PROMOTING A PARTNERSHIP APPROACH TO DEPLOYMENT

BACKGROUND

The CARISMA cities demonstrate the value in achieving a partnership approach between the main actors in telematics deployment. Partnerships may be formed for different reasons, for example:

- To integrate urban traffic control with urban expressway/ motorway traffic management;
- To deliver traveller information and tourism services;
- To develop electronic payment and electronic commerce.

In **Munich**, BAYERNINFO demonstrates the benefits of integrating management systems that feature strong regional, multimodal traveller information services.

5T in **Turin** provides a model of successful partnership between the Public Transport Company (ATM) and several private sector companies. Nonetheless future developments imply wider public sector participation and the new Mobility Agency will provide, manage and co-ordinate telematics services throughout the metropolitan area.

A good example of successful co-operation between organising authorities and different operators to reach a common goal is electronic ticketing in **Paris**. The major challenge was the commitment of the stakeholders to a single project, enabling a single technology to be used on different networks, to make public transport easier and improve the overall service to users.

In **Trondheim** agreement on the integrated payment system for transport services has provided a significant challenge, involving 10 competing public transport companies and other operators and organisations. The expected benefits of additional revenue through increased patronage have encouraged participation and co-operation.

BUILDING A LOCAL PARTNERSHIP

Ultimately the goal of setting up partnerships is to deliver quality services for end users. **City Administrations and Authorities** have a pivotal role in securing partnership arrangements.

Partnerships require understanding, building trust, commitment, and communication. When any of these elements is missing, problems will arise, and if all of them are compromised, severe difficulties are inevitable. Understanding of the roles and responsibilities, and commitment to mutual goals, keeps the project moving toward deployment.

Five Points for Successful Public/Private Partnerships

- A joint interest in delivering an effective service
- A co-operative effort with clear division of responsibility between public and private sectors for each aspect of the operation
- Shared cost and revenue relationships with more flexibility than if the public sector operates alone
- Private sector interest in the well-being of the customer and the quality of the service
- Public sector concern for the wider public interest, especially the well-being of non-users

Public Sector Commitment

The experience of CARISMA cities is that a high level of commitment from the public sector is essential, to provide technical and political leadership. Strong co-ordination is needed, possibly based on a non-traditional partnership. The co-operative role of public authorities is important throughout the entire life of the programme, and experience

gained through successive projects enables them to better define further strategies or requirements.

Appropriate Empowerment

It is essential that the body charged with co-ordination of transport telematics development for the city or region has sufficient authority. This body must influence the decisions of the participating agencies on a range of operational matters such as the interagency system architecture, data exchange, and standards.

The CARISMA cities have also found that it helps to have a clearly defined "champion" in terms of the lead organisation and, more precisely, a lead business unit or individual within that organisation. Moreover, there must be effective co-ordination and liaison between the strategic (national or regional) transport telematics champion and the project-based champions, so that development of transport telematics infrastructure and local deployments can complement each other and proceed in step.

Stakeholder Analysis

An important step is to establish which organisations might be directly affected by the transport telematics programme, including groups of individuals as users or customers. As well as the transport authorities, public agencies and transport operators, other players may have a place in building the “Transport Telematics Vision” such as banks, retailers, broadcasters, commercial service providers and telecommunications operators.

Points to consider include:

- Which organisations have a close interest in this proposed transport telematics development?
- How would each organisation’s plans be affected by the proposed project or service?
- Are there aspects of the planned transport telematics system would organisation view positively and/or place as high priority?
- Are there aspects of the planned transport telematics system would each organisation view negatively and/or place as low priority?
- Would the planned transport telematics system require new inter-dependencies between organisations, or cause a reduction in organisational autonomy?

All the different actors – the stakeholders in transport telematics – will first need to be convinced of the benefits of the proposals. If any of the key actors regards the plans as weak or too risky they may delay the programme or prevent it from going ahead.

TRANSPORT TELEMATICS PROJECTS

Appraisal

A full and complete appraisal of the proposals – covering all financial, technical, institutional, political and commercial factors – is a fundamental requirement. Each of the main stakeholders will need to make its own appraisal against their own project criteria, and these can vary considerably.

The methods of appraising transport telematics projects are in many respects no different to other transport investment projects. They are likely to cover:

- a full assessment of the technical risks and the factors which might impede or prevent success
- an economic and financial assessment using conventional cost-benefit analysis and financial appraisal;
- user acceptance assessment, concerned with users’ attitudes to and perceptions of the project under review;
- impact assessment, in terms of safety, environmental conditions, or transport efficiency;
- operational indicators, designed to show the impact of the project on traffic volumes and the performance of the transport network;
- a distributional assessment to consider the impact separately on an number of different groups of travellers and residents;

If, based on the results of these appraisals, all the potential stakeholders are convinced

of the project benefits the next stage is to build consensus based on an analysis of the stakeholder needs, operational requirements and priorities.

Consensus building

Achieving consensus on the objectives, timing and scope of any transport telematics project can be a lengthy process. The recommended approach is to combine both the "bottom up" project-based approach with "top down" co-ordination to set regional policy and keep track of the strategic requirements.

Project Goals

The project goals must be well accepted by all partners and prioritised against individual parties' goals. Lack of clear agreement (and commitment) from the beginning will lead to delays, or worse, to the collapse of the project.

ROMANSE Traffic and Travel Information Centre (TTIC)

ROMANSE is a public/private partnership led by Hampshire County Council. To achieve the overall goals of the project, ROMANSE set up a Traffic and Travel Information centre to facilitate both the functional and organisational aspects of the project. The TTIC houses several sub-systems, some using well-tested technology and others developed for the project. Each system has to be capable of standing alone and of complete integration with the other systems. In order to manage the transport network effectively, it is essential that ROMANSE communicates with other organisations such as the Police, other local authorities, regional and local news broadcasters and motoring organisations. The process has been simplified by the introduction of the Travel Terminal network, which is dedicated to the exchange of travel information. Incoming information is processed and disseminated using any or all the ROMANSE systems, and is also passed on to all the other organisations on the travel terminal network either terminal to terminal or by fax.

The ROMANSE project in Hampshire (see box) shows what can be achieved when all goes well. Project goals must be well defined and the roles and responsibilities of the partners well described. The technical and organisational structure must be both powerful and coherent.

Project Timetables

The project timetable must be realistic with intermediate targets set. Stakeholders' acceptance must be gained prior to full commissioning to ensure timely project completion. Often problems only become known when field-testing begins.

The minimum performance and acceptance criteria should be identified at the start of a project. Flexibility is the key to successful project management since evaluation may sometimes lead to reconsideration of the objectives or methods of the project.

Managerial Factors

A clear allocation of managerial tasks is crucial to project success. The management must be unique and well accepted. The quality and acceptance of the managerial rules are even more important when public and private sectors are interdependent. A clear distinction must exist between the operational and managerial tasks allocated to each organisation.

Communications Plan

A good communications plan which involves the media organisation can help secure and maintain the support of the general public and gain political commitment. In CARISMA, Barcelona (see box) and Trondheim provide good examples of how the communications strategy can support the introduction of controversial measures.

Communications at a more technical or detailed level are required for a more technical audience. This may include the project stakeholders, and those engaged in similar projects in other cities and regions. A good technical communication and education strategy is important making full use of publications, video recordings exhibitions showcases and technical journals.

Access control in Barcelona

Before access control could be implemented in Barcelona, public acceptance of the traffic restrictions was essential and the authority had to explain what was being proposed, the reasons for introducing controls and what was expected of citizens using the system. The overall public acceptability of the project was high, due to the efforts made to secure public participation and the generally favourable response to the traffic reductions. However one consequence of a very effective information campaign was that expectations of what the system would achieve were higher than occurred in

DEFINING THE ORGANISATIONAL FRAMEWORK

An essential part of the implementation plan is to clarify the operational roles and responsibilities of the different agencies and organisations, and the interactions among them. The basis for system integration also needs to be agreed. This may range from a loose agreement between agencies to co-operate on Transport Telematics deployment, to a more ambitious and formal memorandum of understanding (MOU), involving sharing of common systems. In between these would be an agreement on data exchange, specifying agreed data formats and minimum data quality requirements.

Experience in the CARISMA cities shows that good co-operation between the authorities, private companies and public agencies can be achieved if the roles and responsibilities of each player are clearly defined at the outset. Co-ordination arrangements should not be unduly complex and the lesson is not to be over-ambitious.

A useful starting point for drawing up the interagency agreement is the Transport Telematics architecture reference document. (see Advice & Guidance Note 1) The main steps are:

- Identify the strategic links and specify the nature of the co-operation needed to deliver the required service.
- Identify any institutional gaps and develop options for rectifying them.
- Trace the data exchange, information flows, and operational links required.
- Review in depth the inter-organisational interfaces that will be needed.
- Develop an operational agreement or memorandum of understanding (MOU) among the key players.
- Define mechanisms for sharing costs and revenues, and for clearing electronic payments, etc.

Some of the key organisational issues to be addressed include data ownership, boundaries between public (free of charge) information and value-added (commercial) services; the marketplace for data; and the role of the internet.

Model Contracts

In Germany, national and federal ministers have agreed on a model contract for data provision to the private sector. The model contract excludes any form of liability of the data providers; does not guarantee the continuity of data provision and data quality; and allows private companies to match, combine and transmit the received data freely.

Authorities in the Ile-de-France Region collaborate as a press agency, a wholesaler of traffic information to commercial service providers. Model contracts cover various aspects of data handling including: control and liability, procedures for forwarding information and data exchange protocols. Contracts must also be set up between each service operator and public authority to determine the terms and conditions of the supply of road traffic information. At the dissemination stage, broadcasters are required to make contracts with the original supplier(s) of information and the public authority.

Contracts and agreements between key parties

If the project analysis is sufficiently detailed, the requirements for exchange and transmission of data, information, and other electronic transactions between agencies can be specified fairly precisely. This practice is recommended to ensure that the operational requirements of all the parties will be satisfied particularly as it is likely that no two agencies will have exactly the same requirements. If appropriate, the details can be made the subject of interagency contracts or formal agreements so that the receiving agency can rely on a minimum performance specification from the sender, and there is a means of redress if this is not achieved.

There is a broad spectrum of possible contracts and agreements to choose from, ranging from a memorandum of understanding, through service level agreements, service contracts, franchise concessions, partnership agreements, etc. depending on the nature of the inter-agency co-operation.

WORKING WITH THE PRIVATE SECTOR

Over time the private sector is likely to play an increasing role in the deployment of transport telematics as shown in the evolution of the new mobility agency in Turin.

A major reason for seeking a partnership with the private sector is the reduction of public funding at national, regional and local levels. Public/Private Partnerships (PPPs) can reduce the need for public funding, but often the public sector will continue to have to make significant amounts of public money available to reflect the wider economic benefits of projects.

Before setting out on this path, authorities should be aware that the opportunities for private sector participation in the implementation of transport telematics may be hampered by a number of factors including

- commercial viability;
- difficulties in identifying organisational responsibilities (horizontal and vertical split of responsibilities);
- lack of cross-sector co-operation (different priorities);
- legal liability (unknown risks)
- risk sharing (initial transport telematics set-up costs are high); and
- information ownership and intellectual property rights.

All of these points should have been covered in the initial project appraisal.

Public/private partnerships are not easy to implement, but have the potential for creative synergy between the public sector culture and the entrepreneurial approach. Both parties in the partnership can bring their own skills and expertise to the combined operations.

Turin Mobility Agency

Turin's large-scale mobility telematics programme 5T (Telematic Technologies for Transport and Traffic in Turin) has a consortium of seven partners. The public partners (ATM, the Turin Public Transport Company, and AEM, Turin Energy Company), have a 68% share. Future developments imply a wider participation of different levels of the public sector and the private companies. It is proposed to set up the Mobility Agency in the Turin metropolitan area. Once established the Agency will co-ordinate and manage the relationships between the public and private sectors. The 5T consortium will therefore evolve from a project develop to a system integrator and manager, in charge of all mobility related Transport Telematics systems and services.

Alternative organisational models

A spectrum of possibilities exists for the public and private sectors to combine forces in implementing transport telematics. The need for different organisational models reflects the variety of political structures, opportunities for competition, and the differing need for regulatory control of the transport telematics services.

An enabling regulatory framework is preferable to one that is restrictive, and a public/private partnership can often provide this. At the same time, the quality standards, reliability, and safety of transport telematics systems must be maintained, which can affect the extent to which competitive forces are allowed to operate.

The primary difference among the partnership models are in the extent to which the private sector takes on the risks associated with operating the service and the degree to which market forces are allowed to operate.

1. Public Centred Operations

In this organisational model the public agency retains a high degree of control but assumes the major burden of risk and takes on the main responsibility for financing. Even where the responsibility for operations remains in the public sector, there may be a role for private companies in providing specialist support. The public sector retains control of the performance targets and carries out performance monitoring in the usual way.

Out-sourcing of transport telematics support operations, like maintenance of traffic signal control, is now a well-established in some countries and may provide the contractual model for other services technical support for a traffic control centre. In CARISMA an example of contracting out is found in Glasgow for some aspects of the operation of the National Driver Information System.

2. Contracted Operations

A much higher level of delegation to the private sector is to appoint a private sector company to take over running of the operation, for example, through a facilities management contract. Although the private company takes on responsibility for providing the transport telematics service, the public agency retains a high degree of control. A very successful example of contracted operations in CARISMA can be found in the operation of the back office for electronic tolling in Trondheim.

3. Franchise Operations

Under the franchise model, operation of the transport telematics service or facility is handed over entirely to the private sector with a very high level of delegation. The public sector agency will specify the terms on which a private company can take on the franchise, but it stands back from day-to-day involvement in the operation. Its role is mainly to see that service standards are maintained and service users are not subjected to unfair pricing. It is normal for the franchise-holder to be appointed after competitive selection and will hold the franchise on an exclusive basis for a number of years, after which the franchise is usually re-tendered. There are no examples of the franchise model for transport telematics in the CARISMA cities.

4. Private, Competitive Operations

This model gives the least amount of control to the public sector and maximum opportunity for market forces to play a part. It is most clearly seen with driver information services that depend on public information or access to highway infrastructures.

An example from CARISMA is the development of commercial traveller information systems in Paris. (See box, and also Advice & Guidance Note No. 4) The data, information, and other facilities controlled by the public sector are provided to more than one company in order to encourage competition, as exemplified by the market for driver information services in Paris.

National and Regional Co-ordination

This note mainly concerns co-ordination and consensus building at the city/region level. But cities and regions cannot operate in isolation and some may find it useful to make

connections with the forums which co-ordinate transport telematics at the national or even European level.

An example is the National Economic Forum for Transport Telematics in Germany. (see box). Convened at the federal level and chaired by the Federal Minister for Transport, it operates as a strategic public/private partnership and has been instrumental in setting the business framework for advanced driver information services in Germany.

Private, Competitive Operations in Paris

A competitive market is developing in Paris with in-vehicle driver information systems. Skipper is operated by the radio station Europe 1 and relies on floating car data obtained from one of the taxi fleets. All taxis report their positions regularly using automatic vehicle location systems.

Mediamobile, the other commercial provider of travel information services uses floating car data from another taxi fleet. TéléDiffusion de France holds the major share in Mediamobile, with the car manufacturer Renault, and Cofiroute (a French private toll-road operator) also holding a stake.

Both systems provide travel advice using RDS-TMC and the ALERT+ protocol. However, in addition to taxi data, Mediamobile also uses traffic sensor data, which is provided by the road operator in the public sector. The road operator is able to exercise some control over the private sector information service through the terms and conditions of the contract for supply of traffic data.

This type of national or regional steering committee with high-level backing can be very effective in bringing together all the main actors in Transport Telematics to focus on achieving a common goal.

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FURTHER INFORMATION

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German National Economic Forum on Transport Telematics

Members of the Public/Private Partnership
- Administration (Bund, Länder, Cities)
- Public transport companies
- Private transport companies
- Service providers
- Automotive industries
- Electronics industries

Basic Agreements
- Competition of technologies and services
- Priority for private services
- Interoperability of applications
- Devices for multiple intermodal applications
- No new legal regulations
- Public/private partnerships for management of traffic data

Fundamental Experiences
- The Forum is needed by partners to discuss problems.
- Framework for private transport telematics services must be created early on.
- Transport telematics is in practice in the public sector.
- Private operators provide individual traffic information and guidance systems.
- Transport sector needs a global satellite navigation system under civilian control.
- Services and systems should be interoperable.