CERTU
Nantes Métropole

Proposal for a new COST Action

Buses with a high level of service

Fundamental characteristics and recommendation for decision-making and research

Proposer: *full coordinates incl. name of proposer, name of Institute, address, tel, fax and email*

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DC: *Domain name*

Transport and Urban Development

• Part I - Draft Technical Annex

A. Abstract and Keywords

In order to improve sustainable mobility in urban areas, France launched recently its own concept "Buses with a high level of service" (BHLS), taking into account the « Bus Rapid Transit » concept developed in USA, as well as experiences from several French authorities, like Île de France, Rouen and Nantes.
Bus manufacturers have continuously innovated in the technological fields (motorization, new information and communication technologies,…) but these developments will not have a significant impact unless a comprehensive approach is applied to the whole bus system, which among many other criteria takes into account the infrastructure which acts as its backbone.
Throughout Europe, we observe similar strategies, such as in Sweden (e.g. the trunk network in Stockholm), in England and in Ireland under the name of "Fastway bus" or "Quality Bus Corridor". In Germany (metrobus concept) and Netherlands (HOV – "Hoogwaardig Openbaar Vervoer"), some cities are also experimenting "High capacity bus systems".

In order to boost these trends with efficiency, and to promote a useful way to enhance Public Transport networks and the bus image, we suggest a COST action with the following main targets:

- To capitalise the state of the art as well as the different conceptual approaches;
- To identify and understand the best practises;
- To carry out recommendations for decision-making at all level as well as for the bus EU research.

Key words: Public Transport, Bus systems, High capacity, Efficiency, Intelligent Transport Systems

B. Background

Urban areas throughout Europe are faced with serious problems in relation to transport and mobility. On one hand, the congestion and the growing demand for mobility reduce the efficiency of cities, impose heavy costs, and reduce the quality of life for everyone; on the other hand, the high usage of fossil fuels and their associated emissions are unsustainable in either supply or environmental terms.

In accordance with the recommendations of the White Paper 'European Transports for 2010: time to decide' published in 2001, all agree that collective passenger transport is a key to solve these issues. This must provide a comprehensive solution covering all of the urban and suburban territory and must also meet the different needs of the different users. Again, all agree that this requires a mix of mass transit – i.e. high-volume, high-capacity services on dedicated lanes – and more diffuse services for the countless areas of lower demand, by means of an appropriate complementarity between bus and other urban public transport .

Buses represent currently an important share of urban passenger transport but they are often increasingly caught in congestion which leads to slow journey times, unreliability, increasing costs, dissatisfied customers, declining market share and a deteriorating image. Moderate bus

priority schemes, new buses and marketing efforts cannot compensate the basic perception of customers that buses do not meet their needs.

A new paradigm is needed that can meet these two needs :

1) To provide bus mass rapid systems complementary to metro and tram systems, that are affordable for urban areas and suitable to extend into the suburban areas.
2) To greatly improve the operating speed, reliability and image of the bus, and thus to retain the current large market share and to reduce operating costs

France launched its own concept "Buses with a high level of service" (BHLS), taking into account the « Bus Rapid Transit » concept developed in USA, as well as experiences from several French authorities, like in Paris (the Trans Val de Marne and the Mobilien program), Rouen (TEOR) and Nantes (the Bus Way). It is a form of public road transport designed for main network services, which meet specific requirements in terms of efficiency and performance. The comprehensive approach of the « system » implies that stations, vehicles, traffic lanes, line identification and operating methods are dealt with in a coherent and sustainable manner.

Bus manufacturers have continuously innovated in the technological fields (motorization, new information and communication technologies,…) but these developments will not have a significant impact unless a comprehensive approach is applied to the whole bus systems, which among many other criteria takes into account the infrastructure which acts as its backbone.

Unlike heavier modes of public transport, notably tramways, the image of buses has hardly changed, in spite of advantages, such as flexibility, which is often highlighted. However, this flexibility often has a rebound effect, which reduces efficiency (e.g. when routes are deviated because of works or any events on dedicated lanes). Decision-makers still often consider buses with a critical eye, even though certain projects have improved their image.

It is important from the outset to understand that BHLS, as the BRT approach, stays as a concept or a method for designing buses routes that structure and finally improve the bus network, and hence the whole mobility network. This ensures that cities can develop a comprehensive approach for their entire area, using different ways as appropriate to their different urban characteristics. Across North and South America (USA, Canada, Brazil, Columbia), Australia, and South East Asia (China, Korea, Indonesia) there are now several effective BRT systems with daily ridership which match and even exceed those of rail-based systems. The highest capacities as well as the highest frequency are over there observed, but, regarding urbanism issues and space consumption, they would or could be difficult to achieve in our European urban context. In fact large cuts in a district could have negative impacts on walking, cycling or safety issues.

At last, within Europe, we observe development of similar "BRT" strategies (comprehensive citywide initiatives) in numerous cities at a lower level of capacity: Stockholm in Sweden (trunk network), numerous cities in England under the name Fastway or Quality Bus Corridor, Dublin in Ireland, which applied a hierarchical organization to its bus network, several cities in Germany (such as Hamburg), which use bi-articulated buses on the main lines, Eindhoven in the Netherlands with the Phileas project. At the lowest level of 'normal' bus priority (such as bus lanes, priority for buses at signals, minor traffic engineering) there is very extensive practice and implementation throughout Europe, and it is clear that Europe has a diverse and well developed practice.

The main reason for the proposed co-operation is to understand what concepts are suitable to apply within Europe; and how decision-makers should approach them, choose among them, and implement them; and to identify the technologies (e.g. buses, road infrastructure) and operating methods that will yield the excellence that both customers and operators demand.

COST is a very suitable framework for this co-operation for the following main reasons :

- It focuses on the experiences to improve the public transport networks relying on buses, that have now to offer a whole accessibility for disable people.

- The focus on harnessing and structuring existing knowledge and experience, and to turn this into practical recommendations; particularly, the acceptance of reserved lanes and other strategic measures are often a hot key issue to improve efficiency.

- It allows the diverse stakeholders (national and city authorities, public and private bus operators, manufacturers, institutes and consultants) from different countries to co-operate and share experience and perspectives, giving the possibility to have a deeper collaboration.

- The framework and working groups structure is ideal to harness inputs form the independent ongoing implementation and research work of the participants.

- The framework allows other countries and participants to join over the life of the action, thus expanding both the knowledge base and the outreach.

There is a possible complementarity with ongoing or planned research in the EU Framework Programme, paving the way for FP7 for bus system research:

- VOYAGER project (2002 – 2005): a Vision of Public Transport in Europe in 2020, financed by the European Commission and coordinated by UITP.
- CUTE Clean Urban Transport for Europe is a European Union project initiative to test fuel cell buses in nine cities in Europe.
- CIVITAS II project (2003 – 2006) which addresses implementation and transition strategies for Clean Urban Transport. Research in the field of public transport will include the development of innovative solutions for market analysis and product development, offensive marketing, service integration, improved access for people with reduced mobility, private sector investments, and low-cost network and vehicle refurbishment.
- SPUTNIC (Strategies for Public Transport in Cities) which is a newly initiated three-year project to be kicked-off in october 2006. It is fully financed by the European Commission and coordinated by UITP. The project focuses on local and regional public transport (PT) with special attention to the PT related challenges in the New Member States of the European Union as well as acceding and candidate countries.
- EURFORUM , financed by the European Commission and coordinated by UITP, is dedicated to proposing a strategic research agenda in the field of urban mobility, and will extend from spring 2006 to the end of 2007.

The necessity to launch research on bus system improvement has been sorted out by ECTRI (the European Conference of Transport Research Institutes) in its report of the 5th July 2006, which states “As bus system has the characteristic to be a major piece of the public transport system whatever the size of the city it operates in. … there is a real need to have some

research on buses in order to see how bus services could be upgraded, how they could be optimised for the sake of the community mobility needs and each customer need." Moreover, the ECTRI document focuses on "Bus Rapid Transit Projects and the introduction of new design and new services on the bus system that should be given a high priority" (page 24).

After successful past COST actions (303 on trolleybus bi-mode in the eighties, 322 on city accessible buses and 349 on accessible coaches, achieved in 2005), this new COST will not focus on the vehicle alone or a precise interface but this time on the whole bus system.

Precision on some relevant words or concepts :

Bus :

The term « bus » must be taken in this framework in the broadest sense as follow: it may be guided or not, have a conventional engine or be a trolley-bus and refer to a traditional bus or coach.

Level of service and quality of service :

"Level of service" and "quality of service" are often mixed. We suggest to understand that "Level of service" expresses the "quantity of service" that is announced or planed to provide to the passenger, linked obviously with the frequency, the timetable span, the run time, the vehicle size…
On an other hand the "quality of the service" (In accordance with the European standard "EN 13816" - June 2002) should express the manner the service is finally provided in comparison with the offer as it is announced or planed, each day and for every body. In other words, it express the point of view of the passengers. These criteria are for example, regularity, on time performances, connecting services, all kind of comfort and information needs before / during the trips (noise, cleanliness, pollution, accessibility, passengers /m^2, seats, safety, security etc…), reliability and alternatives in case of service disruption or disturbances, other services at interchanges…

C. Objectives and Benefits

The main objective of the Action is to increase the public transport use by a better understanding of the BHLS concept and implementation, or in other words, to enhance sustainable mobility by developing new bus services within public transport networks able to fight or compete car use within Europe.

The secondary objectives of the proposed COST Action are :

- To understand and make recommendations about which concepts of BHLS and associated technologies are suitable for applications within Europe.

- To ensure that the best international knowledge and practice about BRT concept and its limits is rapidly acquired and appropriately incorporated into the European knowledge

- To make initial estimations of the likely impacts, costs and benefits of BHLS

- To facilitate exchange of knowledge about BHLS among the various stakeholders and practitioners in Europe so that technical know-how is strengthened

- To incorporate into the concepts Europe's leading-edge technological capability in areas such as bus design and ITS

- To adapt the evolution of the bus offer to the needs of the market

- To identify the main research and demonstration needs

- To recommend co-operation activities and developmental programs both within Europe and with global actors

- To disseminate the know-how acquired in this action to the Europe's practitioners

We believe that all the potentialities of buses as a genuine mode of transport have yet to be explored and that common work at a European level, (including new Member States, which have widely developed but relatively old networks), could give a well-needed boost to the bus sector and more generally speaking urban public networks

D. Scientific programme

The guideline entitled « Buses with a high level of service: concept and recommendations » was published by CERTU in October 2005, and produced under the aegis of the Ministry of Transport, with the participation of GART, UTP, INRETS and the transport authorities/operators of the cities that launched such projects: Rouen (TEOR project), Nantes (Bus Line 4), Lyon (trolley-bus C1,2 and 3), Grenoble (line 1 and coach service), Nîmes, Lorient (Triskel project), Évry and the RATP (Mobilien project). This book and several other works produced by European countries will guide us to structure the surveys and analysis throughout Europe.

There also exists already some substantial reference and guidance materials on BRT produced by the FTA in USA (http://www.calstart.org/programs/brt/index.php)

The main challenges faced today that lead to the development of this concept are:

- Encouraging a «system» approach, rarely adopted for a bus-based service

- Analyzing the main elements of efficiency implemented in successful projects (tramways, bus,…) (in particular traffic merging and infrastructure design practices, the skeleton of the system)

- Improving regulations and signalling for dedicated lane transport, in synergy with other over ground public transport (tramways system, ..)

- Integrating issues related to coaches, interurban routes.

- Innovate in the field of station design (the link with urban functions and possible urban regeneration)

- Incorporate service innovations linked with the development of information and communication technologies

- Promoting a design approach that encompasses the image and the functions of the new systems to be planned.

The types of partners interested should be research centres and institutes, technical branches of local authorities, bus manufacturers (ACEA and beyond), consultants, solid structure industry, and designers. The UITP could also be very helpful through its interested members.

European cooperation on this theme could aim at the following targets which are to be adapted and retailed regarding the interest of the partners :

- a state of the art of conceptual approaches in Europe, an analysis of differences and objectives; this first task will gather a knowledge base on performance indicators of such systems (ridership increase, travel time gain, investment, operating costs,…);
- an identification and evaluation of best practises in Europe and internationally.
- an analysis of line identification strategies within the network, in connection with adopted marketing strategies;
- an analysis and information sharing of the most innovative principles adopted in terms of «infrastructure» design (dedicated lanes, flexible lane, including signalling regulations, priorities and fleet monitoring strategies);
- an in-depth study on typologies, design, functions of stations in the system.
- an analysis of the functional requirements of vehicles for this type of service (standard, articulated, bi-articulated,…);
- an analysis of the decision-taking process of cities which have already implemented BHLS, and especially BRT, including the transport policy and objectives, institutional aspects, the anticipated impacts, how it was assessed and preferred to alternatives, actual outcomes. The acceptance of such project cutting away the car space, is often a hot key issue.

This COST proposal would have numerous benefits afterwards:

- the creation of a fruitful information exchange network on this topic at a European level;
- coordinated research which could be boosted at an European level on buses and possible cooperation with the USA and Canada, who are well ahead of Europe in this domain
- coordinated research which could be boosted at an European level on BRT systems and possible cooperation with other countries who are well ahead of Europe in this domain
- initial standardization work aimed at lowering the cost of vehicles.
- providing information to both transportation planners and decision makers to develop and evaluate buses with high level of service systems.

E. Organisation

Description and organisation of work:

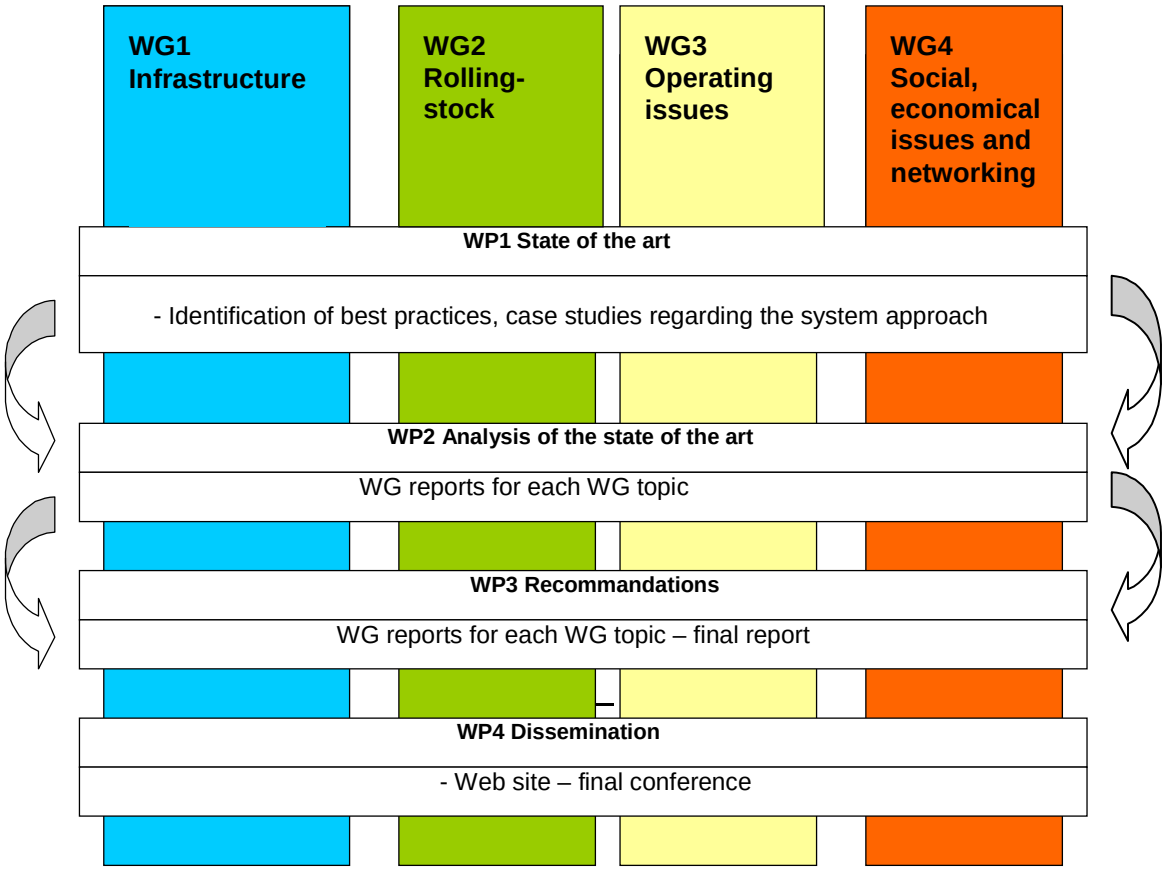
- Duration: 42 months (3 ½ years)

- A steering committee, which includes two experts of each country; each expert should be involved in a WG. If possible, the four WGs leaders should to be included in the steering committee.

- Four workpakages are proposed:
  WP1 : State of the art, conceptual approaches (European countries which are involved);
  WP2 : Analysis of best practices
  WP3 : Recommendations for decision-making ;
  WP4 : Dissemination through a web site and final conference

- Four working groups could be created; they will be involved in all WPs in their domain, as shown in the graph below. The different WGs are:

  WG1: Infrastructure;
  WG2: Rolling-stock;
  WG3: Operating issues;
  WG4: Social, economical issues and networking.



WG1 , Infrastructure

Traffic should always be regarded in relation with other urban activities. Therefore we need an efficient integration of traffic planning with economic development, townplanning and urban design.
First, this working group will focus on evolution of technical tools and different ways to implement station, running ways, signalisation, regarding obviously efficiency issues (running speed and regularity) but also safety issues and space sharing issues for the soft modes (i.e. walking and cycling). This work should also deal with the different road and tramway regulation, as the objective is also to capitalize in best practises in rail systems that could be applied in BHLS systems. The reverse analyse should not be forgotten.
Secondly, this working group will focus on investment cost issues, regarding the transport project itself, but also the trends of urban enhancement linked to the project.
Finally, this working group could also focus on some innovation or efficient ways to specify the road structure with heavy traffic.

WG2, Rolling-stock;

This working group will focus mainly on all technical and functional evolution that we observe within Europe and on the perspectives. Some information has also to be gathered outside Europe, more particularly for BRT with high capacities.
This WG will point out the demand of the different stakeholders, in terms of vehicle size, energy supply, interfaces platform/vehicles, guidance tools, motorisation, comfort, design, … and finally the whole image .
Hence, through this work, an analysis about accessibility trends for routes regarding the needs in case of high capacity, could be carried out.
This working group will take into account investment cost issues, in particular regarding the trends of the different new functionalities for. innovative solutions
Works carried out in WG 2 include an overview of standardisation perspectives and researches that could be needed for bus market.

WG3, Operating issues

This working group deals with the evolution of operating control trends, regarding the objectives in terms of efficiency and ridership. This work should also analyse the links with ticketing or fare collection process that could have bad impact in dwell time.
In particular, this work should integrate the point of view of passengers, i.e. the information needs and more widely the quality of service, and its control, regarding the method of the European standard “EN 13816” - June 2002.
This work should also deal with identification and marketing issues that are so well developed in Canadian or American BRTs.
At last, this working group focuses on marginal operating cost issues, regarding mainly the impact of potential innovation

WG4, Social, economical issues and networking

The term networking means intermodality, integration in the whole public transport network.

First this working group focuses on the **implementation conditions** of BHLS concept systems. It will be the place to analyse how the different public transport networks which have implemented or try to implement such new bus system have succeeded, overcome difficulties or failed. The questions of the emergence of the project and the role of the

different actors (decision-maker, population, shop-keepers, operators,…) will be tackled. If necessary, the group will analyse the discussions concerning the choice between BHLS and tramway. Moreover, the link with transport planning will be studied jointly with urban issues such as urban regeneration programmed simultaneously with BHLS new lines implementation.
The second item will be the **socio economic assesment** of BHLS. The methods will be analysed with bearing what is done for tramway in mind. Besides the impacts on the transport system (modal transfer,…), the group will deal with the external effetcs (local economics, housing, quality of life,…). It will try to know in what extent these effects are significant in comparison with what happens concerning tramway. Then it will scrutinize all these experiences in order to obtain the benchmark cases. It will sort out socio economic balances analyses for these projects.
The group will also focus on **the image and the place of the BHLS in the public transport network.** It will analyse the different configurations (strong line, substitute of tramways, secondary network,trunk,…) and the impact on the whole transport network. It will try to understand how the users and the population appropriate the BHLS system (link with design).
Finally, a specific point will analyse **public participation and dialogue methods** elaborated in order to program and operate such bus systems. (particularly conflict solving with local residents or shopkeepers along the new lines of BHLS projects for the realization of the bus line.)

WGs method :

- The analysis of local experience from a framework grid to be settled
- data base collection

Number of meetings:
We suggest to plan the different meetings as follow:

- around 2 meetings per year for the steering committee; they should be planed just before or after WGs meetings in order to optimise the trips expenses;
- around 2 meetings per WG, and per year;
- one final conference for dissemination (the last WG meeting with all WGs).

We suggest to carry out one deliverable with two parts :

- Concepts and best practices throughout European countries
- Analysis and recommendations for decision-making / research / standardisation

F. Timetable

The planned project progress and the tentative calendar for the corresponding meetings and deliverables to be submitted are summarised in the figure below.

Month	WPs 1	2	3	4	Steering commitee meeting	Workgroup meeting	Final conference	Deliverables
1					x			
2								
3						xx		
4						xx		
5								
6								
7								
8								
9					x	xx		
10						xx		
11								
12								
13								
14								
15								
16					x	xx		
17						xx		
18								
19								
20								
21					x	xx		
22						xx		
23								D1
24								
25								
26								
27								
28								
29					x	xx		
30						xx		
31								
32								
33					x	xx		
34						xx		
35								D2
36								
37								
38								
39						x		
40								D1 + D2 (final)
41								
42							x	

G. Economic dimension

The economical investment in term of manpower

The following COST countries have actively participated in the preparation of the Action or otherwise indicated their interest:

France, Ireland, Netherlands, United Kingdom, Spain, Portugal, Sweden

Germany UITP, as corresponding supporters

On the basis of national estimates, the economic dimension of the activities to be carried out under the Action has been estimated at **7** Million € for the total duration of the Action.

Economical investment in manpower (in euros)	For seven countries
Year 1	1 000 000
Year 2	3 500 000
Year 3	2 000 000
Tear 4	500 000
Total	7 000 000

This estimate is valid under the assumption that all the 7 countries mentioned above but no other countries will participate in the Action. Any departure and any additionnal participant country will change the total cost accordingly."

The expenses expected for the project

Estimation of the project with these 7 countries (two experts per country + 2 other per WGs), i.e. 10 participants per country maximum ; the Cost will increase with some more countries:

- Steering committee : outside the first meeting, expenses will be included below in WGs expenses (just before or after WGs meetings).
- Kick-off meeting : 12 persons x 1000 = 12 000 Euros
- WGs meetings (8 per year) 24 x 12 x 1000 Euros = 288 000 Euros
- Last steering committee : 12 persons x 1000 = 12 000 Euros
- Provision for invitation of experts from abroad, outside Europe (e.g. USA, Canada, Latin America about BRT trends) for all WGs : 50 000 Euros
- Provision for publication of the final report: not included (according to COST rules)
- Dissemination costs and final conference (as detailed in H) : 54 700 Euros

Total : 416 700 Euros

Expenses (in euros)	For seven countries
Year 1	118 000
Year 2	131 000
Year 3	131 000
Year 4	36 700
Total	416 700

This estimate is valid under the assumption that all the 7 countries mentioned above but no other countries will participate in the Action. Any departure and any additionnal participant country will change the total cost accordingly."

H. Dissemination plan

Objectives

- To ensure wide dissemination of actions and results of the COST,
- To encourage the exchange during the whole project to capitalise and understand concepts and best practices between members, to suggest European level recommendations for decision-makers.
- To maximise the exploitation of the outputs during and after the life of COST.

Description of work

Website

We propose a website architecture and a graphic design. The website project is divided into two parts:

- Public area contains project objectives, concept and approach description, partners list, working progress, events and validated outputs…
- Restricted part (with a password access) is an exchange area enclosing writing documents, minutes, meeting, e-mail members list… A users guide is proposed to COST members for an easy use.

The project website will be hosted by Certu and a domain name will be proposed to Management Committee and bought.

Logo

At the first meeting, we suggest some logos to the COST partners. With this logo we realise a template (.dot) for all reports.

Newsletter

We suggest to realise three newsletters (four pages) to promote COST action (in electronic version).
The articles will be written by members.
The first one will focus on the COST objectives and would look like a leaflet.
The second will focus on state of art and concept presentation.
The last one will give conclusion and best practice recommendations from the COST action.
Members could translate these newsletters in several languages; we could make the same graphic for each.

Members could disseminate it.
The electronic version could be in English and could be disseminated by e-mail dissemination list.

Dissemination list

The members collect their own contact list to create their database for dissemination. They inform the Management Committee what type of list they will use for dissemination.

Final conference

- Invitation and program
- Newsletters and documents…
- Template for slides

Dissemination costs

work	task	Day/during	cost
Website	Architecture, realisation Graphic design Hosting and domain name Enclose information User guide	12 4 1 2 10	6960 2320 580 1160 5800 *16820*
Newsletters	English version (3), Other languages	4 X 3 1per lang	6960 580 *7540*
Dissemination list	list	1	580
Final conference	Invitation & programm Newsletters, documents Printing Template slides Room and translation	5 5 1 1	2900 2900 500 580 20000 *26880*
Meetings	meetings	2 3	1720 1160 *2880*
Total		58	54700

• **Part II - "Additional Information"**

A. List of Experts

Country or international organisation	Name, affiliation, City,	Preferred WGs
France	François Rambaud, Sebastien Rabuel CERTU, Lyon Damien Garrigue, Nantes Métropole – Nantes, Valery Cervantes, Irisbus - Lyon Claude Soulas, Inrets - Paris Odile Heddebaut, INRETS - Lille, Marc Cheutin, Thierry du Crest, Philippe Le Ny, Laurence Le Souffaché - RATP, Paris Chantal Duchène, GART, Paris	WG1, WG4 WG2 WG2 WG4 WG1, WG2, WG3 WG4
Germany	Volker Deutsch, Wuppertal Univerty in Wuppertal Thomas Knöller - Abteilung Planung Verkehrs- und Tarifverbund Stuttgart GmbH (VVS)	corresponding supporter WG4
Ireland	Brendan Finn - ETTS Ltd Mr. Ciaran de Burca - Dublin City Mr. Dave Morey - Cork City : Dublin Bus : Mr. Donal Keating Bus Eireann District Manager : Joe Fitzgerald Bus Eireann Services Manager : Dan O'Shea	 WG1, WG4 WG2 WG2
Netherlands	Erik van Hal – City of Eindhoven Mr Van Kesteren Gerard – Aw Transport Research centre	WG1, WG4
United Kingdom	Colin Brader – Integrated Transport Planning Ltd Nick Vaughan - Greater Manchester Passenger Transport Executive	WG 4, WG3 WG1, WG4
Sweden	Sven-Allan Bjerkemo - Bjerkemo Konsult	WG4
Spain	Carlos Cristóbal Pinto – Madrid, Public Transport Authority Miguel Mateos - Centre for Transportation Studies at CEDEX Andres Monzon - TRANSyT (transportation Research Centre of the Universidad Politécnica de Madrid) Daniel De La Hoz - TRANSyT (transportation Research Centre of the Universidad Politécnica de Madrid)	WG4, WG1 WG4, WG3 WG4, WG3
Portugal	Carlos Gaivoto – CARRIS, Operator in Lisbonne – very interested, waiting for the final decision	
Czech Republic	Dosek Zdenek - Prague PT company , no answer:	
UITP	Arno KERKHOF O Sbert Lozano, Président du Comité Bus UITP	

Short CV for each experts

France :

François RAMBAUD – Civil engineer, project manager for CERTU since 1997, a technical agency of the French Ministry of Infrastructure, Transport and Planning, whose mission is to capitalize and disseminate knowledge, methodologies, guidelines and best practices regarding urban transportation and planning. Prior to his assignment at CERTU he worked for several local agencies where he was in charge of projects in various fields of activity such as energy and civil engineering for official buildings, road works and safety. At CERTU, within the Urban Systems and Technologies department, he is in charge of carrying out studies, providing expertise on urban public transportation technical innovation and new trends. He also participates to various standardization activities and European projects.
He has managed the publication of several books, such as "comparison of the various new guided systems on tires" (1999), "guidelines for accessible buses for all" (2001), and "Public Transportation system choice through a global system approach"(2004) and he played a key role in launching the concept "Bus à Haut Niveau de Service" (French equivalent to Bus Rapid Transit) in collaboration with GART, INRETS and some operators and authorities. One of François' current challenges is to provide the technical and regulatory background that will enable the bus to enjoy the same operating advantages as the light rail.
CERTU : Center for Studies on Urban Planning, Transportation and Public Facilities
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Sébastien Rabuel is Civil Engineer at CERTU (Center for Studies on Urban Planning, Transportation and Public Facilities). He has been working for the French transport ministry for 5 years. His expertise field covers urban public transportation, especially network organisation and socioeconomic appraisal.
He's member of the french group on "Bus with high level of service" (BHLS) and manages surveys on right of way evaluation. He's also entrusted with analysis on several subjects : transport supply adapted to land (especially in small cities), park and ride, near-urban and regional public transport, and urban development with rail.
He was involved in international missions : urban mobility in South Korea and connection to airports in Japan. He is part of the Eurforum european project.
CERTU : Center for Studies on Urban Planning, Transportation and Public Facilities
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Nantes Métropole
Eric Chevalier, eric.chevalier@nantesmetropole.fr
Mr Chevalier is an economists' engineer, graduation in Urbans' General Management (ESSEC).
After 15 years of public transport experience with public transport operator in several towns in France as director of operations and studies and general director, he joined communauté urbaine de Nantes in 1999 to manage the public transport contract with SEMITAN, and work about public transport networks' development. He is involved in benchmarking European project. He is the scientific co-ordinator for Nantes' Vivaldi project.

Damien Garrigue, damien.garrigue@nantesmetropole.fr
Nantes Metropole Bus projects manager
Studies: Civil engineer of Ecole Centrale Nantes
Previous jobs: Civil works engineer (viaduc works) in Hong-Kong and Rio de Janeiro
Transit-mobility engineer for the municipality of Versailles (France)
Car parks project manager in Borbeaux Métropole during two years 2000-2002 (France)

Claude SOULAS

Civil engineer, senior researcher at INRETS (The French National Institute for Transport and Safety Research), Laboratory of New Technologies, since 1985.

He has been working in the field of investigation of new urban and regional transport systems : intermediate systems, automated people movers, electrically propelled vehicles, tram trains, new concepts, BHLS. As a French expert has during the past participated to the European working group "COST 302" dealing with electrical vehicles.

Responsible for evaluations or document analysis carried out in the context of French program PREDIT.

Supervisor of INRETS activities in the field of public transport, and more particularly in charge of the two following so-called "horizontal" groups :

- « thème fédérateur » : improvement of public transport offer quality, 1994-2000
- «plate-forme intégrarice» : innovations in the field of urban and regional guided transportation, 2004-2006

Member of many national working groups (for example PREDIT group n°10, vehicles and infrastructure / integrated approach), French-German cooperation, ... member of the French group "bus with high level of service" (BHLS) and contribution to the report.

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Dr Odile Heddebaut

She is an economist and have worked on public transport policies evaluation at INRETS since 1992.

She was involved in a Cost 317 action on the socio-economic assessment of the Channel tunnel and large scale transport infrastructures (1993-1997).

She makes some research on territorial transformation of territories linked by big transport projects such as the Channel tunnel and on the public transport policies implementation such as PDU (urban travel plans) with an application to the Lille metropole PDU.

She participated in the working group on BHLS led by the Certu in 2005. Since 2005 she works within the DEST research unit on the public and citizen participation to transport infrastructure projects and decisions.

She is a member of the French Evaluation Society and of the European Evaluation Society and regularly makes papers in their Conferences.

She teaches at the Paris 8 University, Rennes 1 University and Lille 1 University.

RATP

Marc Cheutin (WG3) has various skills in urban public transport operations, especially with buses and trams. He is presently responsible for the Unit dedicated to the design of new projects at RATP's Bus Department. He had previous assignments in various positions in the management of bus operations.

Thierry du Crest (WG1) is an urban transport generalist. He has particular competences in tramway project, bus operation and transport planning, after being a tramway project manager at RATP (main public transport operator in Greater Paris), a transport manager in a bus depot (RATP), and a transport economist and transport planner at CERTU. He is graduated from Ecole Polytechnique and Ecole Nationale des Ponts et Chaussées.

Philippe Le Ny (WG2) has been involved in project design for bus and tram systems in various French cities: Clermont-Ferrand, Nancy, Rouen among others, and is presently responsible for new products and techniques with RATP's Bus Rolling Stock Department Engineering team, with special emphasis on passenger comfort improvement and life cycle cost optimisation, including energy savings and alternative sources of energy.

Laurence Le Souffaché (RATP team leader). She is an environmental specialist and urban transport generalist. She was the Project Manager of Ecological Buses Program at RATP. She works now in the research and innovation department and she is in charge of the supervision of the road transport and environmental researches.

CETE-L: CETE-Lyon (METL: Ministry for Equipment, Transport, and Housing, France)
CETE-Lyon is part of the Réseau Scientifique et Technique (RST). This is a network of French research & other organisations which are mainly technical services of the French Ministry for Equipment, Transport, and Housing (METL). RST is composed of 12 centres which group more than 5 000 people. The first objective of the Réseau is to provide the Ministry with research and technological expertise aiming at supporting the design of national policies and their implementation. Moreover, its research and engineering expertise can be used by local authorities and private sector, mainly on the basis of the market rules.
Most of the RST centres are involved since 1987 in the successive European R&DFP and were generally present as CETE or CERTU. CETE Lyon is one of seven CETE's throughout France providing a scientific network that co-ordinates with central government agencies. CETE-Lyon provides expertise on projects and their environmental impact, it is involved in the transport network development and the inspection and monitoring of construction (roads, motorways, railways and waterways). It takes part in many EC research programmes, including UTOPIA, CLEANER-DRIVE, TRANSFORUM and is involved in several commissions on standardisation.

CV Ch. Basset
Christian Basset heads the CETE-Lyon communication department. He leads the WP 1,2-Dissemination of the CLEANER-DRIVE European project, he has managed with the CERTU the dissemination of the UTOPIA European project, and he has worked on other European projects such as MELISSA, PLEIADES and DEDALE. Now CETE-Lyon manage the web site of TRANSFORUM project and he is beginning the dissemination of the Starbus project as the WP leader. He is consultant to the local agencies of the Ministry of Transport for web site development. He also manages dissemination programmes (newspaper, video, website, CD, DVD, exhibitions, meetings) for transport policy-makers. Other key staff include Malika Zeroual (web site project deputy), Christophe Bouchon (web site developer) and Henri Durand (dissemination project deputy) They will all be working on Dissemination activities.

United Kingdom:

Colin Brader is a founder member and Managing Director of UK based consultancy Integrated Transport Planning Ltd, a Fellow of the Institution of Highways and Transport and a committee member of the Transport Planning Society. His approach is based on the recognition that transport choice is part of lifestyle choice, transport must be considered holistically and that the answer often lies outside of traditional transport thinking, but most importantly, that transport must be focussed on user needs. He has specialised within his philosophical belief in high quality public transport leading feasibility studies into Bus Rapid Transit in many locations in the UK as well as Accra (Ghana), Lagos (Nigeria) and Queensland (Australia). He has worked for international public transport operator Stagecoach in developing high quality bus initiatives and undertaking operational review. His work for the public sector has spanned both policy and research and has included pan European research into the effectives of high quality vehicles on transport mode choice. Colin has worked as part of the European Economic Interest Group RUBIS examining the potential of intermediate transport modes. His knowledge of local transport policy and high quality public transport has led him to be a regular conference speaker.

Nick Vaughan – CV

Nick Vaughan is Head of Project Development at Greater Manchester Passenger Transport Executive (GMPTE). He has worked at GMPTE for over 16 years and has nearly 30 years transportation planning experience in the public sector in both London and Manchester. Relevant to this project, Nick planned the Quality Bus Corridors network in Greater Manchester (a network of around 400kms) and was head of the team that co-ordinated its implementation. He is also project co-ordinator for a 22km guided busway scheme and has commissioned feasibility studies for a number of other busway corridors. In 2005 Nick spent 3 months with Brisbane City Council on a work exchange, which included time spent working on the Brisbane busway projects.
Nick is a Chartered Town Planner and has an M.Sc. in Transportation and Traffic Planning from the University of Birmingham in 1978.

Ireland :

Brendan Finn - ETTS LTD.
Brendan Finn is a highly qualified and experienced transport management consultant. He has extensive consultancy, operational and research experience. The focus is on urban and rural passenger transport, both within the EU and in developing and transitional economies.
He has a strong understanding of all of the dimensions of urban bus operations, having spent the earlier part of his career both as a specialist and as a manager within a major operator. In later years he has on one hand worked closely with both operators and transport authorities in many developing countries, understanding well their challenges and the options for improvement which are open to them; on the other hand, he has been an active participant in collaborative EU public transport research, and has a strong knowledge both of current practice in modern bus companies and of the tools and systems available to them.
He has a particular expertise in urban passenger transport reform, with focus on regulatory frameworks, organisational frameworks, and competitive tendering. He has advised on institutional and organisational structures for passenger transport authorities in Poland, Latvia, Kyrgyzstan, Mongolia, and Uzbekistan. He has advised on both strategies and implementation for urban bus reforms in countries such as Kazakhstan, Kyrgyzstan, Poland, Russian Federation, and Uzbekistan. He has prepared manuals on reform of urban passenger transport for city practitioners in the Russian Federation and ECA. He is currently assisting the World Bank on study of the UPT sector reforms in China.
He has been an active participant in collaborative EU research on urban and rural passenger transport since 1990, with main focus on Transport Operations and Intelligent Transport Systems (ITS). He has both project managed and led the research in many projects. He has contributed to more than 40 international conferences on both practice and research domains
PRIMARY AFFILIATION WITH THE BHLS DOMAIN

- Development of regulatory framework and franchising system for the UPT sector as supporting action to pilot BRT corridor in Accra, Ghana (2006, World Bank project)
- Member of design team for BRT corridor in Lagos, Nigeria, with responsibility for operational systems including fare collection, AVM and operations management; and for regulatory framework (2006-7)
- Review and appraisal of public transport projects in a number of Chinese cities including BRT investment projects and feasibility studies (World Bank, 2005-6)
- Site visits to BRT systems at Adelaide, Beijing, Brisbane, Curitiba, Rouen and Seoul, as well as to many high quality bus systems
- Leader of workplan for ITS future research requirements for public transport within EU project TransITS (2002-4)

SHORT DESCRIPTION OF ETTS LTD.

Participant in many EU collaborative research projects on ITS for operations management and fare collection (1991-2006)
ETTS is an independent Irish consultancy established in 1993 to provide transport consultancy services. Since its formation, ETTS has played an active part in transport consultancy both in Ireland and abroad, and in the ITS activities in Europe.
Transport consultancy has been provided on a wide range of TACIS, PHARE, EBRD and World Bank projects. Missions have been undertaken in China, Ghana, Poland, Romania, Spain, UK, Greece, Latvia, Mongolia, Russian Federation, Kazakhstan, Kyrgyzstan, Ukraine, Uzbekistan, Sri Lanka and Singapore in the domains of regulatory and institutional frameworks, urban and inter-urban transport policy, operations and support systems, and fare structure and collection systems.
Since its formation, ETTS has participated in many collaborative EU projects in the domain of ITS with particular emphasis on intelligent and advanced operations management for urban and rural public transport. ETTS is an active participant in conferences and dissemination activities.

Ciarán de Búrca
BE, FIEI, Chartered Engineer, Project Manager
Quality Bus Network Project Office
Email: ciaran.deburca@dublincity.ie
I received my Bachelor of Engineering Degree in 1975, became a Chartered Engineer in 1983 and was made a Fellow of the Institution of Engineers of Ireland in 1995.
I have worked with Dublin City Council since 1975 in the Roads and Transportation Department and have been involved in all the major traffic and transportation projects in the region since that time. These include projects such as the Light Rail Schemes, Road Construction Schemes, Dublin Port Tunnel Scheme, Bus Priority Schemes, etc.,
I am currently responsible for the operation of the Quality Bus Network Project Office including management and staff assignments, finance, liaison with stakeholders, public representatives, business groups etc. and representation of the office on committees and at public meetings.
I have participated as Project Manager in European Intelligent Transport Telematics projects such as LLAMD, Concert, Tabasco, Vade Mecum, etc. which provided the opportunity to visit other cities and view traffic management systems and new developments in the area of transport telematics. I represented Dublin City Council on the Management Committee of Polis, which is the European Organisation set up for the implementation of transport telematics systems in Europe. During this period I held the post of Treasurer Polis.
Other links
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Ian_winning@corkcity.ie
noel_tummon@corkcity.ie

Role of Quality Bus Network Project Office
The Quality Bus Network Project Office was set up in 2002 by the four Local Authorities in the Dublin Region to implement the infrastructure in the Dublin Region for the bus priority measures contained in the Quality Bus Network Programme.
The Quality Bus Network (QBN) is a low cost solution to provide public transport infrastructure with a high level of priority for public service vehicles on the existing road and street network in Dublin. The QBN is being provided in the short to medium term to enable the city to cope with the transport demand prior to the implementation of a high cost metro and light rail system. There is an annual investment of approx. €40m for the QBN infrastructure works. To date the programme has been very successful with increases in the number of public transport users on the upgraded QBN routes ranging from 40% to 200%.

There is also a significant increase in the modal share for buses together with a significant reduction in bus journey times.
The designs for the bus priority measures on the QBN take account of the needs of all road users. There have been significant safety benefits on the routes due to the provision of enhanced cycle, pedestrian and mobility impaired facilities as part of the overall route designs which also provide for accident remedial measures at existing 'black spot' locations.
The completion of the new Quality Bus Network will be carried out over the next five years. The majority of the funding is coming from the Department of Transport through the Dublin Transportation Office.
The overall aim of the Quality Bus Network is to achieve a tight mesh of radial and orbital QBCs linking the suburbs with each other and with the city centre and facilitating improved bus access to the major residential/retail and employment centres and linking the QBN to mainline and suburban rail and Luas.

Allemagne:

Thomas Knöller
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Espagne :

CARLOS CRISTÓBAL-PINTO
Civil Engineering for Madrid Politechque University and Master of Science in Urban and Regional Planning for Technion: Israel Institute of Technology.
From 1986 to present is working at Madrid Public Transport Authority in the Studies and Planning Department, developing activities about: Mobility studies and network models; Demand: surveys; Planning studies about new extensions of the underground and commuter train network, and Economic evaluation of alternatives; Buses lanes and BRT; Multi-modal interchanges.
Member of UITP Commission of Transport and Urban Life and Member of Editorial Advisory Board of the UITP Revue PTI, Public Transport International. Member of EMTA Association (European Metropolitan Transport Authorities). Member of Editorial Board of Spanish revue Carreteras.
ccp1556@hotmail.com

Miguel Mateos
Qualification
Civil Engineer at the Universidad Politécnica de Madrid (UPM) graduated in 2000. Expert in Land Transport by the Universidad Politécnica de Madrid (2002). Expert in Sea Transport and Port Management by the Universidad Politécnica de Madrid (2003). PhD student of the Transportation Program at the Civil Engineer School of the Universidad Politécnica de Madrid, currently working on a thesis regarding HOV lanes operation and performance evaluation.
Position
Transport Researcher at the Centre for Transportation Studies at Centro de Estudios y Experimentación de Obras Públicas (CEDEX) since 2005, working on research projects on sustainable urban transport field.
On a way to write a thesis about HOV lanes (which is close related to BRT).

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CEDEX description

The Centro de Estudios y Experimentación de Obras Públicas (CEDEX) was created in 1957 as an autonomous organisation, that at present is organically ascribed to the Ministry of Fomento and and associated environment, giving assistance to various administrations, public institutions and private companies.Its specialised technical units, Centres and Laboratories, some of which have been active for more than 100 years, provide high level technical assistance, applied research and technological development in the areas characteristic functionally to the Ministries of Fomento and Environment of Spain, in the sphere of their respective competences. Its goals and functions are collected in the Statute of CEDEX, approved by the Royal Decree 1136/2002 of 31 October. CEDEX is an institution that provides multidisciplinary support in civil engineering technologies, construction of the civil engineering sector: harbours and coasts, hydraulics of continental waters, roads, structures and materials, geotechnics, techniques applied to the civil engineering and environment and historic studies of the public works. These units devote about 70% of their resources to high level technical assistance and the remaining 30% to applied research and development, technological transfer and other actions on technical and scientific information.The specialisation of the human team, the singularity of some of its installations, the great variety of the civil engineering and environmental matters undertaken and the growing cooperation with similar overseas institutions, make CEDEX an avant-garde international organisation able to apply the latest innovations to solve the numerous problems that are present nowadays in the ambits of its specialisation, specifically those where civil engineering needs to be combined with the inherent environmental aspects, with a view to a sustainable development.

ANDRES MONZÓN

Prof. Andrés Monzón, Civil Engineer, Master in Transport and Urbanism, Universidad Politecnica de Madrid, since 1978, and PhD in Transport (also UPM) since 1988.

He is currently Director of TRANSyT (Transport Research Center) and Professor of Transport at The Civil Engineering Department, Universidad Politecnica de Madrid.

He teaches courses of Economic of Transport and Transport Policy and Planning at graduate level; and the doctorate course on Strategies of Sustainable Mobility.

He has published 25 books and chapters of books, 30 papers in scientific journals, 75 papers in Conferences' Proceedings, and supervised 14 doctoral theses.

He has participated in 50 research works (38 as director and 13 international projects - EU FP); among them: TransPrice (Transmodal Integrated Urban Transport Pricing for Optimum Modal Split). Urban Transport, IV FP, D.G. VII, EU, 1995/98; EMMA (Environmental Municipality Monitoring Air), Telematics and Transport, IV FP, D.G. XIII – E.U.,1995/98; ICARO (Increase of CAR Occupancy through innovative measures. Urban Transport, IV FP, D.G. VII, EU, 1996/99 ; Externalities in Transport Projects. European Investment Bank,1997/98; PROSPECTS (Procedures for Recommending Optimal Sustainable Planning of European City Transport Systems). Energy & Sustainability Programme. V FP, EU, 2000/03; PLUME (Planning and Urban Mobility in Europe) - Key Action - City of Tomorrow, V FP, EU 2002/04; TRANSFORUM (Scientific forum on transport forecast validation and policy assessment) VI PM EU 2004-07, EURNEX (Network of Excellence on Rail Research) VI PM EU 2004-2008, etc.

He is fluent in Spanish, English and French.

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DANIEL DE LA HOZ

Dr. Daniel de la Hoz. Civil Engineer, Master in Construction and Organization at the University of Cantabria since 1999, and PhD in Transport, Processes and Project Technology (also UC) since 2003. He is currently Assistant Professor at the UPM teaching at graduate

level: Transport, Transport Economics and Transport Planning at the Civil Engineering School of the Universidad Politécnica de Madrid, and Research Fellow at Transyt Research Center. He has been Senior Consultant of MECSA (Marcial Echenique Enterprise) on Transport Planning and Modelling. He has published 1 book, participated on several National and International Conferences and Symposiums. He has taken part on 11 research works, most of them related with ICTs on Transport and Civil Engineering. He speaks fluently Spanish and English.
danielhoz@caminos.upm.es)

UPM, University of Madrid. TRANSYT, Transport Research Centre, Spain

The Universidad Politécnica de Madrid was founded 30 years ago as university itself, but most of the member schools started their academic and research activities in the XIX century and have developed an independent life before they enter UPM.

Nowadays, the Universidad Politécnica de Madrid is a major University of Spain, the top one for engineering studies. Its teaching activities cover almost all engineering degrees and PhD programs.

TRANSYT (Transport Research Centre) has an staff of 18 academics, in charge of teaching 14 courses in Transport, and 40 Doctorate students. It covers activities in different transport related fields: Environmental Engineering, Traffic Engineering, Ports Operation, Urban Transport, Logistics, and Transport Economics and Planning.

TRANSYT has been involved in a number of research projects financed by national and international institutions. It has taken part in the following projects of Transport and Telematics within the EU IV Framework Programme: SCENARIOS and SCENES (Transport-Strategic), HISPEEDMIX (Transport-Rail), TransPrice, AFFORD, ICARO (Transport-Urban) and EMMA (Telematics). Within the V EU FP is participating in PROSPECTS and PLUME (City of Tomorrow) and TRANSECON (Competitive and Sustainable Growth). And in the VI FP: STEPS and TRANSFORUM. It has also been involved in research projects in the SAVE Programme and "Technologies and tactics to improve urban mobility in European cities (Thermie)". It has been responsible for a number of projects at the national level as "mobility analysis in medium size cities in Spain", "Valuation of energy and environmental benefits of the urban ring roads: application to the M-40 motorway of Madrid Region", "Work-based trip reduction management in the N-VI corridor", "Congestion costs in the city of Madrid", etc. Several national institutions and foundations in the field of transport also sponsor applied research activities, particularly the Spanish Ministries of Transport and Environment, the Regional Government of Madrid, Madrid Public Transport Authority, the Spanish Association of Civil Engineers, and various Private Foundations. It has also started to take part in several Networks of Excellence: EUR^2 EX and HUMANIST.

Most of these research activities have included the organisations of stakeholder Fora, Seminars and Discussion Groups. Consequently, UPM keeps excellent relationships with various stakeholders organisations in Spain and other countries, and within international institutions, such as:

- The Spanish Ministries of Transport and Environment.
- Road, Rail and Public Transport Administrations.
- Regional and local Governments.
- Transport and Environment consultants.
- The scientific community.
- Transport operators.
- Transport and environment NGOs.
- International institutions: OECD, ECMT, UNECE
- International Financial Institutions: EIB, WB

International organisations: UITP, UIC, IRU, PIARC, IRF

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Educational references

- National Academy for Traffic Planning, Tilburg (1981)
- Member CROW-board two-yearly expertmeeting in traffic planning
- Occasional lecturer Post Academic Courses Technical University Delft

Employment references

Gouvernment province of Zuid-Holland, Traffic Department (1982 – 1987)

- 1982 - 1984 researcher and developer on road traffic policy
- 1985 - 1987 planner on road traffic for the Westland region

Selection/type of projects Zuid-Holland

- Regional traffic survey Voorne-Putten-Roozenburg
- Traffic simulation study Westland region
- Planning south-west ring road Den Haag

BRO, consultancy on urban planning and design (1988 – 2005)

- 1988 - 2005 consultant mobility, infrastructure and urban planning
- 1997 - 2005 manager traffic planning group / partner BRO

Selection/type of projects BRO

- Regional road planning
- Traffic simulationstudies
- Local and regional transport policies
- Parking policy and management
- Design of public domain
- Traffic and road planning for domestic areas (500 – 3.000 households)
- Sustainable transport policy and urban transport planning for economic centres (city centres, working areas)
- Research on sustainable transport and urban planning for knowledge institutes (CROW, SenterNovem)

City of Eindhoven, Department of Urban Planning (since 2006)

Selection/type of projects Eindhoven

- Public Transport Policy
- Extension of the high-quality public transport system (Phileas)
- Parking Policy

Ruud Bouwman (15-11-'59), General Manager APTS

- Ruud Bouwman got his Technical degree in mechanical engineering at the University of Eindhoven in 1983.
- From 1983 to 1990 he worked at Stork – FDO technical sevices in Hengelo.
- From 1990 – 1998 he was Production Manager of Stork Pumps in Brussels.
- From 1998 – 2000 he was Director R&D of the Berkhof-Jonckheere Group in Valkenswaard.

- From 2000 – 2003 he was Technical Manager of Advanced Public Transport Systems B.V.
- From 2003 up to now he is Director of APTS

Jos Jansen (19-09-'49), Marketing & Sales Manager APTS

- Jos Jansen got his Technical degree in mechanical engineering at the Technical High School of Eindhoven in 1972.
- 1972 – 1990 he worked at the development department of Volvo Car B.V. first as Manager Technical Testing Equipment and after that as manager Workshops & Prototype Procurement.
- 1990 – 1994 he worked at NedCar PD&E as overall project manager cost reduction projects and the facelift of Volvo 400 series.
- From 1994 he worked at NedCar PD&E as Manager Third Party Engineering, which included Marketing & Sales.
- 1998 – 2000 he was General Manager of DuvedeC International B.V. in Veldhoven; a design & engineering company for the automotive industry.
- 2000 – 2003 he was Project Leader for the design and engineering of body and interior & exterior trim.
- From 2003 he is Manager Marketing & Project Management at APTS.

Sweden:

Sven-Allan Bjerkemo

Heis a transport planner running his own consultancy firm, Bjerkemo Konsult, from **Lund** in Sweden. Sven-All**a**n is the former Head of Transport Planning at VBB in Malmö, specialising in public transport and transport - land use planning**. H**e has undertaken many projects that have sought to examine the potential of high quality public transport solutions throughout Scandinavia and the Baltics. His work has included research and development of Environmental & Demand-Adapted Integrated Public Transportation**,** researching Advanced Public Transportation Systems throughout Europe, work on the REBUS Computer Aided Public Transportation Planning System and the production of Planning guidelines and Pilot projects for Attractive, Sustainable Cities within the TRAST project. Sven-Allen works closely with Universities of Sweden in education and developing public transport research projects.

Bjerkemo Konsult (Urban & Regional Transport Planning - Public and sustainable transport systems) is a consultancy firm in urban and regional transportation planning and traffic engineering. The firms was established in 1997 as a firm working together with other companies in a network.

The tasks are focused on transport planning co-ordinated with urban and regional planning activities. Inter-modal and sustainable transports and integrated public transport systems including transports for disabled are essential parts.

A speciality of mine is computer-aided planning methods, planning tools and time schedule systems for Public Transport.

In order to maintain high competence, research and development projects are a distinct part of the activities. I am also engaged in teaching and research at Lund Institute of Technology, University of Lund.

B. Recent Publications

From France:

- « Buses with a high level of service: concept and recommendations » published by CERTU in October 2005.
- The web site, www.bhns.fr

From Germany :

- « Bus or Light rail: making the right choice » Bergische Universität Wuppertal – second edition 2003.

From Netherlands:

- Urban design and traffic, a selection from Bach's toolbox', CROW-publication 221, (www.crow.nl)

From outside Europe:

- "Sustainable Transport : A Sourcebook for Decision-Takers in Developing Countries : Module 3B – Bus Rapid Transit. Version 2.0". GTZ for SUTP program. 2005
- "Characteristics of Bus Rapid Transit for Decision-Making", US Department of Transportation, 2004
- Bus Rapid Transit; Volume 2 : Implementation Guidelines". TCRP Report 90, Transportation Research Board, 2003 – Volume 1 : best practises.
- "Trans-Jakarta Bus Rapid System : Technical Review" ITDP. December 2003.
- The site where all the knowledge of the BRT approach launched by the FTA is gathered, "www.calstart.org/programs/brt/index.php"

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