#### 3. Option offered:

- e. Acceptance of offer
- f. Experimental individual behaviour
- g. Permanent individual behaviour

#### 4. Effects:

- h. Permanent individual behaviour
- i. System impact



To highlight some of the main achievements the number of people involved and satisfied with PRO.MOTION services and offers are presented below:

**In the applications we have successfully reached:**

- 7,550 households in application sites recognise the personal benefit from using energy efficient transport modes
- 2,354 participants in 20 participative processes
- 3,426 pupils involved in the 6 educational programmes
- 54,830 inhabitants have requested mobility advice on web pages and personally

**We have implemented:**

- 625 individual travel plans for people and goods
- 51 awareness campaigns

**Training sessions and dissemination processes have successfully reached:**

- 755 persons participating in 10 national training sessions
- 487 decision makers and senior managers through training and dissemination
- 61 companies, which have taken up energy efficient transport in their daily business and at least 2 municipalities, which have integrated energy efficient transport into their LA 21 agendas
- 58 national or province associations with communication about PRO.MOTION objectives, products and results

Energy savings in regard to the measures implemented have been estimated.

Energy savings are estimated on the basis of successful applications in PRO.MOTION at the following application sites:

- Hastrup (Denmark),
- Sarriguren (Spain),
- Sofia (Bulgaria),
- Győr (Hungary),
- Martin (Slovakia),
- Trnava (Slovakia),
- Cloughjordan (Ireland)
- Midi-Pyrénées region (France),
- Municipality Beltinci and Murska Sobota (Slovenia)

**19,000.12 (in 1000 kWh) = 4,695.74 tons of CO<sub>2</sub> emissions directly from project activities.**

**Evaluation across applications**

The evaluation can help us to point out some of the most successful measures in terms of reaching and involving inhabitants and key actors:

Educational programmes and school activities: Children are a very important target group, because they are our future and they can make important steps towards for change towards sustainable mobility and a sustainable lifestyle. These programmes also addressed car driving directly.

Round tables and conferences were shown to be a good method to involve and engage different stakeholders and target groups of sustainable transport.

Personal offers such as personal transport advice, personal route planning or personal solutions such as carpooling and mobility office services have shown to be a successful way to promote green mobility, to facilitate dialogue about sustainable transport, reflect on their own habits and provide inspiration.

Better connections both in terms of infrastructure (new cycle lanes, new bus routes) and as better promotion of them are the most convincing when estimating energy savings. Increase in the number of users is easier to count than modal split changes at a general level.

The biggest barrier for changing the habits of the inhabitants towards sustainable transport modes was lack of awareness. PRO.MOTION partners have implemented several awareness campaigns to reach the target groups, such as dissemination of brochures with cycle route maps, leaflets about safe cycling, energy and cost savings and local travel information. This has led to a change of perception with respect to sustainable transport modes and their use. The development of new websites for carpooling was well accepted by the target groups and raised use of sustainable transport modes.

# CONCLUSIONS

---

The main factors explaining success within PRO.MOTION are that it is essential to involve inhabitants, stakeholders and politicians in improving conditions and in raising awareness of sustainable modes; to align expectations through the planning process and implement decisions quickly; to be aware of the competition for land between different modes; to improve conditions for sustainable modes where people live and not only where their trips end; to consider the costs for intervention in relation to benefits and also to implement small and cheaper improvements.

The best way to increase the use of sustainable modes is if both infrastructural issues and awareness raising is integrated within the planning process from the beginning. This way it is possible to make it easy for inhabitants to choose sustainable modes. ARENE Ile-de-France and ARPE Midi-Pyrénées produced 2 Guidebooks to help decision makers and planners to integrate sustainable mobility either in their Local Agenda 21, either in the conception of new neighbourhoods, especially regarding the three PRO.MOTION levels.



## PRO.MOTION PRODUCTS

### PRO.MOTION General leaflet

PRO.MOTION presents with its project leaflet brief information on the background, the objectives and the activities of the project. (Available in EN)

### PRO.MOTION Guidebook for an energy efficient territory 1: Local Agenda 21

This guidebook aims to provide recommendations, tools and good practices on energy efficient mobility within the Local Agenda 21. (Available in EN, FR)

### PRO.MOTION Guidebook for an energy efficient territory 2: New Neighbourhoods and Mobility

This guidebook aims to help decision makers and planners to develop new neighbourhoods lowering energy consumption by transport. (Available in EN, FR)

### PRO.MOTION Code of Practice

The Code of Practice is a full description of each application site, target groups, measures and results. (Available in BG, DE, DK, EN, ES, FR, HU, IT, LV, SI, SK)

### PRO.MOTION Blueprint for training sessions

This PRO.MOTION blueprint supports organizing, implementing and documenting a training session, a summer school or a site visit. (Available in BG, DE, DK, EN, ES, FR, HU, IT, LV, SI, SK)

### PRO.MOTION Survey on energy saving possibilities

This survey is thought to give an overview of already existing and successful examples where the topic mobility is linked together with housing in order to reduce the energy consumption in total. (Available in EN)

### PRO.MOTION Energy saving tips: household and mobility

This guide gives practical tips for saving energy and is addressed to end users of residential buildings. (Available in DE, EN, SI)

### PRO.MOTION Tools for LA21

This tool is to help LA21 and mobility or urbanism managers / directors to make together the inventory on territory, public policies and internal management, but also to create a strategy and bring stakeholders together. (Available in EN, FR)

### PRO.MOTION Checking list for planners

This checking list is to support planners with a strategy how to directly include sustainable mobility into the planning process. (Available in EN, ES)

### PRO.MOTION Fact Sheets

The fact sheets work as information material for various subjects concerning sustainable energy. (Available in EN)



All the PRO.MOTION products are available and downloadable for free from [www.iee-promotion.eu](http://www.iee-promotion.eu)



## COORDINATOR

DGH, Det Grønne Hus, DENMARK  
Ms Anna Thormann,  
anna@detgroennehus.dk



## THE CONSORTIUM



AGEAS, Agenzia per la Gestione Energia-Ambiente sviluppo Sostenibile Salerno, ITALY  
Mr Angelo NICOLETTI, ageas@libero.it



ARENE, Agence régionale de l'environnement et des nouvelles énergies d'Île-de-France, FRANCE  
Ms Céline MEUNIER, c.meunier@areneidf.org  
Ms Sophie DEDIEU, s.dedieu@areneidf.org



ARPE, Agence régionale pour l'environnement de Midi-Pyrénées, FRANCE  
Ms Christine FOUCRAS, foucras.c@arpe-mip.com



AP MS, Avtobusni promet Murska Sabota d.d., SLOVENIA  
Ms Vesna REBRICA, vesna.rebrica@apms.si



CRAN, Environmental Resources Centre of Navarre, SPAIN  
Ms Maribel GÓMEZ, energia2@crana.org  
Mr Rafael ALDAI, energia@crana.org



EAP, Energy Agency of Plovdiv, BULGARIA  
Ms Bogdana BOGDANOVA, cgpf-eap@mbox.contact.bg  
Ms Klimentina HADJIEVA, klimentina.hadjieva@eap-save.dir.bg



FGM-AMOR Austrian Mobility Research, AUSTRIA  
Mr Claus KÖLLINGER, koellinger@fgm.at  
Mr Fred DOTTER, dotter@fgm.at



GEA, Graz Energy Agency, AUSTRIA  
Ms Karin SCHREINER, schreiner@grazer-ea.at



City of Győr, HUNGARY  
Ms Petra SZAKONYI, szakonyi.petra@gyor-ph.hu  
Ms Réka HUSZÁR, huszar.reka@gyor-ph.hu



IAR, Hochschule Liechtenstein, LIECHTENSTEIN  
Ms Denise OSPELT, denise.ospelt@hochschule.li



City of Martin, SLOVAKIA  
Mr Peter LUKÁČ, lukac@martin.sk  
Ms Ivana BOBROVSKÁ, bobrovaska@martin.sk



Mendes Limited, IRELAND  
Mr Graham LIGHTFOOT, graham@mendes.ie



NASURSA, Navarra de Suelo Residencial, SPAIN  
Mr Dámaso MUNARRIZ, estrategia@nasursa.es  
Mr José María JIMÉNEZ, jmjimenez@nasursa.es



Riga City Council Traffic Department, LATVIA  
Ms Olita SPROĢE, olita.sproge@riga.lv  
Mr Jānis ANDIŅŠ, janis.andins@riga.lv



Sinergija Development Agency, SLOVENIA  
Mr Stanislav SRAKA, sinergija@ra-sinergija.si



City of Trnava, SLOVAKIA  
Ms Katarína BUCHOVÁ, katarina.buchova@trnava.sk  
Mr Peter HLBOCKÝ, peter.hlbocky@trnava.sk