



**Innovative design and operation of new or upgraded
efficient urban transport interchanges [Theme: SST.2012.3.1-2.]**

City-HUB Project



**City-HUB Fact Sheet N° 7:
Integrated management and operation**

Background and content

Research has shown that there are a few examples of regulations or guidelines which address the design, construction, management and operation of interchanges as a whole. Based on case studies, stakeholder interviews and literature reviews, the scope of the 7th City-HUB Fact Sheet is to outline the main findings of the analysis of the organization and operation of interchanges in terms of planning, operational functionality, management, practicalities, services and efficiency, documented in Kostianen et al. (2013).

In addition, key findings of the Transport Visioning Events “Business and management” and “Land uses and economic impacts”, which took place during the 2nd City-HUB Stakeholder Workshop in London 2014, are summarized.

Ownership and business models

The future design and construction of interchanges would benefit if there was closer interaction between the public and private sectors as there are opportunities for commercially successful utilisation of the space available in the terminals for services provided by the private sector, and thus make the interchanges economically more viable. Partnerships with the private sector could also introduce business models which can complement the skills of the public sector.

In addition, for the reduction of the usage of private cars for shopping or accessing several services, proximity of such services to interchanges would act efficiently.

Integrated information systems and ticketing

In order to provide an easy, efficient and stress-free public transport journey, clear information systems are needed. To this end, the project proposes that information between different operators and modes should be integrated to provide relevant information to all in a centralised and harmonised manner. Integrated, smart ticketing makes transfer easier for travellers and thus promotes the use of public transport. It is a matter that needs to be addressed by the regional authorities and other stakeholders.

In addition, accessibility is also an issue that needs to be improved in the interchanges, even though the basic issues are well addressed; still, more advanced solutions need to be adopted, e.g. tactile maps of the interchange or voice guidance for the visually impaired.

Urban integration and impacts on local economy

Regarding the positive impacts of an interchange on local economy, it was observed that such impacts would be more likely to occur if there was an integrated development plan linking the transport function with the urban and economic functions. Nevertheless, since interchanges are typically located in the town centre, it is difficult to assess whether new developments in retail, housing or offices were direct results of the interchanges or if they would have been developed within a town centre development context anyway.

For the estimation of the economic and social benefits of such hubs, there is a need to elaborate data at this urban scale. In order to capture the perception of the image or attractiveness of the interchange, interviews with city-hub users or the shopping/commercial area users are recommended.

Stakeholder engagement and management

Public consultation should be carried out for the integration of the opinions and concerns of relevant stakeholders in the decision-making process in order to make the process more transparent, to gather more input on which to base decisions, and to create support for the decisions that are made. Five possible stages in the interchange planning process that stakeholders can be involved are:

- The setting of the objectives for the interchange at the outset of the process;
- The identification of current and potential future problems;
- The development of ideas for measures/facilities to be associated with the interchange;
- The identification of levels of support for different proposals; and
- The decision on the preferred plan for the interchange.

A statutory requirement for public consultation or stakeholder engagement during the design and development of interchanges is missing from many countries. Similarly, although several countries engage with stakeholders during the design and developments of interchanges, few involve them during the operation and management of interchanges.

Energy efficiency and carbon footprint

Sustainable interchange design and energy efficiency are not only relevant for environmental purposes, but can also have a positive impact on both social and economic elements. None of the present rating systems to assess energy efficiency are specifically developed for terminals or interchanges, but many of the tools can be applied successfully. For the end user, i.e. the traveller, however, the main point is neither the energy efficiency nor the carbon footprint of the interchange, but the functionality of the interchange for her/his needs, good air quality and a comfortable atmosphere, and appropriate services.

Main conclusions of the Transport Visioning Events (TVEs) (Keserű et al., 2013)

Transport visioning event: Business and management

The focus of this TVE was on business and management, including themes such as business models, potential benefits of ITS tools and efficient design for environmental quality. The key findings of this TVE can be summarized as the following:

- Successful operation of terminals requires an appropriate business model to be selected, as public and private organizations are involved in the ownership, management and operation of the terminals, which accommodate both travellers and visitors.
- Energy efficiency should be considered in the design and construction phases of a project (i.e. building regulations).
- The use of sustainable materials should be considered.
- Waste management should also be introduced.

Transport visioning event: Land uses and economic impacts

This TVE focused on land uses and economic impacts, and issues such as local economic impacts, urban and real estate effects and public space landmarks were discussed. A summary of the key findings:

- Retail mix should be considered when referring to the local economic impacts of an interchange. For example, changing the location of shops could serve as a better answer to meet local demand and enhance social engineering.
- Urban regeneration can enhance and promote gentrification activities.
- Referring to the urban and real estate effects, two types of new developments in the surroundings of an interchange were highlighted: new high end market accommodation and also social housing and public buildings.
- As the impact of an interchange grows, new developments are attracted, urban regeneration is observed and land prices increase.
- The theme of security was identified as a means of making people aware that it is more convenient to use the shops inside the interchange.
- In order to attract new services and businesses, existing interchanges should be refurbished.

References

Keserű, I., Virág, Á, Harmer, C., Ubbels, B., di Ciommo, F., Nathanail, E., Vörös, A., Albert, G., 2013. City-HUB project, Deliverable D7.2 Summary report on the transport visioning events at the stakeholders' workshops.

Kostiainen, J., Järvi, T & Nokkala, M. (2013). Deliverable D4.1 Integrated management of efficient urban interchanges. City-HUB Project.