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COMMISSION STAFF WORKING DOCUMENT

Towards a roadmap for delivering EU-wide multimodal travel information, planning and ticketing services

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1. INTRODUCTION

Mobility is a key part of modern life. Private and business travel has become possible and affordable for increasing numbers of people in the EU. The internet has revolutionised the way journeys are planned and tickets are reserved; increasingly, it has replaced the traditional travel agency as a means to obtain information and book journeys.

With the internet and smartphones leading to growth in highly personalised information and transportation services, information that spans different forms of transport — multimodal information — is an important factor for smart and seamless door-to-door mobility.

Multimodal information allows proper interchange facilities to be effectively identified and properly planned. By incorporating real-time traffic information, it also allows passengers to take predicted delays into account and improves the reliability of their journey.

The potential societal, environmental and economic benefits of multimodal travel information and planning services are huge.

Multimodal travel information and planning services provide better quality solutions to address travellers' mobility needs.

- *They allow travellers to make better informed choices* by making them aware of all possible travel options, allowing them to make the best choices for their needs (e.g. means of transport, routes, cost, travel time and even environmental impact) and helping them to complete their journey successfully by providing reliable information before and during the trip. They therefore support passenger rights to information[1], which include the provision of information at specific points in the journey (before ticket purchase, before and during the journey, and in the event of disruption).

  The widespread impact of social networks has caused a paradigm shift in the role of travellers: from being pure recipients of a service, travellers have become a source of information. By contributing collectively to the pool of information available and to the quality and reliability of the service on offer (e.g. by giving feedback to the service provider), travellers develop a sense of co-ownership of the service. This increases their acceptance of the service and their motivation for using it. This trend is still in its very early stages.

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[1] A European vision for passengers: Communication on passenger rights in all transport modes, COM(2011) 898 final.

Furthermore, both private and public transport vehicles fitted with on-board devices (e.g. geo-tracking systems) and sensors become more and more capable of communicating among themselves and with the surrounding infrastructures. Such cooperative systems can provide drivers with personalised assistance during their trips (e.g. real time multimodal traffic information, driving assistance) or support a more efficient traffic management.

- *They promote more inclusive mobility* by making information easily available, tailored to the needs of special traveller groups such as people with disabilities and passengers with reduced mobility (e.g. by providing information about facilities or accessibility support available at transport interchanges).

Providing travellers with accurate information before and during the journey will not only benefit individuals; it will also lead to efficiency gains for transport operations and for the transport network as a whole.

Multimodal travel information and planning services also provide:

- *Better modal integration and more sustainability* by enabling travellers to select the most suitable combination of modes of transport for the journey. In urban environments, multimodal information could help to increase use of public transport and other modes, such as cycling and walking. This will allow more travellers to choose more sustainable ways of travelling to or through city centres and will make better use of existing infrastructure. Travel information is one of the factors contributing to the quality of public transport.

The Lyon conurbation[2] (1.5 million inhabitants) has identified the costs of different measures to reduce CO_2 emissions; multimodal information has a very good ratio cost/t CO_2 saved[3] (€ 10 / t CO_2 saved).

- *More flexibility in the event of congestion*: travellers can be given information on options for different routes, allowing for better use of existing transport infrastructure.

- *More resilience in the event of major disruptions*: the information services provided can improve mobility continuity and allow the transport system to respond more efficiently and effectively to potential disruptions.

Multimodal travel information and planning services benefit the wider economy because they offer new business opportunities for service providers and contribute to job creation in a very dynamic sector. They allow for full use of new forms of electronic ticketing on mobile devices (smart cards, mobile phones etc.). This is an important step in moving to a seamless transport system.

Integrated ticketing (i.e. combining all transport methods on a single ticket) is the natural partner to full availability of multimodal travel information and planning services.

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[2] http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetailDoc&id=5782&no=2.
[3] This ratio has to be compared to the current price (around € 20) of a tone of CO_2 on the CO_2 market.

Stakeholders[4] see ticketing as the logical consequence of travel planning. Integrated ticketing is a key part of an attractive, user-friendly multimodal transport system and a prerequisite for a seamless journey. The ability to travel by multiple modes of transport, while only needing to purchase one ticket for the whole journey, is a valuable incentive to encourage travellers to combine several forms of transport.

More than 100 multimodal journey planners already exist in Europe and yet information provided to travellers is incomplete (due, for example, to the fragmentation of existing information supply geographically and in terms of the modes of transport covered, or the lack of real-time information). At the moment, therefore, travellers cannot make fully informed choices suited to their needs. The same applies to ticketing: while there are many examples of electronic and smart ticketing, it is still not possible to buy a single ticket for a multimodal journey across European national boundaries.

This Staff Working Document presents and analyses the major challenges to be overcome in order to create a framework supporting more comprehensive services emerge. While taking stock of relevant activities aimed at addressing issues in this area and describing the current state-of-play, it also outlines short- to medium- term options that contribute to tapping the full potential and benefits of multimodal travel information and planning services. Moreover, it will help to inform and guide Member States, industry and other stakeholders with regard to on-going and future work of Commission's services involved.

2. POLICY CONTEXT

Travelling is not confined within national borders. The cross-border characteristics of multimodal travel information, planning and ticketing services require an integrated European approach, as reflected by European transport policy.

With its vision of seamless door-to-door mobility, the 2011 White Paper on Transport[5] stresses the need for further integration of the different modes of transport to make mobility more efficient and user-friendly. Online information, electronic booking and payment systems integrating all means of transport should facilitate and promote multimodal travel. A key objective is to establish a framework for EU-wide multimodal transport information, management and payment services to be operational by 2020. The White Paper on Transport also emphasises that availability of information is essential for seamless door-to-door mobility. Action 22 proposes integrating different modes of transport to achieve seamless mobility and to support the development of multimodal travel information, planning and ticketing services. This could include a legislative proposal to make sure that private service providers have access to travel and real-time traffic information.

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[4] http://ec.europa.eu/transport/media/consultations/doc/2013-03-12-mtpis/stakeholders-views.pdf.
[5] White Paper Roadmap to a Single Transport Area – Towards a competitive and resource efficient transport system, COM(2011)0144 final.

Both the Action Plan for the Deployment of ITS for road transport and its interfaces with other modes[6] adopted on 16 December 2008 and the Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport[7] (ITS Directive) refer to multimodal travel information and planning services.

The ITS Action Plan includes in its Action Area 1 "Optimal use of road, traffic and travel data" a specific policy action (point 1.5) related to the "promotion of the development of national multimodal door-to-door journey planners, taking due account of public transport alternatives, and their interconnection across Europe".

The ITS Directive includes in its Priority Area I "Optimal use of road, traffic and travel data" the priority action (a) on the provision of EU-wide multimodal travel information services and the priority action (b) on the provision of EU-wide real-time traffic information services; for both actions specifications should be adopted by the Commission.

During the informal ministerial meeting on transport and telecommunications (Nicosia, 17 July 2012), ministers stressed the need to guarantee availability and accessibility of this data and to adopt standards to ensure interoperability, given the fundamental role that data plays in developing innovative products and services that contribute to a more reliable multimodal integrated transport system. Ministers also invited the Commission and the Council to explore more ways to improve accessibility of transport data.

Funded by the European Parliament, the Preparatory Action 'To develop and validate a European passenger transport information and booking interface across transport modes' analysed customer needs, market developments and future trends in terms of multimodal travel information, planning and ticketing services. The report[8] concluded that the main pre-requisite for such an interface was fair and equal access for service providers to data on schedules, fares and availability, for all modes of transport. This could be followed by a second phase, testing the feasibility of development, deployment and proper interfaces, which would build on the findings of the first stage, particularly the need to link the first/last mile[9] with long-distance transport solutions.

All these elements are consistent in their approach to promoting genuinely EU-wide multimodal travel and traffic information, planning and ticketing services.

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[6] Communication from the Commission – Action Plan for the deployment of Intelligent Transport Systems in Europe, COM(2008) 886.
[7] Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010, OJ L 207, 6.8.2010.
[8] All Ways Travelling Consortium Final Report 16 December 2013.
[9] The 'first/last mile' refers to the need to bridge transport gaps at the beginning and/or end of journeys that may otherwise create barriers to using particular modes of transport. For example, a commuter may be willing to commute to work by train, but if there is no easy way to get to the train station from home, or to work from the train station at the other end, this becomes impractical. The first/last mile gap means that the commuter won't use the train, perhaps preferring a car journey instead.

3. A FRAGMENTED LANDSCAPE

More than a hundred multimodal journey planners are already available in European countries, regions and cities[10]. Many of them were developed as part of EU-funded research projects[11], while others are provided by different transport operators, start-ups or public-private partnerships. These services incorporate a wide variety of options, such as comparison of schedules, fares, calculations of CO_2 emissions for trip combinations or availability of tickets for the selected trip.

However, information services remain very fragmented in what they offer, both in geographical scope (limited to cities, regions or countries; only covering neighbouring countries in exceptional cases) and coverage of modes of transport; they rarely provide cross-border travel information, let alone EU-wide or door-to-door coverage. Services such as car-sharing, car-pooling and demand-responsive transport, which provide more environmentally-friendly modes of transport, have not yet been integrated into travel planning to a practical level.

Real-time status information for public transport (e.g. bus, metro, and rail) and multimodal real-time traffic information systems exist in several urban and 'extra urban' areas in Europe and worldwide, either as prototypes or fully operational systems. However, existing services do not offer travellers real-time information across all stages of a multimodal trip. Travellers increasingly expect real-time vehicle location, and predictions (e.g. of arrival times) and notifications of travel disruptions, particularly while the journey is taking place, and on mobile devices[12].

There are also limitations on ticketing. For many destinations, it is not possible to book an integrated ticket that includes both the long-distance part and first and/or last part of the journey. In addition, it is usually difficult to compare different transport operator offers for the same itinerary.

The fragmentation and limitations of what is on the market today pose a barrier to tapping the full potential and benefits of multimodal travel information and planning services. Existing services should be able to join up so that the most accurate traffic and travel data are shared and made available for all geographic areas and modes of transport.

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[10]http://ec.europa.eu/transport/its/multimodal-planners/examples-of-existing-national-journey-planners/index_en.html.

[11] E.g. EU-Spirit, Wisetrip, i-Travel.

[12] Multimodal Trip Planner System — Final Evaluation Report, May 2010. http://www.fta.dot.gov/research.

In June 2011, the first Smart Mobility Challenge[13]was launched, calling on industry and other stakeholders to come up with ideas and ways to for creating a genuinely European multimodal journey planner. Several innovative services were produced in an attempt to answer the fundamental question: 'Why can't I plan or book my journey through Europe — switching from air to rail or sea, to urban or road transport — in one go, online?'. The winners of the challenge developed products which are steadily gaining ground in the multimodal information services market. The ideas submitted have helped to identify challenges, such as enabling access to multimodal travel data that need to be addressed before truly multimodal and cross-border journey planners can be developed.

Public-sector efforts are matched by private-sector initiatives, enabling stakeholders to share market opportunities and improve service management.

The Smart Ticketing Alliance[14] was set up to improve interoperability between regional and national electronic ticketing systems for public transport. It follows on from the Interoperable Fare Management project, funded by the Commission under its Seventh Framework Programme for Research and Innovation.

The Full Service Model[15] (FSM) is an initiative by rail industry stakeholders, aiming to develop and implement technical specifications for the interoperability of telematics applications for passenger services[16] (TAP TSI) and to fill in potential gaps. The FSM aims to put in place an industry standard for rail data exchange, including door-to-door travel throughout Europe and promote further cooperation between railway operators and ticket vendors.

4. HURDLES TO OVERCOME

Stakeholders see the benefit of EU-wide multimodal journey planning services[17]. Railways and public transport are regarded as central pillars of such services, and stakeholders take a wide perspective on multimodality, including road, air and ferries as important modes of transport to be considered.

However, several challenges still need to be overcome in order to achieve the 2011 White Paper on Transport vision of seamless door-to-door mobility.

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[13] http://ec.europa.eu/transport/its/multimodal-planners/index_en.htm.
[14] http://www.smart-ticketing.org/.
[15]http://www.cer.be/press/press-releases/press-releases/taking-rail-ticket-distribution-to-the-next-level-railways-and-ticket-vendors-launch-the-full-service-model-initiative/.
[16] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:123:0011:0067:EN:PDF.
[17] Study regarding a European Multi-Modal Journey Planner, D4 — Stakeholder views, Lyon, 21 July 2011.

4.1 Insufficient accessibility of multimodal travel and traffic data

Previous European Commission work (including public consultations[18], workshops[19] and public hearings[20]) have confirmed that the main challenge is ensuring fair and equal access to multimodal travel and traffic data, particularly real-time data.

Many national public-sector initiatives — e.g. in the UK, Denmark, Sweden, Finland and France — that aim to open access to data are put in place to ensure transparency and benefit travellers, and lead to more efficient transport management. Ongoing research carried out by the Commission services seems to confirm this assumption.

Some private companies are however reluctant to open up access to their data due to commercial interests. They participate in cooperation schemes that are based on bilateral agreements and that allow selected service developers access to their data under well-defined conditions including charges for accessing the data and limits on the purposes permitted for re-use. This leads to difficulties for smaller players (such as small and medium-sized enterprises) to enter the market, since they do not have access to the data essential to develop new services.

In addition, European legislation governing access to data does not address all relevant aspects for the development of genuine EU-wide multimodal travel information, planning and ticketing services. Provisions either apply only to non-commercial public sector bodies, or do not cover all data (e.g. the Directive 2003/98/EC of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information[21], as amended), or only cover one mode of transport (e.g. TAP TSI, and Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on Rail Passengers' Rights and Obligations[22]).

4.2 Insufficient availability of multimodal travel and traffic data of good quality

Previous European Commission work also confirmed the necessity of improving the availability of public and private travel and traffic data of good quality, static and dynamic, regularly updated, covering all modes of transport and their combinations. This leads to potentially unreliable services and potentially complex liability issues relating to incorrect information.

European legislation governing the availability of data mainly covers the re-use of existing data and does not cover data collection. For example, the Directive 2007/21/EC of the

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[18] e.g. Public Consultation on Enablers for Multimodal Travel Planning and Information Services.
[19] e.g. Workshop on Enablers for Multimodal Travel Planning and Information Services, Brussels, 16 April 2013.
[20] e.g. Public hearing on Access and availability of multimodal travel and traffic data in the EU, Brussels, 15 November 2013.
[21] OJ L 345/90, 31.12.2003, p. 90.
[22] OJ L 315, 3.12.2007, p. 14.

European Parliament and of the Council of 14 March 2007 establishing an infrastructure for spatial information in the European Community (INSPIRE)[23] requires existing spatial data sets held by public authorities that include road, rail, air and water transport networks and related infrastructure, to be accessible and to be provided using a standard representation by the end of 2017.

On several occasions[24], stakeholders have pointed out that it is necessary to maximise availability of data for developing multimodal travel information and planning services. The challenge is to maximise availability of good quality multimodal travel and traffic data while increasing its accessibility.

4.3 Lack of interoperable data formats and data exchange protocols

Interoperable data formats and data exchange protocols are very important, even though stakeholders do not consider their absence to be a key barrier to multimodal travel information and planning services.

Existing standards (covering either data formats, e.g. Transmodel[25], IFOTP[26], or data exchange interfaces that define formats and protocols, e.g. SIRI[27], NeTEx[28], TPEG[29], particularly used for public transport) can provide rich data interchanges enabling EU-wide multimodal journey planning[30]. Use of such standards should be made more consistent. Data for all modes of transport provided in line with these standards should be interoperable, produced and shared in machine-readable formats, as a minimum measure. New standards may be required to properly integrate new mobility services (car-pooling, bike sharing, park & ride etc.) into multimodal travel information and planning services. Developing standardised interfaces would allow existing services to be linked flexibly.

The challenge will be to establish common specifications for data formats, data exchange protocols and interconnection of existing solutions, without hampering technological innovation.

Creating interoperable ticketing systems across transport modes and countries has been identified as one of the key prerequisites[31] for a seamless transport system. Tickets should be

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[23] OJ L 108, 25.4.2007, p.1.

[24] Public hearing on enablers for multimodal travel information and planning services, Brussels, 16 April 2013.

[25] Transmodel is the European reference data model for public transport, CEN-TC278 ENV12896.

[26] IFOPT (CEN/TS 00278207) defines a data model for the identification of fixed objects in public transport.

[27] SIRI (CEN/TS 00278181-1 to 5) (service interface for real-time information relating to public transport operations) is a standard for the exchange of real-time information.

[28] NeTEx is a prCEN/ technical standard (currently in development) intended to be a general purpose format capable of exchanging timetables for rail, bus, coach, ferry, air or any other mode of public transport.

[29] TPEG (transport protocol experts group) specifications offer a method for transmitting multimodal traffic and travel information.

[30] Study entitled 'Towards a European multi-modal journey planner', conducted as part of action 1.5. (promotion of multimodal journey planners) of the ITS Action Plan.

[31] ORIGAMI 2011 http://www.transport-research.info/Upload/Documents/201204/20120404_ 182216_ 57685_or%20d4.2 %20system% 20requirements%20v1.1.pdf.

integrated for urban areas and regions and also cover long-distance travellers who may cross borders during their journeys[32].

This would require the standardisation, interoperability and cross-border acceptance of applications and the carrier medium (chip, GSM etc.). Technical guidelines for the standardisation of chips and cards have been published and are currently available. Two European standards on access media exist: the toolbox for standardised data elements (EN1545) and the general application standard framework (EN15320).

In addition to improving the interoperability and integration of various ticketing systems, liability and passenger rights issues will need to be clarified. For example, travellers who are using two or more transport modes and have bought the different tickets under a single purchase contract might be exposed to higher costs in the event of delays and therefore of missed connections.

4.4 Cooperation between stakeholders

By definition, a multimodal trip involves several modes of transport and transport services, i.e. a large number of actors, including transport operators, infrastructure managers, regulatory bodies, industries, municipalities etc. To achieve seamless travel, it is important that all these actors in the transport chain work together efficiently, with effective coordination between public and private partners. For the provision of EU-wide multimodal travel information, planning and ticketing services, it would be necessary to facilitate an effective and efficient cooperation between all stakeholders along the service chain.

5. THE WAY FORWARD

5.1 The need for an integrated approach

The promotion of EU-wide multimodal travel information, planning and ticketing services, and better use and integration of transport modes and various mobility services, are interlinked objectives and require an integrated approach.

An environment that is conducive to providing services that meet travellers' need for information would allow them to make well-informed choices for door-to-door multimodal trips in Europe, while facilitating a level playing field for all market participants.

Further activities aiming at creating this environment would require a refined framework, structured along six axes:

- *Enabling fair and equal access to multimodal travel and traffic data*

The limitations of existing legislation would need to be overcome, with clear terms and conditions for the use and re-use of data.

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[32] LINK 2010.

More open access to data would stimulate content markets by facilitating the use and re-use of public and private multimodal travel and traffic data. It would open up resources for cross-border applications and services, improving both modal choice and integration of modal networks. It would also lead to more efficient use of transport infrastructure through the use of enhanced traffic management and information services.

- *Improving the availability of good quality multimodal travel and traffic data*

The relevant multimodal travel and traffic data should be available, complete (both in terms of coverage of geographical areas and of modes of transport) and updated so that multimodal travel information and planning services can be developed.

- *Interoperable, harmonised data formats and data exchange protocols*

Stakeholders have often stressed the importance of interoperable data formats, protocols and interfaces. Options for defining harmonised data formats and data exchange protocols, and assessing needs for standardisation, would also need to be considered, in addition to endorsing and adapting existing data formats, contents, protocols and interfaces developed at European level (e.g. in the context of the INSPIRE Directive for the transport networks spatial data).

- *Promoting the interconnection of existing services*

There are many journey planners across Europe, covering one or more transport modes and one or more countries. However, today's market availability is still a long way from providing travellers with the information needed to plan a door-to-door trip or book a ticket for a journey within Europe, regardless of the number of countries or modes of transport involved. To overcome the current fragmentation, interoperability of existing services would need to be encouraged in a coordinated and effective way.

- *Facilitating efficient cooperation between stakeholders*

Fulfilling the vision of truly EU-wide multimodal travel information and planning services will require considerable involvement and commitment by all stakeholders involved in the process. Previous projects have shown how important it is to have strong industry involvement and industry cooperation with public authorities in deploying ITS applications and services, while ensuring equal conditions of competition for all.

- *Showcasing the benefits of multimodal travel information, planning and ticketing services*

Multimodal travel information, planning and ticketing services are an enabler for developing efficient and attractive long-distance and cross-European multimodality. Well promoted, accessible, real-time, reliable information that is presented simply and transparently will allow a journey to be planned and completed smoothly.

5.2 Relevant initiatives within existing frameworks

There is a series of relevant activities (either on-going or planned) involving various Commission services and contributing to the creation of an environment for providing EU-wide multimodal travel information, planning and ticketing services; these activities can be structured along the aforementioned six axes:

5.2.1 Standardisation activities

To provide for interoperability, compatibility and continuity for the deployment and operational use of ITS, the Directive 2010/40/EU (ITS Directive) already envisages the possibility of developing the necessary standards in the priority areas and initiatives, i.e. also for the priority action (a) "Provision of EU-wide multimodal travel information services".

5.2.2 Specifications under the Directive 2010/40/EU (ITS Directive)

The specifications for priority action (a) "Provision of EU-wide multimodal travel information services" would define the requirements needed to make EU-wide multimodal travel information services accurate and available across borders, including, inter alia, possible provisions for the roles of the various stakeholders along the service chain, their procedural obligations, the various levels of services and their content. They could also include, to overcome the existing service fragmentation, specifications for linking various services (both new and existing travel planners).

Similarly, the specifications for priority action (b) "Provision of EU-wide real-time traffic information services" would define the necessary requirements to make EU-wide real-time traffic information services accurate and available across borders to ITS users. The specifications could include provisions to define the relevant services in terms of their content and format; they would also establish procedures for ensuring compatibility, interoperability and continuity to provide EU-wide real-time traffic information services. The aim is to give drivers information on relevant events, as well as road and traffic conditions in a standardized way across the EU.

5.2.3 Activities under Horizon 2020, "Smart, Green and Integrated Transport" – Challenge

Removing the barriers to delivery of EU-wide multimodal travel information, planning and ticketing services is also reflected in the Work Programme 2014-2015 of the "Smart, Green and Integrated Transport" – Challenge under Horizon 2020. More specifically, the projects retained for funding would help to overcome fragmentation, facilitate cooperation between various stakeholders involved in service provision and unlock the potential of vast amounts of transport data.

5.2.4 Activities under the Connecting Europe Facility (CEF)

The CEF will promote new technologies and innovation, including advanced concepts for:

- Operation, management, accessibility, interoperability, multimodality and efficiency of the network, including through multimodal ticketing and coordination of travel timetables;

- Efficient ways to provide accessible and comprehensible information to all citizens on interconnections, interoperability and multi-modality.

This could take the form of multi-modal interfaces to promote co-modal services (seamless transport chains), and include traffic and travel information and management systems as well as integrated ticketing.

Some of the aforementioned activities would entail the processing of personal data, to various degrees, which will be carried out in accordance with EU law on the protection of personal data[33] as well as the accompanying national implementing measures.

These activities could also facilitate the exchange of data and information between different operators, some of whom may be in competition with one another. Exchanges of commercially sensitive information between competitors may adversely affect competition and infringe the EU antitrust rules. The Commission would therefore be mindful of this consideration when designing and carrying out these activities.

Where necessary, synergies will be generated with activities under the Interoperability Solutions for Public Administrations (ISA) Programme. ISA creates, among other areas, methods and specifications on interoperability that guide the Europe-wide implementation of interoperable solutions.

5.3 Planned initiative on access and availability of multimodal travel and traffic data in the EU

Such an initiative could help to overcome the current legal limitations and address the challenge of making multimodal travel and traffic data accessible in a non-discriminatory way combined with clear terms and conditions for their use and re-use.

The following elements could be addressed:

- Ensuring access to public and private multimodal travel and traffic data;

- Improving and maximising the availability of public and private multimodal travel and traffic data;

- Promoting and developing fully interoperable or compatible formats for data and data exchange protocols, and

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[33] In particular Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regards to the processing of personal data and on the free movement of such data (OJ L 281, 23.11.1995, p. 31).

- Defining clear terms and conditions for the use and re-use of data.

The Commission services are currently working on an impact assessment.

Indicative timeline

	Enabling the fair and equal access to multimodal travel and traffic data	Maximizing the availability of good quality multimodal travel and traffic data	Interoperable, harmonised data formats and data exchange protocols	Promoting the interconnection of existing services	Facilitating an efficient stakeholder cooperation	Showcasing the benefits of multimodal travel information, planning and ticketing services	Targeted date
Impact assessment work on access and availability of multimodal travel and traffic data	▓	▓	▓				2014
Evaluating further standardisation needs			▓	▓			2015
Specifications under the ITS Directive, priority action (a) "Provision of EU-wide multimodal travel information services"			▓	▓			2015
Specifications under the ITS Directive, priority action (b) "Provision of EU-wide real-time traffic information services"			▓	▓			2014
Horizon 2020 Smart, Green and Integrated Transport Work Programme 2014 - 2015			▓	▓	▓	▓	After 2014
Using Connecting Europe Facility, Work Programme 2014			▓	▓	▓	▓	After 2014

6. CONCLUSIONS

To remove blockages and creating a favourable environment for delivering genuine EU-wide multimodal travel information, planning and ticketing services the specified barriers have to be addressed in a coordinated and coherent manner with the aim of setting up a framework that supports the creation of these services. This would benefit:

- travellers, by enabling them to make better informed choices and by promoting more inclusive mobility;

- the environment, by improving modal integration and the sustainability of the transport system; and

- the economy, by offering new business opportunities and contributing to the creation of new jobs, thereby enhancing the competitiveness of the European transport sector.

There is a strong commitment of the stakeholders expressed on several occasions (such as the ITS Conference 2013, public consultations and workshops) to working closely with the Commission services, other EU institutions and Member States in setting up the framework supporting the creation of EU-wide multimodal travel information, planning and ticketing services.