BOOSTING ADVANCED PUBLIC TRANSPORT SYSTEMS

BAPTS

High-quality public transport services for Europe

National Transport Authority
Údarás Náisiúnta Iompair

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DUBLIN

5TH BAPTS PARTNERSHIP MEETING/WORKSHOP/SITE VISIT

27 – 29 January 2010

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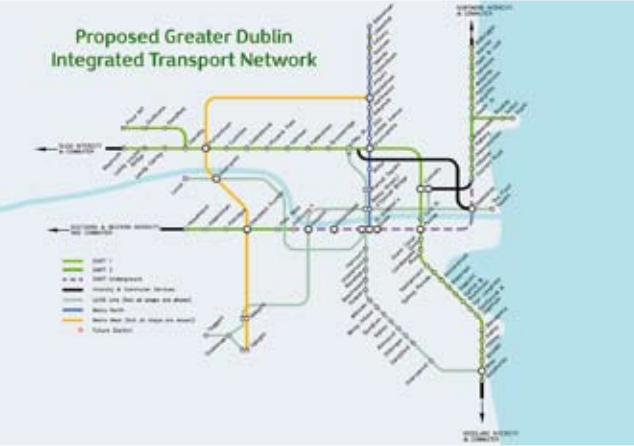
5th BAPTS Partnership Meeting/Workshop/Site Visit in Dublin

The BAPTS partnership meeting No 5 was hosted by the National Transport Authority (NTA) and the Dublin City Council (DCC). Thematically, the visit to the Irish capital was centred on the two topics of “Urban Bus Systems” and “Mobility Management”. During three thematic workshops, partners could jointly deepen their understanding of common challenges and solutions. The thematic site visit was aimed at better understanding the urban regeneration potential of large scale infrastructure investments.

Background information:

Dublin is the capital of the Republic of Ireland and has one of the fasted growing populations of any European capital city. Despite the recent economic crisis, the city still develops very dynamically.
Dublin‘s transit system currently utilises electrified suburban trains, diesel commuter rail, trams and an extensive bus network to provide service to the population of the Greater Dublin Area. The system is overseen by the NTA which has emerged in December 2009 from the Dublin Transportation Office (DTO).
The entire Irish transport system is currently being reviewed and adjusted to future requirements within the framework of the national transport development plan “Transport 21”. The plan, which has been announced in 2005, includes far reaching extensions and large scale investments in particular in the Dublin transport network. Among other schemes, the plan foresees fundamental changes for the existing Dublin commuter network, the development of a metro system and large investments and extensions of the tram network already existing.



Proposed greater Dublin integrated transport network

From 27 until 29 January 2010, some 35 transport professional and European office staff of the nine BAPTS partners followed an invitation of the National Transport Authority and the Dublin City Council as the Irish BAPTS partners for the 5th regular BAPTS project meeting.

The Greater Dublin region

Besides administrative aspects such as the provision of an update of the implementation status of the various project activities, the status of the project finances, and the delivery status of partner investments and actions, the 5th BAPTS meeting has again explicitly featured transnational working. Within workshops and by means of a site visit, this time the knowledge exchange was thematically related to mobility management issues and urban bus systems. In this regard, the three targeted workshops were specifically aimed at the development and use of residential and work travel plans, the traffic reduction and health improvement potential of school travel plans and at understanding better the potential and constraints of urban bus priority systems.

Background information:

The National Transport Authority (NTA) is a statutory body established by the Irish Minister for Transport on 1 December 2009. Its structure also includes the former Dublin Transportation Office (DTO).
At a national level, the NTA has responsibility for securing the provision of public passenger land transport services. This includes bus and rail services subsidised by Bus Éireann, Dublin Bus and Irish Rail. It is anticipated that the NTA will take over responsibility for the licensing of commercial bus services and the regulation of the small public service vehicle sector during 2010. The NTA also has responsibility for the development of an integrated transport system within the Greater Dublin Area (GDA). The principal functions of the NTA with respect to the GDA are:

- strategic planning of transport;
- development of an integrated, accessible public transport network;
- promoting cycling and walking;
- provision of public transport infrastructure, generally including light rail, metro and heavy rail;
- effective management of traffic and transport demand.

Public transport in Dublin

As regards public transport, Dublin has already lots to offer while several interesting and cutting-edge projects are currently underway. Currently, the Dublin public transport system rests to a large extent on a complex bus network. The state-owned Dublin Bus operates an extensive bus network of nearly 200 radial, cross-city and peripheral routes in the Greater Dublin Area, which constitutes the bulk of the area's public transport system. Thus, Dublin Bus is the main transport provider in the wider city region and carries 70% of all peak time public transport users into Dublin. On average, the network carries 500,000 customers a day and 150 million a year. The company currently employs around 3.800 full-time staff members and utilises a fleet of some 1.200 buses.

Bus at Dublin city centre

Rail services in Dublin include the five lines of the Dublin Suburban Rail operated by Iarnród Éireann, Ireland's national railway system. One of these is the electrified Dublin Area Rapid Transit (DART) which is running primarily along the coastline of Dublin Bay, from Greystones in County Wicklow to Howth and Malahide in Northern County Dublin. The DART line is the only electrified railway in the country and over 80,000 people use it every day, making it arguably Ireland's greatest public transport success story.

DART train

LUAS light rail

Besides a two-line light rail tram network called the Luas, named after the Irish word for „speed", opened in 2004 and has proven very popular in the areas it serves. Since 2004, the tram already expanded towards the Dublin docklands as a key regeneration site close to the city centre. Further extensions are currently being planned, including Dublin airport.

LUAS light rail

For the future, a Metro system with several lines and various other fundamental changes to the existing rail network are also planned for the Irish capital. Supported by the Irish government's 2005 Transport 21 plan, the entire system is expected to be operational by 2020.

Background information:

Transport 21 is a capital investment framework under the National Development Plan through which the transport system in Ireland will be developed over the period 2006 to 2015. Transport 21 is made up of two investment programmes – a national programme and a programme for the Greater Dublin area. The main objectives of the programme for the Greater Dublin Area are:

- to develop Metro North and Metro West;
- to construct the Suburban Rail Interconnector, providing a tunnelled link between Heuston Station and the Docklands, via St. Stephen's Green and linking with the Northern line;
- to extend the LUAS network to the Docklands, Citywest, Bray and construct a new line from St Stephen's Green to Liffey Junction (joining the two existing LUAS lines), and construct a new line from Lucan to the City Centre;
- to develop the bus network to create a meshed network of services and reorient it to take account of the rail developments described above;
- to create a network of interchange points across the network to allow user transfer easily;
- to introduce a smartcard integrated ticket which can be used on all public transport services;
- to develop park and ride facilities at carefully chosen locations;
- to implement a phased programme of demand management measures;
- to introduce an integrated public transport information system;
- to complete the upgrade of the M50.

27 January 2010

After their arrival, all project partners were taken on a thematic city tour. Besides recognising the rich history, the BAPTS partners were able to get a first impression of the Dublin transport system.

28 January 2010

On Thursday, 28 January 2010, the BAPTS partners gathered at the impressive Wood Quay venue, which features a stretch of the original Hiberno Norse City Wall dating from 1100 AD. After a welcome by the lead partner and the host, each partner reported by means of a presentation on the implementation status of local BAPTS activities and their thematic scope as well as on the state of affairs as regards the transnational staff exchange activities. Besides, Eindhoven, Dublin, Southend and Darlington informed the other partners of the status of the student placements.

At the Wood Quay venue

Gisela Gräfin von Schlieffen reports on the RMV activities

Afterwards, in order to pave the way for the transnational workshops in the afternoon, various partners volunteered to deliver thematic presentations. After an introductory presentation of the CEO of the NTA, Gerry Murphy, Finola O' Driscoll highlighted the Irish experience with mobility management and behavioural change initiatives and introduced the different general levels of intervention to the other BAPTS partners. Finola in particular reported on the knowledge gained with the smarter work travel programme which is also part of the BAPTS project. Key messages of her presentation were:

- MobilityManagementandTravelBehaviourChange is a key element of Demand Management.
- The Irish school travel plan programme has resulted in a 22% decrease in car use. Preliminary results from the workplace travel plan programme show an 18% decrease in car use.
- The Irish schools and workplace travel plan programmes are based on the principles of community based social marketing –
  - Securing commitments
  - Prompting behaviour
  - Incentivising behaviour
  - Establishing social norms
  - Provisioning information and support
  - Establishing an ethos of sustainable travel

In the following Owen Wilson from Darlington described local mobility management experiences gained in the UK context, and Gilles Farge from Nantes introduced the TransWay project to the BAPTS partners. TransWay as a facebook-like mobility-dedicated collaborative platform seeks to stimulate car-pooling, and thereby to reduce individual car travel among 3.000 users and 60 firms in the Nantes Metropole region. TransWay is likewise part of the BAPTS project activities.

Gerry Murphy, CEO of the NTA, during his introductory presentation

Background information:

Mobility Management (MM)[1] is a concept to promote sustainable transport and manage the demand for car use by changing travellers' attitudes and behaviour.

To be successful, it brings together local authorities and businesses. At the core of Mobility Management are "soft" measures like information and communication, organising services and coordinating activities of different partners. Soft measures most often enhance the effectiveness of "hard" measures in urban transport (e.g. new tram lines, new roads and new bike lanes). Mobility Management measures (in comparison to hard measures) do not necessarily require large financial investments and may have a high benefit-cost ratio. Subsequently, Mobility Management promotes a healthy lifestyle, increases the quality of life and ensures the region's mobility. It also brings economic benefits across the board: improved air quality management and a lower transport budget for the local authorities, and improved accessibility and a reduction in the need for parking spaces in business. Employees and residents alike save money once spent on fuel and cars.

The second key topic – urban bus systems – was thematically introduced by a presentation of Anne McElligott, Project Manager at the Dublin Quality Network Project Office. Her presentation highlighted achievements to date, infrastructural and service objectives and future challenges. Throughout her presentation Anne stressed that:

- The Bus Mode is the largest Public Transport Mode in the Greater Dublin Area (GDA);
- The Quality Bus Network (QBN) has reduced average journey times and variability;
- The Quality Bus Corridor is successful in effecting modal change away from the car;
- A bus route reform and cross city routing are required.

Subsequently Damien Garrigue presented the new "Chronobus" system in Nantes. The Chronobus scheme as a further BAPTS activity seeks to offer tram-like bus services trough intelligent and smart measures without the necessity to establish dedicated bus lanes on the entire route.

1 Definition according to EPOMM; www.epomm.org

Background information:

Urban Bus Systems are important means for public transport in cities and regions. Commonly they are characterised by distinct features:

- Urban Buses can be operated flexibly and have commonly low initial infrastructure costs compared with trams or metro systems;
- Buses are social and communicative transport means and social barriers for use are commonly low;
- Buses can be operated on an environmentally friendly basis (e.g. EEV[2] standards for Heavy Duty/HD vehicles) and provide the opportunity to capitalise on innovations in technology (e.g. hybrid engines);
- Urban Bus Systems are safe and can easily be integrated with other transport means;
- Bus systems can respond quickly to the needs of the customers and can be rather easily linked with traffic control and ticketing systems.

After this extensive thematic introduction, the group split into three moderated thematic working groups:

- WS 1: Work place travel plans and residential travel plans
- WS 2: School travel plans
- WS 3: Bus Priority – methods, limits, and competing constraints

Key findings of the workshop on residential and work travel plans:

The Working Group on work place and residential travel plans discussed practices among BAPTS partners for two key questions in mobility management:

- How to motivate users?
- How to convince employers?

In addition, the BAPTS delegates discussed options for using the new "social networking tools" for promoting mobility management.

How to motivate users?

Recent research in the UK has shown that successful schemes do not necessarily follow the segmentation along the mainly expected socio-demographic factors, but that it is more complex. Importantly, often neglected motivators can be health or more time with children (e.g. when walking) in addition to more common ones like cost saving. At the same time, quite powerful barriers need to be overcome: the fear of having a wrong ticket (due to the complexity of tariff systems), fear of crime, "getting lost" on the network etc.

BAPTS partners identified as good practice:

1. Adopt a social marketing approach:
   - focus on gains & positive messages for targeted users (e.g. under the headline "did you know that ..." refer to facts for non-polluting, clean and comfortable travel)
   - make sure that marketing activities are appropriate for the context in which they are delivered
   - present public transport as the social norm

2 Enhanced environmentally friendly vehicle or EEV is a term used in the European emission standards for the definition of a "clean vehicle" › 3.5 tonne in the category M2 and M3. The standard lies between the levels of Euro V and Euro VI.

2. Marketing should well consider personal decison-making factors:

- socio-demographic status, self beliefs & social norms
- personal experiences ("mobility socialisation" of target groups)
- rational choice factors (e.g. total cost of mobility)
- new activity patterns (complex activity chains of work, family-related errands, leisure)
- changing value systems
- this should be developed into a psychological group profile of target users in order to be most effective.

3. Integration with "hard policies": implementation of parking restrictions, continuous improvement of public transport (ease of use, reliability e.g. through separate lanes) and good cycling infrastructure (cycle lanes & parking).

4. The scope of mobility management should not be too narrow: cooperation of stakeholders and inclusion of all transport modes is critical. A good idea is to bring factual evidence continuously into discussions; traffic counts, for example, can make discussions much more rational.

5. The policy targets should be explicitly formulated as very often a general increase in public transport (e.g. during peak times) is not desirable. Realistic targets could be for example: more cycling, more off-peak public transport use, more leisure/shopping-related public transport use. Main target groups could be non-public transport users, other latent or potential users.

6. As a special case, mobility management around major schemes was discussed, e.g. around new stations. There it is extremely important to involve city-centre business well, adopting a comprehensive geographical approach: although a measure may have a very local context, a regional approach (e.g. "shopping" in the region) is necessary.

How to convince employers?

In many cities, planning permission now requires the implementation of mobility management schemes. However, this is applicable only for new developments. Good practices in BAPTS cities and regions are:

1. To create a link between mobility management and companies' "corporate social responsibility". This has proven most successful in pharmaceutical, information and telecommunication companies. In those "new economy" companies, an EMAS scheme is often existing and the management propagates a "green image".

Smarter work place travel campaign in Dublin

2. The primary motivation often results from arguments regarding the health of employees and the company's public image. It is often very successful for a scheme if top executives are convinced and set good examples, e.g. "CEO cycling to work".

3. The first meeting with the company is crucial. It has proven successful to come with a one page business case summarising the main financial benefits. Generally the meeting should focus on incentives first (to allow the employer side to "relax"), in presenting it will be important to respect corporate culture and to be seen as fair. Ideally, a first meeting should be organised as a "steering group meeting" for the introduction of mobility management with representatives of different departments (personnel, finance, etc.).

Future perspectives

Several BAPTS partners agreed that it is time for mainstreaming mobility management: As the business case for company management plans is clear and as know-how is readily available, mobility management consultants should convince business management consultants (dealing with image, cost saving) that this is a mainstream topic.

Can "social networking" be a new marketing tool?

The partners from Darlington reported some trials of moderated blogs during the development of the Local Transport Plan and on some experiences with twitter feeds and facebook communities. Bielefeld provided information on having used "YouTube" as a new channel for the younger people target group (mainly as an image factor). However, little experience is available concerning these tools, but partners agreed that they may be useful for specific campaigns.

There are also some important questions to be asked: Which is the best medium? How to create content efficiently? How to maintain an adequate presence effectively? These are certainly issues to be taken up further.

Anneke van Mispelaar (Eindhoven) and Siegfried Rupprecht (Rupprecht Consult) during the residential travel plan workshop

Key findings of the workshops on school travel plans:

Throughout Europe, school travel plans experience different levels of public and professional awareness. Whereas in the United Kingdom and Ireland these instruments seem to be very popular, in the Netherlands and Germany for example these mobility management tools are rarely used. Therefore the discussion within the workshop started with the question what cultural framework conditions and reasons may have caused this development and what reasons have led to a severe decrease of walking school kids in particular in Ireland and the UK whereas cycling seems to be increasingly popular in The Netherlands, Flanders and Germany. Although this question was not fully answered, all participants could agree upon the statement that most of the time safety and security concerns of parents are merely perceived ones, and that there are hardly any real reasons why pupils should not walk or cycle to school.

Besides cultural issues, the working group also identified various other aspects and questions that where touched upon during the discussion:

Ownership of school travel plans and management structures:

- Who should be at the steering wheel of school travel plans?
- What role can local communities play?
- To what extent should national and local governments be involved?

In particular as regards ownership and management structures, two main approaches were discussed. Whereas in the UK mainly the public sector such as national and local government as well as other authorities stimulate the development of school travel plans by means of legal and financial tools and incentives ("carrot and stick"), the colleagues from Ireland reported a completely different approach. Under the theme "It is all about kids", Irish partners had remarkably good experiences by allocating responsibilities and powers directly to schools, the kids and parents themselves. In this respect in particular the Irish representatives reported on the use of the "ABCD-method" – Asset-Based Community Development, which is a methodology that seeks to uncover and highlight the strengths within communities as a means of sustainable development. The basic tenet is that a capacities-focused approach is more likely to empower the community and therefore mobilise citizens to create positive and meaningful changes from within. Instead of focusing on a community's needs, deficiencies and problems, the ABCD approach helps it to become stronger and more self-reliant by discovering, mapping and mobilising all their local assets – such as schools.

Throughout the discussions it was stressed that the local stakeholders should aim to achieve a win-win situation: the more kids are encouraged to walk to school, the more they can actually "realise" and value their immediate local environment and, for example, the less vandalism can be observed. This in turn helps to improve the overall situation in the local community.

Maintenance of school travel plans:

- How to keep the dynamics for implementation of school travel plans?
- How to motivate stakeholders?
- What role can individuals play as figure heads and champions?

What methods are in use?

- Who benefits from school travel plans and how?
- What targets can be set?
- What incentives should be provided and should capital funding be provided to schools directly?
- Should targets be set at all and who evaluates the achievements?
- What role can marketing play?

All participants of the workshop agreed that school travel plans are rather processes than products than can be produced along to a fixed deadline. In order to maintain this process, which is characterised by constant cross-stakeholder communication and to keep the stakeholders contributing to this process, it was stressed that schools and individuals need to be rewarded for their efforts. These rewards need to made visible also to the public, e.g. by means of green flags, etc. It was emphasised that school travel plans are about image and acting together rather than money. Setting targets was considered helpful, as long as they are set up for each school individually.

During the school travel plan workshop

As regards Europe and its funding programs, the participants jointly expressed the ongoing need to support school travel initiatives by means of research and communication. For example it still seems to be not clear at all if thresholds concerning the distance school kids are prepared to walk are the same across Europe.

Overall all participants unanimously stressed the need to understand the different working methods and national cultural backgrounds in order to make the knowledge already gained accessible and beneficial for all project partners.

Key findings of the workshops on urban bus systems:

As in many other cities throughout Europe, buses account for the majority of public transport trips within the wider city region of Dublin (70% of all peak time public transport users into Dublin). This situation is likely to remain for the foreseeable future even after the implementation of other major public transport schemes. Indeed, the relative flexibility of bus operations also allows changes to be made to networks in response to these schemes, e.g. better integration of services and improved interchange facilities at rail stations. However, in practice the group felt that the opportunities for flexibility are often not taken with the result that bus networks are frequently complex, difficult to understand and not fit for purpose. All too often they are based on historical patterns of movement and this in turn reduces the opportunity to attract new users. Interestingly, the majority of group members admitted to not being regular bus users and their views, therefore, could be seen as particularly relevant in this context.

Despite the general downward trend in bus usage throughout Europe in recent years, there are some well known examples of towns and cities where this trend has been reversed successfully. There are clearly lessons to be learnt from these examples,

although there is a need to recognise that every city and town has its own particular uniqueness. The QBC initiative in Dublin is a good example of how services can attract new customers by the application of an integrated and holistic solution. The discussion then focused on a number of key issues:

Complexity of the network

- Understand passenger expectations and behaviour
- Review of current networks and assessment of necessary changes
- Difficulty of providing access to all properties
- Need for simple and easy to use information on services
- Better integration with other modes (cycling, tram and train) as well as bus
- Refocus on orbital movements to relieve pressure on radials

Reliability and quality

- Key to retaining passengers and attracting new ones
- A recognition that journey speed is not always the top priority for passengers
- Understanding the whole journey experience (bus is only one part)
- Quality of pedestrian links to and from bus stops as well as the stops themselves
- Appropriate comfort and safety both on the bus and to/from the stops

Allocation of road space

- Bus priority should replicate a tram-like system where appropriate
- A recognition of the political barriers to achieving this
- A increasing role for active traffic management
- Environmental and public realm issues in town and city centres
- Boarding/alighting pressures at busy city centre stops

Accommodating new development and growth

- New designs needed to support better penetration of bus services
- Opportunities to construct high quality walking/cycling links to/from bus stops (avoiding need for retro-fit)
- Appropriate incentives for new residents and employees through travel plans
- Need for revenue support in early years pending completion of developments

In particular, the group felt that the overriding issue revolved around the reliability and quality of the services provided and this would be the deciding factor in terms of retaining and attracting new passengers. Improved information systems are of little benefit if the journey experience is below expectations. However, it needs to be recognised that there may not be universal agreement as to passengers' expectations (as was demonstrated within the group itself). A greater emphasis should be placed on seeking a better understanding of the views of both existing passengers and non-users through surveys, questionnaires and focused workshops.

Overall, the group remained optimistic that buses will and should continue to play an important role in delivering a key part of the public transport system, given the right focus on the issues is raised in an integrated and holistic way. There are many examples in towns and cities in Europe where schemes have resulted in increased patronage and we can learn from these whilst recognising that all cities have their own particular uniqueness. However, these successes have frequently generated their own problems where increased numbers of buses have adversely affected the environment and public realm, hence the need for holistic solutions.

Participants of the workshop on urban bus systems

Finally, a challenge was given to the group: To take a bus journey occasionally as part of their normal activity, to use this experience to reflect on both the good and not so good aspects and to take the opportunity to share this whenever possible with fellow professionals.

29 January 2010

On Friday, the BAPTS partners were given the opportunity to visit the Dublin City Council Bus AVL[3] link up and control centre. Afterwards, the group was welcomed at the City Hall Chamber and received two presentations on the future plans for DART Underground (by Irish Rail) and on the plans for Metro North.

At the traffic control centre

The BAPTS partners at the City Hall Chamber

Afterwards the group travelled to the Dublin docklands by LUAS in order to get first hand information on the wider urban impacts of this new public transport scheme that is operated without public subsidising for the operation.

Waiting for LUAS;
In Dublin, public bike schemes are also extremely popular and close mobility gaps in the city centre;
Olaf Lewald, Inge Grau, Karin Schnake, Astrid Mundt and Dirk Artschwager from the city of Bielefeld and moBiel examine the new LUAS ticketing system;
At the Dublin docklands

3 Automatic Vehicle Location

www.comma-bielefeld.de

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