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a knowledge base for intermodal
passenger travel in europe

Deliverable D1

Central Issues in Passenger Intermodality

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1 Executive Summary

The deliverable D1 (Central Issues in Passenger Inter-modality) intends to provide a framing for the following project activities - the working packages - and defines the issues to be addressed within the project.

The following definition will guide the project work in general:

„Passenger intermodality is a policy and planning principle that facilitates the combination of different modes in order to enable seamless travel“.

For operational matters, e.g. statistical analyzes, more precise definitions are specified.

The report also comprises a structural concept for the collection and presentation of existing research material and for the data and results created during the project period. In total 14 key issues of intermodality have been identified including attributes of the process (Legal and Regulatory Framework, Coordination and Cooperation, Resources and Know How, Organization and Development Procedures, Assessment and Evaluation) and attributes of the product or service (Technical Issues, Networks and Interchanges, Market Demand, Products and Services, Promotion and Advertising, Booking and Ticketing, Baggage Handling, Safety and Security, Information).

Bearing in mind that the users of an intermodal travel knowledge base have different backgrounds and objectives three user groups have been identified: (a) passengers, (b) providers and (c) politics. By crossing this three perspectives with the key issues of intermodality a matrix results which will allow to structure information and provide a basic organization principle for the knowledge base to be developed.

A first draft of a glossary on intermodal terms is included in the Appendix Annex I. It will be included into the knowledge base and amended during the course of the project.

2 Intention of Deliverable D1

Numerous projects on intermodality in the broadest sense have been carried out in the past. These projects have varying focus, deal with a broad range of related issues and have different spatial scope. As a result from these projects, there is a vast amount of information on passenger intermodality available. However, this information is often not very easily accessible for stakeholders searching for specific information. Moreover, there are certain intermodality related issues where no or only very little information is available.

The KITE project aims at providing a knowledge base on intermodal travel in Europe which comprises all relevant information and is easily accessible to stakeholders. Against the background of the preceding projects it becomes clear that one important task in the KITE project is to provide for the accessibility and applicability of available information on intermodality. Hence, sound definitions and a clear structuring of the key issues in intermodal travel are paramount in the KITE project.

The intention of Deliverable No. 1 is to provide for a constitutional foundation of the KITE project that contains important definitions as well as the basic structure of the central issues regarding passenger intermodality which will form the basis of the knowledge base to be developed during this project.

Because of the constitutional character of the definitions and the problem structure Deliverable No.1 has been coordinated between all project partners.

3 Definitions and Preconditions guiding the KITE project

3.1 Definition of intermodal travel and passenger intermodality

“Intermodal travel refers to the combination of different modes when travelling.”

Hence, intermodal travel necessarily involves transferring from one mode to another. This usually takes place at modal interchanges. Going beyond this technical definition of intermodal travel this study will be guided by the definition of passenger intermodality as a policy and planning principle:

„Passenger intermodality is a policy and planning principle that facilitates the combination of different modes in order to enable seamless travel“.

3.2 Background of EU Commitment to passenger intermodality

Passenger intermodality is on the EC agenda because seamless intermodal travel is expected to contribute to different European policy objectives. These include the economic and social cohesion as well as the competitiveness of Europe, the protection and enhancement of the environment and increasing accessibility especially for travelers with mobility impairments.

With respect to these objectives passenger intermodality is a promising strategy: It contributes to the general facilitation of travel and it is expected that particularly rail transport profits from fostering intermodality. The facilitation of rail transport can contribute to a shift of demand from car to rail. It can also help to limit the growing demand for air travel by substituting short-haul flights, especially feeder flights into hub airports, by rail transport.

Hence, passenger intermodality can contribute to shifting demand to modes with lower emissions and less energy consumption. Moreover, intermodality allows for efficient use of the existing transport infrastructure, e.g. by freeing capacity at hub airports.

3.3 EU remit and possible measures

For a policy promoting passenger intermodality to be successful all levels of authority from the European to the urban level have to co-operate. In this context the EU has to respect the *subsidiarity principle* which states that the EU may only act where member states agree that action of individual countries are insufficient.

Furthermore, enhancements of intermodal travel necessitate the co-operation of different transport providers. However, *the liberalisation of the transport market* – enforced on the EU-level – currently counteracts the integration and cooperation of transport providers in some instances.

In view of these preconditions of EU-level influence on passenger intermodality possible EU action is focused on the international or inter-urban long distance dimension of passenger travel. This also includes the last urban mile of long-distance travel, because passenger intermodality aims to provide seamless door-to-door trip chains.

Possible measures to promote passenger intermodality on the EU-level are: EU-regulations, direction of funding, standardisation, research and exchange of best practice.

3.4 Focus of the KITE project and operational definitions

Individual travel comprises of different segments: On the one hand there is everyday travel which is routine to a large degree and usually takes place in the short or mid-distance vicinity of the travellers residence. On the other hand there is regional and long distance travel which is usually non-routine.

Even though passenger intermodality can be effective in all segments of travel the KITE project focuses in light of the EU remit on the *non-routine long distance travel*: Predominantly passengers travelling outside their everyday environment are expected to be affected by EU passenger intermodality measures in that they profit from seamless travel opportunities and / or make their travel choices accordingly.

Operational Definition of Long Distance Travel: *In the context of KITE, long distance travel includes trips over 100 kilometres¹.*

Among motorized journeys, merely journeys that are carried out with the car as the only mode can be considered uni-modal. The use of all other modes usually involves access and egress modes and consequently transferring from one mode to another. As a consequence *all travel except car only trips* is considered intermodal in the KITE project. Car only trips will be part of the analyzes as they can represent latent demand for intermodal travel.

Operational Definition of Intermodality: *In the context of KITE, all travel except car only trips is defined as intermodal travel.*

Urban or local travel also falls under the focus of the KITE project insofar long distance travellers use *urban or local transport for access and egress* to their main mode of travel.

¹ The KITE consortium has agreed that the basis for measuring distances should be the crow-fly distance. However, currently most available data sets on travel behaviour do not contain information on crow-fly distances. Therefore, it is left open for the time being whether crow-fly, network or reported distance should be applied for the data analysis in KITE. This will be decided later based on data availability and sensitivity analyses.

4 Identification of Central Issues in Passenger Intermodality

Task 1.1 of the KITE project aims at the collection and identification of central issues in passenger intermodality based on the review of previous research. In total 14 key issues have been identified and are listed below. A detailed description of each key issue including examples and key words is provided in the following subsections.

The list of key issues can further be divided into two groups:

- Attributes of the Process
- Attributes of the Product or Service

The attributes of the process which describe the steps necessary for setting up a new intermodal product include the fields of:

- Legal and Regulatory Framework
- Coordination and Cooperation
- Resources and Know How
- Organization and Development Procedures
- Assessment and Evaluation

The attributes of the product which describe the quality features of intermodal offers include:

- Technical Issues
- Networks and Interchanges
- Market Demand
- Products and Services
- Promotion and Advertising
- Booking and Ticketing
- Baggage Handling
- Safety and Security
- Information

Despite the fact that one could have each attribute group in its own dimension it seems not wise to do so in order to keep the structure of the knowledge base simple and easy depict-able. Rather preferable is a plain structure where all issues are in one dimension.

These issues will form the foundation of the knowledge base and will help in categorizing the existing research material when including them in the knowledge base and they will also assist users while searching the knowledge base for specific topics. This list of key issues cannot be compared with a set of distinct categories. Therefore the design of the knowledge base must be flexible enough to support this kind of non-distinct categories where research material can be assigned to several key issue attributes.

With regard to the nature of intermodal research material and case studies it seems to be appropriate to distinguish which group of stakeholders are in the main focus of the authors. One group of stakeholders include providers of transport services, another group includes persons involved in the political level and the last group includes the passenger itself. For each of the three groups the intermodal key issues unfolds differently thus each group has a different perspective on the key issue.

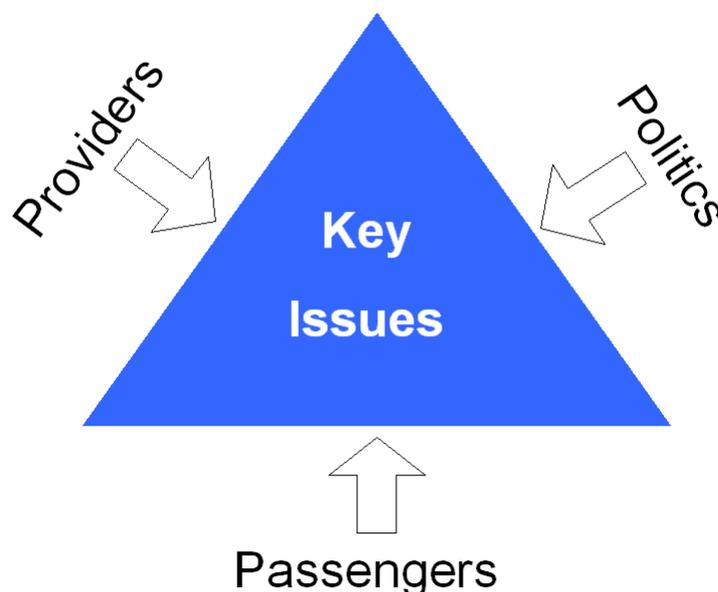


Figure 1: Three Perspectives

Figure 1 shows the threefold character of each key issue symbolized by a triangle. There might be groups of stakeholders which cannot cleanly be assigned to only one side of the triangle. These groups would need to browse through the knowledge base from more than one perspective.

Putting the key issues and the perspectives together results in a two dimensional structure - the key issue matrix:

Key Issues	Passengers	Providers	Politics
Legal & Regulatory Framework	■	■	■
Coordination & Cooperation	■	■	■
Resources & Know How	■	■	■
Organization and Development Procedures	■	■	■
Assessment & Evaluation	■	■	■
Technical Issues	■	■	■
Networks & Interchanges	■	■	■
Market Demand	■	■	■
Products & Services	■	■	■
Promotion & Information	■	■	■
Booking & Ticketing	■	■	■
Baggage Handling	■	■	■
Safety & Security	■	■	■
Information	■	■	■

Table 1: Dimension matrix

Research material that will be placed into the knowledge base will be assigned to one or more category of the key issue matrix - e.g. articles with the main focus on the issue "Information" from the perspective of Passengers and Providers will have two checks: one in the "Information / Passengers" field and one in the "Information / Providers" field.

In the following 12 tables a description of the key issues from the perspective of the passengers, providers and political decision makers are listed. The intention of this description is to exemplify what kind of topics will be subsumed under which key issue. Hence the brief description is not a full scale characterisation of the listed key issues.

4.1 Legal & Regulatory Framework

Perspective	Passenger	Provider	Politics
Key Words	Passenger right, liability, duty	Responsibility, liability, duty	Regulation, deregulation, competition, anti-trust
Description	From the passenger point of view it is important to be informed about his rights and duties.	The provider needs information about the international legal framework in order to be able to offer products and services and to cooperate with other providers.	The aim is to provide a standardised legal framework that allows transport providers to offer cross-border integrated and intermodal products.
Examples	Reimbursement in case of missed connections or lost luggage	Responsibility in case of disruptions	Create a legal framework which provides for market access and cooperation of providers.

4.2 Coordination & Cooperation

Perspective	Passenger	Provider	Politics
Key Words	Seamless travel	Cooperation with partners, Coordination of offers	Competitive regulatory framework, facilitation of cooperation, standardisation
Description	Passengers are interested in seamless traveling where the transfer between modes is comfortable and one does not notice transferring between providers. This includes a well organized disruption and intermodal transfer management.	Although providers of different modes have different structures and most often different objectives the focus point is to find strategic partners to form a win-win situation for all participants.	If cooperation and coordination between providers does not emerge unassistedly, politics has to provide a framework which enhances cooperation.
Examples	Integrated ticket	Metropolitan public transport association, coordination of timetables	Setting standards in order to enhance cooperation

4.3 Resources & Know How

Perspective	Passenger	Provider	Politics
Key Words	Intermodal competence, experience, budget	Human resources, financial resources	Funding structure, subsidies
Description	To be able to get information, to correctly interpret it, to pay for services and to eventually utilize the offered product. Therefore the passenger needs appropriate competences and resources.	Financial resources (public and private financing) are necessary to launch intermodal products. Furthermore the concept of intermodality is complex and providers welcome trained professionals for implementing intermodal products.	The aim is to make public funding structure compatible with multiplayer and multimodal projects with their long preparation and their uncertainty.
Examples	Experience, internet, mobile phone, credit card as mode of payment	Education and training of employees, venture capital	Private public arrangements, joint or mixed financing, EU or national funding programmes

4.4 Organization and Development Procedures

Perspective	Passenger	Provider	Politics
Key Words	Intermodal experience	Lean management, knowledge management	Intermodality Focus Group
Description	To help setting up routines guiding passengers during the planing phase of intermodal trips.	The provider's organizational structure should facilitate the implementation process of intermodal products.	A focus group that can continuously observe the market and work with market participants can much better protect the political interests.
Examples	European Project: EU-Spirit	utilizing provider's know how to set up and improve intermodal products	Task Force Transport Intermodality

4.5 Assessment & Evaluation

Perspective	Passenger	Provider	Politics
Key Words	Rating, feedback, comment	Return On Investment	Cost-Benefit Analysis
Description	A passenger wants to be able to judge the quality of intermodal products and services.	A provider wants to be able to assess whether an investment in intermodality makes sense in that it meets or creates demand and is profitable.	Politics need to know if there is sufficient benefit from investing in intermodality to justify public investment.
Examples	This can be achieved by a Rating-System evaluating different integrated products of intermodality through user experiences. Thus a potential user is able to find the best product for his request.	A possible measurement for suppliers is the return on investment (ROI), on equity (ROE), on assets or the financial cash flow etc.	A possible measurement for the political decision makers is a cost-benefit analysis.

4.6 Technical Issues

Perspective	Passenger	Provider	Politics
Key Words	Language, comprehensibility, usability, custom	Compatibility, language, technical standards	Standardisation, Regulation
Description	From the passengers perspective usability and comprehensibility of all kind of devices he is confronted with when travelling is paramount. Different languages, cultures and customs make it often difficult for passengers to understand announcements and signs and to get assistance in foreign countries.	When providing integrated products, particularly cross-border services, the provider encounters technical problems such as different national standards. These problems have to be overcome. European standards can alleviate this process.	The main focus is on standardisation in the field of transport information databases, language of public transport information and technical interoperability.
Examples	Language, comprehensibility of ticket vending machines, barrier freedom	Power and signalling systems in cross border train operation, Europe wide data base integration	EUROCONTROL, Galileo

4.7 Networks & Interchanges

Perspective	Passenger	Provider	Politics
Key Words	Accessibility, connection, transfer, comfort	Cooperation, partners, planning, design	Interoperability
Description	The main focus is accessibility for the passenger when changing from one mode of transport to another. Interchanging points between different transport networks, e.g. rail and air, have to be available.	The goal is to make interchanging points available through the cooperation of different providers. Therefore potential partners must be found and a high level of planning is required to optimise the transfer and waiting time.	On the network level the main issue is the interoperability of vehicles used and the standardisation of the infrastructure or a track sharing system between different modes and providers.
Examples	Minimization of transfer and waiting time.	Economic and administrative organisation of interchanges.	Provide standards for integrated timetables, barrier free travelling

4.8 Market Demand

Perspective	Passenger	Provider	Politics
Key Words	Fellow travellers, reliability, demand for connections, experience	Volume, structure, existing demand, latent demand, market size	Volume, structure, existing demand, latent demand, market size
Description	The individual passengers view on the general demand for intermodality regards the volume of fellow travellers because this determines the demand on particular connections and the need to reserve. Passengers might be more interested in intermodality if broad experience exists.	The provider is interested in the volume and structure of existing and latent demand for intermodal travel in order to assess the market potential of offered products and services.	Politics is interested in the volume and structure of existing and latent demand for intermodal travel in order set the political framework fostering intermodality and to enable sustainable infrastructure planning.
Examples	Intermodal Web 2.0 community where travellers exchange information on intermodal experience. Need for reservation.	Quantity of long distance travel, purpose of trips, combination of transport modes, socio-demographic attributes of the user etc.	Quantity of long distance travel, purpose of trips, combination of transport modes, socio-demographic attributes of the user etc.

4.9 Products & Services

Perspective	Passenger	Provider	Politics
Key Words	Convenience, Time and money savings, comfort	Product development, provision, profitability	Framework for integrated products, enhancement of competition
Description	Passengers are interested in intermodal products if they are advantageous compared to unimodal travel.	Central issue is the planning, organisation and cooperation between different partners and stakeholders to provide integrated products. Financing and revenue sharing are relevant, too.	Politics is interested in providing framework for competition with non-restrictive market access while at the same time fostering integrated products through cooperation of different providers.
Examples	AirRail, City Ticket, Rail and Fly	AirRail, City Ticket, Rail and Fly	Smart Card

4.10 Promotion & Advertising

Perspective	Passenger	Provider	Politics
Key Words	Special rates, valuable offers	Target market segment	Standardisation
Description	Has to be able to find valuable offers for intermodal products without consulting different information systems.	When promoting intermodal products not only existing but also latent demand should be addressed.	Campaigns for promoting sustainable mobility patterns need to be supplemented by information about available intermodal products.
Examples	AirRail	Establishment of well known brand names, labels	EU-project TAPESTRY

4.11 Booking & Ticketing

Perspective	Passenger	Provider	Politics
Key Words	Transparency, seamless Journey, integrated Journey, simplicity, payment	Integration, revenue management, revenue sharing, fares, tariffs	Harmonisation, standardisation, tariff regime
Description	Integrated tariffs and ticketing systems are a precondition for a seamless journey. For the user it is convenient to book and pay for only one ticket.	The provider designs products and offered services focusing on his own revenue. Cooperation with other providers must promise (financial) advantages. When cooperating balanced revenue sharing is central.	The integration of tariffs and ticketing systems is one of the priority action fields for intermodal travel.
Examples	Cross border all-inclusive tickets, European smart card system	Long distance railway ticket including egress urban transport	harmonisation of taxes, charges, fees, accepted currency

4.12 Baggage Handling

Perspective	Passenger	Provider	Politics
Key Words	Reliability, simplicity, comfort, door-to-door	Cooperation, liability, lost and found, excess baggage, oversized baggage	Security, customs
Description	Reliability and simplicity are the main focus on this topic for the passenger within a intermodal journey. Baggage handling is particularly important for elderly travellers and mobility impaired persons.	Several obstacles (organisation, liability etc.) emerge when providing an integrated solution for baggage handling for intermodal travel. Thus strong cooperation with reliable partners must be concluded.	When providing an integrated solution for baggage handling central issues for the politics are security and customs.
Examples	Passenger accompanied baggage transport	Baggage self check in	Travelling to and from unclean countries or non-Schengen states

4.13 Safety & Security

Perspective	Passenger	Provider	Politics
Key Words	Safety, simplicity, comprehensible regulations	Security check, safety provision, maintenance of vehicles	Regulation, reliability
Description	For the user it is essential to feel secure and safe when travelling. On the other hand he prefers a simple and standardised security check and is concerned with data privacy.	The obligation of the provider is to create a safe and secure travelling environment. This includes all kinds of measures to protect passengers and prevent or provide for emergency situations.	The focus is on setting the security standards and legal frameworks to guard passengers and the transport system against the impacts of man made or natural menaces.
Examples	Comprehensibility of security advices (language)	Baggage control, informing passengers about emergency measures	Data privacy regulations, standardisation of security measures, escape route signage

4.14 Information

Perspective	Passenger	Provider	Politics
Key Words	Door-to-door information, pre-trip / on-trip information, real time information, information system of interchanges (guidance system)	location based information, integration of information	Standardisation
Description	Seeks integrated and real-time door-to-door information-systems for intermodal travel across Europe.	A key issue when providing intermodal information is integrating the databases of different providers into a user friendly and comprehensive system.	The objective is standardisation of information-systems and supporting the cooperation of different providers.
Examples	Access to relevant information (timetables, fares) in different languages via internet, cell phone etc.	Provision of a standardized European transport database with ubiquitous accessibility.	Provision of a framework for standardized information exchange between different providers of intermodal products and services.

Annex I. Glossary on Intermodality

The following glossary is a starting point for an important element of the knowledge base to be developed. Its quite obvious that a young research topic like passenger intermodality has no tradition and therefore a joint language and a common understanding of the matters described and analysed in the knowledge base is crucial for the appropriate use and interpretation of issues.

The listed terms in the table below will be included in the knowledge base. From this point in time on new terms can be added and existing ones can be modified by the users.

Term	Description
Accessibility	(1) The extent to which facilities are barrier free and useable by disabled persons, including wheelchair users. (2) A measure of the ability or ease of all people to travel among various origins and destinations.
Accessible Service	Transport vehicles operating in regular service with wheelchair lifts, kneeling functions or other devices and personal assistance if necessary that permit disabled passengers to use the service
Activity	A stream of act dedicated to one purpose, including any waiting time before the activity, while that purpose is not movement.
Activity Centre	An area with high population and concentrated activities which generates a large number of trips (e.g., CBD, shopping centres, business or industrial parks, recreational facilities) - also known as trip generator.
Alighting	To get off a transport vehicle. Plural: "alightings".
Authorization	Basic, substantive federal legislation that established or continues the legal operation of federal program agencies, either indefinitely or for a specific period of time.
Bike-and-Ride	A parking area for cyclists who then board vehicles, shuttles or carpools from these locations.
Boarding	To go onto or into a transport vehicle. Plural: "Boardings".
Capital	Long-term assets, such as property, buildings, roads, rail lines, and vehicles.
Capital Costs	Costs of long-term assets of a collective transport system such as property, buildings, vehicles, etc.

Term	Description
Car Sharing	Is a system where a fleet of cars (or other vehicles) is jointly-owned by the users who can use the cars which are placed at distinct pick-up and drop-off locations. The costs and troubles of vehicle purchase, ownership and maintenance are transferred to a central organizer.
Car Pooling	Is the sharing use of a car, in particular for commuting to work, often by people who each have a car but travel together to save costs and in the interest of other socio-environmental benefits.
Central Business District (CBD)	An area of a city that contains the greatest concentration of commercial activity, the “Downtown”. The traditional downtown retail, trade, and commercial area of a city or an area of very high land valuation, traffic flow, and concentration of retail business offices, theaters, hotels and services.
Commuter Rail	Local and regional passenger train service between a central city, its suburbs and/or another central city, operating primarily during commutes hours. Designed to transport passengers from their residences to their job sites. Differs from rail rapid transport in that the passenger cars generally are heavier, the average trip lengths are usually longer, and the operations are carried out over tracks that are part of the railroad system.
Co-modality	The respective advantages of each mode of transport are being recognized. For each part of the journey the mode with the best performance in terms of its safety, environmental performance and energy efficiency is used.
Corridor	A broad geographical band that comments major sources and destinations and follows a general directional flow or connects major sources of trips. It may contain a number of streets and highways and many transit lines and routes.
Cost-Benefit Analysis	The process involves, whether explicitly or implicitly, weighing the total expected costs against the total expected benefits of one or more actions in order to choose the best or most profitable option.
Cross-Boarder Travel	All travel that crosses at least one national border.
Disabled	With respect to an individual, a physical or mental impairment that substantially limits one or more of the major life activities of such an individual; a record of such an impairment; or being regarded as having such an impairment.

Term	Description
Disruption Management	Any action taken in order to resolve an interruption in transport service, minimize the effects on the travelers and bring the service back to normal operation as quick as possible.
Door-to-Door Travel	Travel including first- and last-urban mile.
Enplanement	Domestic, territorial, and international revenue passengers who board an aircraft in the US in scheduled and non-scheduled service of aircraft including transit passengers.
Exclusive Right-of-Way	A right-of-way that is fully grade separated or access controlled and is used exclusively by transport.
Express Service	<p>Express service is deployed in one of two general configurations:</p> <p>(1) A service generally connecting residential areas and activity centres via a high speed, non-stop connection, e.g., a freeway, or exclusive right-of-way such as a dedicated bus way with limited stops at each end for collection and distribution. Residential collection can be exclusively or partially undertaken using park-and-ride facilities.</p> <p>(2) Service operated non-stop over a portion of an arterial in conjunction with other local services. The need for such service arises where passenger demand between points on a corridor is high enough to separate demand and support dedicated express trips.</p>
Fare	Payment in the form of coins, bills, tickets and tokens collected for transport rides.
Fare Collection System	The method by which fares are collected and accounted for in a public transport system.
Fare Elasticity	The extent to which ridership responds to fare increases or decreases.
Fare Structure	The system set up to determine how much is to be paid by various passengers using the system at any given time.
Feeder	Service that picks up and delivers passengers to taker services at interchanges which could be modal interchanges. Short-Haul flights represent a typical feeder service.
Financial Cash Flow	Cash flow is an accounting term that refers to the amounts of cash being received and spent by a business during a defined period of time, sometimes tied to a specific project. Measurement of cash flow can be used to evaluate the state or performance of a business or project.

Term	Description
First Urban Mile	First part (intra-urban) of an inter-urban journey.
Fixed Cost	Cost that remains relatively constant irrespective of the level of operational activity.
Fixed Route	Transport service provided on a repetitive, fixed-schedule basis along a specific route, with vehicles stopping to pick up passengers at and deliver passengers to specific locations.
Frequency	The amount of time scheduled between consecutive buses or trains on a given route segment; in other words, how often the bus or train comes (also known as Headway).
Information-System	Any kind of real time system that provides information for the traveler regarding his journey. The information might be broadcasted over screens, pa announcement, internet, cellular service, etc.
Interchanging-Points	see Intermodal Facility
Intercity Rail	A long distance passenger rail transport system between at least two central cities.
Intermodal	Combination of different modes when travelling.
Intermodal Facility	A building or site specifically designed to accommodate the meeting of two or more transport modes of travel.
Intermodality	A policy and planning principle that facilitates the combination of different modes in order to enable seamless travel.
Inter-Urban Travel	Is the travel between two urban areas.
Intra-Urban Travel	All travel inside an urban area.
Journey	A series of trips starting and ending at home or a temporary location.
Kiss and Ride	A place where passenger are driven and left at a station to board a public transport vehicle.
Last Urban Mile	Is referred to the last part of an inter-urban journey when only intra-urban travel is anymore required to reach the destination.
Linked Passenger Trips	A linked passenger trip is a trip from origin to destination on the transport system. Even if a passenger must make several transfers, the trip is counted as one linked trip on the system. Unlinked passenger trips count each boarding as a separate trip regardless of transfers.
Local Travel	see urban travel

Term	Description
Long-distance Travel	Long distance travel includes trips over 100 kilometres crow-fly distance.
Mobility Centre	A form of integrated ticketing at one place, although often several tickets have to be purchased for the planned travel chain.
Modal Interchanges	see Intermodal Facility
Modal Split	The proportion of people that use each of the various modes of transport. Also describes the process of allocating the proportion of people using modes. Frequently used to describe the percentage of people using private automobiles as opposed to the percentage using public transport. It's usually based on the number of trips but can be based on the distance traveled or the travel time too.
Mode	A particular form of travel, e.g. bus, train, airplane, bicycle, walking or car.
Model	An analytical tool (often mathematical) used by transport planners to assist in making forecasts of land use, economic activity, and travel activity.
Monomodal	Refers to behaviour where travellers use only one mode of travel in the course of time.
Multimodal	Refers to behaviour where travellers use different modes of travel in the course of time.
Non-Routine Travel	Travel that is not performed on a routine level according to the passenger's opinion.
Operating	Maintaining the ongoing functions of an agency or service.
Operating Assistance	Is used to pay for the costs of providing public transport service.
Operating Cost	The total costs to operate and maintain a transport system including labor, fuel, maintenance, wages and salaries, employee benefits, taxes, etc.
Operating Expense	Monies paid in salaries and wages; settlement of claims, maintenance of equipment and buildings, and rentals of equipment and facilities.
Operating Ratio	A measure of transport system expense recovery obtained by dividing total operating revenues by total operating expenses.
Operating Revenue	Revenue derived from passenger fares.

Term	Description
Operator	An employee of a transport system who spends his or her working day in the operation of a vehicle, e.g., bus driver, streetcar motorman, trolley coach operator, rapid transit train motorman, conductor, etc.
Origin	The location of the beginning of a trip or the zone in which a trip begins. Also known as a "Trip Start".
Origin-Destination Study	A study of the origins and destinations of trips made by vehicles or passengers.
Park-and-Bike	A parking area for automobile drivers who then use a bike from these locations on.
Park-and-Ride	A parking area for automobile drivers who then board vehicles, shuttles or carpools from these locations.
Park-and-Share	A parking area for automobile drivers who then do ridesharing from these locations on.
Pass	A means of transport prepayment, usually a card that carries some identification that is displayed to the driver or conductor in place of paying a cash fare.
Passenger	A person who rides a transport vehicle, excluding the driver.
Program	(1) verb, to assign funds to a project; (2) noun, a system of funding for implementing transport projects or policies.
Regional Travel	All travel within an regional area.
Return on Assets	It shows how profitable a company's assets are in generating revenue.
Return on Equity (ROE)	Measures the rate of return on the ownership interest (shareholders' equity) of the common stock owners.
Return on Invest (ROI)	Is the ratio of money gained or lost on an investment relative to the amount of money invested
Revenue	Receipts derived from or for the operation of transport service including fare box revenue, revenue from other commercial sources, and operating assistance from governments. Fare box revenue includes all fare, transfer charges, and zone charges paid by transport passengers.
Reverse Commute	Movement in a direction opposite to the main flow of travel, such as from the Central City to a suburb during the morning commute hour.

Term	Description
Ridesharing	A form of transport, other than public transport, in which more than one person shares in the use of the vehicle, such as a van or car, to make a trip.
Rolling Stock	The vehicles used in a transport systems, including buses and rail cars.
Route	A specified path taken by a transport vehicle usually designated by a number or a name, along which passengers are picked up or discharged.
Schedule	A document that, at a minimum, shows the time of each revenue trip through the designated time points. Many properties include additional information such as route descriptions, deadhead times and amounts, interline information, run numbers, block numbers, etc.
Service Area	A geographic area which is provided with transport services.
Service Standards	A benchmark by which service operations performance is evaluated.
Smart-Card-System	A pocket-sized card with embedded integrated circuits which is used for payment for public transport.
Stage	An uninterrupted movement by one mode, including any waiting time directly before or during the movement.
Stakeholder	Is a person or organization that has a legitimate interest in a project or entity.
Subsidiarity Principle	Is the principle which states that matters ought to be handled by the smallest (or, the lowest) competent authority.
Subsidy	Funds granted by federal, state or local government.
Taker	Service that picks up passengers from one or several feeders at interchanges which could be modal interchanges.
Tour	A sequence of trips, starting and ending at the same location.
Transport Centre	A fixed location where passengers transfer.
Transport Corridor	A broad geographic band that follows a general route alignment such as a roadway or rail right-of-way and includes a service area within that band that would be accessible to the transport system.

Term	Description
Transport Network	The configuration of knots (streets, rail tracks) and edges (stops, crossings).
Transportation Provider	Is a company in the service industry who offers products for moving passengers.
Travel Time	The time allows for an operator to travel between the garage and a remote relief point.
Trip	A trip connects two activities and can begin and end at any location.
Uni-Modal	Using only one mode of travel when travelling.
Unlinked Trip	A trip taken by an individual on one specific mode (same as stage). A linked trip may involve two or more unlinked trips.
Urban Travel	All travel within an urban area. (same as local travel)
Variable Cost	A cost that varies in relation to the level of operational activity.
Waiting Time	Time spent on no other purpose than bridging the time until an activity begins. It is lost time with no purpose of its own.

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