

PASSENGER INTERMODALITY FROM A TO Z

the european forum on intermodal passenger travel

Link is funded by the European Commission's Directorate-General for Mobility and Transport DG MOVE





Foreword

Transport is at a transition point today and so is European Transport Policy. The European Commission is currently working on a new White Paper which will guide its actions for the next ten years but will also look to the future of transport for a longer horizon.

We are facing formidable challenges: we must drastically reduce our greenhouse gas emissions, oil is becoming scarce pushing oil prices to unprecedented levels, and congestion is approaching intolerable levels in many cities, airports and ports.

One of the immediate priorities is a better integration of the different transport modes as a way to improve the overall efficiency of the system. Intermodality integrates two or more transport modes on the same journey.

But for every traveller a change of transport mode is first of all a nuisance. Aim is to make this interchange as seamless as possible with common information, an integrated ticket and a multimodal station where passengers feel safe, secure and comfortable. If successfully implemented intermodal passenger transport will give more options to the traveller, is user-friendly and adds to the overall efficiency of the transport system.

To achieve seamless intermodal travel many transport stakeholders have to cooperate closely, which is not evident in a system of increasing competition. The LINK Forum on Intermodal Passenger Travel has worked hard for the last three years to get people talk together, who normally work in different transport worlds. This brochure shows the concrete results.

Very practical recommendations how to improve intermodal passenger transport are a main output. Furthermore, LINK has gathered relevant knowledge with more than 300 research papers in a virtual library and more than 50 best practise examples.

I can only invite us all to make wide use of this rich body of knowledge for our daily work. I thank the project consortium for their dedicated work.

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1. Passenger intermodality: an introduction

1.1 Concepts and related issues

Passenger transport is almost in every case intermodal transport. People change from one mode to another for practically all journeys. This may seem quite simple, but it's not.

Intermodality is just one of those concepts that require a few words to describe. As you will read further on in this brochure, intermodal passenger travel is a complex theme which consists of various subthemes and related issues. In this introduction, the LINK-team wants to put up a few signposts that can lead you through all the different definitions, buzz words and the like.

What's in a name?

Passenger intermodality is a policy and planning principle that aims to provide a passenger using different modes of transport in a combined trip chain with a seamless journey. Intermodality can be seen as a characteristic of a transport system, that allows at least two different modes to be used in an integrated manner in a door-to-door transport chain. The adjective intermodal can be used for a service, facility, consignment of journey, involving transference between different modes of transport. Moreover, intermodal travel necessarily involves transferring from one mode to another. This usually takes place at modal interchanges.

Although the definitions above seem quite straight forward, we'd like to clarify a few key concepts before we send you into the intermodal jungle. For example, what is meant by travelling in an integrated manner? Or what is seamless? What's an interchange?

Integration: the extent to which different transport services are combined or contiguous in terms of ownership, operation or usability;

to interchange/transfer: the act of changing between vehicles or between modes

Interchange: one or a number of public transport stops (e.g. bus or tram) or a station building (railway, airport) where people can change between public and private transport as well as between and within public transport modes



Intermodal facility (see also interchange): a building or site specifically designed to accommodate the meeting of two or more transport modes of travel.

Door to Door information: information provided for customer' trips including details from the moment they leave their home to the time of destination. Examples are multi-modal journey planners, integrated intermodal passenger information systems,

Seamless: without actual or perceived physical hindrance to interchange

This being clear, there are a few related concepts and issues which may blur your newly built picture about intermodality. In some texts, policy documents or other sources you might come across some concept that is closely related or even worse, that is wrongly used to point at intermodality. We listed them below and gave a definition for each of them.

Interoperability: capability to operate on any stretch of the transport network (especially crossborder) without any difference (regulatory, technical and operational systems need to be compatible)

Intramodal transport: transport using different elements of a modal subsystem (requiring their cooperation)

Multimodal: use of different modes of transport at different opportunities (trips/trip chains); policy principle not to stick to one single mode. The development of a seamless web of integrated transport chains, linking road, rail and waterways. Such integration would lead to improved flexibility, quality, and cost effectiveness and would stimulate competition between transporters instead of between transport modes.

Co-modality: Efficient use of different modes on their own and in combination Policy principle of the European Commission (DG MOVE) which includes the following areas (Keep Europe Moving – Mid-Term Review of the Transport White Paper 2006):

- 1.) Optimise each mode (clean & efficient)
- 2.) Integrate modes for seamless transport (intermodality)
- 3.) Modal shift (long-distance, urban areas, congested corridors)

1.2 Market

Long-distance travel is a growing market segment, but reliable data and statistics about long-distance travel are rather rare. Information about long-distance travel can be gathered from national travel surveys but this often causes problems of representativity and comparison. LINKs sister project KITE¹ has dealt with these and related matters. European travel surveys such as the DATELINE survey give some more robust insights in long-distance travel behaviour but the same problems occur².

In the KITE-project a new survey methodology for long-distance (>100km) travel behaviour was designed and carried out in Switzerland, Czech Republic and Portugal. The results of this survey were also compared to the benchmark survey INVERMO³ (national study on long-distance travel in Germany) and were found comparable.

Travel demand

Demand volumes, indicated by number of long-distance journeys per person and year, vary from survey to survey and within surveys. However, the KITE results show 11.67 journeys per person and year. The modes used for long-distance journeys are dependent on the available infrastructure. Mode shares by country vary accordingly. For example, the public transport share is with 46% in Switzerland much higher than in the Czech Republic with 25%. Modal split is also highly dependent on distance, especially when air travel is considered, which is not an alternative for lower distances and it is the only mode for really long distances. Analysis of the user requirements shows that modes are chosen based on travel costs and time. In this perspective, car travel shows a higher resistance against price changes and travel time changes than train or coach travel (expressed in value of travel time savings).



In the KITE-project also national surveys were compared and used for analysis⁴. Based on extrapolation of results out of the UK National Travel Survey (NTS) and comparison with other national travel surveys (out of DATELINE), the KITE-consortium came to a few findings: in the range of journeys from 100km up to 400 km 6.5% of the journeys are performed abroad. When analysing mode use; it becomes clear that in this range (100km – 400km), the most usual mode used is the car by about 80%. Rail has a market share of about 9 to 10 %, while bus ranges between 4 and 8%. In the range of journeys over 400km, the European average is 0.8 journeys per person per year (using DATELINE). In Europe, about 2 long long distance journeys out of 3 are done for holidays, almost 1 over 5 for other private reasons, as much for business reasons. Here again, differences between countries are clearly visible: Benelux, Dutch and British persons perform more than 7 journeys over 400 km out of 10 for holiday purpose. This rate decreases to about 1 journey out of 2 for Scandinavian countries. More specifically, Swedish people individually perform on average 1 journey over 4 per year for business purposes, the highest rate over Europe, that is, about 0.4 per person and year.

Regarding journeys over 400 km, the market share for car as the main mode appears to be the highest in continental north-western Europe (Belgium, Netherlands, France, Germany, Luxembourg), Spain, and Italy (over 1/3). In Nordic countries (Finland, Denmark and Sweden), Portugal, Switzerland and Austria, the modal share is roughly taken between 1/4 and 1/3. Market shares for bus are highest for Mediterranean countries, as Greece, Portugal and Spain (between 10 and 13%). In comparison, market shares for bus as a main mode are the lowest in France, Switzerland, Ireland and United Kingdom (less than 5%). For most European countries, market shares for rail as main mode are taken between 4% and 8% in Europe. Only Portugal, Ireland and Greece present a share clearly below (less than 2%). In this context it should be remembered that long distance bus services are deregulated and quite common in some countries but practically prohibited in other countries.

Who is the intermodal traveller?

The long-distance travel segment is dominated by a small part of the population. Only 50% of the population produces over 90% of the long-distance travel demand. The typical long-distance traveller is male, in the middle of working age and well educated.

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	Total Long Distance Travel Demand														7.0			
	Journeys 100 – 400 km			9.1		4.5	5.1								7.3	4.1	5.5	
Year	Journeys > 400 km	0.6	0.8	0.9	0.9	1.0	1.0	0.3	0.8	0.4	0.8	0.8	0.6	0.6	1.4	0.9	0.9	
per	Total Journeys > 100 km			10.0		5.5	6.1								8.7	5.0	6.4	
son	Business Long Distance Travel Demand Journeys 100 – 400 km			2.0		1.0	0.3								1.2	0.4	1.5	
Per	Journeys 100 – 400 km	0.1	0.1	0.2	0.2	0.2	0.5	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.3	0.4	0.1	
i bei	Total Journeys > 400 km	0.1	0.1	2.2	0.2	1.2	0.1		0.1		0.0	0.1	0.0	0.1	1.5	0.1	1.6	
neys	Private Long Distance Travel Demand			2.2		1.2	0.4								1.5	0.0	1.0	
Journeys per Person per Year	Journeys 100 – 400 km			7.2		3.5	4.7								6.1	3.7	4.0	
Í	Journeys > 400 km	0.5	0.6	0.7	0.7	0.8	0.8	0.2	0.7	0.4	0.7	0.6	0.2	0.1	1.1	0.8	0.8	
	Total Journeys > 100 km	0.0		7.9		4.3	5.5								7.2	4.5	4.8	
F	Main Modes of Travel			110		110	0.0											
	Journeys 100 – 400 km	_	_	_		_	_	_	_	_		_	_	_		_	_	
	Car			79		81	80								77	68	79	
	Bus			2		5	3								8	4	7	
	Train			16		10	13								10	24	9	
	Air			3		1	0								1	1	0	
	Ship			0		0	1								2	0	0	
	Other			0		3	3								2	3	4	
	Journeys > 400 km																	
~ %	Car	29	41	23	31	46	39	10	12	36	38	45	30	45	30	27	16	
Journeys in %	Bus	9	5	13	7	4	8	10	2	7	4	8	13	11	7	4	4	
rney	Train	7	9	5	7	24	10	1	1	12	5	4	2	8	8	13	4	
nor	Air	54	44	57	50	24	41	71	85	42	53	42	54	35	53	55	75	
	Ship	0	0	1	2	0	0	9	0	1	0	1	0	0	2	0	0	
	Other	1	1	0	2	1	2	0	0	2	0	1	2	1	1	1	0	
	Total Journeys > 100 km																	
	Car			74		75	70								68	60	75	
	Bus			3		5	4								8	4	7	
	Train			15		12	12								10	22	9	
	Air			8		5	10								11	12	5	
	Ship			0		0	1								2	0	0	
L	Other			0		3	3								2	3	4	

Figure: Long distance demand figures, KITE D4: Relevant Market Segments in intermodal passenger travel

1.3 Costs and benefits

Cost and benefit analysis (CBA) is a complex task, especially when taking societal costs and benefits into account. At the moment, no robust cost-benefit data can be presented in the field of intermodal passenger travel on a European scale. For very specific services, modes or within countries or regions, cost-benefit analyses or evaluations were of course made, but these are hardly comparable due to their specific nature.

However, a few initiatives are certainly worth mentioning. Firstly, the migration of CBA to TUBA (Transport Users Benefits Appraisal) in England and Wales set out a few beacons in appraising costs and benefits of multimodal investmensts. The method allows the assessment of highway schemes, public transport schemes and policy



options on the same basis. It's a truly multimodal method and allows calculating benefits for users, operators and providers. More elaborated information can be found in LINK's Virtual Library. The Virtual Library also presents other relevant results concerning intermodality.

Transport Direct – Britain's free online multimodal journeyplaner

Transport Direct is the only website that offers information for door-to-door travel for both public transport and car journeys around Britain. The aim of the Transport Direct portal is to provide with comprehensive and easy-to-use travel information and ticketing service covering all modes of public and private transport.

Transport Direct's achievements

- 3 million users first year, 18 million users 2008, now over 25 million per annum
- behaviour hange in almost 50% of cases where journey had been made before
- over 20% show change of presumed modal intention
- 20%+ change of intention
- 46% change journey made before
- where the change is specified: > 35% Change Time

> 33% Change Ro

<u>Car t</u>o Public Transport

> 6% Change from Public

Transport to Car

Secondly, in the USA and Canada, a lot of work on Cost-Benefit Analysis is already underway or even finalised. The paper Measuring economic benefits of intermodal transportation by Dr. Yevdokinov of the University of New Brunswick, Canada certainly gives some insights in this field of work. The full document can also be downloaded from the Virtual Library⁵.



Last but certainly not least, LINK's sister project KITE developed a very comprehensive Cost-Benefit Analsysis Tool. The "CBA Tool" is an output from Work Package 4 of KITE – "Evaluation of Intermodal Investments and Policies" This tool was designed as decision aid tool supporting the assessment of intermodal investments and measures, being based on a CBA framework. Given its role in the support of the decision taking, it can be considered as a positive contribution to a common "European" approach for the evaluation of passenger intermodality-enhancement initiatives by assisting policy makers and planning bodies in assessing investments and policies⁶, showing the impacts (costs and benefits) that can be expected through the implementation of measures. By applying the KITE CBA tool it is possible to quantify the impacts of intermodal measures, enabling the evaluation of passenger intermodality and at the end contributing to the enhancement of initiatives, policies and projects.

1.4 Challenges and barriers

Seamless intermodal travelling in Europe is not always reality, at least at this point in time. Challenges, barriers and problems seem to pop up behind every corner. However, a lot of good work has been done identifying these challenges. They are situated in fields of policy, planning and design, coordination and cooperation, legal issues, financing, technical issues and language. More concrete obstacles could be reffered to as follows:

- Lack of lobby support for intermodality (compared to single modes)
- Lack of data availability (market data, cost-benefit, evaluation)

- Difficulties in putting user needs regarding interchanges into practice
- Problem of network level planning of interchanges
- Lack of cooperation in a difficult multi-stakeholder and competitive environment
- Lack of a functioning and acceptable revenue sharing system for intermodal journeys
- Lack of successful business models for intermodal solutions (eg. Information systems)

The LINK project used a previous study⁷ together with the results of a first Working Group Meeting⁸ of experts and the results of a first consultation⁹ amongst the LINK-stakeholders to draft a LINK Agenda¹⁰, which enabled the Working Groups to tackle 16 key challenges in a systematic way. The table below gives a clear overview of that outcome. The full text is published on the project's website as well.

Door-to-door informa- tion and ticketing	Intermodal networks and interchanges	Integration of long- distance transport with the last urban mile	Planning and imple- mentation	Context conditions for intermodality
Business cases for long-distance intermodal information and ticketing	The well-being of the passenger	Transfer to main ports and hubs	Motivation models: busi- ness cases for passenger intermodality	Traveller rights
Cooperation between stakeholders	Organisation and man- agement	Interaction of local collective transport with long-distance travel	Creating win-win situations through multi- stakeholders cooperation	Quality standards in tendering and licensing
Standards	Physical conditions – integration of interchange facilities in the environment	Mobility management at destination	Embedding passenger in- termodality in institutional structures	Changing behaviour
Data quality				

2 EU policies and activities on passenger intermodality

2.1 European Transport Policy

Passenger intermodality has been put on the agenda in several European policy documents and more or less in national or regional policies. As early as 2001 the European Commission identified integrated ticketing, baggage handling and continuity of journeys as priority for passenger transport in the Transport Policy White Paper. As a follow-up of the White Paper, DG TREN put priority on activities in the freight sector with the development of the MARCO POLO programme as one of the best examples. In 2004 the same directorate-general commissioned a study 'Towards passenger intermodality in the EU' which has been a basic report putting priorities from a European Policy perspective forward.

In June 2006 the EU organised a Mid-Term Review of the Transport White Paper with the following key points: maintain a high level of mobility, attention to environmental protection and energy security, innovation for efficiency and sustainability and international connection beyond the EU. A new concept was also introduced: comodality. Comodality stands for the optimisation of each mode (clean and efficient) and integration of modes for seamless transport, thus provoking modal shift.

The EC Action Plan on Airport Capacity was launched in January 2007, urged by the statement that 60 airports will be heavily congested by 2025. Some capacity can be freed if some of the short-haul flights can be shifted to rail and with improved air-rail intermodality. Therefore airport access and especially rail links need to be improved. The European Commission is promoting rail links from airport to cities and regions, with funding for intermodal infrastructure (TEN-T, European Regional Development and Cohesion Funds).

Towards a new European Transport Policy

In the EC-communication "A sustainable future for transport" of June 2009, the main outline for a new White Paper at the end of 2010 was sketched. In this new White Paper there will be three priorities: people, integration and technology.

The communication included a strong statement on the integration of modes: "(We) strongly believe that meeting the future challenges will require focusing on new technologies

Policy Objectives of the upcoming Transport White Paper

- Low carbon transport
- Safe, secure and high quality transport
- Well maintained and integrated network
- More environmentally sustainable transport
- Leading in transport services and technologies
- Developing human capital
- Smart prices
- Sound planning



and on the integration of the different transport modes into a single system, all this in a more integrated internal market in which competition is fully granted."

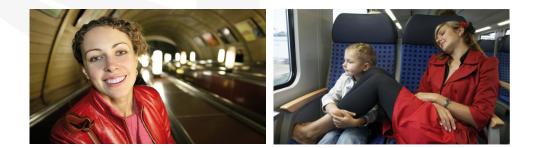
2.2 Urban transport

Also in the field of urban transport there are a few European policy initiatives with strong links with intermodality. In 2007 the Green Paper on Urban Mobility was coordinated, titled Towards a new culture for urban mobility. Ultimate goal was to optimise the use fo all modes of transport and to organise co-modality. In 2009 this work was elaborated by the Action Plan on Urban Mobility which includes some important topics for intermodality: improved information, passenger rights, integrated planning, greener transport, sharing experiences and extra funding.

2.3 Other EU policies

For some specific issues, it is important to mention further EU initiatives. The Action Plan for the Deployment of Intelligent Transport Systems (2008) was originally started as a road-only exercise but now also covers interconnections with other modes (mainly public transport). The links to intermodality are quite





obvious when taking a look at some action themes: development of a Europe-wide real time traffic and travel information system, promotion of multimodal journey planners, attention to privacy and liability issues, urban and inter-urban interfaces (traffic management) and the development of a decision making toolkit.

In the field of passenger rights the Commission passed Regulation 1371/2007 Rail Passenger Rights and Obligations which gives a very practical approach to intermodality, although quite softened by compromise. For example Article 5 states that railway undertakings must enable passengers to bring bicycles onto the train, where appropriate for a fee, if they are easy to handle, if it doesn't adversely affect the specific rail service and if the rolling stock permits it.

2.4 Relevant projects and activities, funded by the European Commission

www.civitas-initiative.org Towards European Passenger Intermodality (2004), www.eu-portal.net MODAIR Measure and development of intermodality at airports (2005-2006), www.eurocontrol.int

CIVITAS Intermodality in urban areas (2002-2009),

Air and Rail Competition and Complementarity (2006), http://ec.europa.eu/transport/air/studies/internal_market_en.htm eMOTION Europe-wide multimodal on-trip information (2006-2008), www.emotion-project.eu

LINK - The European Forum for Intermodal Passenger Travel (2007-2010), www.linkforum.eu

KITE Knowledge Base on Intermodal Passenger Travel (2007-2008), www.kite-project.eu

iTRAVEL Personal Travel Assistant for seamless journeys (2008-2009), www.i-travelproject.com

IFM Project Interoperable Fare Management (2008-2010), www.ifm-project.eu

WISETRIP – Wide scale network for multi-modal journey planning (2008-2011), www.wisetrip-eu.org

Study on Public Transport Smart Cards (2009/2010), www.ecsmartcards.co.uk/

3 LINK: the project and its results

The LINK project aimed at the creation of a **European Forum on Intermodal Passenger Travel**. The focus of the project is on long-distance passenger intermodality (journeys >100 km), including also the "first/last urban mile" (the connection with the regional and urban transport system). The **strategic objectives** of the LINK Forum were:

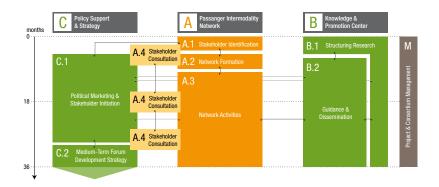
- to support a more favourable environment for intermodal passenger travel across Europe;
- to foster the integration of intermodality policies for passenger travel;
- to facilitate co-operation to implement intermodal solutions;
- to overcome the fragmentation of the current transport market.

To achieve these objectives three main tasks had to be tackled:

Exchange	to build a European network for intermodal passenger transport to exchange
	experience and work on better (trans-national) solutions

- Transferto set up a knowledge centre for intermodal passenger transport which struc-
tures research, defines research questions, formulates policy recommendations
and disseminates information
- Promotionto promote passenger intermodality across Europe, mobilise political support,
activate stakeholders and eventually develop a long term perspective for the
Forum as an active organisation

To make sure every objective and task was treated to its full complexity, three main work areas were defined. These work areas structured the project and the workflow during its active period of three years. In the figure below you can see the build-up of the project, including the three main work areas.



3.1 Passenger Intermodality Network

The Passenger Intermodality Network is the core of the LINK-project. In three years time, a vast network of relevant stakeholders consisting of professionals, academics, policymakers and experts was established. The activities in which one could participate as a LINK-network member were manifold.

3.1.1 Consultation process

The consultation process consisted of three online surveys, which were carried out at the start of the project, mid-term and end of the project. Objective of these consultation surveys was to involve as much relevant stakeholders as possible in the discussion about passenger intermodality and to get their opnion about some key issues.

In the first survey, the network was asked about the major challenges and barriers which passenger intermodality is still facing today. The questions about the challenges were divided into 5 sections which corresponded with the build-up of the working group process (see section 3.1.2. on working group meetings). In this way, the results of the first consultation could directly lead to the definition of the key challenges for LINK's working groups in particular and the project in general. The full document¹¹ can be downloaded from the website's download area.

In the midterm consultation, a survey was again sent out to the growing network of stakeholders in the field of passenger intermodality. The response rate was at 15.5% (194 of 1252 contacts). This can be explained by the complexity of the subject and the length of the questionnaire. However, given the fact that interest in passenger intermodality was rather low when the project started and the pool of intermodality experts is still very small, the results are absolutely satisfying.

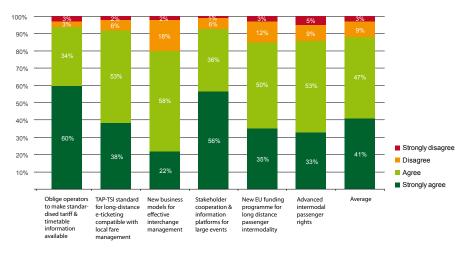
The midterm consultation aimed at fine-tuning some of the work done in the working groups already. A set of recommendations, already elaborated in the working groups, was drafted and sent out to the stakeholders to get their opinion and feedback on the feasibility, costs and necessity of the different recommendations. Without doing the consultation work short, we want to give you a rough overview of the consultation's results. The full document¹² with detailed information on every recommendation can be found online.

One of the conclusions was that there is a relatively high level of agreement with the relevance of the recommendations. On average, 84% of the respondents said that they agree or strongly agree with the proposals. The feasibility of the recommendations are considered, on average, medium (48%) or

difficult (38%). On average, more than half of the respondents (54%) believed that cost of implementation of the recommendations would be between 500 K \in and 5,000K \in . There seems to be an agreement on the high impact of the proposals (on average 56%). Finally, near three quarters (72%) of the respondents considered that, on average, the recommendations could be implemented in less than 5 years.

The final consultation was launched on the 21st of December and was open for 8 weeks. The objective of this consultation was quite similar to that of the previous consultation, namely to assess the solutions proposed during the 3rd Working Group Meeting in Madrid to the key challenges discussed during the 1st Working Group meeting. The response rate was at 10% (133 of 1305 contacts). Nevertheless, also the final consultation gave very valuable feedback on the work done in the woring groups. In the next paragraph, you will find a general overview of the results. The full document¹³ is available in the download area of the website.

Figure: Level of agreement with 6 selected recommendations



The findings of this final consultation are more or less in line with the previous consultation. There is a relatively high level of agreement with the relevance of the recommendations. On average, 88% of the respondents said that they agree or strongly agree with the proposals. The feasibility of the recommendations are considered, on average, medium (51%) or difficult (32%). On average, more than half of the respondents (49%) believed that cost of implementation of the recommendations would be between 0.5 and 5.0 million \in . There seems to be an agreement on the high impact of the proposals (on average 44%). Finally, near three quarters (72%) of the respondents considered that, on average, the recommendations could be implemented in less than 5 years.

3.1.2 Working group meetings

The Working Groups brought together experts from all over Europe in 5 meetings, each with their own theme and focus. Their main objective was to define and elaborate a set of recommendations which could provide an answer on the most important key challenges, defined by the consortium, previous studies and the initial consultation.

The experts met in 5 thematic groups; more or less according to the structure already used in the previous study Towards passenger intermodality in Europe. This structure proved to be a workable solution. In the figure below you can see the workflow and focus of each working group.

WG1 Door-to-door information and ticketing (Jacobs)	WG2 Interchanges & networks (RATP/synergo)	WG3 Urban mile (Polis)	WG4 Planning & Imple- mentation (RC)	WG5 Context conditions (ILS)
Identification	n of key challenges for	enhancing Passenger	Intermodality in Europ	е
Business cases and co-operation for long-distance inter- modal information	The well-being of the passenger	Interaction between local collective transport (incl. new modes) with long- distance travel	"Motivation models": business cases for Passenger Inter- modality	Changing behaviour
Business cases and co-operation between stakehold- ers in long-distance intermodal ticketing and the one-stop shop for information and ticketing	Management of interchanges	Intermodality for mo- bility management of large events	"Passenger Marco Polo Programme" (proposing an EU funding programme for Passenger Intermodality9	Rights and treatment of passengers
Standards and data quality for long-distance door- to-door intermodal information and ticketing	The design of interchanges: how to create a comfort- able and secure atmosphere	Intermodal con- nections between regional airports and urban centres	Embedding Pas- senger Intermodal- ity in institutional structures	Quality standards in tendering and licensing
	Door-to-door Information and ticketing (Jacobs) Identification Business cases and co-operation for long-distance inter- modal information Business cases and co-operation between stakehold- ers in long-distance intermodal ticketing and the one-stop shop for information and ticketing Standards and data quality for long-distance door- to-door intermodal information and	Door-to-door information and ticketing (Jacobs)Interchanges & networks (RATP/synergo)Identification of key challenges forBusiness cases and co-operation for long-distance inter- modal informationThe well-being of the passengerBusiness cases and co-operation between stakehold- ers in long-distance intermedal ticketing and the one-stop shop for information and ticketingManagement of interchangesStandards and data quality for long-distance door- to-door intermodal information andThe design of interchanges: how to create a comfort- atmosphere	Door-to-door information and ticketing (Jacobs)Interchanges & networks (RATP/synergo)Urban mile (Polis)Identification of key challenges for enhancing PassengerBusiness cases and co-operation for long-distance inter- modal informationThe well-being of the passengerInteraction between local collective transport (incl. new modes) with long- distance travelBusiness cases and co-operation between stakehold- ers in long-distance intermedal ticketing and the one-stop shop for information and ticketingManagement of interchangesIntermodality for mo- bility management of large eventsStandards and data quality for long-distance door- to-door intermodal information andThe design of interchanges: how to create a comfort- atmosphereIntermodal con- nections between regional airports and urban centres	Door-to-door information and ticketing (Jacobs)Interchanges & networks (RATP/synergo)Urban mile (Polis)Planning & Imple- mentation (RC)Identification of key challenges for enhancing Passenger Intermodality in EuropIdentification of key challenges for enhancing Passenger Intermodality in EuropBusiness cases and co-operation for long-distance inter- modal informationThe well-being of the passengerInteraction between local collective transport (Incl. new modes) with long- distance travel"Motivation models": business cases for Passenger Inter- modalityBusiness cases and co-operation between stakehold- ers in long-distance intermodal ticketing and the one-stop shop for information and ticketingManagement of interchangesIntermodality for mo- bility management of large events"Passenger Marco Polo Programme" (proposing an EU funding programme for Passenger Intermodality9Standards and data quality for long-distance door- to-door intermodal information andThe design of interchanges: how able and secure atmosphereIntermodal con- nections between regional airports and urban centresEmbedding Pas- senger Intermodal- ity in institutional structures

The results of these meetings were consolidated into working documents, which eventually led to a final set of recommendations. These documents¹⁴ and the final set are an enormously rich source of information, including best practices, expert views, overviews of related activities and projects, strategic discussions, and so on. If anything, we would recommend you to download them from the website and to let yourself be drawn into the content.

3.1.3 Conferences

As the LINK Forum wants to reach out to everyone with a specific interest in one or more topics concerning passenger intermodality, 2 international conferences were held in the cities of Köln and Bucharest. In conjunction with two of the working group meetings, the public was invited to a series of state-of-the-art presentations about good practices or initiatives in the field of passenger intermodality, going along with study tours and networking opportunities.

The guiding question for the first European Conference in Passenger Intermodality (Köln) was Who is the intermodal traveller and how to serve him or her? The first LINK conference provided a good opportunity for networking for about 70 experts and stakeholders from all over Europe: researchers, operators, authorities with different modal focus but interest in trans- and intermodal transport. Research results as well as good practice examples and their transferability were presented and discussed. The event included an excursion to Köln Hauptbahnhof (central station), concerning the development of the surroundings of this big interchange by the City of Köln and the bike rental system of 'Call a bike' in Cologne.

The lively city of Bucharest was the scenery for the 2nd European LINK Conference on November 5-6. A total of about 80 participants joined us for two days of interesting presentations and discussion about the integration of long-distance and local or regional transport. A lot of attention went to the situation in Romania and the central and eastern part of Europe. It was very encouraging to see that intermodality is becoming or already is a planning principle in some masterplan or policy documents that were shown on the conference. According to the different presentations, a lot of promising initiatives are underway in Europe. However, there's still a lot to be done. Main barriers or problems, encountered during the conference, are still the lack of sound business models for intermodality, lack of funding in some areas and states and lack of good practice and knowledge. The results of the LINK project may support these solutions.

Short overview of the presentations, all available on www.linkforum.eu.





1st LINK Conference on intermodal passenger travel (Köln)

Title	Presenter
Overview of the European Commission's policy concerning intermodal passenger travel.	Guido Müller, DG TREN
Why has intermodality become seemingly more a reality in the freight sector, and what can we learn for passenger transport?	Peter Wolters; EIA (European Intermodal Association)
Which data about the intermodal travel behaviour on long- distances do we actually have Europe-wide in order to better assess intermodal solutions.	Tobias Kuhnimhof, KITE, Univ. of Karlsruhe
In order to "get" intermodality into the mind of the travellers: What should we take into account when trying to change the behaviour?	Christian Kloeckner, Univ. of Trondheim
Impacts of multi-/intermodal telematics on mobility	Stefan Trommer, DLR-Institute of Transport Research (Berlin)
The systematic and long-term strategy of City of Zurich concerning intermodality with its effort and success	Willi Dietrich, City of Zürich
Experience with intermodal add-on services of Deutsche Bahn, namely Call a bike and DB Carsharing	Christian Maertins, InnoZ (Berlin).
"The other view" on mobility behaviour in different modes and context	Julien Dossier, Paris.
The importance of dealing with the surface access of airport - a real intermodal issue.	Hélène Barbier, ARC (Ass. of cities and regions with an airport)
The - empirically based - impacts and the chances of combined air / high speed rail mobility for the "metropolitan performance"	Alain L'Hostis, INRETS (Lille)
The effort and context conditions of a national railway company in a new member state	Daniel Adamka, Czech Railways

2nd LINK Conference on intermodal passenger travel (Bucharest)

Title	Presenter
Relevance of public transport in an integrated system	Constantin Donea, URTP
Passenger Intermodality in integrated urban and territiroal planning context	Monica Oreviceanu, Ministry of Regional Development and Housing of Romania
Coordination and cooperation of public transport in the region of Budapest	Zsolt Berki, Transman Consulting
Regional Railways in Central Eastern Europe: Undiscovered potential or redundant ballast?	Marcin Wolek, Univ of Gdansk Andrzej Massel, Centre for Railway Science and Technology
Revitalisation of small and medium-sized railway stations	Stephan Wilhelm, Agentur Bahnstadt
Transport policy and the promotion of related instruments in the city and region of Oradea	Ciprian Barna, Metropolitan Area of Oradea
European Commission's policies for integrated passenger travel	Guido Müller, DG TREN
Ghent St Pieters – redevelopment of a railway station and its surroundings	Greet Riebbels, City of Ghent
Europoint – the major project of trabsport and urban plan- ning in Brno	Iva Machalova, City of Brno
New intermodal connections in Bucharest	Florin Dragomir, RATB
Intermodality opportunities at Romanian airports	Dorin Ivascu, Romanian Airport Services
Behind the scenes – Planning, implementation and opera- tion related processes at intermodal interchanges	Juliane Stark, Institute for Transport Studies, Vienna

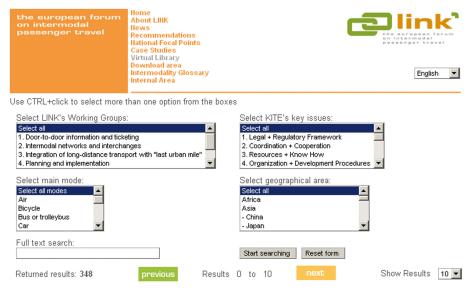


3.1.4 National Focal Points and online community

LINK's network was not only converging in international meetings and conferences but also in national focal points and a lively online community. These focal points operated as contact centers for questions about passenger intermodality but also as a national dissemination tool. Each NFP held a proper national LINK-event, in which they discussed recommendations from the working groups, disseminated results and outputs or organised network opportunities for their national partners and stakeholders. There are now 18 NFP's, representing 17 European countries. Contact information can be found at www.linkforum.eu. You are cordially invited to get in touch.

The LINK project maintains a very open policy on sharing of information. All important documents, presentations and other relevant materials are online and downloadable.

Please feel free to share in this information.



 Towards passenger intermodality in the EU. Report 2: Analysis of the National Inventories on Passenger Intermodality

The presented report is the second phase of the study and gives an analysis of the existing policies, frameworks and practices in 28 European countries and Japan in order to identify promising models for action and recommendation at a European level. ...

Holistic Operations Analysis of Major Intermodal Transit Terminals

This paper describes how the planning and design of major intermodal transit stations and terminals has been as much an art as a science, especially with regard to the assessment of the multimodal operational environment and associated capacity limitations ...

Multimodal Trips in the Netherlands: Microlevel Individual Attributes and Residential Context
Multimodal passenger transportation has received renewed attention in industrialized countries as a more sustainable
and environmentally sensitive alternative to the uncontrolled growth in car travel. As a result there has been a diverse
range of policy ...



3.2 Knowledge and promotion centre

In support of the Working Groups and to enable a clear overview for the general public, the LINK-project also collated a Virtual Library and a Best Practice Database.

In the Virtual Library, there are approximately 320 research-entries concerning various fields of intermodal passenger travel. The library is highly accessible by the use of an intelligent search-engine and relevant keywords. One task of the LINK project was to identify further research needs to increase the knowledge of intermodal passenger transport and in the end to make intermodal travel more attractive. Since passenger intermodality is a fairly new concept in terms of research, quite a few fields are yet untouched and remain relevant for further investigation. These future research needs were identified and have been presented in LINK's deliverable 23b¹⁵. The identification process was done by using different work methods in order to get the picture as complete as possible. However, due to limited time and resources, it was impossible to carry out an extensive research gap analysis.



The best practice database collects approximately 50 best practice examples, in a standardised format completed with contact details. The database can easily be accessed through the project website.

3.3 Policy support and strategy

3.3.1 Policy Advisory Board

The LINK-consortium is aware of the fact that strong political support will be needed to realise some of the recommendations. In order to find the best way to address policymakers on different levels, a policy advisory board was created. Although is was not simple due to conflicting agendas. The groups met three times and gave valuable input for the LINK process. They discussed the outcome of the working group meetings but focussed on those recommendations with a more strategic character. Next to that, the members of the policy adivisory board were asked about their insights concerning the future of the LINK Forum.

The minutes of the PAB-meetings are also publicly available in the download area of the website.

4 Passenger intermodality put into practice

Passenger intermodality is being put into practice all over Europe. In the best practice database on www.linkforum.eu you can already find 50 elaborated examples, complete with contact details for the interested reader. In this section of the brochure, we want to give you already a hint of what you can expect from the best practice database. The examples below are just a pick from what's available.

4.1 Door-to-door information and ticketing

PLUSBUS: rail to bus ticketing across Britain¹⁶

PLUSBUS is a discount price bus ticket that train travellers buy with their rail ticket. It gives unlimited bus travel on participating buses around the town, at the start, finish, or both ends of their journey. PLUSBUS tickets are available for: a day, 7-days, a month, 3-months and a year. PLUSBUS is available for 260 cities across Britain.



Background & Objectives

Following the privatisation of Britain's rail network in 1996, most rail franchises are managed by transport groups whose background is in local bus operation. In 1998 the UK Government Transport White Paper put a policy focus on better integration between rail and bus services.

In 1999 the main bus and train operating groups got together to established 'Journey Solutions' a commercial partnership, to examine what operators could practically do to improve integration and also share examples of best-practice. PLUSBUS was first introduced in 2002 and now covers all rail-served towns with a population of 80,000 and above and many smaller locations.

The main objective of PLUSBUS is to encourage train travellers to use local buses for the journey to their origin rail station and also to complete the "last few miles" of their journey from their destination station to their final destination.

The main benefits for travellers are the convenience of being able to buy tickets for their entire journey in one transaction and getting discount price bus travel. To make it easy for travellers, PLUSBUS has one price per day for each town.

Implementation

PLUSBUS has been introduced and is funded by 'Journey Solutions'. Whilst the Government supports our work, neither 'Journey Solutions' or PLUSBUS has received any direct Government funding. PLUSBUS tickets are normal rail tickets issued by all booking office ticket machines used by train operators. PLUSBUS is also available from selected self-service ticket machines at stations. Online sale of PLUSBUS tickets is planned to start in 2009.

PLUSBUS ticket revenue is fed into the ATOC Rail Settlement Plan with a monthly reimbursement of the total revenue for PLUSBUS tickets sold for each town to the main bus operator in that locality. All the participating operators in the PLUSBUS town then have a local agreement on how the revenue is shared amongst local operators. Bus operators are free to join the scheme, provided that they agree with the revenue reimbursement method (which has to comply with the Office of Fare Trading 'Ticketing Block Exemption') Marketing of PLUSBUS to passengers is undertaken by the 'Journey Solutions' working with the marketing departments of train companies.

Conclusions

In 2007 PLUSBUS was announced WINNER of the IRU 'Eurochallenge Award'. In the last two years sales of PLUSBUS tickets have been increasing by 100% year-on-year and now stand at around 30,000 tickets issued each four-weekly period. PLUSBUS demonstrates that private commercial bus and train

operators can work together, even in a competitive environment, to introduce integrated ticketing solutions, without the need for central Government to control, finance or legislate.

www.plusbus.info

www.nationalrail.co.uk

4.2 Intermodal networks and interchanges



Plaza Eliptica, a new generation in intermodal interchanges in Madrid Background¹⁷

The city of Madrid already has a long tradition on making intermodality work, with efforts that clearly pay off. During ten years, the number of annual trips increased from 121 million in 1986 to 276 million in 2006. Currently, the percentage of trips that involve inter-urban buses in comparison to other modes of transportation operating in the Region of Madrid (Metro, railway, urban bus system) is 16.3% of the total number of trips and 26.3% of the public transport trips that occur outside of the city of Madrid. This increase can be explained by the Madrid Regional Transport Authority's policy regarding the improvement of the inter-urban network's infrastructures and services.

Already in 1985 the Madrid Regional Transport Authority (MRTA) made a very clear definition of what an interchange should be: "Area whose purpose is to minimise the inevitable sensation of having to change from one mode of transportation to another." This vision on building accessible, working and convenient interchanges led the MRTA through almost 20 years of constantly improving Madrid's passenger transport services and infrastructure. In 2004 the MRTA licensed a public tender for the construction, operation and maintenance of 6 interchanges. The Plaza Eliptica was one of them. The proposal was to build a new underground transport interchange station that would optimise the connection with Metro lines 6 and 11 for close to 60,000 users of inter-urban buses, particularly once the latter line is extended to the city centre. This would result in the removal of street-level inter-urban bus services, complete the reorganisation programme of all the inter-urban bus terminals around the Circular Metro line and improve the waiting and bus-changing experiences of bus users.

Implementation

The transport interchange station is divided into three levels; the first two of these are for the interurban bus services and the last is for connection with the Metro through a general services area. On the bus levels – levels 1 and 2 – ten bus bays on each floor which have been designed for 15 metrelong buses are located around a triangular area or "island" This layout was based on the 14 inter-urban lines that were forecast to end their routes in the station on a daily basis.

As the heaviest passenger flows consist of passengers getting off buses and going to the Metro station, particular attention was paid to vertical communication in order to channel these flows as directly as possible, without prejudicing other passenger movements. Based on this and the triangular form of the platform, there is a main vertical communication nucleus in the centre of the triangle, with stairs for reaching the Metro on level 3 from levels 1 and 2, to channel the flow of passengers descending to the Metro. In order to provide continuity without changes of direction or pointless journeys for transit between levels 1 and 3, on level 2 there is an additional stairway that connects to level 3, continuing the stairway from level 1 to level 2.

Conclusion

The cost of the work was 60.69 million euros, which was paid for by private financing through an administrative concession for the construction and operation of the transport interchange, which was granted to the company for a period of 35 years.

The new intermodal hub that Plaza Eliptica is, gives a glance on a new generation of intermodal interchanges. It combines attractive architecture with convenience, and efficiency with the human touch of passengers. It also works further on the increase of PT-use numbers in Madrid and the region.



4.3 Integration of long-distance travel with the last urban mile

Rent a bike at the railway station (Switzerland)¹⁸

Rent a Bike is a national bicycle rental company with a net of over 100 renting locations at Swiss railway stations to promote the composite use of public transport and non-motorized traffic, in particular for leisure and tourism.

Background & Objectives

The combination of train and bicycle is a suitable and restful transportation in journeys for a city trip or sight-seeing tour in the landscape. The combination offers great advantages: By train you travel fast and comfortable to the starting point of your trip, where the sights of a city or landscape can be explored relaxed and without stress by bike. But the entrainment of the bicycle by train is sometimes laborious, not possible or even someone doesn't keep the bike with him (e.g. tourists). Therefore in 1987 the Swiss federal railways (SBB) in conjunction with Rent a Bike establish a nationwide renting location system at Swiss railway stations. In 1997 there were already about 200 renting locations and 4000 bicycles in which Rent a Bike profited of the boom, which was triggered by the opening of Cycling in Switzerland with the 9 signalled routes in 1998. At the beginning of the new millennium the renting locations were reduced due to the ongoing automation of the railway stations and the thereby associated closing of served SBB sales agencies.





Implementation

A various types of bicycles (country bikes, mountain bikes, children's bikes, e-bikes and tandems) - all of them in top quality - are available for rent at some 80 stations of the SBB and a number of private railways and about 20 youth hostels and camping grounds all over Switzerland. The bicycles can be hired for half a day or more, either directly at the rental stations without pre-reservation or booked online in advance. A big advantage of the Rent a Bike rental system is, that somebody can return his hired bike to different station from the rental station. I.e. the bicycle is hired at the railway station B.

Conclusions

Rent a Bike is with a turnover around CHF 2 million and 80'000 rented bicycles very successful and a well-known brand in the leisure and tourism sector. The reduction of renting locations at railway stations had in fact limited the choices with respect to the starting and final points of the trips. However, Rent a Bike could further expand their offerings due to its dense location network and flexible logistics.

More information

www.rentabike.ch www.sbb.ch

5 Recommendations and good ideas

The working group meetings resulted in a consolidated set of recommendations for passenger intermodality in Europe. The final document¹⁹ is a very rich source of information with links to other relevant projects and initiatives, examples; detailed descriptions of possible solutions and so on. The full document (ca. 200 pages) can be obtained via the project's website. Of course, we want to give you already a first insight in the conclusions of the working groups.

5.1 Policy and funding

Recommendation 1

Create a European vision/White Paper for a European door-to-door intermodal passenger travel information service (WG1)

Create a White Paper for developing a European intermodal passenger travel information service including a European vision and implementation plan (or part of a wider themed White Paper). It will serve as a unifying strategic document providing guidance for all countries and regions wishing to engage in such a service at a European level. This needs to be driven by a new European Steering Committee for Intermodal Passenger Travel Information and a supporting study.

Recommendation 2

Develop a road-map for technical co-operation in achieving a European door-to-door intermodal journey planner (WG1)

The idea is to develop a road-map for how technically to roll out a European journey planner in successive stages using a practical approach. There is a number of basic technical solutions for door-to-door intermodal journey planners (JPs) working in Europe, mostly on regional, in some cases national scale. The road-map should provide the answer how to best technically and at the same time feasibly migrate to the European scale using a combination of available methods.

Recommendation 3

Establish a joint Passenger Intermodality Working Group of existing European Technology Platforms in the field of passenger transport (WG4)

Establishing of a joint Passenger Intermodality Working Group of the existing modally focused European Technology Platforms (ETPs) in the field of passenger transport to support the elaboration of intermodality roadmaps, strategic research agendas and to foster networking between key stakeholders.

Recommendation 4

Introduce a new EU funding programme "Vasco da Gama" for long distance, international passenger intermodality (WG4)

Introduce within the frame of the upcoming Marco Polo III programme a new EU financing programme to support projects with European added-value with main emphasis on improving intermodality and integration in international long distance passenger transport solutions.

Recommendation 5

Work towards advanced intermodal passenger care (WG5)

Making intermodal transport more attractive by improving the quality and transparency of information about passenger rights. Enhanced cooperation between institutions with responsibility for those rights shall ensure passenger rights, supported by a coherent European intermodal passenger rights policy

5.2 Directives and Regulation

Recommendation 6

Establish obligatory delivery of data and information in the field of ticketing and information (WG1)

This recommendation includes three sub-recommendations that are closely interrelated and contribute to the aim of better integrated passenger information and ticketing.

Establish a European directive which requires transport operators to make travel planning data available to journey planning providers

Making a minimum content and quality of travel related information available to local/ regional/national/ European journey planning providers should be an obligatory requirement for transport operators and authorities. This is of key importance to kick-start cooperation on provision of long distance intermodal travel information in many countries.





Establish obligation to make standardised tariff and timetable information available on request to authorities responsible for passenger transport information provision

Basic tariff and timetable information should obligatorily be made available by all passenger transport operators to authorities responsible for passenger transport information provision. This will enable better choice and efficiency in intermodal planning and ticket purchase because such information is not consistently available for long distance door-to-door trips and is currently a major barrier to multi/intermodal journey planning.

Make provision of door to door ticketing information mandatory for long-distance rail-ticket distributors

When no door-to-door ticket service is available, provision of joined up information on ticketing should be made compulsory. The idea is to make it mandatory in rail and bus transport for the long-distance ticket retailers to provide information (and for local operators to cooperate) on fares (i.e. their structures and possible rebates) and fulfilment (i.e. how to get the tickets) for all legs of an already selected journey (from A to B).



5.3 Standardisation and Technology

Recommendation 7

Develop standard for long distance electronic ticketing in TAP TSI to allow compatibility with local fare management systems (WG1)

Neither paper nor ticketless solutions, as they are described in the current proposal for the TAP TSI²⁰ standard for long distance rail trips are applicable in the growing number of regional or local networks where control has been automated using contactless systems. A standard data model for electronic tickets, usable on smart cards or on any other similar electronic devices (e.g. NFC smart phones), should be developed for a long distance ticket to enable future compatibility with local transport fare management systems. This standardisation work item has to be reopened within TAP TSI.

Recommendation 8

Create common quality standards for interchanges (WG2)

Create common and Europe-wide standards for the equipment of interchanges (focussing on interchanges which are important for long distance passenger travel). The standards should serve as guidelines or principles for the building of new interchanges or the adaptation of existing interchanges. The standards should be (as a long-term vision) integrated in the existing standards of the CEN/ TC 320 (European Committee for Standardisation).

5.4 Assessment and Planning

Recommendation 9

Develop and establish city assessment tool and label for long distance intermodality (WG3)

The proposed benchmarking tool would help to assess the intermodal integration of long distance transport with local mobility services in a specific city. The use of this tools would allow to award labels which could work as a strong incentive for cities to improve the situation and as a reference for the travel and events industry. The scheme could be the basis for mutual learning between cities and promotion of good practices.

Recommendation 10

Elaborate and establish new business models for effective interchange management (WG2)

Elaboration of new business models for effective interchange management and testing them by application in practice. The models should include possible working profiles and competencies of an

Interchange Manager (central figure in the business models), its tasks and activities and possible financing models. In the elaboration of the models required legal requirements would have to be taken into account.

Recommendation 11

Develop a toolkit for a good design of an interchange (WG2)

Creation of a standard Toolkit (preferably an interactive and web-based version) for stakeholders responsible at an interchange to get a better grasp of how an interchange must be designed. The aim of the Toolkit would be to help stakeholders to understand the important principles of good interchange design which should be taken into account.

Recommendation 12

Develop integrated airport accessibility plans (WG3)

Definition of integrated airport accessibility plans for all airports, to encourage smother intermodal links between air travel and surface access to the airports and between the various modes for land access to the airport. Accessibility planning is a necessary condition to implement intermodal solutions for airport links and efficiently support their use.

Recommendation 13

Foster intermodal business plans (WG4)

This recommendation includes two sub-recommendations that are closely interrelated. Sub-recommendation 13.1 is a pre-condition for sub-recommendations 13.2.





Develop framework methodology for quantification and monetary assessment of impacts in business plans

Develop and agree a suitable framework methodology for the quantification and monetary assessments of intermodality impacts for business plans in the field of passenger intermodality. The longer term impact of such a model would be for it to gain wider acceptance as the basis for longer term cost and revenue share arrangements e.g. for the interchange area.

Establish long-term flexible profit sharing arrangements as basis for investments

In order to create the conditions necessary for a public private sector partnership investment in multimodal schemes where the winners and losers will change over the lifecycle of the development it is necessary to have a flexible profit sharing arrangement in place. This will reduce risks to all parties and enable speedier progress towards business case sign off and project implementation.

5.5 Innovative products and services

Recommendation 14 Establish common "CityFlex pass" concept (WG3)

CityFlex pass is a common concept of service provision within an integrated ticket for local transport services specifically designed for the long distance traveller. The traveller could purchase this as a standalone ticket for local transport at arrival or during the stay. Another solution would be to optionally add the CityFlex option to long distance tickets.

Recommendation 15 Develop innovative local taxi services (WG3)

Shared taxis can contribute to mobilise the underused resource of taxi vehicles and drivers to offer new flexible and demand-responsive, reliable, accessible, affordable services with a low access threshold for visitors and well integrated into the public transport, especially long distance interchange hubs.



Recommendation 16

Integrate cooperation and information platforms into a mobility centre for the mobility management of large events (WG3)

Creation of a mobility centre for the event, consisting in a cooperation platform between stakeholders, ideally including the participants, and an information platform for long distance visitors to the event. Creation of the ICT tools to support this mobility centre and to provide tailor-made travel advice and information, possibly updated throughout the entire journey. Developing marketing-based combined travel products, tailored to the event target groups.

Recommendation 17

Provide early information to travellers about airport links and accessibility (WG3)

Airports and airlines should provide information to passengers at the different stages of the trip chain including at the airport of origin. The information should be on the flight, public transport options and accessibility at the airport of destination.

Recommendation 18

Create push & pull strategy on business trips (WG3)

Reducing monomodal car use for business trips and achieving a shift towards inter- and multimodality by calling upon companies' corporate social responsibility and by taking 'soft policy' actions to influence the rules and the organisation of business trips within companies and institutions (pull factor). An important lever to create supporting framework conditions is taxation regulation for (company) cars and reimbursement rules for (private) car use for business trips (push factor).

5.6 Training and education

Recommendation 19

Foster training and education on passenger intermodality (WG4)

Introduction of passenger intermodality and cooperative processes as topics for professional training courses for practitioners and in curricula of transport related study programmes. Widely established training would contribute to changing mentalities and processes in the mid- to long-run.

6 A look into the future

6.1 The state-of-the-art

The LINK project has shown that despite a number of shining examples the state of the art of quality and coverage of long-distance intermodal passenger services is still very patchy with large differences between countries and European regions.

Many issues still need to be addressed if significant progress is to be made towards a vision of comfortable, best value long-distance intermodal travel from A-B where passengers have a real, well promoted, transparent choice in travel options and the use of more than one mode is not perceived as a major discomfort of travel.

Three underlying issues really stand out as being the key to making a breakthrough in the quality and coverage of long-distance intermodal services.

- Long-distance intermodality is the ultimate test of putting the passenger at the heart of transport and this passenger centred culture needs to be cultivated and shared across operators of transport services and interchanges, transport planners and decision makers at the urban, regional, national and European levels. Once such a culture is in place with sufficient incentives for those involved to facilitate travelling across modes, cooperation and innovation will surely follow.
- 2. This is still a relatively new topic and clear social-economic "business" cases need to be demonstrated for long-distance intermodal measures such as travel planners and integrated ticketing if they are to be taken up by operators and public sector planners and decision makers. This can only be done through at least partially public funded research and demonstration projects which are thoroughly evaluated. This is of particular importance as long-distance passenger intermodality has no obvious advocacy group as single modes do, so the arguments have to be strong.
- 3. To achieve high quality passenger intermodality at a European level is a very tough task, because we not only need to address the issues above at the urban and national levels, but we also need to bridge issues of European policy, standards, minimum levels of service, common approaches, mechanisms of international cooperation and in some cases regulation will be required.

LINK has described in its recommendations in very specific terms what can be done at the European level to address these issues. The main question about the future is not really whether long/distance intermodality will improve but how quickly and in which directions.

6.2 Where we can be in 15 years

From a European perspective within 15 years it would be desirable and realistic to have the following "services" in place

- a European one-stop shop intermodal travel planner with a single entry point and a minimum level of data provided in each country including timetable, travel time, basic fare/charge information and "how to buy tickets" information;
- Simple combined long-distance + urban travel tickets are effectively marketed and offered by most long-distance transport operators in Europe (in co-operation with urban and regional transport authorities and operators);
- accepted standards for the design of interchanges to cater for the needs of long-distance travellers will be employed in all new facilities and for refurbishments and reconstruction of existing ones;
- local transport services such as shared taxis, car share or bike rental joined up (at least in terms
 of ticket sale and information) with long-distance transport will be offered by most long-distance
 operators as provided by most major cities.

In addition we might expect within 15 years that for long-distance trips

- in a number of countries, sustainable long-distance transport behaviour will be successfully targeted and encouraged in companies and for event management through the use of mobility management techniques and centres;
- road operators will automatically provide or direct travellers to comparison information between road and public transport options and will provide information on expected delays during planned events such as roadworks and trade fairs;
- a number of national tax systems will be adjusted to incentivise sustainable long-distance travel behaviour.

6.3 What needs to be done at the European level to get there in 15 years

For such an accelerated European development however, a number of key steps need to be made at the European level :

- Various tools of European funding (Service contracts, INTERREG, IEE STEER, FP7, TEN-T /EasyWay, cohesion funds) should be encouraged and enabled to fund the implementation of the LINK recommendations and selected Euro-regional intermodal transport demonstration projects.
- Long-distance passenger intermodality must become a central pillar of the new EU transport policy and this policy priority must be well promoted at the national and European political level and backed up by European tools to implement the policy.
- In the short-term, various tools of European funding (Service contracts, INTERREG, IEE STEER, FP7, TEN-T /EasyWay,cohesion funds) should be encouraged and enabled to fund the implementation of the LINK recommendations and selected Euro-regional intermodal transport demonstration projects
- The Vasco da Gama programme proposed within LINK for demonstration and evaluation of longdistance intermodal services should be set-up and substantially funded within the Marco Polo programme from 2014.
- Vasco da Gama should include a horizontal project which would provide the home for a formal stakeholder forum (LINK+) which would coordinate the further development of Vasco da Gama and the LINK agenda including further support of policy development, best practice dissemination and the preparation of demonstration projects.
- The European intermodal travel planner needs to be included as a key project of the ITS action plan directive, i.e. intermodal passenger transport information should become a central pillar rather than a side-show of road transport information.
- A basic level of service of intermodal travel planning information should be defined and mandated through a European directive.
- An intense programme of education and training should be developed and transferred to the national and urban levels to support the development of a passenger centered planning and operations culture for intermodal transport.

Annex

- ¹ (p. 8) KITE A Knowledge base for intermodal passenger travel in Europe www.kite-project.eu All KITE reports can be downloaded from this site.
- ² (p. 8) KITE D8: Report about results: user requirements and indicators about demand volumes Chlond, B. and Manz, W. INVERMO das Mobilitätspanel für den Fernverke, Dynamische und statische Elemente des Verkehrsverhaltens. Wissenschaftliches Kolloquium Karlsruhe 2000.
- ³ (p. 8) Schriftenreihe der Deutschen Verkehrswissenschaftlichen Gesellschaft e. V., Bergisch Gladbach, 2005.
- ⁴ (p. 9) KITE D4: Relevant Market Segments in intermodal passenger travel
- ⁵ (p. 11) http://www.linkforum.eu/vl_content.phtml?id=293
- ⁶ (p. 12) D11, Guidelines for assessing intermodal measures under data availability constraints, KITE, www.kite-eu.org
- ⁷ (p. 13) Study Towards Passenger Intermodality in the EU, 2004, ILS
- ⁸ (p. 13) First Working Group Minutes (published on www.linkforum.eu)
- ⁹ (p. 13) Conclusions of initial consultation (published on www.linkforum.eu)
- ¹⁰ (p. 13) LINK Working Group Agenda (published on www.linkforum.eu)
- ¹¹ (p. 19) LINK D7 Conclusions of the initial consultation http://www.linkforum.eu/download.phtml?ID1=1006
- ¹² (p. 19) LINK D24 Conclusions of the mid-term consultation http://www.linkforum.eu/download.phtml?ID1=1006
- ¹³ (p. 20) LINK D19 Conclusions of final consultation http://www.linkforum.eu/download.phtml?ID1=1006
- ¹⁴ (p. 21) To be found at www.linkforum.eu, in the Download Area.
- ¹⁵ (p. 26) LINK D23b Identification of needs for further reseach http://www.linkforum.eu/download.phtml?ID1=1006
- ¹⁶ (p. 28) Available at www.linkforum.eu , case study written by Jonathan Radley
- ¹⁷ (p. 30) Available at www.linkforum.eu, case study written by Jan Christiaens (source: Javier Aldecoa)
- ¹⁸ (p. 32) Available at www.linkforum.eu, case study written by Dominik Oetterli
- ¹⁹ (p. 34) To be found in the download area; www.linkforum.eu
- ²⁰ (p. 37) TAP TSI Technical Specifications for Interoperability for Telematic Applications for Passenger, defined by the ERA (European Railway Agency)

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