

ATLANTIC / e-Europe 2002

TTI Service Implementation Status Analysis in Europe

Deliverable D5.0

Vol.III – TTI Service Descriptions

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ATLANTIC WP5 & WP6: Deliverables overview and relation

The deliverables in ATLANTIC workpackage 5 and 6 provide a structured overview of achievements, findings and conclusions. They equally reflect the methodological approach and the strategy for a targeted dissemination of results and recommendations. With respect to the extent of the information gathered, analysed and documented, the following overview should facilitate orientation and reference for the reader (Table 0.1).

**Focused
documentation of
results**

Table Fehler! Kein Text mit angegebener Formatvorlage im Dokument..1: Overview and relation of WP5 & WP6 deliverables

Italics = high-quality printed edition

Rationale	No.	Title	Target Group(s)
Empirical Analysis	D5.0	TTI Implementation Status Analysis in Europe Vol.I: Approach and key findings Vol.II: National reports Vol.III: TTI service descriptions	All stakeholders of TTI service implementation in Europe
	D5.1	TTI service delivery in Europe - Good practice case studies and key actor interviews	European Commission
Stakeholder discussion	D6.2	Focus Group Proceedings on TTI deployment	All stakeholders of TTI service implementation in Europe
	D6.6	Final Conference and proceedings	All stakeholders of TTI service implementation in Europe
Targeted recommendations	D5.2	Recommendations on framework conditions for the deployment of TTI services in Europe	European Commission, decision makers at national level, private sector, European networks and associations
	D6.4	<i>Practitioner's handbook for TTI service implementation</i>	<i>Practitioners of TTI service implementation in European cities and regions (public & private sector)</i>
Dissemination of results	D6.1	Powerpoint presentation on framework for TTI deployment and eEurope Transport objectives and recommendations for use at conferences and outreach events	All stakeholders of TTI service implementation in Europe
	D6.3	<i>Good Practice in TTI service implementation (glossy edition)</i>	<i>All stakeholders of TTI service implementation in Europe</i>
	D6.5	<i>Joint Country reports (glossy edition)</i>	<i>All stakeholders of TTI service implementation in Europe</i>

[country] [service no.]	title	[...]	http://www ... [short description of the basic TTI service features] dynamic inter-modal travel information, touristic information; information on tele-shopping and tele-teaching; dynamic traffic control for PT and road <ul style="list-style-type: none">▪ internet-based and mobile▪ single public information and control center as content organizer and service provider
	region, city	[...]	
	duration / status	[...]	
	spatial scope	[e.g. regional, local]	
institutional context	policy framework	pro-active, enabling [describe: e.g. part of policy programme, regional initiative, private initiative]	
	funding	public, private [describe: e.g. public-private partnership, shares]	
	information chain actors	data aquisition [e.g. public traffic observation (name)] data fusion [e.g. public TTI service center (name)] information supply [e.g. private TTI service center (name)] transmission [e.g. private ICT network operator (name)] marketing and support [e.g. private TTI service provider (name)]	
availability	distribution stage	pre-trip/on-trip, real time/delayed [describe e.g. seamless with smart phone, PDA, PTA]	
	service procurement	public/general/commercial/personal [describe e.g. general information publically available, additional payment for personalized services]	
	data acquisition	fixed/floating sources; e.g. cameras, GPS, etc.	
	data distribution	static/dynamic; e.g.internet, e-mail, WAP, SMS, phone, fax, DAB, RDS/TMC, etc.	
contents	modal coverage	mono-modal/multi-modal/inter-modal [e.g. railways, PT, road, bicycle, walking, hiking]	
	information contents	coordinated (parallel) or integrated (interlinked); coverage in space and time, journey planning, journey times, vehicle locations, waiting times, incident information, etc.	
	user interaction	passive/interactive/transactional [describe e.g. demand responsive route planning and mobility services]	
	retail options	booking, purchase, other than transport [describe e.g. booking of shared ride and PT tickets, tele-shopping, tourism, hotel reservation, tickets for leisure events]	

[Please fill out all fields for which information is easily available – no in-depth research required]

[Austria] [service no.1]	title	Dynamic real-time passenger information	http://www.wienerlinien.at <ul style="list-style-type: none">Dynamic real time on-trip information on 200 stops in Vienna (planned on all 550)
	region, city	Austria, Vienna	
	duration / status	1.5 year / in operation	
	spatial scope	regional	
institutional context	policy framework	none	
	funding	Public	
	information chain actors	General contractor: Bombardier Transportation Austria Operator: Wiener Linien GmbH	
availability	distribution stage	on trip	
	service procurement	Information publicly available	
	data acquisition	<ul style="list-style-type: none">Schedules of busses, trains, underground, tramsFloating Car DataBeacon systems	
	data distribution	Passenger: overhead displays Traffic Control Center	
contents	modal coverage	Busses, underground, trams, trains	
	information contents	<ul style="list-style-type: none">Dynamic real time on-trip information about time of departure, direction and train/bus number	
	user interaction	none	
	retail options	none	

[Austria] [service no.2]	title	Make.IT	Public portal will be available at the start of the pilot operation (09.2002) <ul style="list-style-type: none">• Intermodal travel management system for rural areas• Easy to reach mobility server (call center, internet, sms)• Fleet Management system (public traffic on demand)• All vehicles and busses are equipped with localisation and communication devices• Traffic control center• On Trip Infos (for all passendgers that has purchased their intermodal ticket at Make.IT)
	region, city	Austria, Vienna	
	duration / status	1.5 year Preparation of pilot operation	
	spatial scope	regional	
institutional context	policy framework	Part of policy programme	
	funding	Public-private partnership	
	information chain actors	Data aquisition (passenger management system, public traffic observation) Data fusion (public mobility server, traffic control center) Transmission: Network Operator (Mobilkom, Datatrak) Marketing: public authorities	
availability	distribution stage	Pre, on and post-trip	
	service procurement	Information publically available	
	data acquisition	<ul style="list-style-type: none">• Schedules of busses, trains• Floating Car Data (Datatrak, GPS)	
	data distribution	Passenger: internet, sms Traffic Control Center	
contents	modal coverage	Intermodal (walking, feeder servic on demand, bus, railway)	
	information contents	<ul style="list-style-type: none">• Door-to-door trip planning• Fleet management for vehicles on demand• Traffic Control Center	
	user interaction	Plan, order and purchase intermodal door-to-door trip On-Trip Info via SMS	
	retail options	Intermodal Ticket	

[Austria] [service no.3]	title	A1 Handy Ticketing A1 ÖBB Fahrplanauskunft	http://www.a1.net and www.oebb.at
	region, city	Austria	Service features: - information of railway-schedule via mobile phone or internet - purchase of the railway-ticket via mobile or internet USP: ticket can be bought right before the journey; higher reduction as when ticket is bought at the train station (VorteilsCard: 50 % vs. 45 % reduction)
	duration / status	Since 1999	
	spatial scope	National (in Austria)	
institutional context	policy framework	Pro-active by traveler	
	funding	Private by the traveler (amount taken off his phone bill)	
	information chain actors	ÖBB (national train operator): supply of the necessary trip-information; prices and ticket-codes; support on all relevant information for ÖBB Mobilkom (national telecom operator): support when technical problems, general information about services and about order possibilities and process	
availability	distribution stage	Real time	
	service procurement	personal	
	data acquisition		
	data distribution	WAP and SMS	
contents	modal coverage	Mono-modal (railways)	
	information contents	Schedule: Journey times, number of changes between trains, total journey time Ticket: price, validity date (= actual day), departure and arrival train station, name, reduction	
	user interaction	Interactive (input of all relevant parameters for ticket, e.g. departure-train station, number of travelers, price, name, ...)	
	retail options	Via mobile phone (SMS or WAP) or via Internet (www.a1plus.at)	

[Austria] [service no.4]	title	con.tact - optimal connection with bus, bus, train	http://www. ...
	region, city	Vorarlberg, Austria	Missed links/connections because of delay is one of the biggest problems in public transport systems. With the project con.tact it is planned to reduce this problem by exchanging dynamic information between the vehicles (actual position, prospective delay etc.). The location of the vehicles is determined by means of GPS and this location is compared with the supposed location according to the timetable. From this a delay or a coming prematurely is calculated and if necessary transmitted to connecting vehicles (transmission by digital radio data transmission). These vehicles should answer whether the connection will be kept or not. The information concerning this will be passed on to the passengers (speech microphones, displays...)
	duration / status	Concept finished in March 2001 - time pilot phase until March 2003 - afterwards line-up	
	spatial scope	International (with Liechtenstein and little parts of Germany and Switzerland)	
institutional context	policy framework	Initiated by the Verkehrsverbund Vorarlberg (traffic network of Vorarlberg; a subsidiary of the country Vorarlberg)	
	funding	Public financing: Promotion and support of the project by the federation, the countries and the municipalities Private financing: Along-financed by the project partner TIG (an enterprise, which is active in traffic engineering and area traffic instrumentation)	
	information chain actors	Actors: all important transport enterprises and operators in Vorarlberg and Liechtenstein, the project partner TIG and the Verkehrsverbund Vorarlberg (traffic network of Vorarlberg)	
availability	distribution stage	Real time (wirelessly by digital radio data transmission)	
	service procurement	The information will be available in all the concerned vehicles	
	data acquisition	Floating sources (GPS): the location of the vehicles is determined by GPS and this location is compared with the supposed location according to the timetable. From this a delay or a coming prematurely is calculated and if necessary transmitted to connecting vehicles.	
	data distribution	Dynamically by digital radio data transmission	
contents	modal coverage	Multi-Modal: Busses, Trains...	
	information contents	Incident information: Delay and coming prematurely, Information about alternative connections in case of missed connections/links	
	user interaction	Passive: The information will be transmitted to the bus drivers and in consequence to the passengers (speech microphones, displays...)	
	retail options	In a further step is planned, to offer the link information for the passengers via monitors, SMS etc.	

[AUSTRIA] [no.5]	title	CORVETTE TEMPO	http://www <ul style="list-style-type: none">Travel time prediction across modes and bordersTraffic information provided by control centersTravel time used to provide multimodal travel information servicesArea-wide traffic information by using RDS-TMC, mobile services (OnTrip information, internet pre-trip information)
	region, city	Central Europe	
	duration / status	In progress	
	spatial scope	Regional	
institutional context	policy framework	Initiative of the European Union program name CORVETTE Tempo	
	funding	public	
	information chain actors	data supply: static (linduction loops) and dynamic (FCD) traffic data content organizer [public TIC] service provider [public broadcast company, private content provider (cellular phone networks, ...)] distributor [public broadcast company, private content provider (cellular phone networks, ...)] end users [all travellers, transportation companies, ...]	
availability	distribution stage	pre-trip / on-trip [e.g. seamless with smart phone, PDA, PTA]	
	distribution mode	static / dynamic [e.g.internet, intranet, e-mail, WAP, SMS, phone, fax]	
	service procurement	Traffic information by means of location based services	
contents	modal coverage	multi-modal	
	service scope	Travel time prediction for precise traveller information	
	user interaction	transactional [information about alternative routes or transport modes to reach the journey destination in time	
	retail options	Proposition about the best point of time to start a journey or delivery	

BELGIUM Service 1	title	national road TTI	www.vlaanderen.be www.routes.wallonie.be www.touring.be
	region, city	Belgium	nation-wide traffic information mainly covering inter-urban roads is provided in live broadcasts (and later in 2002 also as RDS-TMC messages) by the regional broadcasters (VRT for the Dutchspeaking community and RTBF for the Frenchspeaking community).
	duration / status	operational	
	spatial scope	Belgium	
institutional context	policy framework	Four levels can be distinguished in the Belgian (road) administration: (1) the federal level, (2) the three regions Brussels, Flanders and Wallonia, (3) the ten provinces, and (4) groups of municipalities at the local level (called “regies” by the regional Ministries of Transport, and “districts” by the Police). For ITS-related services, the all-important level is the <u>regional level</u> . All three regions take initiatives regarding TTI and consider it as their (ie a <u>public</u>) responsibility. Though contacts with private sector actors exist, there is not yet any official public-private cooperation apart from the reception and broadcasting of private (Touring Mobilis) data by the regional broadcasters.	
	funding	Public funding (mainly) through the regional road administrations.	
	information chain actors	<p>The responsibility for inter-urban roads in Belgium lies at the regional level¹, and is handled by the Ministry of the Brussels Region² (MRBC), by the Ministry of the Flemish Community³ (MVG) and by the Walloon Ministry of Equipment and Transport⁴ (MET). The regional Ministries are also the key players in ITS, although the National Police (Ministry of the Interior) still operates the NTIC, passing on traffic and travel information to the regional radio broadcasters (the Ministries install and maintain the monitoring equipment that feeds the NTIC – National Traffic Information Centre). Both the MVG and MET also operate regional traffic centres, respectively in Antwerp and Namur.</p> <ul style="list-style-type: none">• data acquisition and fusion:<ul style="list-style-type: none">o regional ministries and Police, information is sent to the National Traffic Information Centreo driver reports (using their mobiles) collected by Touring Mobilis (see below)• transmission:<ul style="list-style-type: none">o by the regional broadcasters, information is received from the National Traffic Information Centre as well as from Touring Mobilis	

¹ since 8 August 1988 (change by law)

² Ministerie van het Brussels Hoofdstedelijk Gewest - Ministère de la Région Bruxelles-Capitale

³ Ministerie van de Vlaamse Gemeenschap (MVG)

⁴ Ministère Wallon de l'Équipement et des Transports (MET)

availability	distribution stage	pre-trip/on-trip
	service procurement	general information is broadcast to the public free of charge; there are no initiatives to make public information available to private sector initiatives
	data acquisition	<ul style="list-style-type: none"> • automatic data collection: <ul style="list-style-type: none"> o loops: overall, there are about 400 measurement points, corresponding to every 10 to 15 kilometres of the main roads (mostly motorways); the system is essentially based on single loops and was installed in the 60's and 70's for statistical purposes; it records average speeds, densities and numbers of different categories of vehicles on a two-minute basis; o cameras: more recently, about 20 camera-based video detection systems have been installed on motorways in the vicinity of Antwerp and Ghent; the infrastructure is maintained by the regional road authorities and the data are used by the National Police (and its control centre that is connected to the regional broadcasters) o SOS telephones: are installed every 2 kilometres on virtually all motorways; their importance as a source of information on accidents and breakdowns has reduced a lot since most emergency calls are now made through GSM o a network of 47 roadside weather detection stations are installed in mainly Wallonia (14 of these are also use for forecasting purposes such as thermal mapping); • more than 5 000 GSM-users also regularly report to a service called "Touring Mobilis", that is run by Touring Club, one of Belgium's automobile clubs. • on busy days, the Police and Touring Club also do air surveillance of traffic by plane and helicopter.
	data distribution	<ul style="list-style-type: none"> • dynamic information • live broadcasts and RDS-TMC messages (using FM) – in Wallonia, DAB services are planned but no fixed starting dates have been fixed yet • map showing real-time traffic situation at www.vlaanderen.be, at www.routes.wallonie.be and at www.touring.be/traffic
contents	modal coverage	mainly road
	information contents	coordinated to cover at least all national motorways
	user interaction	passive
	retail options	none

BELGIUM service 2	title	national train information	www.b-rail.be
	region, city	Belgium	This is an Internet-based service, that consists of: <ul style="list-style-type: none">▪ bus/tram/rail journey planner: based on origin and destination stops and the time of departure, this service provides a detailed journey plan covering bus/tram and rail (result of a cooperation between the rail company and the main regional bus/tram operators)▪ reservation service
	duration / status	operational	
	spatial scope	national	
institutional context	policy framework	initiative of the (public) national railway organisation NMBS/SNCB	
	funding	public	
	information chain actors	data acquisition, data fusion and provision on website: national railway organisation	
availability	distribution stage	pre-trip/on-trip	
	service procurement	general information is provided to the public free of charge	
	data acquisition	timetables	
	data distribution	static (Internet-based)	
contents	modal coverage	multi-modal (bus/tram/rail)	
	information contents	coordinated to cover regional (Brussels, Flemish and Walloon Region) bus/tram information as well as national rail information	
	user interaction	passive	
	retail options	none	

BELGIUM Service 3	title	Brussels PTI	www.stib.irisnet.be
	region, city	Brussels region	<p>This is an Internet-based service, that consists of:</p> <ul style="list-style-type: none">bus/tram service tables: this service provides an overview of all lines and number of passages per hourbus/tram/rail journey planner: based on origin and destination stops and the time of departure, this service provides a detailed journey plan covering bus/tram and rail (sent to the user by e-mail) (result of a cooperation between the rail company and the main regional bus/tram operators)real-time arrival times of buses/trams at stops: this service provides a stop-based overview of the actual times that all buses and trams will arrive
	duration / status	operational	
	spatial scope	regional	
institutional context	policy framework	initiative of the (public) Brussels regional bus/tram organisation MIVB/STIB	
	funding	public	
	information chain actors	data acquisition, data fusion and provision on website: MIVB/STIB	
availability	distribution stage	pre-trip/on-trip	
	service procurement	general information is provided to the public free of charge	
	data acquisition	timetables+GPS-based real-time arrival times of buses/trams at stops	
	data distribution	static and dynamic (Internet-based)	
contents	modal coverage	multi-modal (bus/tram/rail)	
	information contents	focused on Brussels region – journey planner coordinated to cover regional (Brussels, Flemish and Walloon Region) bus/tram information as well as national rail information	
	user interaction	passive	
	retail options	none	

BELGIUM Service 4	title	Flanders PTI	www.delijn.be/frame_reisinformatie.html This is an Internet-based service, that consists of: <ul style="list-style-type: none">▪ bus/tram service tables: based on origin and destination stops, this service provides an overview of all lines and times that service these stops▪ bus/tram/rail journey planner: based on origin and destination stops and the time of departure, this service provides a detailed journey plan covering bus/tram and rail (result of a cooperation between the rail company and the main regional bus/tram operators)▪ arrival times of buses/trams at stops: this service provides a stop-based overview of the times that all buses and trams will arrive
	region, city	Flanders region	
	duration / status	operational	
	spatial scope	regional	
institutional context	policy framework	initiative of the (public) Flemish regional bus/tram organisation De Lijn	
	funding	public	
	information chain actors	data acquisition, data fusion and provision on website: De Lijn	
availability	distribution stage	pre-trip/on-trip	
	service procurement	general information is provided to the public free of charge	
	data acquisition	timetables	
	data distribution	static (Internet-based)	
contents	modal coverage	multi-modal (bus/tram/rail)	
	information contents	focused on Flemish region – journey planner coordinated to cover regional (Brussels, Flemish and Walloon Region) bus/tram information as well as national rail information	
	user interaction	passive	
	retail options	none	

BELGIUM Service 5	title	Wallonia PTI	www.namur-luxembourg.tec-wl.be www.tec-liege-verviers.be www.tecbw.be www.tec-charleroi.be
	region, city	Walloon region	This is an Internet-based service, that consists of: <ul style="list-style-type: none">bus/tram service tables: based on either the line or one or two stops, this service provides an overview of all lines and times that service these stops
	duration / status	operational	
	spatial scope	regional	
institutional context	policy framework	initiative of the (public) Walloon regional bus/tram organisation TEC	
	funding	public	
	information chain actors	data acquisition, data fusion and provision on website: TEC	
availability	distribution stage	pre-trip/on-trip	
	service procurement	general information is provided to the public free of charge	
	data acquisition	timetables	
	data distribution	static (Internet-based)	
contents	modal coverage	multi-modal (bus/tram/rail)	
	information contents	focused on Walloon region	
	user interaction	passive	
	retail options	none	

Bulgaria Service No 1	title	GPS based PT monitoring and control system	Dynamic (real-time) PT control information
	region, city	Sofia	
	duration / status	First part (for the tram fleet) – since 1 year in operation	
	spatial scope	City district	
institutional context	policy framework	In the framework of the Program for development of the PT in Sofia	
	funding	The Public Transport Company (PTC) in Sofia is the only investor	
	information chain actors	data aquisition : PTC data fusion : PTC information supply : PTC transmission : : PTC marketing and support : none	
availability	distribution stage	on-trip, real time	
	service procurement	public	
	data acquisition	GPS	
	data distribution	dynamic	
contents	modal coverage	mono-modal; PT	
	information contents	vehicle locations, waiting times	
	user interaction	interactive	
	retail options	none (beside transport sector)	

Bulgaria Service no. 2	title	Traveler Information through Teletext	Tourist information through Teletext
	region, city	Bulgaria	
	duration / status	Since 1992 – to date	
	spatial scope	The whole country	
institutional context	policy framework		
	funding	Financed by the Centre for Telematic Services (CTS) – a Bulgarian Telecommunication Company (BTC) daughter firm. CTS is a self-financing organization. Its main income is from advertising activities. However the transport companies whose information is offered by the Centre through Teletex is free of charge.	
	information chain actors	<u>First level:</u> Transport companies (Bus companies, Air companies, BDZ) <u>Second level:</u> CTS <u>Third level:</u> national TV network (First National Program)	
availability	distribution stage	pre-trip	
	service procurement	public service	
	data acquisition	floating sources	
	data distribution	Teletext	
contents	modal coverage	PT	
	information contents	journey planning	
	user interaction	passive	
	retail options	Other transport related information is also available (about shopping, tourism etc.)	

Bulgaria Service no. 3	title	Road Information through Radio Networks	Dynamic information for car drivers broadcasted by radio networks
	region, city	Bulgaria	
	duration / status	Since 1975 – to date	
	spatial scope	The whole country	
institutional context	policy framework	In the framework of a national program for road safety	
	funding	State budget	
	information chain actors	data acquisition : Information centres of the Road Executive Agency and of the Traffic Police data fusion : Traffic Police Central Office information supply : Traffic Police Central Office transmission : radio networks national program <i>Horizon, Darik Radio</i> etc. marketing and support : none	
availability	distribution stage	on-trip, real time	
	service procurement	public	
	data acquisition	Information offices	
	data distribution	dynamic	
contents	modal coverage	mono-modal; road transport	
	information contents	Weather and road conditions, road sequences with speed limits, detours etc.	
	user interaction	passive	
	retail options	none (beside transport sector)	

CZ service no. 2	title	CIS – central PT schedule information system	http://www.idos.cz ▪ inter-modal internet-based web search engine and database of regional and national / international PT schedules ▪ purchasable for off-line use ▪ content defined by law, data provided by operators to regional administration (except railways data which goes directly to the system manager) for and then passed to the private company CHAPS, which compiles whole database and sells off-line products
	region, city	national	
	duration / status	running since 1999	
	spatial scope	national	
institutional context	policy framework	Legally defined process of data provision and quality control. Transport law enables sub-contracting of system development and maintenance.	
	funding	Private	
	information chain actors	data acquisition : PT operators with verification by regional administration data fusion : subcontracted by MOT to private company CHAPS information supply : subcontracted by MOT to private company CHAPS transmission : web based marketing and support : subcontracted by MOT to private company CHAPS	
availability	distribution stage	pre-trip	
	distribution mode	static internet and off-line media (CD, intranet)	
	service procurement	free public web-site / personal commercial off-line products (CD, intranet)	
contents	modal coverage	inter-modal rail, bus, UPT, multi-modal air, boat	
	service scope	integrated offer of inter-modal best routes (with restricting criteria allowed)	
	user interaction	active off-line	
	retail options	none	

CZ service no. 3	title	PT information system	<ul style="list-style-type: none">PT information system at important bus stops in Zlin (time of next arrival by link)Uses radio beacons at strategic points on network and on-board receivers / transmittersManaged by PT company dispatch center
	region, city	Zlin	
	duration / status	Running from 1999	
	spatial scope	local	
institutional context	policy framework	support and financing of city	
	funding	municipal, through PT company budget	
	information chain actors	data acquisition : PT company data fusion : PT company information supply : PT company transmission : PT company (radio beacons) marketing and support : NA	
availability	distribution stage	on-trip at stops	
	distribution mode	electronic signs at bus stops	
	service procurement	public, general	
contents	modal coverage	local bus transport	
	service scope	local bus transport only	
	user interaction	passive	
	retail options	no other	

CZ service no. 3	title	Car-based navigation service	CD / internet download navigation database and in-car equipment' license, cooperation between Skoda and Teleatlas
	region, city	national	
	duration / status	to run from 2006	
	spatial scope	national	
institutional context	policy framework	no legislation preventing navigation equipment in cars, customer marketing research of Skoda	
	funding	private	
	information chain actors	data acquisition : Teleatlas data fusion : Teleatlas information supply : Skoda transmission : CD/internet marketing and support : Skoda	
availability	distribution stage	pre (in car on drive) / on-trip	
	distribution mode	internet and CD	
	service procurement	purchase of navigation unit and database (+updates)	
contents	modal coverage	road	
	service scope	offer of best routes (without real-time information)	
	user interaction	interactive	
	retail options	no other	

CZ service no. 5	title	ABA private National TTI center	www.aba.cz <ul style="list-style-type: none">▪ Mono-modal privately run unofficial TTI center for drivers▪ The information center service address all road-users, road managers and third party information providers.
	region, city	national	
	duration / status	to run from 2000	
	spatial scope	national	
institutional context	policy framework	Company policy	
	funding	private, self financing from sale of information / marketing benefit	
	information chain actors	data acquisition : by relevant authorities, own equipment, drivers data fusion : Police, Roads Directorate, Cities, Regions, Customs information supply : Police, Roads Directorate, Cities, Regions, Customs transmission : internet, phone, fax, radio, television marketing and support : ABA	
availability	distribution stage	pre trip / on-trip	
	distribution mode	Internet, phone, radio, television (teletext), mobile phone	
	service procurement	Free web site and all available public sources	
contents	modal coverage	road	
	service scope	Real-time reports (as news is received) and off-line reports on long-term changes, events, accidents, road conditions, road closures and road-works, Prague travel quality on monitored sections, waiting time to cross international borders	
	user interaction	interactive	
	retail options	no other	

CZ service no. 6	title	Eurotel – Mobile guide	www.eurotel.cz , www.mobilejuice.cz
	region, city	national	<ul style="list-style-type: none">Multi/inter-modal door to door mobile phone navigating system using a digital map and direction description to find what you need in everyday situation on the display of your mobile phone thru connection to internet via WAP or GPRS and SMSMobile compass shows directorial arrows that points you in right direction
	duration / status	to run from 2000	
	spatial scope	national	
institutional context	policy framework	Eurotel policy	
	funding	private, fully by Eurotel	
	information chain actors	data acquisition : own data or private providers of information data fusion : private and public providers of information information supply : private and public providers of information transmission : internet, fax, phone marketing and support : Eurotel	
availability	distribution stage	Mobile phone, single operator	
	distribution mode	WAP, GPRS, SMS,	
	service procurement	Commercial product	
contents	modal coverage	Multi - modal car/walk, PT, inter - modal walk/PT	
	service scope	Service uses your location to help you find where you need to go to, how to get there from your present position in everyday situations and suggest things you may find useful on the way there (petrol stations, ATMs etc.).Transport information is offered in the context of a service search functions	
	user interaction	interactive	
	retail options	no other	

Denmark service no. 1	title	Danish road Directorate Traffic Informations Central: (TIC- Globus.)	http://www.vd.dk/vejdirektoratet.asp?page=company&objno=11 and http://www.trafikken.dk/trafikken.asp?page=company&objno=7
	region, city	Copenhagen	24 hour intermodal public telephone and Internet based information service regarding road transport on freeways, highways and major county transport roads.. Information regarding accidents, traffic density,ice conditions etc.
	duration / status	Operational	
	spatial scope	National	
institutional context	policy framework	Proactive Road Directorate involvement in EU Euroregional Project VIKING. Partly governed by Danish Road Directorate (DRD) Traffic Information guidelines.	
	funding	Partly EU and partly national public funding.	
	information chain actors	Data acquisition: Public reports, from Police, Municipality traffic management, Danish Road Directorate traffic sensor systems, other. Data fusion: DRD Globus system, Information's supply: DRD and Swedish (Borlanga) Datex node Data transmission: National and Private TV- and radio-networks or directly to Public through RDS-TMC or phone calls Marketing and support: Only marketing through Home page and public/private TV/Radio Broadcast	
availability	distribution stage	Pre trip and en route delayed real-time through RDS/TMC and radio broadcast	
	service procurement	Public - no payment	
	data acquisition	Floating Public observations, Police reports, DRD Traffic Information Systems, Datex nodes in Denmark and Sweden. Fixed through traffic intensity monitoring system (TRIM) and cameras	
	data distribution	Outputs: television news, Teletext, Radio stations, RDS TMC, public phone calls, Internet	
contents	modal coverage	Multi model road transport, ferry, bicycle, with Internet links to Air traffic, Train tables etc.	
	information contents	Integrated in space and time, incident information, waiting times, delays, planned events	
	user interaction	Interacting through phone calls, and passive Internet	
	retail options	None	

Denmark service no. 2	title	Traffic-info Copenhagen	http://trafikinfo.dk/ Internet based intermodal information service regarding public transport and road traffic in the Greater Copenhagen area only. Site includes links to bike routes, car-pooling database, taxi services, Air traffic, bus traffic, train services, subway services, and ferry traffic. It is the intention to open a telephone service and communication by other electronic means to the public in the near future.
	region, city	Copenhagen	
	duration / status	Operational	
	spatial scope	Regional	
institutional context	policy framework	Public initiative among the major transport public companies, the Danish Road Directorate and rail road association to inform broadly on the Internet about the various means of transport in Copenhagen.	
	funding	Public funding through the public transport and government institutions in partnership.	
	information chain actors	Data acquisition: Copenhagen Public Transport company, Danish State Railways, Danish State Subway, Copenhagen police, Danish Railroad Association, Copenhagen municipality, Frederiksberg Municipality, Data fusion: Simple Web-side with links hosted by Private Internet Service provider. Information supply: Joint between data acquisition partners. Transmission: Internet web (ISP) Marketing and support: Non commercial Internet link distribution	
availability	distribution stage	Pre trip only	
	service procurement	Public - no payment	
	data acquisition	Floating Public transport company observations and other existing electronic data sources from the transport companies and the infrastructure transport service providers.	
	data distribution	Internet only	
contents	modal coverage	Multi model road transport, Train tables, near real time subway delay information etc.	
	information contents	Parallel traveller information. No integrated functionality besides Internet links.	
	user interaction	Passive Internet Interacting	
	retail options	None	

Denmark service no. 3	title	National Travelplanner	http://www.rejseplanen.dk/ Internet based intermodal address based travel-planner covering national trains, Copenhagen subways, National Regional Bus-service (not yet Municipality bus-service outside Copenhagen), walking distance in Copenhagen and major cities. (No ferry information). Real time components to be implemented by 2003.
	region, city	Copenhagen	
	duration / status	Operational	
	spatial scope	National	
institutional context	policy framework	Internet based Public travel-planner initiative conducted by the Bus & Train co-operation. This is an organisation formed by the major transport public companies in Denmark. Major Contributors are Copenhagen Public Transport Company, Danish State Rails and the largest local public transport companies in Denmark.	
	funding	Partnership public funding through the public transport and government institutions involved in the partnership.	
	information chain actors	Data acquisition: Electronic time schedules from most regional public and private transport companies. Data fusion: Dedicated system hosted by Danish State Rails IT-division. Information supply: Joint between partners. Transmission: Danish State Rails IT-division Marketing and support: Non commercial Internet link distribution	
availability	distribution stage	Planning and Pre trip only.	
	service procurement	Public - no payment	
	data acquisition	Floating Public transport company observations	
	data distribution	Internet only	
contents	modal coverage	Multi modal between bus, train and subway.	
	information contents	Integrated journey-planning between bus, train and subway links.	
	user interaction	Active Internet application	
	retail options	Booking service on trains.	

Denmark service no. 4	title	TRIM	http://www.trafikken.dk/wimpdoc.asp?page=document&objno=7297
	region, city	Copenhagen	Freeway traffic density measurement system with associated near real time Internet dissemination component to visualise average geographical vehicle traffic and speed on graphical map. Travel time estimation is planned but not yet implemented
	duration / status	Operational	
	spatial scope	Regional	
institutional context	policy framework	Developed and operated by the Danish Road Directorate (DRD) under its own internal traffic information collection and dissemination policy.	
	funding	Public funding through government national budget	
	information chain actors	Data acquisition: Own DRD road sensors Data fusion: Own DRD analysis system Informations supply: Own DRD traffic information Web-server Transmission: Own DRD traffic information Web-server Internet web Marketing and support: Non commercial Internet link distribution and from public and private local radio news broadcasts	
availability	distribution stage	Pretrip only	
	service procurement	Public - no payment	
	data acquisition	Fixed road sensors	
	data distribution	Internet only and seldom on public and private local radio networks	
contents	modal coverage	Mono modal road transport	
	information contents	Passive congestion and geographical traffic density information	
	user interaction	Passive Internet	
	retail options	None	

Denmark service no. 5	title	Travel time estimation Frederiksundsvej	Not yet in service
	region, city	Copenhagen	Regional Travel time estimation system based on averaged actual vehicle travel time measurements. Systems will be able to calculate actual travel time for users of the Internet on the covered road segments
	duration / status	Under development - operational 2003	
	spatial scope	Local – Copenhagen	
institutional context	policy framework	Local Copenhagen Municipality (CM) and Danish Road Directorate (DRD) in joint venture.	
	funding	Joint public funding between Local Copenhagen Municipality and Danish Road Directorate	
	information chain actors	Data acquisition: Public vehicle monitoring by cameras owned by DRD Data fusion: Joint owned computer system between CM and DRD Information supply: DRD Transmission: Internet web Marketing and support: Non commercial Internet link distribution	
availability	distribution stage	Pre trip only	
	service procurement	Public - no payment	
	data acquisition	Fixed camera locations	
	data distribution	Internet only	
contents	modal coverage	Mono modal road transport	
	information contents	Travel time estimates	
	user interaction	Passive Internet Interacting	
	retail options	None	

Denmark service no. 6	title	Parking Information Systems	http://www.aalborg-trafikinfo.dk/ No other links available
	region, city	Cities	7 cities including Copenhagen, Aalborg, Aarhus, Odense, Kolding, Svendborg and Vejle has implemented various parking information systems. Those systems are operated by the Municipalities but they provide benefits for both the public and private parking-houses and -lots.
	duration / status	Under development - operational 2003	
	spatial scope	Local	
institutional context	policy framework	Local Municipalities. No coordination or corporation except for Aalborg that was funded under the EU Jupiter 1 and Jupiter 2 projects.	
	funding	Public funding through the local Municipality.	
	information chain actors	Data acquisition: Public and Private Parking houses Data fusion: Local Municipality systems Informations supply: Parking houses Transmission: Municipality Marketing and support:	
availability	distribution stage	Real time delayed. One case of preplanning in Aalborg.	
	service procurement	Public - no payment	
	data acquisition	Fixed gate detectors	
	data distribution	Information displays distributed at strategic city locations. One case of Internet distribution.	
contents	modal coverage	Mono modal road transport	
	information contents	Free parking spots. In some cases the number of free spaces.	
	user interaction	Passive information	
	retail options	None	

Denmark service no. 7	title	QUO Vadis in Aalborg	No links
	region, city	Copenhagen	Route guidance system advising road traffic about the waiting time to cross the Limfjords bridge or alternatively the tunnel. The system utilises road detectors and calculates the total travel time based on vehicle speed over these local sensors through the two paths. The two results are displayed on VMS's strategically placed.
	duration / status	Under development - operational 2003	
	spatial scope	Local	
institutional context	policy framework	EU Quo Vadis project.	
	funding	EU Quo Vadis project, Danish Road Directorate (DRD) and the municipality of Aalborg	
	information chain actors	Data acquisition: DRD Data fusion: DRD Informations supply: DRD Transmission: Direct VMS Marketing and support: None	
availability	distribution stage	En route. Very delayed real time	
	service procurement	Publicly available- no payment	
	data acquisition	Fixed	
	data distribution	Local VMS	
contents	modal coverage	Mono Modal road transport	
	information contents	Travel time estimates and route guidance	
	user interaction	Passive VMS reading en route	
	retail options	None	

[Finland] [service no.1]	title	Information on weather and road conditions, and traffic situation	http://www.tiehallinto.fi/alk/english/
	region, city	whole Finland – main road network	Finnra's Internet service provides real time information on traffic situation, road conditions – information from road weather system, camera pictures from more than 100 cameras throughout country, road works and time tables for ferries.
	duration / status	until further notice	
	spatial scope	whole Finland – main road network	
institutional context	policy framework	Provided by road authority – enabling especially radio stations to use the information for broadcasting the information.	
	funding	State funded.	
	information chain actors	Finnish Road Administration	
availability	distribution stage	Real time. Pre-trip.	
	service procurement	Information available publically. Copyright by Finnra, to use the information for commercial purposes a contract must be made (the contract is used basically to confirm that information is used in proper way considering safety, fluency etc.) .	
	data acquisition	Real time information on traffic situation, road condition by road weather system. Camera pictures approx. twice per hour. Road works are informed to Finnra's traffic centres every day.	
	data distribution	Real time, Internet.	
contents	modal coverage	Road traffic.	
	information contents	7 days a week, 24 hours real time service on information on traffic situation, road conditions – information from road weather system, camera pictures from more than 100 cameras throughout country, road works and time tables for ferries.	
	user interaction	Interactive. (I.e. surfing on Internet)	
	retail options	none.	

[Finland] [service no.2]	title	Points of information	http://www ...
	region, city	Service stations (14 stations) on main road network	Content of the information is similar to Finnra's Internet: real time information on traffic situation, road conditions – information from road weather system, camera pictures from more than 100 cameras throughout country, road works and time tables for ferries.
	duration / status	until further notice	
	spatial scope	Whole country – 14 service stations on main road network	
institutional context	policy framework	Provided by road authority.	
	funding	State funded. The service station, or similar, provides the area for the equipment and its electricity.	
	information chain actors	Finnish Road Administration	
availability	distribution stage	"On trip" real time information.	
	service procurement	Information available publically.	
	data acquisition	Real time information on traffic situation, road condition by road weather system. Camera pictures approx. twice per hour. Road works are informed to Finnra's traffic centres every day.	
	data distribution	Internet based Point of Information.	
contents	modal coverage	Road traffic.	
	information contents	7 days a week, 24 hours real time service on information on traffic situation, road conditions – information from road weather system, camera pictures from more than 100 cameras throughout country, road works and time tables for ferries.	
	user interaction	Interactive. (I.e. surfing on Internet)	
	retail options	There has been minor development to combine the information with local tourism industry, but this has proved to be time consuming and fairly difficult to realize.	

[Finland] [service no.3]	title	Information on public transport via mobile phones, Internet, palm computers, communicator	http://pathfinder3.meridian.fi/ytv/eng/
	region, city	Helsinki Metropolitan Area (Helsinki, Espoo, Vantaa)	Public transport Journey Planner Customer enters the place of departure, time of departure/arrival and the destination. The places can be entered with address or pointed from map. Various personal set-ups for travel can be saved to search fastest travel, least walking, default, least transfers, own walking speed, number of presented possible route choices. The service calculates the route and provides on information on walking time, bus (or other mode) stop, possible transfer to other bus/tram/train/metro, walking to destination. The information can be presented as text or map with addresses.
	duration / status	until further notice	
	spatial scope	Helsinki Metropolitan Area (Helsinki, Espoo, Vantaa)	
institutional context	policy framework	Helsinki Metropolitan Area Council (YTV) provides the information on time tables. A private actor (data house) calculates the routes for YTV and provides the information also to mobile operator.	
	funding	YTV charges a small payment to cover the cost of data processing to the needed format from normal time table information. The private actor which provides the software for calculation charges mobile communication operators who once again charge the customers.	
	information chain actors	The Helsinki Metropolitan area council owns the information on time tables, a software company refines the data to format to be used on Internet and for mobile services. Mobile communication operators operate in contact with the customers.	
availability	distribution stage	Pre-trip (Internet), On-trip mobile communication.	
	service procurement	Publically available.	
	data acquisition	The Time Table Information is generated by YTV since it is responsible for public transport (among other things) in the Helsinki Metropolitan Area.	
	data distribution	Dynamic via Internet, WAP, SMS, Communicator,	
contents	modal coverage	Bus, tram, train, metro. Even calculates walking at transfers.	
	information contents	Information on public transport mode departure, arrival, stop, transfers, time consumed for travel, map of travel, addresses of transfers etc.	
	user interaction	Interactive, i.e. customer enters departure, arrival points, time of departure/arrival.	
	retail options	YTV charges a small payment to cover the additional cost for transferring the data and refining of the data. Software house charges mobile phone operators, who once again charge the customer.	

[Finland] [service no.4]	title	Information on weather and road conditions via mobile communication	no web site available
	region, city	Main road network	Information on driving conditions on main roads. Information is based on data from road weather system, the on-going or planned winter road maintenance actions and forecasted development of situation during the next 6 hours. Information can be obtained for a stretch of 250 km of main road network by mobile phone. The information is delivered by SMS.
	duration / status	Not public service (yet)	
	spatial scope	Main road network.	
institutional context	policy framework		
	funding	Basic data is collected and delivered by public actor to Finnish Road Enterprise. The primary aim of the information is the use for winter road maintenance. Finnish Road Enterprise is responsible for it's systems and data refining.	
	information chain actors	Basic data: road weather system data is provided by public authority (Finnra). Finnra also buys the weather forecasts from The Finnish Meteorological Institute. Finnish Road Enterprise (main actor) processes the obtained "basic" information to description of road condition in it's road maintenance management centres. The mobile phone operator operates as usual on with SMS.	
availability	distribution stage	The service has been recently launched on commercial basis. The information is both on-trip and pre-tirp.	
	service procurement	Commercial, personal.	
	data acquisition	Real time monitoring of road conditions by road weather systems, forecasts, information on ongoing winter road maintenance actions and planned actions.	
	data distribution	SMS	
contents	modal coverage	Road traffic.	
	information contents	Information on road condition.	
	user interaction	Interactive.	
	retail options	Charged by entry.	

France – 1	title	Bison Futé	http://www.bison-fute.equipement.gouv.fr Minitel : 3615 ROUTE Automated telephone line: +33 (0)8 26 022 022
	region, city	Nationwide (France)	Public service traffic information provided by the French Ministry of Public Works and Transport (Ministère de l'Equipement - METL)
	duration / status	Permanent	
	spatial scope	National	
institutional context	policy framework	Part of government policy to keep road users informed and help them to make informed travel decisions, e.g. by re-timing or re-routing journeys to avoid peak times or congestion blackspots.	
	funding	Public funds (Ministère de l'Equipement)	
	information chain actors	Ministère de l'Equipement - DSCR (road traffic and safety directorate): CNIR (national road traffic information centre) and the 7 CRICRs (regional information centres). Motorway information provided by the toll motorway companies Information also from the police and Gendarmerie	
availability	distribution stage	Pre-trip information (and on-trip by GSM phone). Real time.	
	service procurement	Public/general	
	data acquisition	Fixed and floating sources (traffic loops, police, video cameras, etc)	
	data distribution	Static and dynamic: Website, phone line, radio, TV bulletins, Minitel	
contents	modal coverage	Links to air, rail and sea transport portals. Urban transport, infrastructure developments, etc.. Everything related to the Ministère de l'Equipement.	
	information contents	Local or regional traffic conditions on the entire French road network (roadworks, restrictions, incidents, weather) and also summaries for bordering countries: Germany, Belgium, Spain, France, Italy, Luxembourg, United Kingdom and Switzerland and other countries. News and advice concerning road safety. Publications, Information on French school holidays and regions affected.	
	user interaction	Website and Minitel: passive (no personalisation). Phone line interactive. Website in French, with some information in English, German, Spanish and Italian.	
	retail options	None	

France – 2	title	Cofiroute - “Autoroutes du Grand Ouest et du Centre de la France”	http://www.cofiroute.fr
	region, city	Central-West France	Information for the Cofiroute-operated motorway network in Western and Central France. There is all the standard traffic information available from estimated journey time, road works on the area concerned, traffic conditions and links to other related sites.
	duration / status	Permanent	
	spatial scope	Regional	
institutional context	policy framework	Private initiative by Cofiroute	
	funding	Privately funded and run	
	information chain actors	Cofiroute	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Motorway’s own sources (cameras, etc)	
	data distribution	Static (general info) and dynamic (webcams and information on incidents, roadworks, etc)	
contents	modal coverage	Road (Cofiroute motorway network only)	
	information contents	General traffic and roadworks information (including webcams at 5 points on the network). Suggested itineraries, distances, average travel times and toll charges. Traffic predictions. Live Internet streaming of 107.7 FM traffic information radio.	
	user interaction	Passive (non-personalised website) and transactional (on-line registration for points scheme or application for Liber-T: see below)	
	retail options	Possibility of joining the “Fideliroute” loyalty scheme on-line, to collect points to gain reduced access to tourist sites. Opportunity to purchase the electronic toll badge ‘Liber-T’ which is accepted nationwide.	

France – 3	title	Escota	http://www.escota.fr http://www.escota.com Automated telephone line: +33 (0)8 36 69 36 36 ESCOTA Information Centre: +33 (0)4 93 49 33 33
	region, city	Southern France	Focusing on the most Southerly motorway in France. There is no access to real time traffic information rather they send the user to the Bison Futé site. The site provides a wide range of information destined for the motorway user. There is information from the tariffs, rest areas, breakdown services and costs of services. Traffic statistics and roadworks are also available.
	duration / status	Permanent	
	spatial scope	Regional	
institutional context	policy framework	Private initiative by Escota	
	funding	Privately funded and run	
	information chain actors	Escota	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Motorway's own sources	
	data distribution	Static	
contents	modal coverage	Road (Escota motorway network only)	
	information contents	General traffic and roadworks information, toll charges, rest area information, links to traffic information..	
	user interaction	Passive (non-personalised website) and transactional (application for Liber-T: see below)	
	retail options	Opportunity to purchase the electronic toll badge 'Liber-T' which is accepted nationwide.	

France – 4	title	Le Pilote	http://www.lepilote.com
	region, city	Bouches-du-Rhone département (Marseilles area)	This site includes transport information relating to the Marseilles area (Bouches-du-Rhône département). There is local bus and train information, traffic information, a journey planner and other links to related sites including regional sites proving information on parking facilities.
	duration / status	Operational since 1995	
	spatial scope	Local	
institutional context	policy framework	Partnership between Conseil Général Bouches-du-Rhone (local council) and RTM (Régie des Transports de Marseille - local public transport operator)	
	funding	Public and private funds (Conseil Général - local council)	
	information chain actors	RTM, Autobus Aubagnais, Bus de l'Etang, Interbus, Cartreize and Bus du Soleil (local bus and coach operators), SNCF (rail operator), DDE13 (local roads directorate), Ville de Marseille	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Timetable data, roadworks data from DDE13 and the city council, traffic updates from the DDE (cameras, loops, police, etc)	
	data distribution	Static information (planned roadworks, timetable data) and dynamic (traffic status)	
contents	modal coverage	Road, rail, local bus/metro, regional coach services, walking	
	information contents	Local train and bus information. Local events calendar. Road traffic information (roadworks, disruption), interactive public transport journey planner for the whole département (Marseilles and surrounding towns)	
	user interaction	Passive (general info) and interactive (journey planner)	
	retail options	None	

France – 5	title	Sytadin	Website: http://www.sytadin.tm.fr WAP server: http://wap.waptoo.com/trafic
	region, city	Ile de France (Paris region)	The information contained in this site concerns the Ile-de-France region. Real-time traffic information is available on the site
	duration / status	Full service	
	spatial scope	Local (conurbation)	
institutional context	policy framework	Provision of public information for road users	
	funding	Public: Service Interdépartemental d'Exploitation Routière (SIER), comprising the DRE Ile de France (roads directorate), Région Ile de France and the départements in Ile de France region	
	information chain actors	DRE Ile de France	
availability	distribution stage	Pre-trip, real time	
	service procurement	Public/general	
	data acquisition	Traffic loops, cameras	
	data distribution	Dynamic (Internet and WAP)	
contents	modal coverage	Road only (links to Cité Fûtée site for public transport information)	
	information contents	Current events concerning the traffic network (including pop-up screens with traffic alerts), real-time information (including a map of the main road network coloured according to whether the traffic is free-flowing, traffic jam, closure, roadworks, accident or information unavailable), journey time and route calculation, road closures, roadworks	
	user interaction	Passive (state of traffic) and interactive (itinerary planning)	
	retail options	None	

France – 6	title	Cité Futée	Website: http://www.citefutee.com Telephone: +33 (0)8 10 03 04 05 Personalised SMS and email services
	region, city	City of Paris and suburbs	Multimodal travel planner
	duration / status	Full service	
	spatial scope	Local (conurbation)	
institutional context	policy framework	Provision of public information for travellers in Paris	
	funding	RATP (public transport operator)	
	information chain actors	RATP, DRE Ile de France	
availability	distribution stage	Pre-trip, real time	
	service procurement	Public/general	
	data acquisition	Fixed (timetable and GIS data), public transport operations data.	
	data distribution	Static (general information) and dynamic (journey calculation)	
contents	modal coverage	Local public transport (bus, metro, RER [regional express metro])	
	information contents	Itinerary calculation engine, timetable and fare information, leisure ideas/information, city maps, personalised public transport travel information by email and mobile phone SMS available (registration on the website by entering the details of the most frequent journeys made)	
	user interaction	Interactive (journey planning) and passive (general information)	
	retail options	Link to Ticketic site for purchasing travel passes.	

France – 7	title	Ticketic	Website: http://www.ticketic.com
	region, city	City of Paris and suburbs	Public transport season ticket purchase on-line and personalised public transport information
	duration / status	Full service	
	spatial scope	Local (conurbation)	
institutional context	policy framework	Private initiative by operators	
	funding	Ticketic SAS (jointly owned by RATP Group, Vivendi Environnement and Connex [public transport operators])	
	information chain actors	RATP Group, Vivendi Environnement and Connex	
availability	distribution stage	Pre-trip ticket purchase. Personalised travel information	
	service procurement	Personal and commercial (for registered users who buy season tickets)	
	data acquisition	Ticketing data, public transport operations data.	
	data distribution	Dynamic (personalised information)	
contents	modal coverage	Local public transport (bus, metro, RER [regional express metro])	
	information contents	“Carte Orange” (season ticket) purchase. Personalised public transport travel information by email and mobile phone SMS available (registration on the website by entering the details of the most frequent journeys made)	
	user interaction	Transactional	
	retail options	Season ticket purchase (tickets are sent by post)	

France – 8	title	ASF - Autoroutes du Sud de la France	Website: http://www.asf.fr Automated phone line: +33 (0)8 92 70 70 01
	region, city	Central to Southern France plus Normandy	This site is run by the motorway authority responsible for the motorways between Lyon and Marseilles.
	duration / status	Full service	
	spatial scope	Regional	
institutional context	policy framework	Private initiative by ASF Group	
	funding	Private	
	information chain actors	ASF, ESCOTA, SAPN (toll motorway operators)	
availability	distribution stage	Pre-trip	
	service procurement	Public/general	
	data acquisition	Loops, cameras, etc	
	data distribution	Dynamic traffic situation	
contents	modal coverage	Road (only ASF motorways in Central-Southern France, ESCOTA motorways in the French Riviera and SAPN motorways between Paris and Normandy)	
	information contents	Real-time traffic information (clickable map), traffic predictions, rest areas, itineraries, toll tariffs, virtual tour of the network. Journey planning using Mappy calculation engine (see www.mappy.com)	
	user interaction	Passive (and also transactional: see retail option below). Available in French and English	
	retail options	Possibility of purchasing Liber-T (interoperable electronic toll badge for France)	

France – 9	title	SNCF	General site: http://www.sncf.com Intercity timetables and on-line booking: http://www.voyages-sncf.com or Minitel 3615 SNCF Regional rail information (except Ile-de-France): http://ter.sncf.fr or Minitel 3615 TER Suburban rail information for Ile-de-France (Paris region): http://idf.sncf.fr or Minitel 3615 TER Telephone: +33 (0)8 92 35 35 35 Personalised SMS and email services
	region, city	Nationwide (France)	France's national rail operator. Information includes timetables, journey planning, online booking, rail traffic updates (disruption, etc). All 3 SNCF websites are interlinked.
	duration / status	Permanent	
	spatial scope	National	
institutional context	policy framework	Private initiative by SNCF	
	funding	SNCF	
	information chain actors	SNCF, also timetable data from national railway networks in other countries for cross-border journeys	
availability	distribution stage	Pre-trip information.	
	service procurement	Public/general	
	data acquisition	SNCF (timetable and fare data, also updates on any disruption or service changes)	
	data distribution	Static (general info) and dynamic (online booking, journey planning, phone info, SMS info)	
contents	modal coverage	Rail (plus interurban coach services operated as part of the TER [Transports Express Régionaux] networks)	
	information contents	Timetables, fares, current traffic information, special offers, online ticket booking (for long distance journeys, including international journeys), punctuality of suburban trains arriving in Paris in the morning peak. Personalised information by email and mobile phone SMS available (registration on the TER website by entering the details of the most frequent journeys made)	
	user interaction	Interactive, transactional (e.g. route planning and booking). TER and Ile de France websites in French and English. Main line website (www.voyages-sncf.com) additionally in Spanish, German and Italian.	
	retail options	Online ticket booking (tickets can be sent by post or collected at a station)	

France – 10	title	Air France	http://www.airfrance.fr (also local sites outside France, e.g. www.airfrance.com (USA), www.airfrance.co.uk , www.airfrance.it , www.airfrance.de , etc)	
	region, city	Worldwide (www.airfrance.fr site for departures from France)		Air France timetable, destinations and general information, including frequent flyer information and flight bookings.
	duration / status	Full service		
	spatial scope	Worldwide		
institutional context	policy framework	Commercial site developed by Air France		
	funding	Air France		
	information chain actors	Air France (plus partner/codeshare airlines for flight bookings)		
availability	distribution stage	Pre-trip, real time (for flight running information)		
	service procurement	Public/general and personal (with personal profile or frequent flyer membership)		
	data acquisition	Air France (fixed information and flight running information)		
	data distribution	Dynamic (flight information, booking, air miles earned, etc)		
contents	modal coverage	Air (plus TGV high speed rail connections on links included in the “TGV’Air” scheme, i.e. linking Paris CDG airport with key regional destinations and carrying Air France flight numbers)		
	information contents	Journey planning, flight times, fares, flight running information (delays, cancellations), special offers, etc		
	user interaction	Interactive, transactional. Available in French, but other national sites in other languages		
	retail options	Online flight booking (with e-ticket, or ticket posted or to be collected at an Air France office)		

France – 11	title	Mappy	http://www.mappy.com (European site) / http://www.mappy.fr (French site). Other national websites also available (.de, .be, .it, .nl, .es, ...) Minitel (France): 3615 iTi or 3617 iTi WAP: http://wap.mappy.fr , http://wap.mappy.de , http://wap.mappy.co.uk , etc Free downloads for PalmPilots
	region, city	All of France, plus other European countries	<ul style="list-style-type: none">Provides itineraries and expenses incurredmaps, town maps and personal mapsholiday and excursions guidePalm and WAP services A comprehensive guide to everything needed for holidays, from maps to accommodation.
	duration / status	In existence since 1987 (on Minitel), 1996 (CD-ROM covering Europe). Website launched in 1997. Tourist information (France) added in 1998 and accommodation booking (France) in 1999 - extended to other European countries in 2000.	
	spatial scope	European	
institutional context	policy framework	Private service provider	
	funding	Self funded by Mappy (subsidiary of France Telecom). On-screen advertising. Also funded from partners (e.g. hotel groups) which list their products on the site.	
	information chain actors	<i>Data/information supply:</i> AA (Automobile Association, UK), IGN (Institut Géographique National, France), Navtech (Navigation Technologies), Exodus, Hahtsite, Oracle, Hémisphères (DataDraw editor, automatic map draw tool), , Ademe (French Environment and Energy Agency), ASFA (motorway operator), Bison Fûté (French national traffic information campaign), CNR (Comité National Routier, France), , Visionaute, www.gaultmillau.fr , www.isotools.com , www.marcellinos.de <i>Transmission:</i> Wanadoo Voila Régie (online advertising) <i>Marketing and support:</i> e-stat (measurement and certification of website audience), Directmoving, Envergure (hotel and leisure group), France Telecom, Groupe Accor (hotel group), Ministère de la Culture (France), Maison de la France, Ministère de l'Industrie - Direction des Hydrocarbures (France)	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Fixed sources (map data, etc)	

	data distribution	Internet, WAP, PalmPilot and Minitel services
contents	modal coverage	Only road
	information contents	Itineraries, maps, accommodation, travel costs (fuel and tolls)
	user interaction	Interactive (user enters trip origin, destination and other parameters). Also transactional (see below). Available in French, English, Dutch, German, Italian and Spanish
	retail options	Hotel booking

France – 12	title	ITI 2000	http://iti2000.3ct.com
	region, city	Europe (F, B, NL, L, CH, D, A, DK, I, E, P)	European trip calculation engine (prototype)
	duration / status	Test prototype	
	spatial scope	European	
institutional context	policy framework	Set up under the auspices of one of the TEN-T Euro-Regional Projects, as part of the EC's policy to harmonise TTI for road transport across Europe.	
	funding	Funded by the European Commission - DG TREN (as part of the multi-annual TEMPO programme for ITS) and the French public authorities (Ministère de l'Équipement - DSCR) through the ARTS and SERTI Euro-Regional projects.	
	information chain actors	Developed by CETE Sud Ouest (highway consulting service, part of the French Ministère de l'Équipement using information from national authorities in Europe. Marketing and support from the Ministère de l'Équipement (METL)	
availability	distribution stage	Pre-trip road information. Real-time traffic data included for France.	
	service procurement	Public/general	
	data acquisition	Fixed sources	
	data distribution	Internet. Dynamic data for France, proposed to make data in other countries dynamic too.	
contents	modal coverage	Road	
	information contents	Provides links to pre-trip road information web servers in France, Spain, Portugal, Italy, Andorra, SW Germany (Baden-Württemberg) and Switzerland	
	user interaction	Interactive: user enters trip origin and destination. Available in French and English	
	retail options	None	

France – 13	title	Centrico	http://www.itsproj.com/centrico/index.html
	region, city	Centrico area (Northern France, SE England, W Germany, Benelux)	Portal providing traffic and travel information for the Centrico area (links to the main road, rail, airport and local public transport sites)
	duration / status	Prototype: in operation since 2000	
	spatial scope	European	
institutional context	policy framework	Set up under the auspices of one of the TEN-T Euro-Regional Projects, as an effort to improve cross-border TTI.	
	funding	Funded by the European Commission - DG TREN (as part of the multi-annual TEMPO programme for ITS) and the CENTRICO partners (in France: the Ministère de l'Équipement - DSCR, the CETEs, Eurotunnel and motorway companies SAPN and SANEF).	
	information chain actors	Centrico partners.	
availability	distribution stage	Pre-trip information for various transport modes (depending on web link)	
	service procurement	Public/general	
	data acquisition	Various (depends on web link)	
	data distribution	Depends on web link	
contents	modal coverage	Road, rail, local public transport, air, Eurotunnel shuttle	
	information contents	No direct information: provides links to other sites via a clickable map.	
	user interaction	Depends on web link	
	retail options	None directly. Options depend on web link	

France – 14	title	Serti	http://safari.irobot.uv.es/serti4/servers.html
	region, city	Serti area (S & E France, N Italy, Switzerland, SW Germany, N & E Spain, Andorra)	Portal providing road traffic and travel information for the Serti area (links to national and regional websites, phone lines, WAP services, teletext services, etc)
	duration / status	Prototype: in operation since 2000	
	spatial scope	European	
institutional context	policy framework	Set up under the auspices of one of the TEN-T Euro-Regional Projects, as an effort to improve cross-border TTI.	
	funding	Funded by the European Commission - DG TREN (as part of the multi-annual TEMPO programme for ITS) and the SERTI partners (in France: the Ministère de l'Équipement - DSCR, the CETEs and motorway company ASF).	
	information chain actors	Serti partners. Site developed and hosted by Lisitt, Universitat de València (Spain)	
availability	distribution stage	Pre-trip information for road transport (some multimodal, depending on web link)	
	service procurement	Public/general	
	data acquisition	Various (depends on web link)	
	data distribution	Depends on web link	
contents	modal coverage	Generally road transport only. Other modes depending on web link.	
	information contents	No direct information: Site shows what media are available (Web, WAP, phone, teletext, radio stations, etc), what language(s) the information is available in and the responsible service provider	
	user interaction	Depends on web link.	
	retail options	None directly. Options depend on web link	

France – 15	title	Mon trajet	http://www.montrajet.com Telephone +33 (0)8 36 65 65 05
	region, city	Ile de France (Paris region)	Real time traffic and travel information and multimodal trip planner covering key parts (but not all) of the Parisian conurbation (including Paris, St Denis, Roissy Charles de Gaulle Airport and Evry)
	duration / status	Full service	
	spatial scope	Local (conurbation)	
institutional context	policy framework	Set up as part of the EC funded CAPITALS PLUS project – local partners are STP (Syndicat des Transports Parisiens), SNCF - Ile de France (rail operator), DRE Ile de France (roads directorate), Mairie de Paris (city council), SAN San Evry (council for the Evry conurbation of new towns) and Tice.	
	funding	CAPITALS PLUS partners (above)	
	information chain actors	Site set up and hosted by Carte Blanche Conseil (consultants). Information provided by the public road operator and transport operators	
availability	distribution stage	Pre-trip information, real time. Automated phone line also available fir updates	
	service procurement	Public/general	
	data acquisition	Fixed and floating sources (road and PT operators). Road information updated from the city (Ville de Paris) and regional (DRE-Ile de France) traffic control centres	
	data distribution	Dynamic by Internet and telephone	
contents	modal coverage	Road, rail, metro, tram, bus	
	information contents	Co-ordinated, integrated real time info, including waiting times, walking times, parking times, multimodal journeys (e.g. car then metro then bus), comparison of journey times/itineraries by different travel modes or combinations of modes. Real time traffic volumes/congestion shown in map form (distinguishes road network by free-flowing traffic, dense, slow moving, traffic jam, road blocked, routes not recommended, prohibited routes and unknown status) .	
	user interaction	Interactive. Mobile phone update service also available: when planning a journey on the Internet, a personal code will appear, and when entered on an automated phone line (non-WAP), automated voice updates are given on the relevant traffic or public transport situation. Website available in French (English introduction also available)	
	retail options	None	

France – 16	title	Association des Sociétés Françaises d’Autoroutes (ASFA)	http://www.autoroutes.fr Telephone: +33 (0)1 47 05 90 01 Minitel: 3615 Autoroute Radio: FM 107.7
	region, city	Nationwide coverage of the French motorway network	This is a comprehensive motorway portal for the French toll motorway network. Links are provided to other sites for real-time traffic information, means of paying tolls, etc. The site is a platform bringing together the eight motorway companies.
	duration / status	Permanent	
	spatial scope	National	
institutional context	policy framework	Private initiative by ASFA	
	funding	Privately funded and run	
	information chain actors	All eight French toll motorway companies (ASF, SAPRR, SANEF, SAPN, ESCOTA, ATMB, AREA, Cofiroute)	
availability	distribution stage	Pre-trip information (some on-trip on the available links)	
	service procurement	Public/general	
	data acquisition	ASFA data only on the website. Information on 107.7 FM from individual motorway operators.	
	data distribution	Static on this website. Dynamic information on some of the traffic information links. Dynamic information on Autoroute FM 107.7 (on a regional basis)	
contents	modal coverage	Road (French toll motorways only)	
	information contents	Information concerning the motorway network, the different companies, publicity campaigns, publications, toll rates, traffic conditions in real-time, estimated journey time and contact points, telephone, ‘Minitel’ radio.	
	user interaction	Passive. Website available in French and English. Autoroute FM 107.7 in French, with flashes in other languages (e.g. English, Italian) at certain times.	
	retail options	Links to operator sites allowing users to purchase the electronic toll badge “Liber-t”	

France – 17	title	EMIF - Entreprises et Mobilité en Ile de France	http://www.emif.fr
	region, city	Ile de France (City of Paris and suburbs)	Transport solutions for businesses in the Paris region
	duration / status	Full service	
	spatial scope	Local (conurbation)	
institutional context	policy framework	To encourage public transport accessibility of businesses, improve the travel conditions of employees and visitors to businesses, encourage use of public transport by businesses (commuting by employees, etc), Green travel plans for businesses, to advise businesses on optimum locations for new offices.	
	funding	EMIF - an economic interest group composed of RATP (public transport operator) and Chambre de Commerce et d'Industrie de Paris	
	information chain actors	RATP, CCI Paris	
availability	distribution stage	Strategic transport/travel planning	
	service procurement	Commercial (most of site is public, some parts require registration for personalised services)	
	data acquisition	Geographic information systems, timetables, etc	
	data distribution	Static	
contents	modal coverage	All modes	
	information contents	Information on management of public transport passes and reimbursement for companies, bulk purchase of public transport passes, examples and case studies of employee travel plans, advice on business location, contact information to allow the user to speak to a professional EMIF adviser.	
	user interaction	Passive (general information)	
	retail options	Bulk purchase of travel passes for employees	

France – 18	title	TCL (Transports en Commun Lyonnais)	Website: http://www.tcl.fr Telephone information line: +33 (0)4 78 71 7000 Minitel: 3615 TCL
	region, city	City and metropolitan area of Lyons (“Communauté Urbaine de Lyon”)	Public transport operator in Lyons. Travel planning, timetables, maps, tickets, service information, etc.
	duration / status	Full service	
	spatial scope	Local	
institutional context	policy framework	Commercial initiative by TCL - also supported by SYTRAL (public transport authority) as part of policy to encourage public transport.	
	funding	TCL, SYTRAL	
	information chain actors	TCL	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Fixed data (timetables, route maps), Real time information (major disruptions, etc)	
	data distribution	Dynamic (journey planning)	
contents	modal coverage	Local bus, metro, tram	
	information contents	Timetables, fare information, public transport maps, interactive journey planner (can choose a trip between any two stations, bus stops, major locations [e.g. public buildings, shopping centres, etc] or addresses), information on local attractions and how to reach them by public transport (including interactive trip planner to reach each attraction from any address in Greater Lyons).	
	user interaction	Interactive (trip planners)	
	retail options	None	

France – 19	title	SEMVAT	http://www.semvat.fr Telephone information line: +33 (0)5 61 41 70 70 Public transport operator in Toulouse. Travel planning, timetables, maps, tickets, service information, etc.
	region, city	City and metropolitan area of Toulouse	
	duration / status	Full service	
	spatial scope	Local	
institutional context	policy framework	Commercial initiative by SEMVAT (Société d'Economie Mixte des Voyageurs de l'Agglomération Toulousaine des Tansports Publics) - also supported by SMTC (public transport authority) as part of policy to encourage public transport.	
	funding	SEMVAT, SMTC	
	information chain actors	SEMVAT	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Fixed data (timetables, route maps), Real time information (major disruptions, etc)	
	data distribution	Dynamic (journey planning)	
contents	modal coverage	Local bus, metro, tram	
	information contents	Timetables, fare information, public transport maps, information on local attractions and how to reach them by public transport.	
	user interaction	Passive (except for selecting routes or stops for timetables)	
	retail options	None	

France – 20	title	Transpole (Transports en commun de la communauté urbaine de Lille)	http://www.transpole.fr Telephone information line: +33 (0)820 42 40 40
	region, city	City and metropolitan area of Lille	Public transport operator in the Lille Métropole area. Travel planning, timetables, maps, tickets, service information, etc.
	duration / status	Full service	
	spatial scope	Local	
institutional context	policy framework	Commercial initiative by Transpole - also supported by Lille Métropole Communauté Urbaine (public transport authority) as part of policy to encourage public transport.	
	funding	Transpole	
	information chain actors	Transpole	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general	
	data acquisition	Fixed data (timetables, route maps), Real time information (major disruptions, etc)	
	data distribution	Dynamic (journey planning)	
contents	modal coverage	Local bus, metro, tram	
	information contents	Timetables, fare information, public transport maps, interactive journey planner (can choose a trip between any two stations or bus stops in the Lille Métropole area and adjoining areas served [including through cross-border services to Belgium])	
	user interaction	Interactive (trip planners)	
	retail options	None	

France – 21	title	Eurostar	http://www.eurostar.com
	region, city	Paris/Brussels/Lille to London	Information and booking for the Eurostar high speed train service
	duration / status	Full service	
	spatial scope	International (France/Belgium - UK)	
institutional context	policy framework	Commercial site run by the French Eurostar operation (SNCF). Separate UK and Belgian sites exist.	
	funding	Eurostar (SNCF)	
	information chain actors	Eurostar (SNCF, SNCB/NMBS and Eurostar UK Ltd)	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general. Personalised service also available by logging on	
	data acquisition	Fixed (timetable and fare data).	
	data distribution	Static and dynamic	
contents	modal coverage	Rail (London/Paris/Brussels links only, plus through services to the south of France)	
	information contents	Timetable, fares, tourist information, frequent traveller information	
	user interaction	Interactive, transactional. Available in French and English	
	retail options	Ticket booking through partner site (SNCF)	

France – 22	title	Thalys	http://www.thalys.com Information and booking for the Thalys high speed train service
	region, city	Paris/Southern France to Belgium/Netherlands/Germany	
	duration / status	Full service	
	spatial scope	International (France/Belgium - UK)	
institutional context	policy framework	Commercial site run by Thalys (SNCF, SNCB/NMBS, DB and NS - rail operators of France, Belgium, Germany and the Netherlands)	
	funding	Thalys	
	information chain actors	SNCF, SNCB/NMBS, DB, NS	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general.	
	data acquisition	Fixed (timetable and fare data).	
	data distribution	Static and dynamic	
contents	modal coverage	Rail (Thalys services only)	
	information contents	Timetable, fares, tourist information	
	user interaction	Interactive, transactional. Available in French, English, Dutch and German	
	retail options	Ticket booking through partner site (SNCF for France)	

France – 23	title	Eurolines	http://www.eurolines.fr
	region, city	From France to other European countries	Information and booking for Eurolines coach services
	duration / status	Full service	
	spatial scope	International	
institutional context	policy framework	Commercial site run by Eurolines (France). Other national sites also available. Thalys (SNCF, SNCB/NMBS, DB and NS - rail operators of France, Belgium, Germany and the Netherlands)	
	funding	Eurolines	
	information chain actors	Eurolines	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general.	
	data acquisition	Fixed (timetable and fare data).	
	data distribution	Static and dynamic	
contents	modal coverage	International coach services	
	information contents	Timetable, fares, special offers	
	user interaction	Interactive, transactional. Available in French and English	
	retail options	Online booking of tickets and explorer passes	

France – 24	title	SNCM (Société Nationale Maritime Corse Méditerranée)	http://www.sncm.fr
	region, city	French mainland to Corsica	Information and booking for SNCM ferry services
	duration / status	Full service	
	spatial scope	Regional	
institutional context	policy framework	Commercial site run by SNCM	
	funding	SNCM	
	information chain actors	SNCM	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general.	
	data acquisition	Fixed (timetable and fare data).	
	data distribution	Static and dynamic	
contents	modal coverage	Ferry services	
	information contents	Timetable, fares, special offers, current ferry traffic conditions (delays, cancellations, etc), information for freight customers	
	user interaction	Interactive, transactional. Available in French and English	
	retail options	Online booking of tickets	

France – 25	title	SeaFrance	http://www.seafrance.com
	region, city	France to England	Information and booking for SeaFrance ferry services
	duration / status	Full service	
	spatial scope	Regional	
institutional context	policy framework	Commercial site run by SeaFrance	
	funding	SeaFrance	
	information chain actors	SeaFrance	
availability	distribution stage	Pre-trip information	
	service procurement	Public/general.	
	data acquisition	Fixed (timetable and fare data).	
	data distribution	Static and dynamic	
contents	modal coverage	Ferry services	
	information contents	Timetable, fares, special offers, current ferry traffic conditions (delays, cancellations, etc), information for freight customers, port information	
	user interaction	Interactive, transactional. Available in French and English	
	retail options	Online booking of tickets	

France – 26	title	SANEF (Société des Autoroutes du Nord et de l'est de la France)	http://www.sanef.com
	region, city	NE France (Paris/Calais/Lille/Reims/Strasbourg)	Toll motorway operator's website. General information on the network including schematic maps. Travel information (incidents, roadworks, congestion, weather).
	duration / status	Full service	
	spatial scope	Regional toll motorway network	
institutional context	policy framework	Private/commercial initiative	
	funding	Self-funded by SANEF	
	information chain actors	Data from SANEF. Weather data is provided by a link to Meteoconsult (www.meteoconsult.fr)	
availability	distribution stage	Pre-trip information. Some real time (2 webcams and map showing incidents/congestion).	
	service procurement	Public/general	
	data acquisition	Fixed and floating sources	
	data distribution	Mostly static, some dynamic	
contents	modal coverage	Road (SANEF motorway network only)	
	information contents	Maps, incident information, streamed audio link to 107.7 FM Autoroute Info radio station, information for HGV drivers (e.g. where to buy Eurovignettes)	
	user interaction	Mostly passive (route maps, incidents, etc). Can zoom in on maps. Active interaction for checking electronic toll tag transactions	
	retail options	Able to buy the Liber-t electronic toll tag on-line and check transactions made with existing badges.	

France – 27	title	SAPRR - (Société des Autoroutes Paris-Rhin-Rhône)	Website: http://www.saprr.fr
	region, city	Central and eastern France	Toll motorway operator’s website. General information on the network including schematic maps. Travel information (incidents, roadworks, congestion, weather).
	duration / status	Full service	
	spatial scope	Regional	
institutional context	policy framework	Private initiative by SAPRR	
	funding	Private	
	information chain actors	SAPRR, ATMB (neighbouring operator)	
availability	distribution stage	Pre-trip	
	service procurement	Public/general	
	data acquisition	Loops, cameras, etc	
	data distribution	Dynamic traffic situation	
contents	modal coverage	Road (only SAPRR and ATMB motorways)	
	information contents	Real-time map-based traffic information, traffic predictions, rest areas, itineraries, toll tariffs. Journey planning.	
	user interaction	Passive. Available in French; English and German versions under development	
	retail options	Info on how to buy Liber-T (interoperable electronic toll badge for France) – however, not on sale on the website.	

France – 28	title	Via Michelin	http://www.viamichelin.com (national portals www.viamichelin.fr , www.viamichelin.de , www.viamichelin.co.uk , www.viamichelin.ch and www.viamichelin.it also exist) Minitel (France): 3615 MICHELIN or 3617 MICHELIN WAP and PDAs: Michelin Red Guides available for WAP phones and personal digital assistants (Palm Pilot, etc) GPRS: Michelin maps available on i-mode (Netherlands only) <ul style="list-style-type: none">• Provides itineraries between any two points in Europe• Maps, town maps and personal maps• restaurant, hotel and tourist information (from the Michelin Red Guides and Green Guides)• CD-ROMs for Bosch/Blaupunkt and VDO GPS navigator systems (available for purchase)
	region, city	Europe-wide	
	duration / status	Minitel service for France established in 1989, covered European roads in 1992. Website in existence since 1997 (originally www.michelin-travel.com). CD ROM atlases and software systems for personal digital assistants launched in 2000. ViaMichelin established as a subsidiary of Michelin in 2001 and Michelin-Travel website became ViaMichelin.	
	spatial scope	European	
institutional context	policy framework	Private service provider	
	funding	Self funded by ViaMichelin (subsidiary of Michelin). On-screen advertising. Also funded from partners (e.g. hotel groups) which list their products on the site.	
	information chain actors	<i>Data/information supply:</i> Tele Atlas, Ordnance Survey, Weather Service International and TrafficMaster	
availability	distribution stage	Pre-trip information (web, etc); On-trip (GPS, etc)	
	service procurement	Public/general	

	data acquisition	Fixed sources (map data, etc), TrafficMaster (real time information)
	data distribution	Internet, WAP, PalmPilot and Minitel services
contents	modal coverage	Only road
	information contents	Itineraries, maps, accommodation, restaurants, tourist information
	user interaction	Interactive (user enters trip origin, destination and other parameters). Also transactional (see below). Available in French, English, German, Italian and Spanish
	retail options	<p>Purchase of GPS CD-ROMs produced in partnership between ViaMichelin and Tele Atlas (navigation CD-Roms for France, Germany, Great Britain, Benelux and Spain/Portugal which are compatible with the Travel Pilot systems from Bosch Blaupunkt) and in partnership between ViaMichelin and VDO (navigation CD-Roms for France and Benelux which are compatible with VDO's 'MS' systems).</p> <p>ViaMichelin Business Services: Business Map Module, Business Finder Modul, Interactive Information Point Module, Business Profile Module, Route Finder Module and On-Line Manager Module.</p> <p>Subscription to Michelin Poids Lourds (France only) – tailored services for road freight operators and drivers (tailor-made itineraries, mapping, practical information, data management, etc).</p>

Germany service no.1	title	Verkehrsmanagement Zentrale – VMZ*	http://www.v mzberlin.de <ul style="list-style-type: none">• multi-modal traffic information and journey planning for the general public• available pre-trip for collective devices; on-trip for individual devices envisaged• private TIC as service provider
	region, city	Berlin region	
	duration / status	since 2000 / partly operative	
	spatial scope	urban-regional	
institutional context	policy framework	Land Berlin commissioned in 1999 a private consortium (Daimler-Chrysler Services AG and Siemens AG) to set-up local TMC/TIC until 2003; operating consortium together with PT operators (S-Bahn Berlin GmbH and BVG); cooperation based on particular conditions and strategic orientations of private (enter/stay in the market) and public partners (leading role in ITS, new capital, “digital image”)	
	funding	public start-up finance (infrastructure is public property), private operation for 10 years contracted	
	information chain actors	<ul style="list-style-type: none">▪ data acquisition: Land (new equipment), city and police;▪ data processing: VMZ▪ information transmission: VMZ	
availability	distribution stage	Pre-trip (on-trip envisaged)	
	service procurement	free collective; likely addition of personalized information on a commercial basis	
	data acquisition	infrared sensors (2min. update), police reports, FCD (envisaged)	
	data distribution	VMS, internet, phone enquiry ; UMTS trial in June 2002; delivery to mobile phone/ PDA/ navigation systems envisaged	
contents	modal coverage	private car, PT (bus, metro, tram), rail (regional), bicycle, walking, airplane	
	information contents	private car journey planner, planned incidents, static parking information; real-time road and PT traffic situation, inter-modal PT journey planner, schedules and tariffs; journey planner for biking and walking; departures/arrivals at Berlin airports; city and street maps	
	user interaction	passive information; interactive journey planning	
	retail options	none	

* Comparable services: MOVE GmbH Hannover - <http://www.move-info.de>

Germany service no.2	title	Stadtinfo Köln*	http://www.stadtinfoKoeln.de/ <ul style="list-style-type: none">inter-modal traffic information and route planning for the general publicavailable pre- and on-trip; for collective and individual devicespublic TIC & private service providers
	region, city	Cologne region	
	duration / status	since 1998 / partly operative	
	spatial scope	urban-regional	
institutional context	policy framework	City of Cologne is leading and pro-active agent; long-term commitment and local ITS promotion programme (PVT); first applications in 1986 (parking-info system); additional funding as national research and demonstration project; public-private partnership between city, industry, services, university	
	funding	local, regional and national funds; additional national research fund; use of existing infrastructure	
	information chain actors	<ul style="list-style-type: none">data acquisition: public road authority, PT operatorsdata processing: urban TMC/TICinformation transmission: private telecom provider (NetCologne), TV and radio stations, newspaper	
availability	distribution stage	pre-trip and on-trip	
	service procurement	free collective TTI; individual TTI as value-added service	
	data acquisition	by city: area-wide loop detectors, infrared detectors	
	data distribution	collective: VMS, radio, videotext, TV, printmedia individual: internet, info-kiosk, in-car systems, TMC (DAB), mobile phone	
contents	modal coverage	PT, road, air, rail	
	information contents	multi-modal route planner for PT and private car with travel time+cost comparison, parking (prognosis, reservation, P&R), PT schedules, car navigation, un-/planned incidents, short-term traffic prognosis, weather forecast, district car pool, city information; links to railway route planner and Cologne airport schedules	
	user interaction	passive information; interactive journey planning	
	retail options	none	

* Comparable services: Mobilist Stuttgart – <http://www.mobilist.de>; Wayflow Rhein/Main - <http://www.wayflow.de>; Intermobil Dresden - <http://www.intermobil-dresden.de>; Mobinet Munich - <http://www.mobinet.de>

Germany service no.3	title	Bayern Info*	http://www.bayerninfo.de/ <ul style="list-style-type: none">▪ multi-modal traffic information and route planning for the general public▪ available pre- and on-trip; for collective devices▪ public TIC as service provider▪ private operation and addition of commercial services envisaged
	region, city	Germany / Bavaria (Munich, Nuremberg)	
	duration / status	1995-2000 / operative	
	spatial scope	regional	
institutional context	policy framework	part of IST promoting policy initiative of regional government (“BayernOnline”)	
	funding	public-private partnership: regional government, BMW, Daimler-Chrysler, Siemens, other private partners	
	information chain actors	<ul style="list-style-type: none">▪ data acquisition: road traffic information centers, railways (DB), airports▪ data processing: TIC (VIZ Bayern)▪ information transmission: TIC (Munich, Nuremberg); commercial application for specific user groups envisaged	
availability	distribution stage	seamless with PTA, 15min. updates	
	service procurement	free collective, possible addition of personalized information on a commercial basis	
	data acquisition	static for PT, dynamic for road; roadside cameras,	
	data distribution	internet, RDS/TMC, DAB (partially)	
contents	modal coverage	multi-modal information for railways, PT, road (P&R), air, bike, hiking	
	information contents	integrated route planning and schedule information for PT, railways and P&R; un-/planned incidents and traffic flow for private car	
	user interaction	passive information; interactive journey planning	
	retail options	none	

* Comparable services: MOBIN Baden-Württemberg; MoTIC Hessen - <http://www.hessen-media.de>

Germany service no.4	title	Tegaron*	http://www.tegaron.de <ul style="list-style-type: none">road navigation, journey planning and information enquiry for private end-users (aftermarket)available pre- and on-trip; for individual devicesprivate service provider
	region, city	Germany	
	duration / status	since 1997	
	spatial scope	national	
institutional context	policy framework	private joint venture of Daimler-Chrysler Services AG and Deutsche Telekom AG; service packaging for car manufacturers (Mercedes-Benz, Audi, Renault); sales on the aftermarket	
	funding		
	information chain actors	<ul style="list-style-type: none">data acquisition: from DDG (Deutsche Daten Gesellschaft – Joint venture of Vodafone and Deutsche Telekom AG) and public agencies;data processing: Tegaron (or partners)information transmission: Tegaron (or partners)	
availability	distribution stage	seamless	
	service procurement	pay service based on subscription or pay-per-use	
	data acquisition	roadside cameras and detection loops; geo- and other data-bases	
	data distribution	internet, navigation system, PDA, Smartphone (WAP, SMS), phone enquiry	
contents	modal coverage	private car	
	information contents	real-time road traffic situation, route planning and re-routing (on-trip), incident warning, emergency messaging, maintenance service, location-based information	
	user interaction	interactive journey planning and information enquiry	
	retail options	booking and reservation (hotel, event tickets, etc.)	

* Comparable services: PASSO <http://www.passo.de>

Germany service no.5	title	BMW Telematik	http://www.bmw.de/produkte/telematik/home/de/html/index.html <ul style="list-style-type: none">road navigation, journey planning and information enquiry for private end-users (vehicle-based)available pre- and on-trip; for individual devicescar-manufacturer as service provider
	region, city	Germany	
	duration / status	operative	
	spatial scope	European	
institutional context	policy framework	not applicable	
	funding	private	
	information chain actors	no information available	
availability	distribution stage	pre-trip and on-trip	
	service procurement	pay service based on subscription	
	data acquisition	no information available	
	data distribution	internet, navigation system, GSM	
contents	modal coverage	private car	
	information contents	road traffic and weather conditions, incident warning, re- routing and navigation, emergency messaging, tele-diagnosis, maintenance service; location based services	
	user interaction	interactive journey planning and information enquiry	
	retail options	booking and reservation (hotel, event tickets, etc.)	

* Comparable services: Opel OnStar <http://www.onstar.de>; VW Mobilservice <http://www.volkswagen.de/mobileservices>; Mercedes-Benz Portal <http://www.mercedes-benz.t-online.de>; Audi Telematics http://www.audi.com/de/de/kundenservice/audi_telematics/audi_telematics.jsp;

Germany service no.6	title	Reiseplanung	www.reiseplanung.de <ul style="list-style-type: none">road journey planning and information enquiry for the general publicavailable pre- and on-trip; for collective and individual devicesprivate system supplier as service provider
	region, city	Germany	
	duration / status	operative	
	spatial scope	European	
institutional context	policy framework	not applicable	
	funding	private	
	information chain actors	<ul style="list-style-type: none">data acquisition: ADAC, geo- and other data-basesdata processing: PTV AG (system supplier)information transmission: PTV AG and mobile network operator	
availability	distribution stage	pre-trip and on-trip	
	service procurement	free collective	
	data acquisition	real-time traffic data, geo- and other data-bases	
	data distribution	internet, WAP	
contents	modal coverage	private car	
	information contents	road traffic and weather conditions, route planning, incident warning	
	user interaction	interactive journey planning and information enquiry	
	retail options	none	

* Comparable services: Tele-Info – <http://www.tele-info.de>; ADAC – <http://www.adac.de>

Germany service no.7	title	City Companion*	http://www.city-companion.de
	region, city	7 major agglomerations	<ul style="list-style-type: none">• multi-modal journey planning and information enquiry for private end-users• available pre- and on-trip; for individual devices• private system supplier as service provider
	duration / status	operative	
	spatial scope	urban / national	
institutional context	policy framework	not applicable	
	funding	private	
	information chain actors	no information available	
availability	distribution stage	pre-trip and on-trip	
	service procurement	pay service based on subscription; partly free collective	
	data acquisition	no information available	
	data distribution	internet, PDA, smartphone	
contents	modal coverage	PT, private car	
	information contents	journey planning for PT and private car, urban navigation, location based services, event calendar, personal organizer	
	user interaction	interactive journey planning and information enquiry	
	retail options	none	

*Comparable services: DOM – <http://www.der-orientierte-mensch.de>

Germany service no.8	title	DB Reiseauskunft	http://www.db.de
	region, city	Germany	<ul style="list-style-type: none">• free inter-modal journey planner and information enquiry for general public• covers rail (inter-/national, regional and within Germany local), bus, taxi, ferry, walking; passenger and freight transport; schedules, tariffs, changeover, bicycle carriage; information for elderly & disabled; comparison PT/ private car/ air (travel times, cost, emissions); planned incidents; car-sharing offers; air travel planning and booking; (national) leisure events; travel agency; ticket purchase and print-out• available pre-trip (on-trip via phone enquiry)
	duration / status	operational since	
	spatial scope	country, EU-wide	
institutional context	policy framework	privatised railway operator offering TTI to increase attractiveness of the own transport service; voluntary data sharing with most urban PT associations (Verkehrsverbund)	
	funding	private (mainly public capital)	
	information chain actors	<ul style="list-style-type: none">▪ data acquisition: static data from PT associations and other railway operators; road maps and non-transport data from private providers▪ data processing: DB▪ information transmission: DB; partly information exchange with public urban TTI services	
availability	distribution stage	pre-trip	
	service procurement	free to general public	
	data acquisition	static data retrieval from PT operators and DB	
	data distribution	phone enquiry, internet	
contents	modal coverage	rail (inter-/national, regional and within Germany local)	
	information contents	inter-modal journey planning for rail (inter-/national, regional and within Germany local), bus, taxi, ferry, walking; passenger and freight transport; schedules, tariffs, changeover, bicycle carriage; information for elderly & disabled; comparison PT/ private car/ air (travel times, cost, emissions); planned incidents; car-sharing offers; air travel planning and booking; (national) leisure events; travel agency;	
	user interaction	interactive journey planning and information enquiry	
	retail options	ticket booking and purchase (rail and air), print-out (rail)	

[GREECE] [service no.1]	title	Dynamic Traffic Map	http://www.transport.ntua.gr/map
	region, city	Athens (central)	Provides an online information of traffic conditions in central Athens. A successful TTI application drawing a lot of publicity and many links. It has exceeded 30 million hits.
	duration / status	Since 1996 /active	
	spatial scope	Local	
institutional context	policy framework		
	funding	University research. Funded from own resources (National Technical University of Athens/ Department of Transportation Planning and Engineering).	
	information chain actors	Data are provided by the Urban Traffic Control (UTC) Center of Athens. The map regularly appears on AM TV (morning programs) and features on FM Radio news flashes.	
availability	distribution stage	Real time	
	service procurement	Public	
	data acquisition	Fixed (inductive loops sensors)	
	data distribution	Dynamic (internet)	
contents	modal coverage	Road traffic	
	information contents	Coverage in space and time (map based). Provides trip times along main routes.	
	user interaction	Passive and interactive (travel time option)	
	retail options		

[GREECE] [service no.2]	title	VMS display	http://www.cityofathens.gr
	region, city	Athens	The Municipality of Athens has installed a number of Variable Message Signs (VMSs) along arterial streets to provide information about access conditions to the city center.
	duration / status	Active	
	spatial scope	Local	
Institutional context	policy framework	Provided as a municipal service	
	funding	Municipal funds	
	information chain actors	Information is provided by the same research entity which also runs the Dynamic Traffic Map (see previous template) Information is provided on the road and over the internet at the Municipality's site.	
Availability	distribution stage	Real time	
	service procurement	Public	
	data acquisition	Messages are generated elsewhere (service maintained by continuing technical alliance between former project partners)	
	data distribution	Dynamic	
Contents	modal coverage	Road	
	information contents	Traffic conditions/ Travel times	
	user interaction	Passive	
	retail options		

[GREECE] [service no.3]	title	Bus route information	http://www.oasa.gr
	region, city	Athens	Provides information on Public Transit routes and trip frequency
	duration / status	Active	
	spatial scope	Regional	
Institutional context	policy framework	Part of policy programme	
	funding	Own	
	information chain actors	Own databases	
Availability	distribution stage	Pre-trip	
	service procurement	Public	
	data acquisition		
	data distribution	Static	
Contents	modal coverage	Public Transport	
	information contents		
	user interaction	Interactive	
	retail options		

[GREECE] [service no.4]	title	Adriatic sea crossing timetables and ticketing	http://www.greekferries.gr
	region, city	Greece/ Italy	An internet site offering information on the Adriatic sea crossing between Italy and Greece
	duration / status	Active	
	spatial scope	International	
Institutional context	policy framework	Private initiative	
	funding	Private (co-operative)	
	information chain actors	The site is maintained by a third party (Kavi Club S.A.) which does all the marketing and support	
Availability	distribution stage	Pre-trip service	
	service procurement	Commercial	
	data acquisition		
	data distribution	Internet	
Contents	modal coverage	Sea	
	information contents		
	user interaction		
	retail options	Booking and ticketing. May be combined with hotel reservations.	

[GREECE] [service no.5]	title	Short-sea shipping timetables and fares	http://www.dolphins.gr
	region, city	Greek seas	Internet site providing timetable information on short-sea transport within Greece.
	duration / status	Active	
	spatial scope	National	
Institutional context	policy framework	Private initiative	
	funding	Private (funding provided by Hellas Flying Dolphins)	
	information chain actors		
Availability	distribution stage	Pre-trip	
	service procurement	Commercial	
	data acquisition		
	data distribution	Internet	
Contents	modal coverage	Sea	
	information contents		
	user interaction		
	retail options		

[GREECE] [service no.6]	title	Railways timetables and fares	http://www.ose.gr
	region, city	Europe	Internet site providing timetable information and fare structure of rail transport
	duration / status	Active	
	spatial scope	International	
Institutional context	policy framework	Part of a policy program	
	funding	Public	
	information chain actors	Own databases	
Availability	distribution stage	Pre-trip	
	service procurement	Public	
	data acquisition	Fixed	
	data distribution	Internet	
contents	modal coverage	Rail	
	information contents		
	user interaction		
	retail options		

Hungary service no.1	title	ÚTMET – Road and Weather Information System	<ul style="list-style-type: none">Road and weather information system to support the winter road maintenance workThe information available for the Regional Road Operators and for the road maintenance centres
	region, city	about 200 stations in the whole country	
	duration / status	since 2000 (it was tested in the winter 2001/2002)	
	spatial scope	regional-national	
institutional context	policy framework	The participants of the project are the Road Department of the Ministry of Economy and Transport (previously the Ministry of Transport and Water Management), Technical and Information Services on National Roads (ÁKMI Kht.), and the Regional Road Operator of the 19 Hungarian County. In 1999 an invitation to tender was announced, and the Micks GmbH won the competition. The system was tested in the winter of 2001/2002.	
	funding	Public finance	
	information chain actors	Data acquisition: roadside stations (ÁKMI Kht.) and Hungarian Meteorological Service reports data fusion: ÚTMET centre server (ÁKMI Kht.) information supply: the ÚTMET centre gives the information to the Regional Road Operators and to the road maintenance centres (ÁKMI Kht.) transmission: data transmission via conventional phone service, GSM service, and via Internet	
availability	distribution stage	Real time	
	service procurement	The information is freely available for the Regional Road Operators and for the road maintenance centres. In the case of a possible further development the traffic/weather information will be displayed for the drivers on variable message sings.	
	data acquisition	Fixed by the roadside weather data collection stations (and Hungarian Meteorological Service reports)	
	data distribution	Dynamic; via GSM (meteoric station-ÚTMET centre), Internet (ÚTMET centre-meteorological server), ADSL (ÚTMET centre-Regional Road Operators), phone (Regional Road Operator-road maintenance centre), ISDN (ÚTMET centre-road maintenance centre)	
contents	modal coverage	Mono-modal (only for road sector)	
	information contents	The ÚTMET centre integrates the information coming from the roadside stations, from Hungarian Meteorological Service and from other stations outside ÚTMET system. There are about 200 weather data collection stations in Hungary, which covers the whole area of the country, these stations are collecting weather data in 24 hours a day.	
	user interaction	The users of the system are the road maintenance centres. If the weather situation (showed by the information) requires any measures, the road maintenance centres starts the required maintenance work (e.g. salt-spreading).	
	retail options	Using the weather information of the ÚTMET system by other system-providers, e.g. radio information services	

Hungary service no.2	title	PannonWap Navigator	<ul style="list-style-type: none">▪ Multimodal travel information service via WAP (by GSM)▪ Automatic positioning based object-searching service▪ The service ensures route-guidance and information about different objects/buildings for the owner of the mobile phone
	region, city	Budapest, its agglomeration and the county towns	
	duration / status	Since December 2000	
	spatial scope	Urban-regional	
institutional context	policy framework	Since December 2000 the main user of the system is the Pannon GSM Telecommunication Company as system-provider. Since February 2002 the service available not only in Budapest, but also in the county towns.	
	funding	Public private partnership	
	information chain actors	The information is transferred from the PannonWap Navigator server (Pannon GSM Telecommunication Company) to the user (the subscriber).	
availability	distribution stage	Pre-trip, and on-trip travel information service (route-guidance and information about different objects).	
	service procurement	The information provided by the PannonWap Navigator is available for the subscribers of the service. The users pay for the WAP services.	
	data acquisition	The system uses static data (maps of Budapest and the agglomeration, maps of the county towns, traffic engineering and Highway Code data basis, data basis of public transport services – stops, routes, schedules information, data base of tourism objects – programs, events, institutions, services, accommodation, cultural and health objects).	
	data distribution	The information is transferred from the PannonWap Navigator server to the mobile phone of the users (the subscriber) via WAP by GSM.	
contents	modal coverage	The service is multi-modal, it can be used for several transport modes (public transport, road, railway, bicycle, walking, etc.).	
	information contents	The system provides the users with static data (public transport information – stops, routes, schedules information, tourism information – programs, events, institutions, services, accommodation, cultural and health objects).	
	user interaction	After giving the required information the user can choose the right route, or can find the given objects.	
	retail options	The users of the PannonWap services pay for the WAP services to the system-provider. The completion with additional services is in development.	

Hungary service no.3	title	MAESTRO	<ul style="list-style-type: none">▪ Traffic control- and information system▪ The system consists of the traffic measuring network, the meteorological measuring network, the video cameras, the traffic control centre and variable message signs.
	region, city	M3 motorway and the surrounding roads	
	duration / status	Since 1999	
	spatial scope	Local/regional	
institutional context	policy framework	During the reconstruction of the M3 motorway electronic systems were build up along the motorway giving the base of the MAESTRO traffic control- and information system. The original system has been operating since 1999, and in 2001, after taking into account the experiences, the system was reshaped.	
	funding	The MAESTRO system was financed by and is operated by the Hungarian National Motorway Management Company Ltd.	
	information chain actors	data acquisition: the system contains a meteoric and a traffic measuring network. data fusion: the different data is integrated in the traffic control centre transmission: traditional cable (between the meteoric and traffic measuring stations and the traffic control centre, and between the traffic control centre and the VMS)	
availability	distribution stage	The information displayed on the variable message sings is on-trip, real time traffic and weather information.	
	service procurement	The information displayed on VMS are available for all road user along the M3 motorway (and on the surrounding roads).	
	data acquisition	The MAESTRO system contains 16 fixed meteoric stations and 96 traffic measuring loop detectors (in the pavement), and 8 rotatable cameras.	
	data distribution	The information displayed on VMS is dynamic information distributed from the traffic control centre via traditional cable.	
contents	modal coverage	mono-modal – the information is available only for the users of the M3 motorway.	
	information contents	The data from the meteoric and traffic measuring networks are integrated in the traffic control centre. On the variable message signs different traffic information is displayed (e.g. recommended route, speed, road construction work, congestion, heavy cross-wind, slippery road etc.).	
	user interaction	After giving the information the user can choose other (better) route, or can change his/her driving behavior, which is safer for the given road situation.	
	retail options	none	

Hungary service no.4	title	Elvira	http://www.elvira.hu <ul style="list-style-type: none">• free rail journey planner and information enquiry for general public• covers rail (international and within Hungary local) schedules, tariffs, changeover, bicycle carriage• available pre-trip via Internet, WAP, touch-info terminals at bigger railway stations
	region, city	Hungary	
	duration / status	operational since	
	spatial scope	country, EU-wide (for international traffic)	
institutional context	policy framework	subsidiary of the state railway operator offering TTI to increase attractivity of the own transport service	
	funding	public (Mávinformatika Kft.)	
	information chain actors	data aquisition: static data from schedule database and from other railway operators data processing: Mávinformatika	
availability	distribution stage	pre-trip	
	service procurement	free to general public	
	data acquisition	static data retrieval	
	data distribution	phone enquiry, internet, WAP, touch-info terminal	
contents	modal coverage	rail (international and within Hungary local)	
	information contents	journey planning for rail, schedules, tariffs, changeover, bicycle carriage	
	user interaction	interactive journey planning and information enquiry	
	retail options	booking available only by phone	

Hungary service no. 5	title	Útfelbontás (Electronic Registration system of road works of public utility malfunctions)	http://utbontas.fph.hu/ ▪ information system about road works of public utility ▪ interactive, map-based ▪ free, available via internet
	region, city	Budapest	
	duration / status	operational since 1997	
	spatial scope	local	
institutional context	policy framework	The Department of Transport of the Budapest Mayor's Office in co-operation with the Department of Informatics has started the development of an Integrated Transport Information System. As the first step, a sub-system has been created for the electronic announcement of the maintenance/repair works of public utility companies. Project partners were the Budapest Water Company and Gecomp Ltd.	
	funding	public	
	information chain actors	data acquisition: static data from district municipalities, road planners, operators of road network and public utility data fusion: Budapest Mayor's Office Department of Transport	
availability	distribution stage	pre-trip	
	service procurement	free public	
	data acquisition	central database of data provide of various organizations (district municipalities, road planners, operators of road network and public utility), geo database	
	data distribution	internet	
contents	modal coverage	road	
	information contents	road maintenance/repair works of public utility information	
	user interaction	interactive	
	retail options		

Republic Of Ireland	Title	INSTANT	
	Region, City	Dublin – Belfast Corridor	The INSTANT project (Information and Management System for Multimodal Transport in the Republic of Ireland and Northern Ireland) is currently at Feasibility Study stage. This is a European funded project which is based on a multimodal traffic management and information system for cross-border traffic between Dublin and Belfast.
	Duration / Status	Feasibility	
	Spatial Scope	Regional	
Institutional Context	Policy Framework	Regional initiative for cross-border traffic	
	Funding	EU Funded (Part)	
	Information Chain Actors	National Roads Authority (Republic of Ireland) and Roads Service (Northern Ireland)	
Availability	Distribution Stage	Feasibility Stage	
	Service Procurement	Feasibility Stage	
	Data Acquisition	Feasibility Stage	
	Data Distribution	Feasibility Stage	
Contents	Modal Coverage	Public Transport, commercial interests and private motorists	
	Information Contents	Feasibility Stage	
	User Interaction	Feasibility Stage	
	Retail Options	Feasibility Stage	

Republic Of Ireland	Title	STREETWISE	
	Region, City	UK and Ireland	This project aims to provide seamless and effective travel information on the TEN-T between the Republic of Ireland, Northern Ireland, Scotland, Wales and England. It therefore acts as a bridge to form part of a pan- European network of services.
	Duration / Status	Feasibility	
	Spatial Scope	Regional	
Institutional Context	Policy Framework	Regional initiative for cross-border traffic	
	Funding	EU Funded (Part)	
	Information Chain Actors	National Roads Authority (Republic of Ireland), Roads Service (Northern Ireland), Scottish Executive, National Assembly for Wales, Highways Agency (UK) and Departement of Transport and Local Government Regions (UK)	
Availability	Distribution Stage	Feasibility Stage – Pre and on-trip	
	Service Procurement	Feasibility Stage – General Public Information	
	Data Acquisition	Feasibility Stage	
	Data Distribution	Feasibility Stage – VMS	
Contents	Modal Coverage	Commercial interests and private motorists	
	Information Contents	Feasibility Stage – incident information	
	User Interaction	Feasibility Stage – passive	
	Retail Options	Feasibility Stage – n/a	

Republic Of Ireland	Title	Q-Time – Real Time Passenger Information	
	Region, City	Dublin Area	A pilot scheme of electronic information displays at bus stops has been in operation by Dublin Bus using a variety of technologies (GPS and central computer) to track the location of buses in real time and use this information to generate predictions of the bus arrivals at stops along the route.
	Duration / Status	Trial	
	Spatial Scope	Local	
Institutional Context	Policy Framework	Regional initiative to improve information for passengers	
	Funding	EU Funded (Part)	
	Information Chain Actors	Dublin Bus (Republic of Ireland)	
Availability	Distribution Stage	Pre-trip and real time information	
	Service Procurement	General Public Information	
	Data Acquisition	GPS and central computer	
	Data Distribution	Static VMS at stops	
Contents	Modal Coverage	Public Transport users	
	Information Contents	Journey times, journey planning, vehicle locations, waiting times	
	User Interaction	Passive	
	Retail Options	N/a	

Republic Of Ireland	Title	RTPI System	
	Region, City	Dublin Area	A real time information system at all stations on the DART line in Dublin. The DART is an electrified suburban rail service.
	Duration / Status	Trial	
	Spatial Scope	Local	
Institutional Context	Policy Framework	Regional initiative to improve information for passengers	
	Funding	EU Funded (Part)	
	Information Chain Actors	Iarnrod Eireann (Republic of Ireland)	
Availability	Distribution Stage	Pre-trip and real time information	
	Service Procurement	General Public Information	
	Data Acquisition	-	
	Data Distribution	Static VMS at stations	
Contents	Modal Coverage	Public Transport users	
	Information Contents	Journey times, journey planning, vehicle locations, waiting times	
	User Interaction	Passive	
	Retail Options	N/a	

Republic Of Ireland	Title	Motorway Management	
	Region, City	Dublin M50 Corridor	The use of ITS technology on the orbital M50 motorway which runs to the west of Dublin City. As a first measure all grade separated junctions on the M50 are being converted to automatic controllers under the management of the Dublin Corporation Traffic Control Centre (SCATS operation). This will mean that the traffic signals on the roundabouts will be controlled dynamically reflecting the changes in traffic volumes.
	Duration / Status	Trial	
	Spatial Scope	Regional	
Institutional Context	Policy Framework	Regional initiative to improve information for travellers on Dublin Orbital Motorway	
	Funding	-	
	Information Chain Actors	National Roads Authority (Republic of Ireland) and Dublin City Council	
Availability	Distribution Stage	On-trip and real-time	
	Service Procurement	General Public Information	
	Data Acquisition	Cameras	
	Data Distribution	VMS and internet	
Contents	Modal Coverage	Public Transport, commercial interests and private motorists	
	Information Contents	Journey planning, journey times, incident locations	
	User Interaction	Passive with demand responsive route planning due to incidents	
	Retail Options	-	

[Italy] [service no.1]	title	[Walkie]	http://www.walkie.it/
	region, city	[Veneto, Verona]	Dynamic inter-modal travel information, route planning. <ul style="list-style-type: none">▪ single private content organizer▪ internet-based and mobile▪ service provider
	duration / status	[ongoing]	
	spatial scope	[national]	
institutional context	policy framework	Not applicable	
	funding	Private	
	information chain actors	Data acquisition and fusion: back office center Information supply: public information media Info transmission: private service providers/network operators/mobility agency	
availability	distribution stage	Pre-trip/on-trip, real time; on-demand or pull services	
	service procurement	Public, general/personal: registration required.	
	data acquisition	Public information sources: radio, RDS-TMC, Teletext	
	data distribution	Dynamic: internet, e-mail, WAP, and SMS.	
contents	modal coverage	Multi-modal: roads and highways, PT, and parking.	
	information contents	Integrated: real-time traffic condition, route planning, parking availability, intermodal linkages, maps, journey times, incident information, etc.	
	user interaction	Interactive: demand responsive route planning.	
	retail options	E-advertising	

[Italy] [service no. 2]	title	Progetto 5T: Tecnologie Telematiche per i Trasporti e il Traffico a Torino	http://www.5t-torino.it/home.html Intermodal travel information
	region, city	Piedmont (Piemonte), Turin (Torino)	
	duration / status	Ongoing/Project started in 1992	
	spatial scope	Local (metropolitan area)	
institutional context	policy framework	As part of a policy program calling for the reduction of average car trips (-25%) and emissions (-18%) and fuel consumption (-18%), the Municipality of Turin established a consortium comprising 5 private companies and 2 public companies with the intent of developing an ITS based information architecture.	
	funding	Public-private partnership. Today the consortium includes ATM (Turin's public operator), AEM, FIAT, Magneti Marelli and Mizar.	
	information chain actors	Detailed information on data acquisition, data fusion, information supply, transmission, marketing and support not available. Aggregated information shows however that ATM (data acquisition, data fusion and information supply and transmission) plays a prominent role.	
availability	distribution stage		
	service procurement		
	data acquisition	Fixed source: 700 units at traffic lights, 11 emission monitoring stations, 100 passenger-counting units, 8 units at parking lots. Floating source: 50 equipped cars for traffic monitoring.	
	data distribution	Dynamic	
contents	modal coverage	Multimodal: PT, road, and parking.	
	information contents	Integrated: coverage in space and time, journey planning, journey times, vehicle locations, waiting times, incident information.	
	user interaction	passive/interactive/transactional [describe e.g. demand responsive route planning and mobility services]	
	retail options	booking, purchase, other than transport [describe e.g. booking of shared ride and PT tickets, tele-shopping, tourism, hotel reservation, tickets for leisure events]	

[Italy] [service no.3]	title	STA: road traffic portal in Rome	http://www.sta.roma.it/
	region, city	Rome	Dynamic mono-modal traffic conditions and event information services: a. Internet based b. Experimentation in the CAPITALS PLUS project with SMS and WAP navigation of event information c. Single public information
	duration / status	Ongoing	
	spatial scope	Urban Rome	
institutional context	policy framework	Facilitated by both national and local policy.	
	funding	Funded by both local and national funds: In part, funded by the national Jubilee funds projects (i.e. helped created the traffic control centre).	
	information chain actors	STA is responsible for the entire information chain from data acquisition to marketing/support.	
availability	distribution stage	Near real-time information for: Pre-trip On-trip was experimented, in collaboration with Blue Telecommunications in the CAPITALS PLUS project, with SMS messaging and WAP navigation of event information.	
	service procurement	General information publicly available without a fee	
	data acquisition	Fixed sources, video cameras	
	data distribution	Dynamic: Internet SMS messaging and WAP navigation of event information was experimented in collaboration with Blue Telecommunications in the Capitals Plus project	
contents	modal coverage	Mono-modal	
	information contents	Traffic conditions, incident and event information, maps	
	user interaction	interactive	
	retail options		

Italy [service no.4]	title	Società Esercizi Aeroportuali-SEA	http://www.sea-aeroportoimilano.it/
	region, city	Milan: Malpensa and Linate airports	<ul style="list-style-type: none">integrated real-time information on departures and arrivals for all airline operators (national and domestic) at the Linate and Malpensa (airports in Milan)free personalized email service for updates on the arrival and departures of those flights pre-selected by the user as being of interest.
	duration / status	ongoing	
	spatial scope	International and national commercial flights for the Linate and Malpensa airports	
institutional context	policy framework	pro-active: part of local initiative	
	funding		
	information chain actors	data acquisition: SEA data fusion: SEA information supply: SEA transmission: SEA marketing and support: SEA	
availability	distribution stage	integrated real-time information on departures and arrivals for all airline operators at the airport (international and domestic).	
	service procurement	public/general: general information publicly available	
	data acquisition		
	data distribution	dynamic: internet (portal navigation) and free personalized email service for updates on the arrival and departures of those flights pre-selected by the user as being of interest.	
contents	modal coverage	monomodal	
	information contents	Integrated for all airline carriers arriving at the airport. Includes planned arrival/departure times, updated estimates of arrival/departure times, terminal number of arrival or departure gate, baggage claim numbers, status (boarding, departed, arrived, etc.)	
	user interaction	Both interactive (user navigates in portal to obtain information desired) and transactional (user establishes a structure for receiving information updates by email)	
	retail options	None – just information on location of airport and weather	

[Italy] [service no.5]	title	[Infotrafic]	http://www.edidomus.it/auto/servizi/infotrafic/avvio.cfm
	region, city	[Lombardia, Milano]	Dynamic inter-modal travel information, route planning. ▪ single private content organizer ▪ internet-based
	duration / status	[ongoing]	
	spatial scope	[national]	
institutional context	policy framework	Not applicable	
	funding	Private	
	information chain actors	N/A	
availability	distribution stage	N/A	
	service procurement	Public, general/personal: registration required.	
	data acquisition	N/A	
	data distribution	Dynamic: internet, telephone.	
contents	modal coverage	Mono-modal: roads and highways.	
	information contents	Integrated: real-time highway and urban ring-roads traffic condition, route planning, live video cameras, and maps.	
	user interaction	Interactive: demand responsive route planning.	
	retail options	E-advertising.	

Italy [service no.6]	title	ATAC	http://www.atac.roma.it/ <ul style="list-style-type: none">dynamic inter-modal travel informationevent information
	region, city	Rome	
	duration / status	ongoing	
	spatial scope	regional	
institutional context	policy framework	pro-active: part of local initiative	
	funding	public	
	information chain actors	data acquisition: ATAC data fusion: ATAC information supply: ATAC transmission: ATAC marketing and support: ATAC	
availability	distribution stage	on-trip information: forecasted arrival times posted on panels in metro stations (ex. ATAC Rome), bus stop information on express buses (ex. ATAC Rome)	
	service procurement	public/general: general information publicly available	
	data acquisition		
	data distribution	dynamic: internet. The dynamic nature of the trip planning for ATAC involves altering the forecasted travel times based upon the time of day, applying a standard modeling distribution for the selected time period. It is not based upon near-real time information on road conditions or fleet management.	
contents	modal coverage	non-static intermodal journey planning (bus, metro, tram, and pedestrian)	
	information contents	integrated: journey planning, journey times	
	user interaction	Interactive: demand responsive route planning	
	retail options	Information on restaurants and hospitals	

[Lithuania] [1]	title	Real time weather conditions/ static traffic safety and conditions	http://www.lra.lt
	region, city	Lithuania	The system provides general information about traffic safety, traffic conditions (weather watch fully automatic data collection in real time/delayed) and road network. Meteorological conditions (Precipitation, Visibility, Air Temperature, Surface Temperature, Surface Condition, Wind Speed, Wind Direction) are presented almost in real time, i.e. the data collected with 0.5-2 hours periods. Some information are presented on information tables near roads. Road information system are prepared and digital road maps are easy available in Lithuania. Road classification according categories, road pavements are available.
	duration / status	Operating	
	spatial scope	national	
institutional context	policy framework	part of policy programme	
	funding	Financed by road developing programme	
	information chain actors	data acquisition: observation of traffic conditions on national level data fusion: LRA (Lithuanian Road Administration) information supply: LRA transmission: LRA marketing and support: none	
availability	distribution stage	Covers all LR territory and main roads, delayed	
	service procurement	public	
	data acquisition	fixed	
	data distribution	internet	
contents	modal coverage	mono-modal [road transport]	
	information contents	general information about traffic safety, traffic and road network. Not directly linked to other services, except national bradcats.	
	user interaction	passive	
	retail options	none	

[Lithuania] [2]	title	Maps of Lithuania, Vilnius, Panevezys towns	http://www.maps.lt
	region, city	National/city	Internet based interactive maps. Provide: <ul style="list-style-type: none">➤ Interactive maps➤ Printing option➤ Search of address or geographical locality➤ Geographical email➤ Geographical references
	duration/status	Operating	
	spatial scope	Lithuania, Vilnius, Panevezys	
institutional context	policy framework	Promotion of IT technologies	
	funding	Private "HNIT-BALTIC Geoinfoservisas"	
	information chain actors	data acquisition: Panevezys plan, Vilnius plan, Institute of Aerogeodesy, National Service of Geodesy and Cartography data fusion:"HNIT-BALTIC Geoinfoservisas" information supply: Panevezys plan, Vilnius plan, Institute of Aerogeodesy, National Service of Geodesy and Cartography transmission: "HNIT-BALTIC Geoinfoservisas" marketing and support: "HNIT-BALTIC Geoinfoservisas"	
availability	distribution stage	Pre-trip	
	service procurement	Public, registration is needed for additional services	
	data acquisition	fixed	
	data distribution	Internet, e-mail, e-reference; interactive	
contents	modal coverage	multi-modal	
	information contents	Journey planning, not linked to transport services	
	user interaction	interactive	
	retail options	Maps, data could be obtained	

[Lithuania] [3]	title	The Services of Port Klaipeda	http://www.spk.lt/ Provide a lot of information for the tourists and business. There are a lot of references to marine companies, tourist companies and Lithuanian Transport Resources Search Engine. Here you'll be able to search through Lithuanian transport resources: sites of Lithuanian shipping, cargo forwarding and stevedoring companies, other sites, related to another kinds of transport. English, Russian and Lithuanian languages are available.
	region, city	Klaipeda	
	duration / status	operating	
	spatial scope	City	
institutional context	policy framework	The port of Klaipeda is managed by the Authorities of Klaipeda State Seaport, the founders of which are the Communications Ministry of the Republic of Lithuania.	
	funding	Klaipeda Port	
	information chain actors	data acquisition: port data fusion: port information supply: port transmission: port marketing and support:port	
availability	distribution stage	Pre-trip	
	service procurement	public	
	data acquisition	Fixed sources, information center	
	data distribution	static	
contents	modal coverage	Multi-modal	
	information contents	Dues, maps, regulations, etc	
	user interaction	passive	
	retail options	Market place available	

[[Lithuania] [4]	title	Transport of Vilnius	http://www.vilniustransport.lt/e_index.htm
	region, city	Vilnius	Information is given in three languages: the history of Vilnius passenger transport in photos, short information on carriers and city routes, the Rules of Passenger Transportation approved of by Vilnius City Council, privileges, ticket prices, comprehensive references, extracts from laws granting privileges, news rubric, and, of course, full traffic schedules for each bus stop and each route, as well as route transport map of Vilnius.
	duration / status	operating	
	spatial scope	City/suburbs	
institutional context	policy framework	Initiative of Vilnius municipality and Municipal Enterprise Communication service (ME CS)	
	funding	Vilnius municipality	
	information chain actors	data acquisition: public traffic observation on site data fusion: ME SC information supply: ME CS, VGTU transmission: none marketing and support: ME CS	
availability	distribution stage	Pre-trip	
	service procurement	public	
	data acquisition	Observations on site, information center	
	data distribution	static	
contents	modal coverage	Trolleybuses, Buses	
	information contents	Vilnius map, dues, regulations, etc	
	user interaction	User can plan journey and coordinate it in each stop	
	retail options	none	

LUXEMBURG Service 1	title	national road TTI	www.etat.lu nation-wide traffic information mainly covering inter-urban roads is provided in live broadcasts (no RDS-TMC service is currently planned) by the private broadcaster RTL.
	region, city	Luxemburg	
	duration / status	operational	
	spatial scope	Luxemburg	
institutional context	policy framework	The main responsibility for traffic and travel information in Luxembourg lies with the Ministry of Public Works ⁵ , and more specifically with the Administration of Bridges and Roads ⁶ .	
	funding	Public funding through the national administration.	
	information chain actors	data acquisition and fusion: Administration of Bridges and Roads transmission: National broadcasters	
availability	distribution stage	pre-trip/on-trip	
	service procurement	general information is broadcast to the public free of charge; there are no initiatives to make public information available to private sector initiatives	
	data acquisition	automatic data collection: loops and cameras: installed since 1998 SOS telephones: are installed every 2 kilometres on virtually all motorways; their importance as a source of information on accidents and breakdowns has reduced a lot since most emergency calls are now made through GSM a network of 15 roadside weather detection stations are installed	
	data distribution	dynamic information live broadcasts map showing real-time traffic situation at www.cita.lu	
contents	modal coverage	mainly road	
	information contents	coordinated to cover at least all national motorways	
	user interaction	passive	
	retail options	none	

The Netherlands service no. 1	title	OVR	http://www.ovr.nl
	National service		The service provides the traveler with door-to-door information on a national scale, using all kind of public transport modes. The service started in 1992 as a telephone service and was continuously adjusted to the technological possibilities (a.o. nternet).
	duration / status	Since 1992	
	spatial scope	Country-wide	
institutional context	policy framework	Setting up such a service was part of a policy programme.	
	funding	Public/private. During the starting up phase the Ministry of transport contributed significantly in the costs of the service. Since some years the costs of the service are shared between the public transport operators and the income of the phone service.	
	information chain actors	data fusion [geographical information and time-table information of all public transport operators in the Netherlands is broad together]	
availability	distribution stage	pre-trip; delayed (mostly timetable information on trains also actual information. [internet and phone service])	
	service procurement	General (information is personalized because it relates to a specific trip)	
	data acquisition	Fixed (time-table information) and floating sources (delayed trains)	
	data distribution	static/dynamic; internet, phone.	
contents	modal coverage	multi-modal/inter-modal [e.g. railways, busses, trams, metro]	
	information contents	journey planning, journey times, vehicle locations (busses), waiting times (for connections), incident information (internet; major incidents)	
	user interaction	passive {information is provided that is available for a specific trip}	
	retail options	n.a.	

The netherlands service no. 2	title	TMC4U	http://www.tmc4u.nl A digital radio traffic information service is in the air. The advantages over traditional traffic radio broadcasts are that the information is being updated continuously and that the drivers can retrieve and select the information when they require (system is based on European standards). The national service started as a publicly financed services but evolved into a privately financed service.
	national	The Netherlands	
	duration / status	Since 1998	
	spatial scope	national	
institutional context	policy framework	Setting up such a service was part of a policy programme.	
	funding	The service started as a publicly financed service (enabler) and evolved into an publicly financed service.	
	information chain actors	Information supply (TIC-Netherlands)	
Availability	distribution stage	On-trip information (radio broadcasts and integration in navigation equipment)	
	service procurement	General	
	data acquisition	Monitoring network on motorways; observations by police	
	data distribution	Dynamic (RDS-TMC)	
Contents	modal coverage	Mono-modal (cars)	
	information contents	Traffic jams and incident information	
	user interaction	Passive	
	retail options	n.a.	

The Netherlands Service no. 3	title	TravelStar	http://www.travelstar.nl
	national	The netherlands	Multi-functional device (palmtop) that can be loaded with an application to display the RDS-TMC messages on your route (see fig.2 report).
	duration / status	2001	
	spatial scope	Country-wide	
institutional context	policy framework	The policy of the Ministry of transport included to act as an enabler to get affordable devices (which are able to display traffic information) on the market.	
	funding	Public/private	
	information chain actors	Information supply (TIC-Netherlands)	
availability	distribution stage	n.a.	
	service procurement	n.a.	
	data acquisition	RDS-TMC signal	
	data distribution	n.a.	
contents	modal coverage	Mono-modal (road information)	
	information contents	Traffic jams and incidents	
	user interaction	Passive	
	retail options	Purchase in several shops.	

The Netherlands Service no. 4	title	Traffic management services	Traffic signaling system; Fog warning system; DRIPS; Monitoring system; Ramp metering etc.
	national	The Netherlands	During the last ten to fifteen years a large variety of traffic management and traveler information systems were implemented on the Dutch motorway network to improve the efficiency of traffic flows and to provide the drivers with information about the situation on the road.
	duration / status	Evolving since mid 80s	
	spatial scope	Country-wide	
institutional context	policy framework	Pro-active. Part of a policy programme	
	funding	Public (Budget Ministry of transport)	
	information chain actors	Data acquisition (monitoring network; signaling system) Information supply (DRIPS)	
availability	distribution stage	On-trip (signaling system; fogwarning, DRIPS) Pre-Trip (basis for traffic information services)	
	service procurement	Public	
	data acquisition	Fixed data collection network.	
	data distribution	Dynamic. (real-time warning systems for traffic jams/fog)	
contents	modal coverage	Mono-modal (road information)	
	information contents	Traffic warning system (incident/traffic jam ahead; fog; delay time)	
	user interaction	Passive	
	retail options	n.a.	

Norway 1	title	Traffic Info Gardermoen	www.vegvesen.no/gardermoen Dynamic travel time information for the E6 between Oslo and the Airport at Gardermoen. Information is given on delay, travel time, travel time trend, Video images. In addition information and web-link to alternative modes. <ul style="list-style-type: none">• Internet-based• VMS• Traffic announcement phone
	region, city	Oslo	
	duration / status	Open since 1998. (Currently down for maintenance)	
	spatial scope	Regional, E6 between Oslo and Gardermoen Airport	
institutional context	policy framework	Part of the traffic management plan developed for the opening of the new airport in 1998	
	funding	Public Roads Administration, Research Council of Norway	
	information chain actors	Public Roads Administration in the County of Akershus is responsible for all the steps in the chain. Local radio stations use information on web in their own traffic messages.	
availability	distribution stage	Pre-trip/On-trip information	
	service procurement	The service is available for free	
	data acquisition	<ul style="list-style-type: none">• Video detectors (CCATS)• Inductive loops• ITV cameras for verification	
	data distribution	Dynamic information on Internet, VMS and Traffic announcement phone	
contents	modal coverage	Mainly road, but messages and internet-links are given for alternative modes	
	information contents	Stylistic map with Delay on sub-links. Total travel time, Trend, Historic travel time, Still pictures, Traffic messages	
	user interaction	Select direction, and which of the contents to be displayed	
	retail options	-	

Norway 2	title	RDS-TMC	Standard RDS-TMC. Pilot program, scheduled for summer 2002. Possible full installation within 2003
	region, city	Oslo, Akerhus and Østfold	
	duration / status	Test site to be opened in summer 2002	
	spatial scope	Regional	
institutional context	policy framework	Part of national strategy for TTI	
	funding	Public	
	information chain actors	Information supply: Public Roads Administration Transmission: Norkring	
availability	distribution stage		
	service procurement	Public	
	data acquisition		
	data distribution	RDS-TMC	
contents	modal coverage		
	information contents		
	user interaction		
	retail options		

Norway 3	title	Dynamic TTI messages	http://www.p4.no/trafikk http://telenormobil.no/tjenester/trafikkinfo
	region, city	Whole country, but most of the messages are give for the region around Oslo	Dynamic TTI messages with information on Accidents, Road conditions, Network performance etc. Data sources are Police, General public, Public Roads Administration, and a traffic helicopter (Oslo). TTI available on WEB, WAP and SMS
	duration / status	Available since 2001	
	spatial scope		
institutional context	policy framework	Private initiative from P4 (Radio channel), and Telenor Mobil (Mobile Network Operator)	
	funding	Public-private partnership, with support from Research Council of Norway	
	information chain actors	Data acquisition: Public Roads Administration, Radio channel (P4) Data fusion and information supply: Private TTI service center/Radio Channel (P4) Information supply: TTI-DB supplier (Bravida Geomatikk), Private TTI service center/Radio Channel (P4) Transmission: Mobile Network Operator/TTI Service Provider (Telenor Mobil) Marketing & Support: Radio Channel (P4), Mobile Network Operator/TTI Service Provider (Telenor Mobil)	
availability	distribution stage	Pre-trip and On-trip real-time information	
	service procurement	General information publicly available (WAP, WEB). Additional payment for personalized service (SMS).	
	data acquisition	Road users, Police, Traffic helicopter	
	data distribution	Dynamic, WEB, WAP, SMS, (PDA). (WAP-service is currently down)	
contents	modal coverage	All modes, but predominated by road messages	
	information contents	Accidents, Road conditions, Network performance, Weather conditions, Diversion advise etc	
	user interaction	May specify area/section of interest	
	retail options		

Norway 4	title	Trafikanten	www.trafikanten.no wap.trafikanten.no
	region, city	The counties of Akershus and Oslo	Dynamic Public Transport information service with Journey planner, Time tables, Traffic messages, and other more general PT information and news. Also possibility to buy travel cards.
	duration / status		
	spatial scope	regional	Available on phone, WEB and WAP.
institutional context	policy framework	Trafikanten is the local partner of the national "Ruteopplysningen 177" an association of PT companies and others who distributes PT information.	
	funding	Funded by Oslo og Akershus Trafikkservice AS, which is a private company own by the PT companies in the region	
	information chain actors	Trafikanten stores and collects information from the PT companies in the region (AS Oslo Sporveier, Stor-Oslo Lokaltrafikk a.s og Norges Statsbaner)	
availability	distribution stage	pre-trip	
	service procurement	general information publicly available	
	data acquisition		
	data distribution	Phone, WEB and WAP	
contents	modal coverage	All PT modes	
	information contents	Journey planner, Time tables, maps, Traffic messages, PT News and some tourist information	
	user interaction	Interactive journey planner	
	retail options	Possible to purchase the different types of travel cards available in Oslo and Akershus	

Poland service no. 1	title	GDDKiA web site	http://www.gddp.gov.pl <ul style="list-style-type: none">Internet web site information on current condition on public roads in PolandSite prepared and run by national road transport administrator - General Directorate of National Roads and Motorways (GDDKiA, former GDDP)
	region, city	national	
	duration / status	Currently running	
	spatial scope	national	
institutional context	policy framework	Information on that web site comes from regional road transport administration with no cooperation with private sector.	
	funding	Public, state budget	
	information chain actors	data acquisition : Local branches of GDDKiA data fusion : central GDDKiA in Warsaw information supply : GDDKiA transmission : web based marketing and support : no	
availability	distribution stage	pre-trip	
	distribution mode	static internet	
	service procurement	free public web-site	
contents	modal coverage	intercity road transport	
	service scope	Information on: road condition during winter period, road closures, accidents, road works etc.	
	user interaction	passive	
	retail options	None	

Poland service no. 2	title	Korkonet web site and SMS service	http://www.korkonet.pl <ul style="list-style-type: none">Internet web site information on current traffic condition on streets in WarsawSite prepared and run by private operatorSMS information service on traffic condition in city
	region, city	Warsaw	
	duration / status	Currently running	
	spatial scope	City District	
institutional context	policy framework	Information on that web site comes from private sector with no co-operation with public authorities.	
	funding	Private.	
	information chain actors	data acquisition : digital cameras financed by private company (data from the camera presented with information on its sponsor), data from taxi corporations, delivery companies and private sources (e.g. information application form on web site) data fusion : Korkonet information supply : Private sources transmission : web based and telephone marketing and support : local taxi corporations, delivery companies and radio station	
availability	distribution stage	pre-trip and on-trip (GSM - SMS service)	
	distribution mode	dynamic internet and GSM	
	service procurement	free of charge public web-site, monthly subscription for SMS service.	
contents	modal coverage	private road transport, links to other sites providing information on other transport modes	
	service scope	Information on traffic condition in Warsaw (views from digital cameras situated on most important points in Warsaw and other sources listed above, text information via SMS service).	
	user interaction	very limited	
	retail options		

[Portugal] [service no.1]	title	AMMOS- Service oriented multimedia multimodal access	http://www.ammos.pt/ and Kiosks with tactile screens
	region, city	Lisbon	The AMMOS project includes an Internet site (already available) and multimedia kiosks (planned). They are a multimodal information system of the Lisbon Metropolitan area. This is a new project in Portugal and includes the main transport operators in Lisbon, namely Carris ⁷ , CP ⁸ , Metropolitano de Lisboa ⁹ and Transtejo ¹⁰ as well as ANA, responsible c) the management of portuguese airports, and TELEPAC as a portuguese Telecom operator. It allows the optimisation of the different operator lines, taking into consideration the schedules, and giving the final user the possibility of choosing by their preferences. It also includes real time information timetables of the Lisbon Airport flights.
	duration / status	Internet Site:24 hours/available Multimedia kiosks: Not fixed/ planned.	
	spatial scope	Internet Site: World-wide Multimedia kiosks: Lisbon	
institutional context	policy framework	This project started associated with the World-wide Lisbon Exposition EXPO'98. It was created by a protocol among the most important Lisbon Transport Operators (CARRIS, CP, METRO and TRANSTEJO), the Portuguese Airport Manager (ANA , SA), a Portuguese Internet Enterprise (TELEPAC) and the EXPO 98.	
	funding	ANA, CARRIS, CP, METRO, TRANSTEJO, TELEPAC and the EXPO 98 funded the project, with equal share.	
	information chain actors	The data is acquired through the different entities involved. There is a specific interface (software) to allow the entities involved to update their own information.	
availability	distribution stage	Pre-trip and for flight information, real time.	
	service procurement	Personal, general and public information.	
	data acquisition	The AMMOS transport information is obtained through the companies, that subscribed the protocol: ANA, CARRIS, CP, METROPOLITANO DE LISBOA, TELECOM/TELEPAC and TRANSTEJO. The GISmídia Enterprise is the company that developed the application software and delivers the complementary information about Lisbon area, obtained from the Lisbon City Council and at INFOCID (Administrative modernisation Department).	
	data distribution	Internet site: Internet.	
contents	modal coverage	Multi-modal	
	information contents	Integrated. Lisbon Metropolitan Area, Journey Planning, Journey Times, Route Planning, Consultation of the existing schedules and available departure and arrivals of the Lisbon Airport.	
	user interaction	Interactive	
	retail options	Internet Site: Tourist Information (Hotels, events, Restaurants) Multimedia kiosks: Not yet known.	

[Portugal] [service no.2]	title	Radio Stations	Free Telephone Lines for traffic information (as an example +351800201287), radio programmes with traffic information.
	region, city	National	Some radios stations supply information on traffic conditions in peak times and have free telephone numbers to request for specific traffic information. The RDS System is an automatic search by traffic conditions available in some car radio equipment.
	duration / status	-/available	
	spatial scope	National	
institutional context	policy framework	Initiative by the Radio Stations.	
	funding	Radio Stations.	
	information chain actors	The Data is obtained trough the CIRPOR (Traffic Control and Information Centre of the Portuguese Road Institute), Police Transit Department and the passenger (some end-users supply information to the radio stations by the free telephone lines).	
availability	distribution stage	Pre-trip/on-trip	
	service procurement	Free telephone lines: personal. Radio programmes: public/ general.	
	data acquisition	Telephone, Internet, Fax.	
	data distribution	Telephone and Radio frequency.	
contents	modal coverage	Mono-modal (private road transport)	
	information contents	Traffic Information, such as accidents, weather conditions that may influence the traffic, congestion, amongst others.	
	user interaction	Free telephone lines: Interactive (the traveller not only receive the required information but sometimes also inform the Radio on occurred incidents). Radio tuning and RDS: Passive.	
	retail options		

[Portugal] [service no.3]	title	Air TTI Services	DPI indicators and Internet Site (http://ana-aeroportos.pt/)
	region, city	Portuguese Airports	The ANA Company has DPI (dynamic passenger information) terminals (panels and monitors) in the Portuguese Airports with real-time information on departures and arrivals (before and after the check-in point). Additionally, it has an Internet site with real-time information about departures and arrivals in all the Portuguese airports.
	duration / status	DPI:-/Available/ 24 hours Internet Site:24hours/available.	
	spatial scope	DPI: All commercial flight departures and arrivals at Portuguese Airports. Internet Site: Worldwide.	
institutional context	policy framework	Own initiative by ANA (The Portuguese Airport Manager).	
	funding	ANA, Aeroportos de Portugal, S.A.	
	information chain actors	The data is processed by ANA, and then displayed in the Dynamic Passenger information Equipments and in the Internet Site.	
availability	distribution stage	Pre-trip/real time	
	service procurement	Public / Personal	
	data acquisition	Flight operators and Traffic Control Centre	
	data distribution	Dynamic	
contents	modal coverage	Mono-modal	
	information content	DPI: co-ordinated; covering the respective airport; data related to a specific flight (number of flight, boarding time, Airline Company and Destination). Internet Site: It incorporates information on flight numbers, Airline company, Origin/Destination, via, time Schedule, check-inn time, status and Flight track.	
	user interaction	DPI: No user interaction. Internet Site: Interactive search, It is possible to search for Lisbon, Faro, Porto, Ponta Delgada and Madeira airports flight information by hour, day, Airline Company, Origin and Destination. In the main page it has a WAP simulator and a link to Macao Airport Web Site.	

	retail options	<p>The ANA web site has also the following information: the company, traffic data, photo gallery. From the ANA web site it is possible to enter into a specific airport, where the following type of data is available:</p> <ul style="list-style-type: none"> • Access Mode (motorways and roads of access to the airport, for those arriving in private cars, and exiting public transport); • Shopping and eating (where it is possible to chose the desired kind of product, with location maps, shops and restaurants); • Utilities (information on parking prices and capacity, 24 hour telephone number and other places to gather information, Public Relations and VIP and CIP11 assistance, Luggage Deposit, Banks, Mail Stations, Tourism, Lost-and-found office, First Aid Office, Handicapped Support, Reservation telephone numbers); • Security Information; • Travelers & Tourist Guides. • Utilities (Post Office, Tourism, Financial Services, Rent a Car and Parking). • Contacts.
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[Portugal] [service no.4]	title	SIGITI	Planned Internet Site (to be implemented by steps between end 2002 and 2004)
	region, city	Mainland Portugal	The Portuguese study, SIGITI (Geographic interactive information system for Interurban transports) is currently ongoing . It envisages the development of an Internet Portal, to become the Institutional Portuguese Multimodal Transport information Site, integrating the information about metropolitan Areas Transports namely AMMOS.
	duration / status	Not known/study	
	spatial scope	Worldwide	
institutional context	policy framework	Initiative by the Transport Ministry (DGTT)	
	funding	It is supported by the FEDER and DGTT	
	information chain actors	Information to be provided by operators and validated by DGTT. A GIS software application with specific interface for data input is under development.	
availability	distribution stage	Pre-trip	
	service procurement	Personal, general and public information.	
	data acquisition	Transport operators and institutional information.	
	data distribution	Internet (on a 1 th phase); expected also, kiosks, call centers, mobile communications terminals.	
contents	modal coverage	Multimodal	
	information contents	It allows the search for the best transport solution for the desired journey, not only for Portugal Mainland, also for some the urban centres. This Site will include GIS information, digital maps, schedules and an Intelligent algorithm of journey calculation.	
	user interaction	Interactive	
	retail options	Information provider for Telecom Operators Museums, Hotels, Health Organizations, Sports Events, Fairs and Exhibition.	

[Portugal] [service no.5]	title	Internet Site and E-mail, Telephone number, Fax	http://www.transtejo.pt/princi.htm
	region, city	Lisbon	Transtejo is an Inland waterway operator on the Tagus River (Lisbon). The company has an Internet site (http://www.transtejo.pt/princi.htm), a telephone and fax number for passenger information, doubts and comments.
	Duration / status	Internet Site, e-mail and Fax: 24 hours/available Telephone: -/ available	
	spatial scope	Worldwide	
institutional context	policy framework	Own Initiative by a public owned transport company (Transtejo).	
	funding	Transtejo	
	information chain actors	Data supply by Transtejo (operator).	
availability	distribution stage	Pre-trip	
	service procurement	Personal, general and public information.	
	data acquisition		
	data distribution	Internet, E-mail, Telephone, Fax	
contents	modal coverage	Mono-modal	
	information contents	The Site information include timetables, history, tourism, boats, administration, employment opportunities within the Company, 1 st Boat, development of operating boats, existing journeys, the company journal, statistics within the company, prices, sales, company strategy and policy and company structure. The Telephone number provides information on timetables, boats, available journeys and prices.	
	user interaction		
	retail options	Not known.	

[Portugal] [service no.6]	title	Telephone Number	+351210336500
	region, city	Lisbon	The Soflusa is an Inland waterway operator on the Tagus River (Lisbon). The company has provides information to the passengers through a telephone number from 5:00 am to 2:45 am, when the Docks are opened.
	duration / status	21h15/available	
	spatial scope	Local	
institutional context	policy framework	This telephone line was created by Soflusa (company owned by Transtejo, a public owned operator).	
	funding	Soflusa funded this telephone line.	
	information chain actors		
availability	distribution stage	Pre-trip	
	service procurement	The information is given according to the passenger requirements.	
	data acquisition		
	data distribution	Telephone	
contents	modal coverage	Mono-modal	
	information contents	Timetables, Prices, Monthly tickets available, Connections with trains.	
	user interaction	Interactive	
	retail options		

[Portugal] [service no.7]	title	Dynamic Passenger Information (DPI)	<i>Displays with</i> Dynamic Passenger information (DPI) in railway and underground stations <i>Fertagus</i> is a private railway company, operating the Tagus River Bridge since 1999. The Enterprise has DPI displayed on TV Screens inside the stations. For each platform, there are separate displays. Besides this, an acoustic signal is emitted a few seconds before the train's arrival at the station, indicating the line, destination and the time of arrival. Inside the trains, there is also a DPI, the information of which is also orally transmitted. CP - Caminhos de Ferro Portugueses EP, is the Portuguese Railway Operator. It has DPI in certain stations. REFER (the Portuguese Rail Infrastructure Manager) supervises the Centralised Traffic Command Centre , which provides information to the DPI indicators in the stations (one for each platform). Inside some trains there are also DPI indicators and Voice messages. This Centralised Traffic Command Centre works both for Fertagus and CP.. The Lisbon Underground has also DPI indicators in the stations and inside the vehicles.
	region, city	Lisbon plus a number of other stations throughout the country	
	duration / status	-/Available	
	spatial scope	Local	
institutional context	policy framework	For railways the System is controlled by REFER (The Railway Infrastructure Manager), namely by its Centralised Traffic Control (CTC). For Underground it is the own initiative of the underground operator.	
	funding	For railways: REFER For Underground: the underground operator	
	information chain actors	The Track Circuits give CTC the information on the Trains Present Location. This information is managed by CTC, and then processed to the DPI indicators on the stations, as well as the acoustic signal and messages. The CTC have several operators and supervisors in permanent control of the occasional delays and act in case this happens, modifying the automatic process. There is also a Centre for the acoustic Messages.	
availability	distribution stage	Pre-trip (for the ones on the tracks) and on-trip (for the ones inside the carriages).	
	service procurement	Public/ general information.	
	data acquisition	Via Track Circuits and two integrated systems (Alcatel ESTW, Dimetronic SSI).	
	data distribution	The information is displayed trough DPI equipment, voice and by a BIP signal	
contents	modal coverage	Mono-modal	
	information	Fertagus: Information about time, delays, next train schedules and destinations, lines where trains are arriving, temperature,	

	contents	<p>Next Station (inside the trains).</p> <p>CP: The information contents varies from station to station, from one train to another. Some DPI screens have information on the trains arriving, the respective destination and the line. Some stations have DPI indicators for each line with the time of the next train arriving, the final destination and the intermediate stops.</p> <p>Inside the trains there is data on the Next Stop (also displayed by a recorded message), final Destination and Temperature.</p> <p>Underground: - In the stations: announcement of arrival of the next train within a few moments, with the information the final destination and other information (e.g. new ticket prices).</p> <p>Inside the metro: Information on the next station on a display and a recorded message. The latter informs also on the possible connections with other modes.</p>
	user interaction	Passive
	retail options	None

[Portugal] [service no.8]	title	Internet site and WAP Service	http://www.fertagus.pt/ http://wap.fertagus.pt
	region, city	Lisbon	Fertagus is a private railway company, operating the Tagus River Bridge since 1999. The Enterprise has an Internet site and a WAP service.
	duration / status	Internet Site: 24 hours/available	
	spatial scope	Internet Site: World-wide	
institutional context	policy framework	Introduced when the line was first operated. Private initiative.	
	funding	Funded by Fertagus.	
	information chain actors		
availability	distribution stage	Internet Site: Pre-trip. WAP Service: Pre-trip.	
	service procurement	Public/ general information.	
	data acquisition	Internet Site: Different Internet access modes. WAP Service: Mobile WAP Service.	
	data distribution	Internet Site: Internet. WAP Service: The information can be accessed by the three different mobile telecommunication companies in Portugal or by the web site indicated above.	
contents	modal coverage	Mono-modal	
	information contents	Internet Site: Updated Timetables; Information about the operator; Passenger Card; Tickets; Prices; Timetables of the integrated road transport Sulfertagus; Protocols with other transport operators; Traveller opinion; Operator Information. WAP Service: updated timetables.	
	user interaction	Internet Site and WAP Service: Passive.	
	retail options		

[Portugal] [service no.9]	title	Internet Site, Free telephone number and ATM Service	http://www.cp.pt +351800208208
	region, city		CP Caminhos de Ferro Portugueses EP, the Portuguese Railway Operator, has an Internet Site, a free Telephone number for information and an ATM service. The latter gives the passenger information on timetables and offers the possibility of purchasing tickets in any ATM available.
	duration / status	Internet site and ATM service: 24 hours/available Telephone: From 7:00 am to 11:00 pm/ available.	
	spatial scope	Internet site: Worldwide. Telephone and ATM Service: National.	
institutional context	policy framework	Own initiative by CP (public owned company). For the ATM service there is an agreement between CP and the ATM service provider.	
	funding	CP	
	information chain actors		
availability	distribution stage	Pre-trip	
	service procurement	Internet Site: Public/general/personal. Telephone and ATM service: Personal.	
	data acquisition	Internet Site and Telephone: Centralised Traffic Command Centre.	
	data distribution	Internet, Telephone and ATM service.	
contents	modal coverage	Mono-modal	
	information contents	Internet site: Company profile (with an e-mail for suggestions and complaints); Timetables (with interactive search); Operated Lines. Telephone: Timetables; Operated Lines; Available trains. ATM service: Interlinked information, adequate to the passenger requirements.	
	user interaction	Interactive	
	retail options	Internet site: Services (with travel agencies, national and international products, amongst others); Latest news; Tourist information.	

[Portugal] [service no.10]	title	CIRPOR Road Panels, telephone line, Internet Site, Mobile Service and Portable Computers	The Portuguese Road Institute (IEP) has a Traffic Control and Information Centre (CIRPOR) that gathers data provided by cameras installed in the different roads and the data of the traffic sensors, processing it trough Road Panels. The CIRPOR is currently also considering the introduction of a telephone service, an Internet Site, a mobile phone service (via SMS and WAP) and an information system available trough a portable computer for traffic information.
	region, city		
	duration / status	Road Panels: - / available. Telephone, Internet site, mobile service and portable computers: -/ in development.	
	spatial scope	Internet site: world-wide. Other TTI services: National.	
institutional context	policy framework	IEP	
	funding		
	information chain actors	Road panels: The data is observed in the Traffic Control and Information Centre (CIRPOR), by different operating personnel and then processed trough optical fibre to the Road Panels.	
availability	distribution stage	Road Panels: On-trip. Telephone, Mobile Service and Portable computers: pre-trip/ on-trip. Internet Site: Pre-trip.	
	service procurement	Road Panels: Public/ general.	
	data acquisition	Cameras, Traffic Sensors.	
	data distribution	Dynamic Road Panels, Telephone, Internet, SMS, WAP, Portable computers.	
contents	modal coverage	Mono-modal	
	information contents	Road panels: The information provision regards any kind of incident, such as accidents, congestion, alternative roads, weather conditions or any relevant traffic information. Other TTI services: Traffic conditions.	
	user interaction	Road panels: Passive. Telephone: Interactive.	
	retail options		

[Portugal] [service no.11]	title	TV Channels	CIRPOR, Traffic Control and Information Centre of the Portuguese Road Institute (IEP) provides traffic images to SIC Notícias and RTP (two main television channels).
	region, city		
	duration / status	-/available	
	spatial scope	National	
institutional context	policy framework	Agreement between IEP and the Television Channels.	
	funding		
	information chain actors	Traffic data is provided by CIRPOR. Data processing and distribution is done by the television channels.	
availability	distribution stage	Pre-trip	
	service procurement	Public/general	
	data acquisition	Cameras	
	data distribution	TV	
contents	modal coverage	Mono-modal	
	information contents	Traffic Conditions on the more used roads, such as accidents, congestion, alternative roads.	
	user interaction	Passive	
	retail options		

[Portugal] [service no.12]	title	ACP Services	The Automóvel Clube de Portugal, a Private Vehicle Club has a traffic information system, available for its partners.
	region, city		
	duration / status	24 hours	
	spatial scope	National.	
institutional context	policy framework		
	funding		
	information chain actors	The information is required by mobile phone (SMS or voice data), is searched in an Information System, Internet, Digital Maps and Data base, answering to the information request.	
availability	distribution stage	Pre-trip/on-trip	
	service procurement	General/personal	
	data acquisition		
	data distribution		
contents	modal coverage	Mono-modal	
	information contents	Traffic information system.	
	user interaction	Interactive	
	retail options		

[Portugal] [service no.13]	title	Car Parking Information	A few Car Parks provide information on the availability of parking spaces on a panel/screen at the entrance.
	region, city		
	duration / status	-/ available	
	spatial scope		
institutional context	policy framework	Private initiative by the car parks.	
	funding	Own funding by car parks.	
	information chain actors	Information is collected and distributed by the car parks.	
availability	distribution stage	On-trip	
	service procurement		
	data acquisition	Car counting system.	
	data distribution	Panels/Screen	
contents	modal coverage	Mono-modal	
	information contents	Information on the availability of car spaces by floor (full or free).	
	user interaction	Passive	
	retail options		

[Portugal] [service no.14]	title	Internet Sites and free telephone lines of Urban Transport Operators.	www.carris.pt www.stcp.pt www.metro.pt www.cp.pt <i>etc.</i>
	region, city		The main Portuguese urban operators have Internet sites, some of which have the possibility of personal search, and free telephone lines available.
	duration / status	Internet Sites: 24 hours / available. Telephone: -/available.	
	spatial scope	Telephone: urban.	
institutional context	policy framework	Own initiative by UPT operator.	
	funding	Own funding.	
	information chain actors		
availability	distribution stage	Internet Sites: Pre-trip. Telephone: Pre-trip/on-trip.	
	service procurement	Internet Sites: General. Telephone: Personal/General.	
	data acquisition		
	data distribution	Internet, Telephone.	
contents	modal coverage	Mono-modal (for each operator).	
	information contents	Internet Sites: Search by line operated, or desired timetable. Information on the Company, tourism, news, contacts, alternative modes, links, price list, etc. (this information varies from operator to operator). Telephone: Information on lines, timetables, strikes, and other relevant issues.	
	user interaction	Interactive	
	retail options		

[Portugal] [service no.15]	title	Dynamic Passenger Information (DPI)	The main public transport BUS Operators have DPIs in few of the main BUS stops enabling real time information to the passenger. In addition, some of their buses have a DPI indicator with the BUS number and the final destination on the front and the BUS number on the back and on the side.
	region, city		
	duration / status	- /available	
	spatial scope	Urban	
institutional context	policy framework	Own initiative by public transport operators (private or public owned ones).	
	funding	Respective public transport operator and co-financed by administration (DGTT).	
	information chain actors	Data Supply: operators.	
availability	distribution stage	Pre-trip	
	service procurement	Public/general	
	data acquisition	GPS transmitted by Tetra	
	data distribution	Variable message panel (VMS)	
contents	modal coverage	Mono-modal (for each operator)	
	information contents	The VMS have information on the bus numbers, the destinations and the waiting time. The indicator in the buses have information on the bus number and the final destination.	
	user interaction	Passive	
	retail options		

Romania Service no. 1	title	Road weather information system - RWIS	Dynamic information for road weather status and complementary traffic data The system contains four local station (with automatic aquisition of road status and meteorological data, local processing and displaying data), a central station, work stations for distribution of information and test + graphic variable message panels
	region, city	Regional	
	duration / status	First stage – in operation since 1999 Second stage in implementation	
	spatial scope	National Road DN1 Bucharest – Brasov 160 Km	
institutional context	policy framework	In-line with general road transport policy	
	funding	Public funding from national authority – National Administration of Roads (NAR) – using a loan of World Bank	
	information chain actors	Data acquisition: automatic and manual by local road operators - NAR Data fusion: local and central -NAR Information supply: NAR local and central operator on variable massage panel and phone request Transmission: Private GSM operator – Mobifon CONNEX Marketing and support: none	
availability	distribution stage	On-trip, real time on variable message panels Pre-trip through phone	
	service procurement	Public	
	data acquisition	Automatic	
	data distribution	Dynamic text messages (Romanian language) and graphic massages	
contents	modal coverage	Mono-modal road weather information	
	information contents	road status, road meteorological data, restrictions	
	user interaction	Passive	
	retail options	None	

Romania Service no. 2	title	Radio FM information on road network	Local Radio FM providers broadcast periodically traffic and weather information
	region, city	Regional	
	duration / status	In continuous development	
	spatial scope		
institutional context	policy framework	In-line with road transport policy	
	funding	Private	
	information chain actors	Data acquisition: National Administration of Roads and Road Police Data fusion: None Information supply: National Administration of Roads and Road Police Transmission: Private Radio FM providers Marketing and support: Private Radio FM providers	
availability	distribution stage	On-trip Pre-trip	
	service procurement	Private	
	data acquisition	Manual	
	data distribution	On FM receivers	
contents	modal coverage	Mono-modal - road	
	information contents	Traffic data, meteorological data, restrictions	
	user interaction	Passive	
	retail options	None	

Romania Service no. 3	title	Traffic information in the Bucharest underground network	http://www.metrorex.ro
	region, city	Bucharest	Traffic information is a function of the Automatic Traffic Control System In station traffic information are displayed on Graphic panels. In vehicle traffic information are received as voice synthesized messages. Information about underground network are available on web site
	duration / status	In operation since 1999	
	spatial scope	Bucharest underground network	
institutional context	policy framework	In-line with road transport policy	
	funding	Public	
	information chain actors	Data acquisition: automatic by Traffic Control System – METROREX SA Data fusion: METROREX SA Information supply: METRORES SA Transmission: METRREX SA Marketing and support: METROREX SA	
availability	distribution stage	On-trip	
	service procurement	Public	
	data acquisition	Automatic	
	data distribution	On graphic panels As voice messages	
contents	modal coverage	Mono-modal - underground	
	information contents	Traffic data, modified time schedule	
	user interaction	Passive	
	retail options	None	

Romania Service no. 4	title	Information GSM service – Info Util	http://www.dialog.ro
	region, city	National	GSM Dialog value added information services. It is offering, at request, a wide range of information: Weather, tourist, State of transport ways
	duration / status	In continuous development	
	spatial scope	National	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data acquisition: Different sources Data fusion: None Information supply: Different sources Transmission: GSM Dialog provider Marketing and support: GSM Dialog provider	
availability	distribution stage	Pre-trip On-trip	
	service procurement	Commercial	
	data acquisition	Manual	
	data distribution	GSM mobile	
contents	modal coverage	Multi-modal	
	information contents	Meteorological data, traffic restrictions	
	user interaction	Passive	
	retail options	None	

Romania Service no. 5	title	Portal with general road transport information	http://www.transportal.ro Internet-based general road transport information. Planned: Value added service with information: Road network, State of the national road, Route optimisation, Road weather data, Speed and tonnage restrictions
	region, city	National	
	duration / status	In continuous development	
	spatial scope	National	
institutional context	policy framework	Private initiative	
	funding	Private – TRANSINFO SA	
	information chain actors	Data acquisition: Different sources Data fusion: None Information supply: Different sources Transmission: Internet Marketing and support: TRANSINFO SA	
availability	distribution stage	Pre-trip	
	service procurement	General (Commercial)	
	data acquisition	Manual	
	data distribution	Internet	
contents	modal coverage	Mono-modal: road	
	information contents	General road data (Planned: State of the national road, road weather data, traffic restrictions, route optimisation)	
	user interaction	Passive	
	retail options	None	

SK Service No. 1	title	Motorway Information and Control system	Information and control system on motorway based as an advanced traffic system for road traffic through variable message sign, incident detection, meteo system
	region, city	Slovakia	
	duration / status	Deployment	
	spatial scope	State	
Institutional context	policy framework	state transport policy, local developer plays pro-active role in promoting system development	
	funding	100 % public funding from state authority	
	information chain actors	data aquisition: state authority data fusion: state authority information supply: state authority transmission: state authority marketing and support : none	
availability	distribution stage	real time	
	distribution mode	dynamic variable message signs, radio broadcast	
	service procurement	public / general	
Contents	modal coverage	mono-modal road traffic information	
	service scope	Nowadays not directly linked to other services, preparing stage to interconnect with other traveler or tourist services	
	user interaction	passive	
	retail options	None	

SK Service No. 2	title	Road Network Negotiability	http://zjazdnost.ssc.sk/
	region, city	Slovakia	Road network information system based on Internet service about the road conditions, road works and reconstructions, diversions, winter maintenance etc.
	duration / status	Deployment	
	spatial scope	State	
Institutional context	policy framework	state transport policy	
	funding	100 % public funding from state authority	
	information chain actors	data aquisition: state authority data fusion: state authority information supply: state authority transmission: state authority marketing and support : none	
availability	distribution stage	Off-line time, minimum twice a day from local road administration bodies	
	distribution mode	Internet, radio broadcast	
	service procurement	public / general	
Contents	modal coverage	mono-modal road traffic information	
	service scope	not directly linked to other services, preparing stage to interconnect with other traveler or tourist services	
	user interaction	passive	
	retail options	None	

SK Service No. 3	title	PT Information System	In Bratislava and Kosice testing the integrated PT operation among the Railway, City PT and regional PT; in several cities in Slovakia is in operation the first generation of electronic fares collection;
	region, city	Slovakia	
	duration / status	Development	
	spatial scope	national	
institutional context	policy framework	activities between municipality administration and private companies according to the law,	
	funding	100 % public municipality funding	
	information chain actors	data aquisition: municipality information supply: private sector marketing and support : none	
availability	distribution stage	preparing stage	
	distribution mode	Internet, radio broadcast, mobile phone	
	service procurement	public / general	
contents	modal coverage	Multi - modal PT information	
	service scope	After routine operation conditions the traveler on-line service will be offered – necessity of the state support	
	user interaction		
	retail options		

Slovenia service no.1	title	AMZS info*	http://www.amzs.info
	region, city	National, Ljubljana	multi-lingual internet portal for traffic information (information, events, weather forecast) and journey planning for the general public available pre-trip info; on-trip individual devices envisaged together with MOBITEL, a leading mobile operator private company as end user service provider
	duration / status	since 1996/operative	
	spatial scope	National, international	
institutional context	policy framework	By the Public Road Act (Zakon o javnih cestah) both DARS and DRSC are responsible for the management, maintenance and information of the users on the conditions of the infrastructure they are responsible for. DSRC biannually commissions AMZS to perform this service based on data collected via a road data base (events, incidents, future activities, weather forecast, cameras) and information collected from the police local (OKC) and central information system. This service is the most popular Slovene info point for drivers and travelers.	
	funding	public financed (infrastructure is public property), private operation contracted on a biannual base.	
	information chain actors	data acquisition: DSRC road data base, OKC (Police) and “driver-to-driver” transfer of information (*this service is a TM of a national radio broadcaster service); data processing: AMZS no information transmission of its own	
availability	distribution stage	Pre-trip (on-trip envisaged)	
	service procurement	free collective; likely addition of personalized information on a commercial basis	
	data acquisition	DSRC road data base, OKC (Police) and “driver-to-driver” transfer of information (*this service is a TM of a national radio broadcaster service);	
	data distribution	internet, phone enquiry , private radio network distribution	
contents	modal coverage	Mostly road content for drivers; links to public transport, air transport and railroad travelers info	
	information contents	private car journey planner, planned incidents, static parking information; real-time road and PT traffic situation, inter-modal PT journey planner, schedules and tariffs; departures/arrivals at Brnik airport; info on traveling by bus or train; weather forecast, useful information for tourists (Slovene/English language)	
	user interaction	passive and dynamic information; interactive journey planning	
	retail options	none	

Comparable services: Civil Air flights information via portal ADRIA AIRWAYS – <http://www.adria.si/eng/main.asp>; public bus transport - <http://www.ap-ljubljana.si>; general info for travelers - <http://www.ntz-nta.si>

Slovenia service no.2	title	DARS kazipot	http://www.dars.si/ <ul style="list-style-type: none">▪ traffic information and route planning for the general public▪ available pre- and on-trip; for collective and individual devices▪ public info service provider▪ mainly motorway oriented info with useful links to other modes▪ info kiosks on a motorway cross▪ free telephone information service 080 2288
	region, city	Ljubljana, National	
	duration / status	since 1999 / operative	
	spatial scope	National, international	
institutional context	policy framework	By the Public Road Act (Zakon o javnih cestah) both DARS and DRSC are responsible for the management, maintenance and information of the users on the conditions of the infrastructure they are responsible for. DARS service is a public and free of charge, very comprehensive but oriented to the traveller infor via slovene and pan-european motorway networks.	
	funding	National budget	
	information chain actors	<ul style="list-style-type: none">▪ data acquisition: own sources (maintenance, cameras, detection loops and information from the motorway management service and toll stations info links.▪ data processing: motorway TTI▪ information transmission: internet, national broadcaster (RTV), telephone and *fdp data transfer to AMZS info.	
availability	distribution stage	pre-trip and on-trip	
	service procurement	free collective TTI; individual TTI as value-added service	
	data acquisition	Motorway network, loop detectors, cameras, maintenance program and real-time activities, accident from police (OKC) and maintenance service (PVAC)	
	data distribution	collective: VMS, radio, videotext, individual: internet, info kiosks,	
contents	modal coverage	Motorway TTI	
	information contents	route planner for motorway travelers, tolling info, travel time prognosis, planned and un-/planned incidents, real time traffic info and traffic prognosis, weather forecast,	
	user interaction	passive information; interactive journey planning; active real time information	
	retail options	none	

Spain [service 1]	title	DGT web service	http://www.dgt.es
	region, city	Spain	Web server with different traffic information related to Spanish interurban roads except for the Basque Country. It includes also administrative information and Spanish legislation on road driving. The main use of the web server is related to traffic status on real time but it also provide forecast and useful information from other European countries. Information is provided mainly in Spanish but some parts are also available in English
	duration / status	Fully available from 1997	
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by DGT (Spanish Traffic Road Administration)	
availability	distribution stage	It includes information on real time and forecast but the service is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Internet	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, itinerary calculator, traffic density, forecast information for week-ends and big traffic operations, legislation information, information of traffic administrative procedures, etc	
	user interaction	Interactive (as choice of areas, routes or request of best itinerary)	
	retail options	Not Applicable	

Spain [service 2]	title	SCT web service Catalonian Portal	http://www.gencat.net/transit http://www.mobilitat.org
	region, city	Catalonia	Web server with different traffic information related to Catalan interurban roads. It includes also administrative information and connection to different web servers related all transport modes. The main use of the web server is related to traffic status on real time but it also provide forecast and useful information from other European countries and other transport modes. Information is provided in Spanish, Catalan, French & English
	duration / status	Fully available from 2001	
	spatial scope	Mainly, interurban roads for Catalonia mainly	
institutional context	policy framework	It is totally supported by the Catalan Traffic Road Administration, namely SCT who is responsible in Catalonia for road traffic management and who is coordination the Catalan Traffic Police.	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by SCT (Catalan Traffic Road Administration)	
availability	distribution stage	It includes information on real time and forecast and but the service is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Internet	
contents	modal coverage	Multi-modal: road traffic mainly but also links to buses, metro, railways, ferries and airports	
	information contents	Traffic road events, itinerary calculator at international level, traffic density, traffic CCTV cameras images, forecast information for week-ends and big traffic operations, legislation information, information of traffic administrative procedures, weather information, tourist information, etc	
	user interaction	Interactive (as choice of areas, routes or request of best itinerary)	
	retail options	Not Applicable	

Spain [service 3]	title	Basque Country web service	http://www.trafico.euskadi.net
	region, city	Basque Country	Web server with different traffic information related to Basque interurban roads. It includes also administrative information.
	duration / status	Fully available from 2000	The main use of the web server is related to traffic status on real time but it also provide forecast and useful information from other European countries.
	spatial scope	Interurban roads for Basque Country	Information is provided mainly in Spanish, Basque & English languages.
institutional context	policy framework	It is totally supported by the Basque Government, who is responsible in Basque Country for road traffic management and who is coordination the Basque Traffic Police.	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by Basque Government	
availability	distribution stage	It includes information on real time and forecast and but the service is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Internet	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, forecast information for week-ends and big traffic operations, legislation information, information of traffic administrative procedures, etc	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 4]	title	Tele-ruta	http://www.mfom.es
	region, city	Spain	Web server managed by Spanish Ministry of Transports with road information mainly related to road works, mountain passes & tunnels related to Spanish interurban roads. Information is provided in Spanish language. It has been recently offered via WAP
	duration / status	Fully available from 1997	
	spatial scope	Interurban roads for whole Spain	
institutional context	policy framework	It is totally supported by the Spanish Ministry of Transports and Public Works, namely Ministerio de Fomento	
	funding	Totally public	
	information chain actors	Data acquisition: road operators & TCC (Traffic Control Center) in tunnels For the rest of the actors in the information chain: Spanish Ministry of Transports	
availability	distribution stage	It includes mainly forecast information, then is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	Equipment used: fixed data capture stations, CCTV cameras, information from other traffic control centers Staff used as data acquisition: road operators, as road workers or people in charge of snow removal	
	data distribution	Internet: web and WAP	
contents	modal coverage	Mono-modal: road only	
	information contents	Road works, tunnel status, status of mountain passes	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 5]	title	Web Madrid Town Hall	http://www.cities.munimadrid.es
	region, city	Madrid	Web server managed by Town Hall of Madrid with traffic information. Information is provided in Spanish and English language. Web server done under project Cities in connection with Brussels, Rome and Marseille
	duration / status	From 2000 under project Cities	
	spatial scope	Urban roads for Madrid	
institutional context	policy framework	Supported by the Town Hall of Madrid in connection with European project Cities	
	funding	Public plus EU funding	
	information chain actors	All the steps in the information chain is done by Town Hall of Madrid	
availability	distribution stage	It includes information on real time and forecast but the service is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	Equipment used: fixed data capture stations, CCTV cameras, information from traffic police	
	data distribution	Internet	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic events, road works, parking information, traffic map with colors and icons, forecast for different days, administrative information	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 6]	title	Web Sevilla Town Hall	http://www.trajano.com
	region, city	Sevilla	Web server managed by Town Hall of Sevilla with urban traffic information Information is provided in Spanish language.
	duration / status	Under test from 2001	
	spatial scope	Urban roads for Sevilla	
institutional context	policy framework	Supported by the Town Hall of Sevilla	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by Town Hall of Sevilla	
availability	distribution stage	It includes information on real time mainly. The use of information via the web server is logically pre-trip, but the server have the possibility to be connected via reduced page for PDA with special web address (www.trajano.com/pda) which is for real on-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	Equipment used: fixed data capture stations, CCTV cameras, information from traffic police	
	data distribution	Internet	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic events, road works, traffic map with colors and icons and traffic intensity, video images from traffic cameras in real time, closed streets.	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 7]	title	Web Barcelona Town Hall	http://www.bcn.es/infotransit
	region, city	Barcelona	Web server managed by Town Hall of Barcelona with information related to different transport modes. Information is provided in the following language: Catalan, Spanish & English
	duration / status	Working from 2000	
	spatial scope	Metropolitan area of Barcelona	
institutional context	policy framework	Supported by the Town Hall of Barcelona	
	funding	Public with European funding	
	information chain actors	All the steps in the information chain is done by Town Hall of Barcelona collecting information from different media	
availability	distribution stage	It includes information on real time and forecast but the service is mainly used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	Equipment used: fixed data capture stations, CCTV cameras, information from traffic police	
	data distribution	Internet	
contents	modal coverage	Multi-modal: road traffic, metro, taxi, buses, railways and bicycle and pedestrian routes	
	information contents	Traffic events, road works, video images from traffic cameras in real time, parking information, walking routes, bicycles routes	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 8]	title	Web Madrid Transport Consortium	http://www.ctm-matrid.es
	region, city	Madrid region	Web server managed by Government of Madrid region, which offer TTI information related to different transport modes. Information is provided in the following language: Spanish & English
	duration / status	Working from 1997	
	spatial scope	Madrid region	
institutional context	policy framework	Supported by the Government of the Madrid region and more specific by the Consortium of Transports of Madrid region	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by the Government of Madrid region who is in charge of collecting information from different transport media	
availability	distribution stage	It includes only pre-trip information related to all transports modes included in the consortium	
	service procurement	All the information is publicly available for free	
	data acquisition	fixed information obtained mainly from scheduling tables information ant timetables of the different transport modes	
	data distribution	Internet	
contents	modal coverage	Inter-modal: best way of transport between 2 specific points in Madrid region. User could select the amount of different changes of transports to be done. The transport modes include all public transport: buses, metro and railways	
	information contents	Integrated information from all transport modes covered, mainly based in a itinerary calculator. Information available for blind people via internet (based on voice synthesis), transport prices.	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 9]	title	DGT WAP service	http://www.dgt.es/index.wml
	region, city	Spain	WAP service with different traffic information related to Spanish interurban roads except for the Basque Country. It includes also administrative information and Spanish legislation on road driving. It also provide addresses and phone numbers of administrations and useful information and traffic news. The main use of the WAP server is related to traffic status on real time
	duration / status		
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Public the part related to traffic information and private the part related to the media used to receive the information	
	information chain actors	Data acquisition: different equipment installed by DGT Data fusion: DGT Traffic Management Center in Madrid Information supply: DGT Traffic Management Center in Madrid Transmission: all Spanish GSM operators (interested operator obtain the information from a plain file (ASCCII) provided by DGT Marketing and support: both DGT & all Spanish GSM operators	
availability	distribution stage	It includes information on real time and other traffic information but the service is mainly used for both pre-trip and on-trip	
	service procurement	All the information is publicly available for free. Users pay for the use of the GSM call (cost of the WAP service)	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	WAP	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events grouped by roads or regions, information on administrative matters like driving licences, taxes, telephones and addresses) and traffic news (like new traffic regulations)	
	user interaction	Interactive (as regions or roads need to be selected)	
	retail options	Not Applicable	

Spain [service 10]	title	SCT WAP service	http://wap.gencat.net/transit
	region, city	Catalonia	WAP service with different traffic information related to Catalonian interurban roads. It includes also administrative information and Spanish legislation on road driving. It also provide addresses and phone numbers of administrations and useful information and traffic news. The main use of the WAP server is related to traffic status on real time.
	duration / status		
	spatial scope	Interurban roads for whole Catalonia	
institutional context	policy framework	It is totally supported by the Catalonian Traffic Road Administration, namely SCT who is responsible in Catalonia for road traffic management.	
	funding	Public the part related to traffic information and private the part related to the media used to receive the information	
	information chain actors	Data acquisition: different equipment installed by SCT Data fusion: SCT Traffic Management Center in Barcelona Information supply: SCT Traffic Management Center in Barcelona Transmission: all Spanish GSM operators Marketing and support: both DGT & all Spanish GSM operators	
availability	distribution stage	It includes information on real time and other traffic information but the service is mainly used for both pre-trip and on-trip information	
	service procurement	All the information is publicly available for free. Users pay for the use of the GSM call (cost of the WAP service)	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	WAP	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, road restrictions and administrative information (addresses and phone numbers of traffic administrations, new traffic legislation, security advices,)	
	user interaction	Interactive (as regions or roads need to be selected)	
	retail options	Not Applicable	

Spain [service 11]	title	Amena Traffic Channel	http://www.amena.com
	region, city	Spain	Amena Traffic Channel is a service that supplies information and text message alerts via GSM. It is a service under subscription that supplies messages about traffic status. It allows the selection of the region, road and time for the delivering of the messages.
	duration / status	From year 2001	
	spatial scope	Spain	
institutional context	policy framework	Traffic data is obtained from public administrations but there is not type of explicit support to the service from them	
	funding	Totally private	
	information chain actors	Data acquisition: traffic data from different traffic administrations Data fusion: traffic data from different traffic administrations Information supply: traffic data from different traffic administrations Transmission: AMENA GSM operator Marketing and support: AMENA GSM operators	
availability	distribution stage	pre-trip, delayed	
	service procurement	Personal & commercial. It is paid a fee for each received message	
	data acquisition	Obtained from different traffic operators	
	data distribution	GSM / SMS (Short Message Service)	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Incident information (traffic status). Coverage in space and time selected by the user when subscribing, including: region, road, days of the week, hours of the day	
	user interaction	Transactional: user select which type of message wants to receive and pay for messages he receives	
	retail options	Not Applicable	

Spain [service 12]	title	Amena Where service (Location Services)	http://ingles.amena.com/serviciosn_part_w/
	region, city	Spain	Service providing on-demand location related information about traffic incidents, fuel stations, parkings and hotels. The system locates the user and supplies the desired information related to the area where the user is located. The service runs by GSM/SMS system or voice call.
	duration / status	From 2001	
	spatial scope	Spain	
institutional context	policy framework	Private initiative	
	funding	Totally private	
	information chain actors	All data is obtained by Amena private operator via agreements with different providers (hotel ranges, petrol stations, perking operators, traffic administrations), which are in charge of the integration and then provision to end user	
availability	distribution stage	on-trip, delayed	
	service procurement	Personal & commercial. It is paid a fee for each received message	
	data acquisition	Location of mobile equipment is calculated by the cellular system operator	
	data distribution	GSM / SMS (Short Message Service)	
contents	modal coverage	Multim-modal: depending on the service requested.	
	information contents	Location related information, covering: traffic incidents, fuel stations, parkings, hotels	
	user interaction	Transactional: user send a message with the requested information and information is provided by SMS	
	retail options	No	

Spain [service 13]	title	Booking service from Vodafone	http://www.airtel.com/
	region, city	Spain	Information and reservation services with a voice call, concerning hotels, restaurants, medical care, taxi services, train, nautical information, weather information and emergency services. It is a multilingual service.
	duration / status	From year 2001	
	spatial scope	International	
institutional context	policy framework	Private initiative	
	funding	Totally private	
	information chain actors	Information collected via agreement from different sources and then integrated by Vodafone Transmission, and Marketing: VODAFONE	
availability	distribution stage	On-trip and pre-trip	
	service procurement	Commercial. It is paid the cost of the phone call requesting the service	
	data acquisition	Collected from different sources	
	data distribution	Phone call	
contents	modal coverage	Multi-modal: information related to different transports modes	
	information contents	Information and reservation services using a voice call. Multilingual. Hotel and restaurant information and reservation, medical care, taxi and train reservations, nautical information, weather information, emergency services	
	user interaction	Interactive	
	retail options	Hotel reservation, restaurant booking, delivering of flowers.	

Spain [service 14]	title	e-mocion	http://www.emocion.net/
	region, city	Spain	Information services with a SMS (Short Message Service) and WAP message, concerning traffic incidents, hotels, restaurants, weather information.
	duration / status	From 2001	
	spatial scope	Spain	
institutional context	policy framework	Private initiative	
	funding	Totally private	
	information chain actors	Information supply: different providers Then it is integrated and transmitted by TELEFÓNICA who is in charge also of the marketing.	
availability	distribution stage	Pre-trip, delayed	
	service procurement	Personnel. It is received and paid depending on the information requested. Using WAP it is paid form the WAP service (tiem of connection)	
	data acquisition	Information collected from different traffic and road administrations	
	data distribution	GSM using both SMS (Short Message Service) or WAP	
contents	modal coverage	Multi-modal?: it covers only road traffic service but some other information like weather forecast or hotel information is also included.	
	information contents	<ul style="list-style-type: none">- traffic incidents- hotels- restaurants- weather	
	user interaction	Interactive/Transactional depending on the use of WAP or SMS	
	retail options	Hotel reservation, restaurant booking, delivering of flowers only using WAP (not available with SMS)	

Spain [service 15]	title	VMS service	http://www.dgt.es http://www.gencat.net/transit
	region, city	Spain	Service based on Variable Message Signaling (VMS) for road traffic. After several enquiries at both national and international level, this service has been considered by drivers as the best one. Information is provided in Spanish (and the language of the region where it is placed: Catalan, Basque). As most of the Spanish VMS signal include pictograms they are also understandable by foreign drivers.
	duration / status	Mainly available in accesses to main cities	
	spatial scope	Interurban roads mainly in accesses to main cities	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administrations	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by traffic road operators	
availability	distribution stage	Real time	
	service procurement	Free (by definition of VMS)	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	VMS	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, travel times	
	user interaction	Passive	
	retail options	Not Applicable	

Spain [service 16]	title	DGT free phone service	http://www.dgt.es 900-123505
	region, city	Spain	Public free telephone number for the DGT Traffic Control Center / Traffic Information Center (TCC/TIC). Telephone call is attended by a computer (audiotext). Call phone is redirect to the nearest TCC/TIC in Spain.
	duration / status	Fully available from 1995	
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	Totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is coordination the Spanish Traffic Police. More than 2 millions of calls attended each year. In critic days it could be received more than 100.000 calls (not all of them attended)	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by DGT (Spanish Traffic Road Administration)	
availability	distribution stage	It includes information on real time and forecast and but the service is mainly used as pre-trip information. In Spain It is forbidden the use of the mobile phone while driving but a high percentage of telephones call requesting information are done from GSM, and then is assumed that information is on-trip.	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Phone, audiotext.	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, itinerary calculator, traffic density, forecast information for week-ends and big traffic operations, legislation information, information of traffic administrative procedures, etc	
	user interaction	Interactive	
	retail options	Not Applicable	

Spain [service 17]	title	DGT RDS-TMC	http://www.dgt.es
	region, city	Spain	RDS-TMC (Radio Data System- Traffic Message Channel) service offered by DGT (Spanish Traffic Road Administration) in the whole country. European standards has been followed for the both the service protocols and the data and road coding. Few receiver in this moment in the market. Mainly related to road navigators
	duration / status	Available in whole country from 2001. In test in West of Spain from 1997	
	spatial scope	Spain	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police. As broadcaster is used the Spanish National Broadcaster (RNE), also public administration.	
	funding	Totally public	
	information chain actors	Data acquisition: DGT Traffic Control Center Data fusion: DGT Traffic Control Center Information supply: DGT Traffic Control Center Transmission: RNE (Spanish National Broadcaster) Marketing and support: DGT & RNE	
availability	distribution stage	Real time mainly	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Digital information on radio broadcast	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events	
	user interaction	Passive (users could select and filter the roads for what they want to receive information)	
	retail options	Not Applicable	

Spain [service 18]	title	Radio bulletins	http://www.dgt.es
	region, city	Spain	Traffic information from DGT (Spanish Traffic Road Administrations) provided via radio using different radio broadcaster (both at public and privates) and with different coverage (national or regional). Depending of the broadcaster the information is offered as RDS-EON (Radio Data System- Enhanced Other Networks) or RDS-TA ((Radio Data System- Traffic Announce). It is one of the most useful services as it is not collapsed (as internet or phone) in period of crisis (like big snow problems)
	duration / status	Fully available	
	spatial scope	Interurban roads for whole Spain	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Public mainly with support from radio broadcaster (both public and private)	
	information chain actors	Data acquisition: DGT Traffic Control Centers Data fusion: DGT Traffic Control Centers Information supply: DGT Traffic Control Center in Madrid for national service or regional center for regional service Transmission: Different radio broadcasters Marketing and support: both DGT and radio broadcasters	
availability	distribution stage	It includes information on real time and forecast	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	Radio broadcast	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, forecast information for week-ends and big traffic operations	
	user interaction	Passive. User could activate or deactivate the TA (Traffic Announce) option in order to allow interruption of radio program or music CD in case of traffic announce	
	retail options	Not Applicable	

Spain [service 19]	title	Iso-frequency Info-pista	
	region, city	Spain	Traffic information from toll motorways to their users. The broadcaster is different depending on the toll motorways. Normally toll motorway sign an agreement in which the toll motorway and a regional radio broadcaster decide to cooperate to offer traffic information for the toll motorways. In this agreement the toll motorway provide marketing for the radio broadcaster and the radio broadcaster obtain some level of user fidelity. Depending of the broadcaster the information is offered as RDS-EON (Radio Data System- Enhanced Other Networks) or RDS-TA ((Radio Data System- Traffic Announce). Information of the appropriate frequency is reported by the toll motorway.
	duration / status	Fully available	
	spatial scope	Toll motorways	
institutional context	policy framework	It is totally private service	
	funding	Private	
	information chain actors	Data acquisition: Toll motorway Traffic Control Center Data fusion: Toll motorway Traffic Control Center Information supply: Toll motorway Traffic Control Center Transmission: Different regional radio broadcasters (for example Canal 9 in Valencia region, Catalonia Radio in Catalonia) Marketing and support: both toll motorway and radio broadcasters	
availability	distribution stage	It includes information on real time	
	service procurement	All the information is publicly available for free	
	data acquisition	Different type of equipment is used: fixed data capture stations, CCTV cameras	
	data distribution	Radio broadcast	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, forecast information for week-ends and big traffic operations	
	user interaction	Passive. User could activate or deactivate the TA (Traffic Announce) option in order to allow interruption of radio program or music CD in case of traffic announce	
	retail options	Not Applicable	

Spain [service 20]	title	Teletext service	http://www.dgt.es
	region, city	Spain	Teletext service offered by DGT (Spanish Traffic Road Administration) via Spanish National TV teletext service (TVE)
	duration / status	Fully available from 1998	
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Totally public	
	information chain actors	All the steps in the information chain is done by DGT (Spanish Traffic Road Administration), except the transmission who is done by the Spanish National TV broadcaster (TVE)	
availability	distribution stage	It includes information on real time and forecast but the service is obviously used as pre-trip information	
	service procurement	All the information is publicly available for free	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	TV digital signal (teletext)	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, forecast information for week-ends and big traffic operations	
	user interaction	Passive	
	retail options	Not Applicable	

Spain [service 21]	title	Traffic Channel in Via digital	http://www.dgt.es Via Digital: Traffic Channel
	region, city	Spain	TV channel offered by the Spanish digital TV platform Via Digital (Via Digital is the name of the TV digital platform). Traffic Channel is a traffic data channel in this private digital TV which offers information provided by DGT (Spanish Road Traffic Administration)
	duration / status	Fully available from 2001	
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Public-private partnership. DGT offers the information and the private TV channel broadcast the traffic channel for all their users	
	information chain actors	Data acquisition: DGT Traffic Control Center Data fusion: DGT Traffic Control Center Information supply: DGT Traffic Control Center Transmission: Via Digital TV broadcaster Marketing and support: both DGT and Via Digital TV broadcaster	
availability	distribution stage	It includes information on real time and forecast but the service is obviously used as pre-trip information	
	service procurement	Traffic Channel is included in a digital TV platform. For this reason the user must install a decoder and payment of a monthly fee.	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	TV digital signal	
contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events, forecast information for week-ends and big traffic operations, maps with traffic events	
	user interaction	Passive	
	retail options	Not Applicable	

Spain [service 22]	title	Traffic DAB service	http://www.dgt.es
	region, city	Spain	Traffic DAB (Digital Audio Broadcasting) service offer at this moment (under test) a reduced version of the information available in the DGT (Spanish Road Traffic Administration) web server in a carrousel mode (the pages are passing and you select the page which should be stopped). Test of transmission of traffic cameras also has been tested.
	duration / status	Under test from 2001	
	spatial scope	Interurban roads for whole Spain except Basque Country	
institutional context	policy framework	It is totally supported by the Spanish Traffic Road Administration, namely DGT who is responsible in Spain for road traffic management (except for Basque Country and Catalonia regions) and who is in coordination the Spanish Traffic Police.	
	funding	Totally public at the moment. At this moment DAB is under test in Spain and there is not enough radio devices in the market. It is not known what will happen in the future.	
	information chain actors	Data acquisition: DGT Traffic Control Center Data fusion: DGT Traffic Control Center Information supply: DGT Traffic Control Center Transmission: DAB broadcaster Marketing and support: both DGT and the corresponding DAB broadcaster	
Availability	distribution stage	It includes information on real time	
	service procurement	All the information is publicly available for free (at the moment)	
	data acquisition	All type of equipment is used: fixed data capture stations, CCTV cameras, helicopter cameras, information from traffic police, information from other traffic control centers	
	data distribution	DAB (also different test has been done and still will be done with S-DAB (Satellite DAB) in collaboration with France (RF) and Portugal (RTP) broadcasters, and WorldSpace France in the framework of ARTS project (DG-TREN funding project)	
Contents	modal coverage	Mono-modal: road traffic only	
	information contents	Traffic road events mainly	
	user interaction	Interactive (user select the web page via DAB which he wants and he cant move through the different links)	
	retail options	Not Applicable	

Spain [service 23]	title	CAMPSA Web Service	http://www.campsa.es
	region, city	Spain	Web server with different type of TTI information. CAMPSA company was in the past a public company dealing with the distribution of petrol. Now is part of the holding REPSOL-YPF, international company dealing with petrol matters. It provides all type of information dealing with road traffic, travel & tourism, restaurants, weather forecast, ... and Spanish wine guide (one of the best Spanish wine & restaurant guides similar to Michelin guide for Spain). The information is available in English and Spanish. They also publish a yearly map guide in paper.
	duration / status	Fully available	
	spatial scope	Spain	
institutional context	policy framework	It is totally private approach	
	funding	Totally private	
	information chain actors	CAMPSA is responsible for all the information chain except for the data acquisition which is obtained from different Spanish Administrations	
availability	distribution stage	It includes information on real time and forecast but the service is mainly used as pre-trip information and as itinerary calculator	
	service procurement	General information publicly available with personalised information when requested an itinerary calculus	
	data acquisition	TTI data is obtained from different sources and them compiled by CAMPSA	
	data distribution	Internet, paper format (maps, travel guides)	
contents	modal coverage	Mono-modal: road only	
	information contents	Traffic road events, itinerary calculator, street maps, tourist information, travel agency, restaurant and wine guide, petrol stations information, weather forecast	
	user interaction	Interactive (as choice of areas, routes or request of best itinerary)	
	retail options	Booking of products via travel agency (hotel reservation)	

Spain [service 24]	title	LYCOS WAP portal	http://mobileportal.lycos.es
	region, city	Spain	WAP portal with several type of information, included TTI, mainly related to flight information and traffic information. LYCOS is a “classical” web/search engine company that recently has been bought by Spanish Telefonica En Spain the service is also called Terra-mobile
	duration / status	Fully available	
	spatial scope	Spain	
institutional context	policy framework	It is totally private approach	
	funding	Totally private	
	information chain actors	Company is responsible for all the information chain except for the data acquisition which is obtained from Spanish and international organizations. For example for flight information they collect the information from lastminute.com	
availability	distribution stage	It includes information on real time and forecast	
	service procurement	General information publicly available	
	data acquisition	TTI data is obtained from different sources and them compiled by Lycos	
	data distribution	Internet, WAP	
contents	modal coverage	Multi-modal: road and airways	
	information contents	TTI on flight information, traffic density, hotels, general news (also dedicated news on sports, financial news), yellow pages	
	user interaction	Interactive (as there is the possibility to select items and do reservations)	
	retail options	Booking of products (hotel reservation, flight reservation)	

Spain [service 25]	title	AENA web server	http://www.aena.es
	region, city	Spain.	Web server with interesting information on Spanish airports, flying schedules, air traffic statistics, air traffic status, among others.
	duration / status	Fully available from 1999.	
	spatial scope	National.	
institutional context	policy framework	Totally public (attributed to Foment Ministry).	
	funding	Totally public.	
	information chain actors	AENA carries out all the steps in the information chain (data acquisition & data fusion → AIS (Aeronautical Information Service department), information supply → AIP (Aeronautical Information Publication department) Transmission → AENA). The AIS and AIP are departments in AENA.	
availability	distribution stage	It includes information on real times (air traffic status) and pre-trip information (consults on flying schedules), among others.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: control towers (air traffic status), flying companies (schedules, incident information, etc...), Aena's Central DataBase Server.	
	data distribution	Internet.	
contents	modal coverage	Mono-Modal: air traffic only.	
	information contents	Company information, pre-trip route information, vehicle locations, waiting times, incident information, etc.	
	user interaction	Interactive	
	retail options	Not Applicable.	

Spain [service 26]	title	TRAVEL's AGENCIES web server	El Corte Inglés http://www.elcorteingles.es Halcón viajes http://www.halconviajes.es Barceló Viajes http://www.barcelo-viajes.es
	region, city	Spain	In the above mentioned servers, all kinds of information can be found on the companies, offers, arranged journeys, reservation and purchase of tickets for any type of transportation means and leisure events (cinema, theater, museums, etc.)
	duration / status	Fully available from the 90's.	
	spatial scope	National and International	
institutional context	policy framework	Totally private.	
	funding	Totally private.	
	information chain actors	Data acquisition: Distributors of travel information (Amadeus, Gabriel, Galileo,...), hotel chains, web servers,... Data fusion, information supply, and transmission: Travel agencies.	
availability	distribution stage	Pre-trip information. Booking and purchase of tickets in real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Distributors (Amadeus, Gabriel, Galileo,...).	
	data distribution	Internet	
contents	modal coverage	Multi-Modal: All types of transportation means and services.	
	information contents	Company information, information on hotels, trip itineraries, election of type of transportation means, journey planning, journey times, etc.	
	user interaction	Interactive	
	retail options	Booking and purchase of tickets, tourism, hotel reservation, tickets for leisure events, etc.	

Spain [service 27]	title	FFE web server	http://www.ffe.es
	region, city	Spain	Web server with interesting information on FFE (Fundacion Ferrocarriles Españoles- Spanish Railways Foundation). Knowledge and use of the public transportation network with links for all of them. The main use of the Web is to consult information on train-related topics and the access of information on the members of the foundation.
	duration / status	Fully available from 2001.	
	spatial scope	National.	
institutional context	policy framework	Totally private.	
	funding	Promotion and collaboration of different public companies.	
	information chain actors	The FFE Central Office carries out all the steps in the information chain.	
availability	distribution stage	Pre-trip information.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used:	
	data distribution	Internet	
contents	modal coverage	Multi-Modal: trains, bus and underground.	
	information contents	Foundation information, documentation, several links to main public transportation.	
	user interaction	Interactive	
	retail options	Not Applicable.	

Spain [service 28]	title	Grupo ALSA/ENATCAR web server	http://www.alsa.es
	region, city	Spain	Web server with interesting information on the activities of Alsa/Enatcar (offers, bus schedules, etc.). The main use of the web server is to consult schedules, booking and purchase of tickets and to rent buses or limousines.
	duration / status	Fully available from 1999.	
	spatial scope	National.	
institutional context	policy framework	Totally private.	
	funding	Totally private	
	information chain actors	Data adquisition: Points for sale, Alsa/Enatcar central database server and computer system. Data fusion, information supply, and transmission: Alsa/Enatcar.	
availability	distribution stage	Pre-trip information. Booking and purchase of tickets in real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: offices for sale. Alsa/Enatcar's Central Database Server.	
	data distribution	Internet	
contents	modal coverage	Mono-Modal: Bus only. (It is possible to rent limousines)	
	information contents	Company information, booking & purchase bus ticket, pre-trip route information, special offers, incident information, etc.	
	user interaction	Interactive	
	retail options	Booking and purchase of tickets. Rent a limousina or a bus.	

Spain [service 29]	title	Panels of information (airport, train and underground)	Show interesting information on the transport status (waiting times, exits and arrivals, incidences, etc.)
	region, city	Spain	
	duration / status	It depends on the means of transport	
	spatial scope	Local and National.	
institutional context	policy framework	Totally public.	
	funding	Totally public.	
	information chain actors	Aeroport: AENA carries out all the steps in the information chain. Train: RENFE carries out all the steps in the information chain. Underground: Local companies carry out all the steps in the information chain.	
availability	distribution stage	Pre-trip, on-trip, real time and delayed information.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Control towers, computer systems, phone, e-mail, and fax. Sensors in rails.	
	data distribution	Panels *of information	
contents	modal coverage	Mono-Modal.	
	information contents	Exits and arrivals, travel status, waiting times, vehicle locations, and incident information.	
	user interaction	Passive.	
	retail options	Not Applicable.	

Spain [service 30]	title	IBERIA web server	http://www.iberia.es
	region, city	Spain	Web server with interesting information on the activities of Iberia (offers, products, flights, etc.). The main use of the web server is to consult schedules and flight traffic status on-line, information on booking and purchase of tickets, etc.
	duration / status	Fully available from March, 1996.	
	spatial scope	National and International	
institutional context	policy framework	Totally private.	
	funding	Totally private	
	information chain actors	Data acquisition: AENA, control towers, Iberia central database server. Data fusion, information supply, and transmission: Iberia.	
availability	distribution stage	It includes information on flight schedules in a real time, booking and purchase of tickets, among others. Flight pre-trip information.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Aena information, control towers in airports. Iberia's Central Database Server.	
	data distribution	Internet	
contents	modal coverage	Multi-Modal: air and road.	
	information contents	Information offered is integrated. Company information, booking & purchase of plane tickets, flight pre-trip information, products and services, special offers, vehicle locations, waiting times, and incident information.	
	user interaction	Interactive	
	retail options	Booking and purchase of plane tickets.Tele-Shopping.	

Spain [service 31]	title	RENFE web server	http://www.renfe.es Web server with interesting information on the activities of Renfe (offers, products, train schedules, etc.). The main use of the web server is to consult schedules and information on booking and purchase of tickets.
	region, city	Spain	
	duration / status	Fully available from 1995.	
	spatial scope	National.	
institutional context	policy framework	Totally public.	
	funding	Totally public.	
	information chain actors	Renfe carries out all the steps in the information chain.	
availability	distribution stage	Pre-trip information. Booking and purchase of tickets in a real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Operators in rails tracts and train stations, phone, fax, and e-mail. Renfe's Central Database Server.	
	data distribution	Internet	
contents	modal coverage	Mono-Modal: Rails only.	
	information contents	Company information, booking & purchase of train tickets, pre-trip route information, products and services, special offers, vehicle locations, and incident information.	
	user interaction	Interactive	
	retail options	Booking and purchase of tickets. Tele-shopping.	

Spain [service 32]	title	TRASMEDITERRANEA web server	http://www.trasmediterranea.es
	region, city	Spain	Web server with interesting marine information on the activities of Trasmediterranea (offers, cruises, ship schedules, etc). The main use of the web server is to consult schedules and information on booking and purchase tickets.
	duration / status	Fully available from the 90's.	
	spatial scope	National.	
institutional context	policy framework	Totally private.	
	funding	Totally private	
	information chain actors	Trasmediterranea carries out all the steps in the information chain.	
availability	distribution stage	Pre-trip information. Booking and purchase of tickets in a real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Offices for sale. Trasmediterranea's Central Database Server.	
	data distribution	Internet	
contents	modal coverage	Mono-Modal: Ship only.	
	information contents	Company information, booking & purchase of ship tickets, pre-trip route information, special offers, incident information, etc	
	user interaction	Interactive	
	retail options	Booking and purchase of tickets.	

Spain [service 33]	title	EMT web server	http://www.emt-valencia.es
	region, city	Valencia	Web server with interesting information on the activities of EMT (bus schedules, routes, price of tickets, incidences, etc.). The main use of the web server is how information point. It does not give any service.
	duration / status	Fully available from 90's.	
	spatial scope	Local.	
institutional context	policy framework	Totally public.	
	funding	Totally public.	
	information chain actors	EMT carries out all the steps in the information chain.	
availability	distribution stage	Pre-trip information.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used:	
	data distribution	Internet	
contents	modal coverage	Mono-Modal: Bus only.	
	information contents	Company information, price of tickets, pre-trip route information, and incident information.	
	user interaction	Interactive	
	retail options	Not Applicable.	

Spain [service 34]	title	Customer Services Telephone	Renfe, Iberia, Aena, Trasmediterranea, Alsa/Enatcar, EMT and other local bus companies, Travel Agencies, FFE, Taxis.
	region, city	Spain	The customer services telephone offers a variety of services, from information on schedules and travel status to information on booking and purchase of tickets, hotels, etc.
	duration / status	It depends on the means of transport	
	spatial scope	Local and National.	
institutional context	policy framework	Public and private (It depends on the means of transport).	
	funding	Public and private (It depends on the means of transport).	
	information chain actors	The company carries out all the steps in the information chain. En algunos casos se contrata a una compañía privada para que preste este servicio.	
availability	distribution stage	Pre-trip, on-trip, real time, and delayed information.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Computer system, phone, e-mail, and fax.	
	data distribution	Via phone.	
contents	modal coverage	Mono-Modal.	
	information contents	Exits and arrivals, travel status, waiting times, vehicle locations, incident information, booking and purchase of tickets.	
	user interaction	Interactive	
	retail options	Booking and purchase of tickets, hotels, different vehicles renting, souvenirs, etc.	

Spain [service 35]	title	TAXIS web servers	1.- http://www.taxihispano.com/esp/index.htm (Spain) 2.- http://lupus.worldonline.es/autotaxi (Madrid) 3.- http://www.radiotaxi033.com (Barcelona)
	region, city	Madrid, Barcelona, Spain	1.- It provides information on the different telephones available to request a taxi in Spain. 2.- Information on the company. Taxis can be requested through the WEB. The web also provides information on the city one is interested in (hotels, turistic places, etc). 3.- Taxis can also be requested through the WEB.
	duration / status	1.- 1997 2.- 1998 3.- 2000	
	spatial scope	Local and National.	
institutional context	policy framework	Totally private.	
	funding	Totally private.	
	information chain actors	The company carries out all the steps in the information chain.	
availability	distribution stage	Pre-trip, real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Computer system, phone.	
	data distribution	Internet.	
contents	modal coverage	Mono-Modal: Taxis only.	
	information contents	Booking taxis, interesting phone number, tourism information.	
	user interaction	Interactive	
	retail options	Booking taxis.	

Spain [service 36]	title	AENA wap service	http://wap.aena.es WAP service with information related to Spanish air traffic, flight status, incident information, waiting times, vehicle locations, etc.
	region, city	Spain	
	duration / status	Fully available from 2000.	
	spatial scope	National.	
institutional context	policy framework	Totally public.	
	funding	Totally public.	
	information chain actors	Data adquisition and data fusion → AIS (AENA). Information supply → AIP (AENA). Transmission: All Spanish GSM operators.	
availability	distribution stage	Pre-trip, on-trip, delayed and real time.	
	service procurement	All information is publicly available for free.	
	data acquisition	Equipment used: Control Towers (flying's traffic status), Diferent Flying Companies (schedules, incident information, etc...), Aena's Central DataBase Server.	
	data distribution	WAP	
contents	modal coverage	Mono-Modal: flying traffic only.	
	information contents	Company information, pre-trip route information, vehicle locations, waiting times, incident information, ...	
	user interaction	Interactive	
	retail options	Not Applicable.	

[country] [service no.] SWEDEN 1	title	Road network information	http://www.vv.se Dynamic internet based information on incidents and road traffic information. Information also available via phone.
	region, city	Nation wide	
	duration / status	24 h/day fully operated	
	spatial scope	National	
institutional context	policy framework	Initiative from SNRA (Swedish National Road Administration)	
	funding	Public (SNRA)	
	information chain actors	Information from roadside equipment, traffic planners, maintenance units, cameras, the police or public. Information feed directly into traffic database (direct communication from roadside equipment), or via operators at traffic management central. Traffic database in direct contact with webb application. Information is also used by radio stations.	
availability	distribution stage	Pre-trip, “real time”.	
	service procurement	General information, publicly available.	
	data acquisition	Fixed sources Information from roadside equipment, traffic planners, maintenance units, cameras, contact with the police or public.	
	data distribution	Internet, phone, RDS/TMC and ferry information for ferry at Svansund by SMS.	
contents	modal coverage	Multi modal, Road, bike, walking, hiking	
	information contents	Accidents, road condition, road works, temperatures (air temp. as well as road temp.). Also information in rest areas, load limits on roads (due to weather or road condition). Information is presented in text or marked on map. For Gothenburg also camera pictures of bottlenecks completed with congestion information. LAso link to trafiken.nu (see below)	
	user interaction	Passive	
	retail options	None	

[country] [service no.] SWEDEN 2	title	Yellow pages	Http://www.gulasidorna.se
	region, city	Nation wide	Static internet based information on route guidance
	duration / status	24 h/day fully operated	
	spatial scope	National	
institutional context	policy framework		
	funding		
	information chain actors		
availability	distribution stage	Pre-trip,	
	service procurement	General information, publicly available.	
	data acquisition	Fixed. Data from map data base	
	data distribution	Internet	
contents	modal coverage	Road, bike, walking	
	information contents	Route guidance, hotels and restaurants listed and marked. Information and maps on company addressers available in Yellowpages.	
	user interaction	Interactive	
	retail options	None	

[country] [service no.] SWEDEN 3	title	Traffic information Öresund	http://www.oeresundsbron.com Dynamic Internetbased road traffic and traffic related information for the Öresundsbridge (bridge between Denmark and Sweden).
	region, city	Skåne region	
	duration / status	24 h/day fully operated	
	spatial scope	Local	
institutional context	policy framework	Regional initiative	
	funding		
	information chain actors		
availability	distribution stage	Pre-trip,	
	service procurement	General information, publicly available.	
	data acquisition	Fixed Information cameras and static information from Öresund consortium.	
	data distribution	Internet	
contents	modal coverage	Multi modal; road, links to train, PT	
	information contents	Information on traffic, fees, payment information, visibility, wind direction traffic safety, statistics, Company information and links to train and buss information.	
	user interaction	Passive	
	retail options	Subscription of BroBizz, i.e. pass for multiple trips. (automatical payment pass availabel)	

[country] [service no.] SWEDEN 4	title	VMS –traffic information and queue alert	Traffic information and queue warning via VMS-signs
	region, city	Malmö Gothenburg	
	duration / status	24 h/day fully operated	
	spatial scope	Local	
institutional context	policy framework	Regional initiative by SNRA	
	funding	SNRA	
	information chain actors	Information from road side data collection systems, maintenance units, public, traffic planners, police. Information feed into traffic database. Signs operated by operators at Traffic management centre. Drivers passing signs get the information.	
availability	distribution stage	On-trip	
	service procurement	General information, publicly available.	
	data acquisition	Fixed. Cameras and data collection systems, maintenance units, public, traffic planners, police	
	data distribution	VMS signs	
contents	modal coverage	Mono-modal, road traffic	
	information contents	Information on traffic incidents and queue detection/warning	
	user interaction	Passive	
	retail options	None	

[country] [service no.] SWEDEN 5	title	Parking guidance	Parking information and guidance via VMS-signs
	region, city	Lund, Helsingborg, Stockholm, Gothenburg	
	duration / status	24 h/day fully operated	
	spatial scope	Local	
institutional context	policy framework	Regional initiative by Citys	
	funding	City funding (discussion on co-funding with parking lot owners)	
	information chain actors	Information from road side data collection systems, direct communication to sign.	
availability	distribution stage	On-trip	
	service procurement	General information, publicly available.	
	data acquisition	Fixed data collection systems,	
	data distribution	VMS signs	
contents	modal coverage	Mono-modal, road	
	information contents	Information on number of free parking spaces and guidance to the parking lot.	
	user interaction	Passive	
	retail options	None	

[country] [service no.] SWEDEN 6	title	P+R information	P+R facility for traffic to Kastrup airport with dynamic information of departure times for train
	region, city	Svågertorp	
	duration / status	24 h/day fully operated	
	spatial scope	Local	
institutional context	policy framework	Regional initiative	
	funding		
	information chain actors		
availability	distribution stage	On-trip	
	service procurement	General information, publicly available.	
	data acquisition	Fixed	
	data distribution	VMS sign	
contents	modal coverage	Multi modal, road, train	
	information contents	Information on departure time for trains to Kastrup	
	user interaction	Passive	
	retail options	None	

[country] [service no.] SWEDEN 7	title	Journey Planing	http://www.skanetrafiken.nu (Malmö) http://www.sl.se (Stockholm) and others
	region, city	Regional se above	Internet and telephone based PT traffic information and journey planning
	duration / status	24 h/day fully operated	
	spatial scope	Regional	
institutional context	policy framework	Regional initiative	
	funding	Public	
	information chain actors	Information from time tables and traffic database	
availability	distribution stage	Pre-trip	
	service procurement	General information, publicly available.	
	data acquisition	Fixed sources	
	data distribution	Static, Internet and automatic and personal telephone (Information updated with traffic information , but only to a low level i.e. planned disturbances) WAP (for Stockholm)	
contents	modal coverage	Inter-modal, PT, bus, train,	
	information contents	Information on journey planning, journey times, text and maps. Ticket information. Information for special PT (e.g. disabled), Information on planned disturbances (e.g. maintenance on busstop)	
	user interaction	Interactive journey planning.	
	retail options	None	

[country] [service no.] SWEDEN 8	title	Journey Planing SJ	http://www.sj.se
	region, city	National	Internet based rail and buss journey planning and ticket booking service
	duration / status	24 h/day fully operated	
	spatial scope	National	
institutional context	policy framework	National initiative	
	funding	Public	
	information chain actors	Information from time tables and traffic database. Train traffic management central registrers planned delays. Train positions communicated to management central through signal system	
availability	distribution stage	Pre-trip, real time to a certain extent and precision	
	service procurement	General information, publicly available.	
	data acquisition	Fixed sources	
	data distribution	Static /dynamic, Internet and automatic and personal telephone (Information updated with traffic information , but only to a low level i.e. planned disturbances). Booking numbers can be distributed by SMS and e-mail.	
contents	modal coverage	Inter-modal, PT, bus, train,	
	information contents	Information on journey planning, journey times, time tables, departuers, arrivals, arrivals per station in real time, traffic messages in “near real time”, Ticket information. Booking facility, Information for disabled, Information on planned disturbances (e.g. maintenance or cancelled trips)	
	user interaction	Transactional, journey planning, bookings.	
	retail options	Bookings and purchasing of tickets	

[country] [service no.] SWEDEN 9	title	Trafiken.nu	http://www.trafiken.nu
	region, city	Regional, Stockholm	Internet based traffic information
	duration / status	24 h/day fully operated	
	spatial scope	Regional	
institutional context	policy framework	Regional initiative	
	funding	Public co-funded by City of Stockholm, SNRA Region Stockholm and SL (Stockholm Local Traffic company)	
	information chain actors	Information from cameras, probes, Static information on parking, departure times etc.	
availability	distribution stage	Pre-trip, and real time, on trip through phone/WAP	
	service procurement	General information, publicly available.	
	data acquisition	Fixed sources through road side equipment, cameras, floating sources GPS through Probes.	
	data distribution	Static /dynamic, Internet based information, but only to a low level i.e. planned disturbances). On going project on integration with WAP services. Upgrade scheduled for 2002.	
contents	modal coverage	Multi modal, road, buss, boat, train, subway, flight, bike. Regarding subway and busses inter-modal	
	information contents	Information on journey planning, journey times, time tables, traffic information and messages, real time pictures in critical bottlenecks, parking information,. Also possibility to pay parking fees thorough WAP –services	
	user interaction	Interactive journey planning	
	retail options	Payment of parking fees through WAP services. (www.tele-p.se or www.mint.nu)	

[country] [service no.] SWEDEN 10	title	Traffic information and journey planning, PT services Gothenburg Region	http://www.vasttrafik.se
	region, city	Regional, Gothenburg and Gothenburg region	Internet based traffic information and journey planning VMS signs and monitors for real time information at buss stops *)Telephone services traffic information operated weekdays 7-20, Saturday 8-19 and Sunday 9-20
	duration / status	24 h/day * fully operated	
	spatial scope	Regional	
institutional context	policy framework	Regional initiative	
	funding	Public	
	information chain actors	Information from KomFram which is PT priority system. Data fed into traffic database which communicates with information system and traffic management center.	
availability	distribution stage	Pre-trip, and real time	
	service procurement	General information, publicly available.	
	data acquisition	Floating and fixed sources. Floating sources represented by the busses and trams within the buss priority area.	
	data distribution	Static /dynamic, Internet based information. Also information on monitors and VMS signs at buss stops. Information in real time. (Research has also been made regarding WAP)	
contents	modal coverage	Inter-modal, buss, tram, regional trains	
	information contents	Information on journey planning, journey times, time tables, traffic information and messages, real time information at PT stops in inner city, parking information,	
	user interaction	Interactive journey planning, Passive – sign information	
	retail options	None	

[country] [service no.] SWEDEN 10	title	Audio traffic information	http://www.speechtime.se Telephone based realtime information on road status (condition, road works and incident information) for main roads nation wide. (phonenumber +46 900 100 0 700 or +46 713 100 70)
	region, city		
	duration / status	24 h/day * fully operated	
	spatial scope	National	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data origins from SNRA database. Via Datex the information is feed into the Speechtime service	
availability	distribution stage	Pre and on-trip, real time	
	service procurement	Commercial information, publicly available.	
	data acquisition	See above SNRA	
	data distribution	Dynamic and by phone.	
contents	modal coverage	Mono modal – road transport	
	information contents	General trafiic information and messages, including road works, road condition, road weather information, accidents and incidents, disturbances in road-ferry traffic etc.	
	user interaction	Interactive. Information chosen by road or by region.	
	retail options	None	

[country] [service no.] SWEDEN 10	title	Audio traffic information	http://www.speechtime.se Telephone based realtime information on road status (condition, road works and incident information) for main roads nation wide. (phonenumber +46 900 100 0 700 or +46 713 100 70)
	region, city		
	duration / status	24 h/day * fully operated	
	spatial scope	National	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data origins from SNRA database. Via Datex the information is feed into the Speechtime service	
availability	distribution stage	Pre and on-trip, real time	
	service procurement	Commercial information, publicly available.	
	data acquisition	See above SNRA	
	data distribution	Dynamic and by phone.	
contents	modal coverage	Mono modal – road transport	
	information contents	General trafiic information and messages, including road works, road condition, road weather information, accidents and incidents, disturbances in road-ferry traffic etc.	
	user interaction	Interactive. Information chosen by road or by region.	
	retail options	None	

Switzerland service no. 1	title	Viasuisse	http://www.viasuisse.ch
	region, city	Switzerland	▪ Multi- and inter-modal traffic information service provider on national level
	duration / status	Since 2001 / Formerly VIZ Geneva	
	spatial scope	National level	
institutional context	policy framework	Private initiative, part of policy program	
	funding	Public-private partnership: SRG SSR idée suisse, Touring-Club Schweiz TCS, Railways Schweizerische Bundesbahnen SBB, Swiss road authority, Swiss Council for Accident Prevention bfu	
	information chain actors	data acquisition: Swiss cantonal polices, Swiss road authority, railways (e.g. SBB), traffic observer data fusion: Viasuisse information supply: Radio (SRG SSR idée suisse, local radio stations), National Television Broadcaster (SRG SSR idée suisse), Touring-Club Schweiz TCS, Railways Schweizerische Bundesbahnen SBB transmission: Mail, Fax, GEWI TIC software marketing and support: Viasuisse	
availability	distribution stage	pre-trip and on-trip real time	
	service procurement	Public / general	
	data acquisition	fixed sources, private drivers calling in	
	data distribution	static/dynamic; e.g. internet, e-mail, WAP, phone, fax, RDS/TMC	
contents	modal coverage	multi-modal/inter-modal (railways, road)	
	information contents	Coordinated; real-time road and railways traffic information	
	user interaction	Passive information	
	retail options	None	

Switzerland service no. 2	title	Traffix	http://www.traffix.ch ▪ Mono-modal traffic information service provider on regional level
	region, city	Zurich, Lucerne, Berne, Winterthur	
	duration / status	Since 1995 / operative	
	spatial scope	Regional level	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data acquisition: cantonal police, cameras, helicopter, traffic observer data fusion: Traffix information supply: local radio stations transmission: Mail, Fax marketing and support:	
availability	distribution stage	Pre-trip / on-trip Real time	
	service procurement	Public / General	
	data acquisition	Fixed sources: cameras Private drivers calling in Helicopter	
	data distribution	static/dynamic; internet, e-mail, fax	
contents	modal coverage	Mono-modal (road)	
	information contents	Coordinated	
	user interaction	Passive information	
	retail options	None	

Switzerland service no. 3	title	TransBasel	http://www.transbasel.com
	region, city	Basel	
	duration / status	2000-2002 / demo	
	spatial scope	Regional level	
institutional context	policy framework	5 th Framework European Union	
	funding	Public: European Union / Swiss Federal Office for Education and Science / Swiss Federal Roads Authority / Federal office for spatial development / Canton Basel-Stadt / Canton Basel-Landschaft	
	information chain actors	data acquisition: public transport operators, SAPRR (French motorway operator), public transport operators, Viasuisse, parking guidance system Basel data fusion, information supply, transmission: Transbasel	
availability	distribution stage	pre-trip real time	
	service procurement	Public / general	
	data acquisition	timetable update, loops on French motorways, webcams, RDS-TMC messages from Viasuisse, parking guidance system	
	data distribution	internet	
contents	modal coverage	mutli-modal/inter-modal; public transport (railway, bus, tram), car, bicycle, pedestrian, parking	
	information contents	journey planning, journey times with real-time aspects, real-time traffic data, webcam images, parking space availability	
	user interaction	interactive:input destination and origin, else: passive information	
	retail options	None	

Switzerland service no. 4	title	SBB	http://www.sbb.ch ▪ Mono-modal traffic information service on national level
	region, city	Switzerland	
	duration / status	Operative	
	spatial scope	National level	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data acquisition: Viasuisse → SBB Operation centers data fusion: Viasuisse marketing and support: SBB	
availability	distribution stage	Pre-trip / on-trip Real-time	
	service procurement	Public / general	
	data acquisition	Timetable updates of public transport operators	
	data distribution	Static; Internet, TV (Videotext)	
contents	modal coverage	Mono-modal: railways	
	information contents	Coordinated; real-time railways traffic information	
	user interaction	Passive information	
	retail options	Booking, ticketing	

Switzerland service no. 5	title	Truck Info	Http://www.truckinfo.ch <ul style="list-style-type: none">▪ Multi-modal traffic information service on national level for heavy goods vehicle▪ Multi-modal travel planer for heavy goods vehicle
	region, city	Switzerland	
	duration / status	Since 2001 / operative	
	spatial scope	National level	
institutional context	policy framework	Part of policy program	
	funding	Public	
	information chain actors	data acquisition: Viasuisse data fusion: Viasuisse	
availability	distribution stage	Pre-trip Real-time	
	service procurement	Public / personal / non commercial	
	data acquisition		
	data distribution	Dynamic: Website www.truckinfo.ch	
contents	modal coverage	Multi-modal / inter-modal for heavy goods vehicle	
	information contents	Interlinked	
	user interaction	Passive / interactive	
	retail options	None	

Switzerland service no. 6	title	SMS-Services by mobile phone companies	Http://www.swisscom.ch Http://www.orange.ch Http://www.sunrise.ch
	region, city	Switzerland	▪ Mono-modal traffic information using SMS
	duration / status	Operative	
	spatial scope	National level	
institutional context	policy framework	Private initiative	
	funding	Private	
	information chain actors	Data acquisition: Viasuisse data fusion: Viasuisse information supply: end-user transmission: mobile phone companies marketing and support: mobile phone companies	
availability	distribution stage	Pre-trip / on-trip Real-time	
	service procurement	Commercial / personal	
	data acquisition	Viasuisse	
	data distribution	SMS	
contents	modal coverage	Mono-modal: motorways and highways on national level	
	information contents	Coordinated	
	user interaction	Interactive	
	retail options	None	

UK 1	title	Travel Information Highway (TIH)	www.tih.org.uk
	region, city	Nationwide	<p>This is an electronic market place for the exchange of traffic and travel data, both between operators and between operators and users, using a common framework over the Internet. The TIH facilitates exchange of data between systems, thereby encouraging network operators and third party data providers to make their information available. It operates across jurisdictional boundaries, protects the integrity and ownership of data, caters for legacy systems and uses open Internet type protocols. It will be supported by TIS, the Traffic Control Centre Operator and is expected to support the delivery of Transport Direct and other government initiatives to improve information to travellers.</p> <p>It uses data supplied by the Traffic Control Centre (TCC) project, designed to bring about major improvements in the operation of the national strategic road network. The TCC will provide up-to-the-minute traffic monitoring, data co-ordination and information dissemination services for use by the travelling public, the Highways Agency, police, local highway authorities, other transport operators and the media. It includes construction and operation of a new Traffic Control Centre building in the West Midlands.</p>
	duration / status	developing	
	spatial scope	national	
Institutional context	policy framework	Set up by the Highways Agency (the national government's road network operator)	
	Funding	Public	
	Information chain Actors	Data supply services currently using the TIH include QMISS , providing near real time traffic data from the motorway network, the Mattisse project, which provides information about current road conditions, train arrivals and departures and car parking in the Midlands area and the COURIER project, providing selected data from the National Assembly for Wales traffic data. It is also used in the real-time M25 Traffic Trial and the TrafficMap trial	
availability	Distribution stage	pre-trip and on-trip	
	service procurement	The TIH expertise is available to Value Added Service Providers (VASPs) for onward transmission to the travelling public. It is hoped that the private sector will use the TIH to establish new information services using existing and new communications media such as TMC, DAB, GSM, DSRC, WAP, etc	
	data acquisition	From network operators and third party data providers – potential providers include the police, local authorities, Urban Traffic Control (UTC) centres and large ITS projects	
	data distribution	The TIH is expected to support the delivery of Transport Direct and it is hoped that the system will be widely used by VASPs	
contents	modal coverage	Multi-modal	
	information contents	A range of data, including QMISS and TrafficMap (see above)	
	user interaction		
	retail options		

UK 2	title	traveline	www.traveline.org.uk
	region, city	National	A multi-modal public transport travel information delivered over the phone, and increasingly over the Internet. The phone service version of traveline now exists everywhere at regional levels. National integration of traveline is being done currently. The Internet version of traveline is under development and already exists in some regions.
	duration / status	Current, though under development	
	spatial scope	National	
institutional context	policy framework	Enabling, with some capital and other funding being provided by the Government. A partnership approach is used, through the regional organisation of traveline	
	Funding	The partnership approach implies that much funding is expected to come from the private sector. In general, bus operators (nearly all of them in the private-sector) fund the running costs of the call centres. Government (both national government, and, in certain cases, groups of local authorities), is providing certain other funding, e.g.: <ul style="list-style-type: none">•purchase of the IT and telephony systems required to operate the regional traveline public transport enquiry call centres•the completion of the development of the JourneyWeb protocol / system to allow regional traveline public transport databases to communicate with each other, and the maintenance and operation of the central systems required to operate JourneyWeb.•Development of a National Gazetteer / database of places and of bus stops•Development of the TransXChange protocol for transferring Public transport times (and fares) data	

UK 2 (continued)	title	traveline	www.traveline.org.uk
institutional context (continued)	information chain actors	<ul style="list-style-type: none"> • Data acquisition: For bus: Mostly: Local Authorities, but increasingly Bus operators (and increasingly by direct electronic transfer to data fusion organisations), Occasionally , data fusion organisations carry out data acquisition. For rail: ATOC (Association of Train Operating Companies) through RJIS (Rail Journey Information System) • Data Fusion: Database suppliers • Information Supply: Call centres • Transmission: BT • Marketing and Support: Regional traveline consortia (who also manage all the Data and Supply functions above), assisted / supported by traveline National Project Manager 	
availability	distribution stage	Pre/trip information	
	service procurement	General information freely available, though phone service is charged at national (not local) call rates	
	data acquisition	Public Transport: Schedules / timetables (direct from operators / compilers for dedicated rail and express coach information services and for rail / coach aspects of traveline service): will mostly be direct for bus services once protocols / systems are in place; currently much bus service information is keyed-in from schedules / and service registrations by local authorities	
	data distribution	Phone, with some information by Internet (particularly all scheduled rail and express coach information),	
contents	modal coverage	Local bus, express coach, rail, estuarial / river ferries, air (Scotland only)	
	information contents	Integrated (inter-linked)	
	user interaction	Passive (phone service), Interactive (internet enquiry)	
	retail options	None	

UK 3	title	Transport Direct	www.dtlr.gov.uk/itwp/transdirect/index.htm
	region, city	National	"(It) aims to provide the traveller with all the information they need before and during a journey anywhere in the UK and with the ability to buy the associated tickets. The vision covers travel by all modes - air, car, train, tram, tube, taxi, bus, coach, ferry, bike and on foot - plus, importantly, mixtures of these modes. The centrepiece of Transport Direct will be a one-stop information point for all forms of travel information. In addition to schedules and details of any disruption on the chosen route, travellers will be able to look at maps of the area they are intending to visit. There will also be information for disabled travellers. Further services may also be incorporated, such as information on places of interest, hotels or restaurants. Transport Direct aims to exploit new forms of communication technology." Aim for 2003 is: <ul style="list-style-type: none">•real-time train operating information;•real-time information on many local bus services;•multi-modal travel information on the Internet, covering road journeys as well as all public transport modes at a single point of contact;•booking of long-distance multi-modal journeys on the Internet;•development of Internet-based maps, which allow travellers to examine public transport options both for visiting a specific venue and for general travel around an area they are considering visiting. It is envisaged that all the services that are part of traveline or feed into it would in effect form part of a total 'Transport Direct' service. The Government describes Transport Direct as "providing the glue that will enable these different services to stick together, so that the traveller can easily examine all the options and make mixing modes much more straightforward"
	duration / status	Introduction "by 2003". "Perhaps seven to ten years" to implement fully	
	spatial scope	National	
institutional context	policy framework	Enabling, "with the Government setting out the vision, and also commissioning research, issuing guidance (such as that to local authorities on their Local Transport Plans) and ensuring that relevant regulations don't get in the way, but provide the incentive to co-operate".	

UK 3 (continued)	title	Transport Direct	www.dtlr.gov.uk/itwp/transdirect/index.htm
institutional context (continued)	funding	<p>The partnerships approach that is intended by the Government, and the fact that Government "(sees) Transport Direct (as) being of benefit to transport operators, both in terms of a better relationship with their customers and in increased patronage and therefore higher ticket sales", implies that much funding is expected to come from the private sector. However, Government (both national government, and, in certain cases, groups of local authorities), is providing funding in certain areas associated with Transport Direct, e.g. funding of :</p> <ul style="list-style-type: none"> •Purchase of at-stop real-time enquiry systems •Project Manager for the National Real-time Information group •Various national studies (inc. Study on Communications Requirements / Options for delivering real-time information at bus stops) <p>It is also funding the development of the Travel Information Highway which is expected to support the delivery of Transport Direct.</p>	
	information chain actors	<p>Real-time train information and dedicated train service information (the latter is the 'National Rail Enquiry System'):</p> <ul style="list-style-type: none"> •Main actor: ATOC (Association of Train Operating Companies). Also the call centres (commissioned by ATOC) and Railtrack <p>Dedicated Express coach service information</p> <ul style="list-style-type: none"> •Main actors: National Express Ltd, Scottish Citylink (providing separate call centre services in different parts of the country because the operators serve different areas: both services available over national phone numbers) <p>Others Operators, VASPs (expected)</p>	
availability	distribution stage	Pre/trip, On-trip information delivered by Real-time information system (in some areas)	
	service procurement	General information freely available, though value-added supplemental services may be charged for if provided commercially by private organisations.	
	data acquisition	Envisaged to be direct from service providers' systems once protocols and administrative procedures developed.	
	data distribution	Phone, Internet (with mobile devices and kiosks likely to play a prominent part).	
contents	modal coverage	All modes	
	information contents	Parts will be integrated (inter-linked). However, it is conceivable that much will be co-ordinated (parallel) although the detail of how the various parts of Transport Direct would fit together has yet to be determined.	

UK 3 (continued)	title	Transport Direct	www.dtlr.gov.uk/itwp/transdirect/index.htm
Contents (continued)	user interaction	Various: some will be passive (e.g. phone service), some will be interactive (e.g. internet enquiry) some will be transactional (e.g. on-line bookings)	
	retail options	A key part of Transport Direct: booking and purchase of transport will be available: it is conceivable that booking and purchase of associated services (e.g. tourist tickets and also entertainment) will also be delivered by some participants in Transport Direct.	

UK 4	title	ITIS RDS-TMC service	www.itisholdings.com
	region, city	UKI	<ul style="list-style-type: none">ITIS Holdings PLC is a leading UK full-service telematics company, working with vehicle manufacturers, mobile networks, broadcast media, ISPs and fleet logistics companies, to provide TTI services throughout the UK.ITIS's commercial RDS-TMC service followed from the UK's successful RDS-TMC demonstration project
	duration / status	Formed in 1997	
	spatial scope	national	
institutional context	policy framework	private initiative.	
	Funding	Private – the company floated on the Alternative Investment Market (AIM) in October 2000	
	Information chain Actors	Management – ITIS Holdings PLC; Information supply – TrafficLink (journalistic), National Express Coaches (FVD probe vehicles), Eddie Stobart (FVD probe vehicles), other probe vehicles	
availability	distribution stage	pre-trip and on-trip, real time and historic data	
	service procurement	Commercial	
	data acquisition	Journalistic and Floating Vehicle Data. Journalistic data is provided via the company's content partner, TrafficLink . TrafficLink sources from several hundred traffic cameras and 'Jamline' telephone hotlines promoted through traffic bulletins on the radio, which generate more than 1000 calls a day. Other sources include the police, TrafficLink's own dedicated aircraft, local councils, the Highways Agency and a range of other non-governmental bodies. FVD is provided by major transport and coach companies whose fleets travel many millions of miles on key UK roads, and also FVD equipped private cars. Currently, Eddie Stobart, the UK's largest independent haulage and distribution organisation and National Express coaches, are signed up with ITIS. Data Collection Units, using GPS and GSM technology, have been installed in vehicles to provide 180 million FVD miles a year to the ITIS network.	
	data distribution	RDS-TMC, digital radio, IVR and directly to its own consumer telematics system, NavTrak.	
Contents	modal coverage	mono-modal - road	
	Information contents	Incident information and journey planning	
	user interaction		
	retail options	In car ' NavTrak ' system	

UK 5	title	TrafficMaster	http://www.trafficmaster.co.uk ▪ <i>TrafficMaster Plc has become a leading world provider of dynamic driver information and a key player in the commercial development of intelligent transport systems for the future. David Martell, the company's chief executive, conceived the technology behind the system in 1988 and in recent years, the company has achieved high levels of growth through delivery of a high quality product to become a pivotal player in Europe's telematics marketplace.</i>
	region, city	UK	
	duration / status	Formed in 1998	
	spatial scope	national	
Institutional context	policy framework	Private initiative. After successful evaluation of the pilot system (1990 to 1992) by the Department of Transport, a 12-year licence was granted covering all motorways and trunk roads in England	
	Funding	Private – the company floated on the London Stock Exchange in 1994	
	Information chain Actors	Own data; Distribution Product Partners: Vehicle manufacturers: - e.g. Vauxhall, BMW, Citroen, Jaguar; Mobile Service Providers: e.g. BT Cellnet; Value-added Product / Service Providers: e.g. RAC (RAC Trackstar GPS-based Vehicle security system), AA (direct data feed from TrafficMaster to AA for its information services), Motorola/ Blaupunkt (GPS-based dynamic navigation systems), CybIT (FleetStar fleet management information system, originally developed by TrafficMaster)	
availability	distribution stage	Pre-trip and on-trip, real-time data	
	service procurement	Commercial.	
	data acquisition	In the UK, the company has developed a state-of-the-art network of nationwide sensors and transmitters that gather and distribute traffic data over 8000 miles of motorway and trunk routes.	
	data distribution	The system disseminates the gathered data at the company's headquarters and delivers it to the customer through a number of screen or speech-based receivers These include TrafficMaster Monitor, YQ ² and Oracle/Freeway units, mounted in the vehicle; mobile phone services in partnership with the UK's main mobile phone networks and the company's traffic information website provides live traffic information on the PC.	
Contents	modal coverage	mono-modal - road	
	Information contents	Incident information and journey planning	
	user interaction	In-vehicle systems and subscription services require user-interaction	
	retail options	Several: see value-added products (including in-car systems)	

UK 6	Title	The ROMANSE project	www.romanse.org.uk
	region, city	Hampshire	ROMANSE – ROad MANagement System for Europe – is a pilot research and development project based in Southampton, Hampshire. It uses TTI systems to develop the city as a model for transport management in Europe. Real time traffic and travel information is provided to the public as a means of influencing travel behaviour, increase awareness and use of public transport, maximise the efficiency of the transport system and provide high quality information for use in strategic policy decisions.
	duration / status	Started 1992	
	spatial scope	regional	
institutional context	policy framework	Part of an EC policy programme	
	Funding	Public/private partnership plus EC funding	
	information chain actors	A Traffic and Travel Information Centre (TTIC) has been set up in Southampton to co-ordinate the different elements of ROMANSE and to collect, collate and disseminate information.	
availability	Distribution stage	pre-trip and on trip	
	Service procurement	Information available free to the public	
	data acquisition	A variety of sources including CCTV, enhanced by ARTEMIS incident detection software, at 30 key locations around the city and the surrounding motorway network, Automatic Vehicle Location (AVL) technology, static information on public transport routes and timetables	
	data distribution	Real-time information at bus stops, including audio and visual displays; 14 free standing 'TRIPlanner' computer terminals, giving information about public transport routes and times, taxis and private car journeys; website; Variable Message Signs – 26 route guidance signs, 25 car parking information signs and 4 mobile VMS signs; local, regional and national radio, TV via CEEFAX and TELETEXT pages, Information Display Units in the city centre, ferry terminals, railway stations, car parks, the airport and shopping precincts	
contents	modal coverage	Multi-modal	
	information contents	journey planning, journey times, vehicle locations, waiting times, incident information	
	user interaction	Passive and interactive	
	retail options		

UK 7	Title	Star Trak	http://212.126.193.75/htm/engl/publikationen/docs/Startrak2000.pdf http://www.atco.org.uk/news/news101/fagg.htm
	region, city	Leicestershire	Real-Time Information scheme providing real-time information at bus stops linked to bus priority and also to next-stop indicators on-bus
	duration / status	Started 2000	
	spatial scope	regional	
institutional context	policy framework	Linked to Quality Bus Partnerships programme.	
	Funding	Public/private partnership	
	information chain actors	Local Authorities: Leicester City Council Leicestershire County Council Bus Operators: First Leicester, Arriva Fox County	
availability	Distribution stage	On trip	
	Service procurement	Information available free to the public	
	data acquisition	Buses, using differentially-corrected GPS	
	data distribution	Real-time information at bus stops, information on-bus	
contents	modal coverage	Bus	
	information contents	Next Stop, Estimated time to arrival	
	user interaction	Passive	
	retail options		

UK 8	Title	KIZOOM Mobile Public Transport Information Services	http://www.kizoom.com/products/nutshell.html
	region, city	UK nationwide, London	Kizoom was formed specifically to create the new sorts of application made possible by the arrival of the mobile Internet. It builds personalisation engines, user interfaces and back end platforms to deliver scalable, personalised travel information over the mobile Internet via WAP, SMS and other relevant protocols.
	duration / status	Started 2000	
	spatial scope	Available nationally: provides national information (national rail timetable), route-only information (e.g. London - Scotland rail corridor) + London-only	Over the past two years Kizoom has developed and launched some of the world's first WAP travel applications, and brought the data of UK travel operators to the mobile data services of the major UK telecom operators. It currently produces rail timetables (both for WAP phones and for PDAs); London travel alerts, live train information for GNER, a UK rail company; and real-time incident services for some UK rail companies. It uses SMS and E-mail to 'push' information to users. Some services are currently running as trials
Institutional context	policy framework	Independent commercial venture: but more applications of its technology and designs are being made possible through development of comprehensive databases through RJIS, Traveljne and associated initiatives	
	Funding	Commercial	
	information chain actors	UK rail companies, Railtrack, Transport for London, Kizoom, mobile portals	
Availability	Distribution stage	pre-trip and on-trip	
	Service procurement	Information available through subscription or call-charges, dependent on technology used.	
	data acquisition	Direct from partner suppliers	
	data distribution	WAP phones, PDAs, SMS-enabled mobile phones	
Contents	modal coverage	Rail / Metro	
	information contents	Scheduled Train times, real-time expected arrival and departures (including by platform for certain services) , incident information	
	user interaction	Passive and interactive	
	retail options	All information is currently retailed through user charges: (special subscriptions or normal call charges). However, these charges may contain no specific element for the Kizoom service	

UK 9	Title	Travel Websites Accreditation System, and Public Transport websites - Best Practice Guide	www.iolt.org.uk/accreditation/accredit.htm
	region, city	national	If the public is to have confidence in the quality of what is presented on websites giving public transport information, a disciplined approach to the content and maintenance of sites offering public transport information is necessary. The IoLT (Institute of Logistics and Transport) believes that the most practical and effective way of achieving this is to ask the providers of sites offering such information to submit themselves to independent assessment and accreditation so as to verify that appropriate standards for information content and maintenance are being observed. The IoLT has been recognised by the Department of the Environment, Transport and the Regions as an independent professional body able to draw upon the expertise of its members to determine and monitor the consistent application of appropriate standards and so to act as the body responsible for accreditation.
	duration / status	Scheme commenced 1998	
	spatial scope	national	
Institutional context	policy framework	Scheme launched by UK Government Transport Minister at a conference in October 1998. Preceded the Traveljne and Transport Direct initiatives but part of the new government's growing interest in provision of accurate public transport information.	
	Funding	Administered by IoLT (Institute of Logistics & Transport) out of its own resources and those of the organisations to which the Accreditation Committee members belonged. Amore recent, associated, project to provide a 'Best Practice' guide for designing Public Transport Information WebSites was funded by central government (DTLR)	
	information chain actors	Webmasters, IoLT	
Availability	Distribution stage	The fact that a Public Transport Information website is accredited is shown on the website itself	
	Service procurement	Voluntary	
	data acquisition	N/A	
	data distribution	N/A	
contents	modal coverage	Originally all public transport modes - now extended to all travel modes	
	information contents	N/A	
	user interaction	N/A	
	retail options	N/A	