
Cross border public (rail) transport problems in North West Europe

Proposals for action on EU level on the basis of selected operating and project experiences

Submission to the EC in relation to the first draft of the 3rd framework programme 2010-2020 (White Paper on European Transport Policy)

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EXECUTIVE SUMMARY

It is the aim of this paper

- first to describe various features of operating and project experiences in the public transport sector with a main focus on rail mostly made by public transport authorities,
- second to contrast these practical experiences with actual EU directives and guidelines etc. and
- third to propose recommendations for the next **White Paper on European Transport Policy 2010**.

The input was mostly delivered by the members of the “Public Transport Co-ordination Committee in the Euregio Maas-Rhine” and the partners of the INTERREG-project “RoCK – Regions of Connected Knowledge”.

To achieve their goals the participating partners propose that the EC should strengthen its efforts in the following key areas with special regard to regional cross border rail connections:

- further stimulate the harmonization and at the same time the development of a functioning rail market
- systematically monitor railway capacity problems, enforce the capacity enhancement, enforce the installation of ETCS or even the reactivation of rail infrastructure
- enforce the EU wide harmonization of ETCS levels
- help speed up and simplify approval procedures of rolling stock that already is approved in at least one member state
- help cover additional costs for multi-system rolling stock through easy to handle funding procedures
- enforce consumer friendly cross border tariff systems
- discourage national, regional, local authorities from introducing public transport tariffs that can't be made compatible across the border
- standardize electronic and conventional ticketing systems; discourage national, regional, local authorities from developing non-compatible systems
- set minimum standard for travel information (pre-trip, on-trip) that has to be made available to the user of regional (cross border) public transport (bus & train)
- strengthen powers of regulatory body on EU level (for example European Railway Agency) to monitor and actively stimulate the achievement of the above mentioned goals

For some of the aspects mentioned above the Single European Sky Initiative can be a model. One could speak of a “Single European Rail” initiative.

In this document there is a focus on experiences made in North West Europe with special emphasis on cross border public (rail) transport. Many other parts of the EU are struggling with the same problems. The intention of this document is to support the development of EU wide solutions or policies, for example in the Commissions' White Paper on European Transport Policy 2010.

The participating partners intent - with this document as a contribution to the White Paper on European Transport Policy 2010 as a starting point – to establish a close and long-term co-operating relationship with the EC.

The participating partners are interested to serve as a “laboratory” to help develop and prove draft EU policy strategies, new technologies and standards, new administrative or contractual procedures etc. before they come officially operative in the whole EU.

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Table of contents	Page
1. Introduction	5
1.1 Focus of the paper	5
1.2 Intention of this paper	7
2. EU Railway Guidelines	8
2.1 Rail Market Organisation	8
2.2 Infrastructure	9
2.3 Rolling Stock	10
2.4 Passenger Issues	10
2.5 Regulatory Body	11
3. Rail Market Organisation	12
3.1 General Description	12
3.2 Current EU Actions	13
3.3 Possible EU Actions	14
4. Infrastructure	15
4.1 General Description	15
4.2 Current EU Actions	16
4.3 Possible EU Actions	17
5. Rolling Stock	19
5.1 General Description	19
5.2 Current EU Actions	20
5.3 Possible EU Actions	20
6. Passenger issues	21
6.1 Tariff Systems	22
6.1.1 General Description	22
6.1.2 Current EU Actions	24
6.1.3 Possible EU Actions	24
6.2 Ticketing Systems	25
6.2.1 General Description	25
6.2.2 Current EU Actions	27
6.2.3 Possible EU Actions	27
6.3 Passenger Information	28
6.3.1 General Description	28
6.3.2 Current EU Actions	29
6.3.3 Potential EU Actions	30
7. Regulatory Body	31
7.1 General Description	31
7.2 Current EU Actions	31
7.3 Potential EU Actions	32
8. Conclusions	33

1. Introduction

1.1 Focus of the paper

It is the aim of this paper

- first to describe various features of operating and project experiences in the public transport sector with a main focus on rail mostly made by public transport authorities,
- second to contrast these practical experiences with actual EU directives and guidelines etc. and
- third to propose recommendations for the next **White Paper on European Transport Policy 2010**.

This paper does not include rail freight, because the authors are representing public transport authorities or local and regional governments / administrations who are primarily dealing with passenger services.

It has not been the original intention to focus on cross border rail sections, but experience during the past and status quo today show that because of different national power and signalling systems, different forms of rail market organisation etc. primarily national borders constrain cross border public rail transport. Cross border transport in general requires the co-operation of at least two member states, it requires guidelines and regulation above member state level. That is why activity on EU level is needed.

This paper tries to sum up practical experiences of day-to-day-business as well as different strategy and position papers by cities and regions, public transport authorities and operators etc. The input was mostly delivered by the members of the "Public Transport Co-ordination Committee in the Euregio Maas-Rhine"¹ and the partners of the INTERREG-project "RoCK – Regions of Connected Knowledge"².

The objective of the "Public Transport Co-ordination Committee in the Euregio Maas-Rhine" is the co-ordination of day-to-day-business of cross border public transport, the implementation of concrete cross border public transport projects and the elaboration of future strategies³.

RoCK – Regions of Connected Knowledge

RoCK is a major European project which has secured € 5.9 million of European Regional Development Funding (ERDF) under the EU INTERREG IVB North West Europe programme. The lead partner City of Eindhoven, together with 10 partners from the Netherlands, France, Belgium, Germany and the UK, is encouraging co-operation between knowledge regions. In addition to the partners, a large number of strategically important organisations are associated with the project and have signed a letter of support. Strategic partners include local and regional governments, chambers of commerce, development organisations, regional cooperatives and

¹ Société Nationale des Chemins de Fer Belge (SNCB), Vlaamse Vervoermaatschappij De Lijn, Limburg Province (B), Limburg Province (NL), Transport en Commun (TEC), Aachener Verkehrsverbund (AVV), City of Aachen

² City of Eindhoven as lead Partner, Parkstad Limburg, City of Maastricht, City of Venlo, City of Aachen, Aachener Verkehrsverbund (AVV), City of Mönchengladbach, Vlaamse Vervoermaatschappij De Lijn, Région Nord-Pas-de-Calais, Reading Borough Council, South East England Development Agency (SEEDA)

³ z.B. Gezamenlijke intentieverklaring „Samen werken aan openbaar vervoer“, 30.06.2008

transport bodies. Together they have the critical mass to build on North West Europe's economic strength.

The RoCK-project focuses on getting the most out of the existing rail infrastructure and developing smart rail services to improve the transport networks between centres of knowledge regardless of national borders. It is based on the assumption that

- as transnational public transport connections are more expensive to build, carry fewer passengers and tickets are more expensive than on national networks
- national borders are still a bottleneck for the free flow of people and ideas, which is an essential prerequisite for a single European knowledge economy.

Smooth circulation of knowledge workers is crucial for knowledge regions, and face-to-face contact is still a vital business requirement. A strong national and international transport infrastructure is a prerequisite for business. As the RoCK partners come from different knowledge regions, co-operation is essential for each of those areas. In general, RoCK seeks to make smart small-scale investments with a large impact on connectivity. The project addresses barriers in the area of rail market organisation, infrastructure and ticketing and marketing.

Infrastructure actions as part of the RoCK-project are

- IC Eindhoven – Venlo – Mönchengladbach – Düsseldorf and IC Eindhoven – Heerlen – Aachen as connection between the Dutch Intercity network and the German HST-hubs
- The construction of a new cross border light rail line between Maastricht and Hasselt partly on an old freight line
- Transmanche Metro: New inter-regional rail services using existing high-speed rail infrastructure to connect cities and regions in Kent (UK) and Nord-Pas-de-Calais (F) not served by Eurostar with each other and with the existing transnational point-to-point services to London, Paris and Brussels

Activities include also a feasibility study for an innovative “people mover” between Aachen HST station and Aachen University, international integration of ticketing systems and marketing of (new) cross border rail links.

Some of the RoCK-project partners are also represented in the “Public Transport Co-ordination Committee in the Euregio Maas-Rhine”. In total we have partners from all the member states in North West Europe: France, Belgium, the UK, the Netherlands and Germany.

On the basis of experiences made by day-to-day-business and the results of the transnational RoCK-project the participating partners want to give the EC an comprehensive overview about problems and solutions encountered in the area of cross border public transport. Though there might be a focus on member states in North West Europe or especially on the Dutch-Belgian-German region (for instance Euregio Maas-Rhine) the intention of the document is to develop general solutions, which have the potential to be applicable in all member states on the basis of concrete examples given by the partners.

The partners want to subdivide the vast number of particular aspects the subject implicates into the following thematic sections:

-
- **Rail Market Organisation**
 - **Infrastructure**
 - **Rolling Stock**
 - **Passenger Issues**
 - **Regulatory Body**

This paper goes through each of the above sections using the following steps:

- by giving a **General Description** of the problem with some illustrative examples
- by recapitulating shortly the **Current EU Actions** and finally
- by proposing **Potential EU Actions** which have the potential to be applicable in all member states.

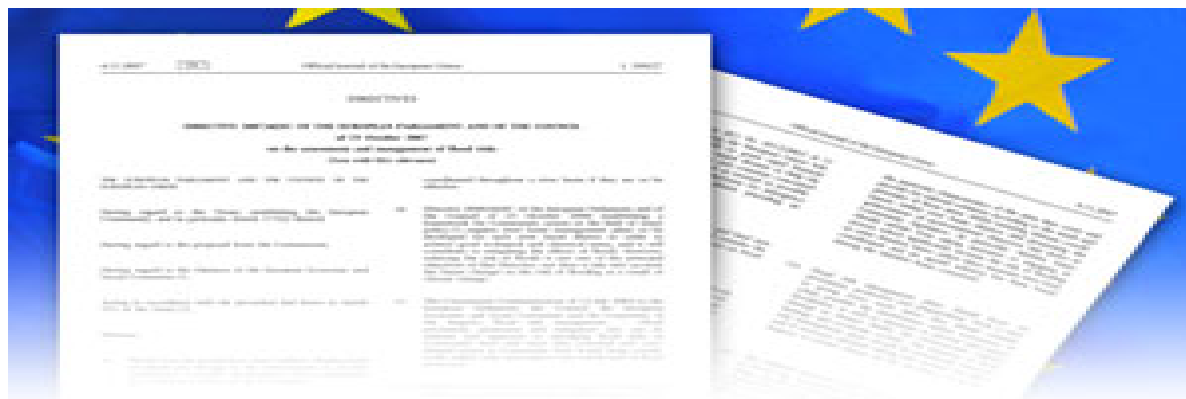
The instruments to create an efficient and powerful rail market in the EU need to be made consistent with the shared objectives of European Economic, Social, and Territorial Cohesion. One of the key goals for the next decade is to prepare the railway for a prominent role by increasing efficiency and carefully targeting investment on a major scale to raise the quality of service. Also, a strong consideration of the customer and the decarbonisation of transport will help increase the rail market share of the transport market. This is synonymous with the future sustainability of the EU project.

1.2 Intention of this paper

The Commission plans to publish a new White Paper on European Transport Policy in 2010. This upcoming EU publication will replace the 2001 White Paper on European Transport Policy and lay out the transport policy framework for the coming decade. We regard this as a highly important exercise. The rail sector will have to face a number of challenges in the coming years. Therefore Europe and her regions need the right policy framework that can help overcome these obstacles.

This paper is a first draft which the participating partners regard as a supporting contribution to the White Paper on European Transport Policy 2010. Furthermore the partners want to work more closely together with the EC to exchange and share experiences, knowledge etc. on a regular basis. They are aware of the fact that future solutions in the public transport sector must be cost-efficient, technologically advanced and aim at standardisation on EU level in general.

2. EU Railway Guidelines



EU Railway guidelines consist of Directives and Regulations. A Directive is a legislative act of the European Union, which requires member states to achieve a particular result without dictating the means of achieving that result. Directives normally leave member states with a certain amount of leeway as to the exact rules to be adopted. On the other hand, a regulation is a legislative act of the European Union which becomes immediately enforceable as law in all Member States simultaneously. Regulations are self-executing and do not require any implementing measures.

The existing EU Railway Guidelines cover the following categories (as previously mentioned above):

- **Rail Market Organisation**
- **Infrastructure**
- **Rolling Stock**
- **Passenger Issues**
- **Regulatory Body**

Below we give a brief summary of some Regulations and Directives relating to these key areas.

2.1 Rail Market Organisation

Regulation (EC) No 1370/2007 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 October 2007 on public passenger transport services by rail and by road and repealing Council Regulations (EEC)

The aim of this Directive is to address the opening of the market for international rail passenger services within the Community. The introduction of new, open-access, international services with intermediate stops should not be used to bring about the opening of the market for domestic passenger services, but should merely be focused on stops that are ancillary to the international route. On that basis, their introduction should concern services whose principal purpose is to carry passengers traveling on an international journey. The determination of whether that is the service's principal purpose should take into account criteria such as the proportion of turn-

over, and of volume, derived from transport of domestic or international passengers, and the length of the service. This determination should be made by the respective national regulatory body at the request of an interested party.

2.2 Infrastructure

Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community

This Directive aims at accelerating the integration of the Community rail network through increased technical harmonization, guaranteeing a high level of safety. It aims to govern the conditions promoting the interoperability of the trans-European rail system, at the construction, putting into service, renewal, operation and maintenance stages. The gradual implementation of interoperability of the EU rail system is pursued through the harmonization of technical standards (ERTMS).

Other aspects of the EU rail system that this Directive covers include the following: Essential requirements with regard to safety, reliability, human health, environmental protection, technical compatibility and operation of the system, and the technical specifications for interoperability (TSIs) adopted for each subsystem or part of subsystem.

Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification

The European Union encourages the establishment of fair and efficient charging systems for the use of infrastructure. Incentives have therefore been introduced to encourage both the optimal use of existing infrastructure and the necessary investment in new infrastructure. Charging systems must also allow for fair competition between different transport modes. The directive aims:

- to ensure transparency and non-discriminatory access to rail infrastructure for all railway undertakings
- to deliver appropriate capacity-allocation schemes for rail infrastructure
- to stimulate infrastructure managers to minimize disruption and improve performance of the network

The directive also refers to how investment in railway infrastructure is desirable and infrastructure charging schemes should provide incentives for infrastructure managers to make appropriate investments where they are economically attractive.

It regulates the procedures and actions that have to be taken when the infrastructure manager encounters conflicts between different train paths requests (coordination process, declare infrastructure to be congested, capacity analysis and production of capacity enhancement plans)

2.3 Rolling Stock

Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification

This Directive aims to establish a more competitive and safer railway system which covers the entire Community market instead of confining itself mainly to national markets. There are currently different national approaches to railway safety, different targets and different methods applied. Technical standards, the rolling stock and the certification of staff and railway undertakings differ from one Member State to another and have not been adapted to the needs of an integrated European rail system.

The Directive focuses on four major aspects:

- the setting up, in each Member State, of an authority responsible for supervising safety;
- the mutual recognition of safety certificates delivered in the Member States;
- the establishment of common safety indicators (CSIs) in order to assess that the system complies with the common safety targets (CSTs) and facilitate the monitoring of railway safety performance;
- the definition of common rules for safety investigations.

The Directive applies to the railway systems of the Member States and covers safety requirements for the system as a whole, including infrastructure and traffic management, and the interaction between railway undertakings and infrastructure managers.

2.4 Passenger Issues

Regulation (EC) No 1371/2007 of the European Parliament and of the Council of 23 October 2007 on rail passengers' rights and obligations

Railway companies need to make positive moves in support of passengers' rights to make rail transport more attractive and competitive. To enhance the railway service, the Regulation deals with issues such as improving passengers' rights such as information, equal treatment of and assistance for disabled persons, care in case of delays, etc.

The Regulation establishes a set of basic rights that relate to liability of railway companies in the event of an accident, equal treatment of disabled persons and persons with reduced mobility, availability of tickets; and an obligation on railway undertakings, station managers and public forces to ensure security in stations.

Furthermore the Regulation lays down provisions on requirements for minimum information to be provided to passengers before, during and after their journey, details on applicable contract conditions, re-routing and reimbursement options in case of delays or cancellation of services, and transport conditions, including assistance, for disabled persons and persons with reduced mobility.

2.5 Regulatory Body

Regulation (EC) No [881/2004](#) of the European Parliament and of the Council of 29 April 2004 establishing a European Railway Agency

The European Railway Agency (ERA) is a driving force in the policy for modernizing the European railway sector. Mutually incompatible technical and security Regulations in the twenty-five Member States are a major handicap to the development of the railway sector. The Agency will work to gradually align technical regulations and establish common safety objectives which all Europe's railways must achieve. The main objective of the Agency will be to provide the Commission and the Member States with technical assistance in order to enhance the level of interoperability and safety of the European rail system.

The ERA will also coordinate the groups of technical experts responsible for finding common solutions on railway safety and will send the draft decisions to the Commission, which will approve them once they have been endorsed by the committees of representatives of Member States. The Agency will also facilitate communication between the various competent national authorities. The scope of the Agency covers, firstly, the development of common safety standards and, secondly, the long-term management of the system for establishing, registering and monitoring technical specifications for interoperability (TSIs).

The Agency itself has no decision-making powers, but will put forward proposals to the Commission. It will be independent, but work in close collaboration with experts in the area. The progressive establishment of a European railway area without frontiers requires Community action in the field of the technical regulations applicable to railways with regard to the technical aspects and the safety aspects, the two being inextricably linked.

3. Rail Market Organisation



3.1 General Description

During the last few months there have been discussions between the public transport authorities relating to the effects of European legislation on liberalisation of public (rail) transport. The member states in North West Europe have responded with partly completely different national approaches towards this new European legislation.

The current situation is that all train operators running (regional) cross border services have to deal with completely different forms of rail market organization. This involves the role of public rail transport authority versus that of public rail transport operators, the existence of rail lines defined by public rail transport authorities (regional rail network, long distance rail network, core networks, cross border sections, rail freight network, passenger rail network etc.), and the type of contracting for public rail transport operators.

The following table shows as an example the strong role of central government in the Netherlands and Belgium regarding regional rail traffic and the federalised regional nature of German governance and railways.

Table 1: Example: Rail market organisation in the Netherlands, Belgium, and Germany

	Regional cross border rail traffic			Long distance cross border rail traffic		
	Netherlands	Belgium	Germany	Netherlands	Belgium	Germany
Public Rail Transport Authority	member state and Region (Province Limburg)	member state	Region (Nahverkehr Rheinland)	member state	member state	-
Public Rail Transport Operator	NS via state contract and other private operator via contract with region No common use of rail tracks	SNCB via state contract	Different private operators via contract with region Common use of rail tracks is a standard	NS via state contract	SNCB via state contract	Free market Common use of rail tracks is a standard
Integration of different public transport operators (rail & bus)	Virtually via OV-chipkaart	Only in agglomerations	Full integration (Verbund)	Virtually via OV-chipkaart	Only in agglomerations	Only in towns > 100.000 inhabitants
Rail Infrastructure Company	ProRail	Infrabel	DB Netz and other local companies	ProRail	Infrabel	DB Netz

Some of the reasons why cross border rail traffic is at a huge disadvantage:

- Regional cross border rail connections even between bigger cities like for example Aachen – Liège and Aachen – Maastricht etc. have comparatively low absolute passenger numbers, a low market share in comparison to motorised transport (one reason are the complex cross border tariff systems) and therefore comparatively low fare revenues. For these reasons there is only a marginal commercial (free market) interest by a rail operator to offer a regional cross border rail connection on its own risk.
- Only few cross border rail connections, such as Paris – Brussels – Cologne have a cost-benefit-ratio which is interesting to operate them on a commercial basis. It is generally not possible to extend regional cross border rail connections so far that – without subsidies – there is an interesting cost-benefit-ratio (for example instead of only going from Aachen to Liège to extend line to Brussels), because then those (possible) regional cross border rail connections collide with currently existing free market or subsidised lines.
- It is a complex task to organise (new) regional cross border rail connections because of the policies concerning rail market organisation in North West Europe. To give an example: the cross border rail connection between Aachen and Sittard (~ 40 km) touches on the German side a NVR⁴ concession, between the German/Dutch border and Landgraaf an international track without any concession, between Landgraaf and Heerlen a Province Limburg regional concession and between Heerlen and Sittard a NS concession via member state contract. In case a cross border invitation to tender all mentioned public transport authorities must participate.

The above mentioned shows that due to the border region's peripheral nature

- regional cross border connections need to be subsidised
- regional cross border connections often don't fit into the traditional rail market separation between subsidised regional rail traffic and commercial international rail traffic
- cross border co-operation of public transport authorities is a complex administrative challenge, but is necessary in the case of subsidised rail traffic.

3.2 Current EU Actions

Opening up national freight and passenger markets to cross-border competition is a major step towards the creation of an integrated European railway area and of a genuine EU internal market for rail. Greater technical harmonization of rail systems and the development of key cross-border rail routes are also helping to break down barriers to a more competitive rail sector.

The EU liberalised the market for international rail passenger services from 1 January 2010. Any licensed, certified rail company established in the EU is in principle able to offer such services, and in doing so have the right to pick up and set down passengers at any station along the international route. The market for purely national rail passenger services is not open to cross-border competition, though this could change in the future.

Few new service offers have been put on the table so far. There appears to be not enough demand for rail passenger services. The EU Commissioner for Transport, Sim Kallas, explained

⁴ Zweckverband Nahverkehr Rheinland
Cross border public (rail) transport problems in North West Europe
6/4/10

that the economic crisis exacerbated existing structural problems of the railways but he also recognized that there were still barriers to remove for a functioning market as regards new entrants.

3.3 Possible EU Actions

For regional cross border public (subsidised) rail transport there is in general no economic justification in developing an additional network to the existing ones. It is more important to connect the existing national networks and make better use of subsidies already in place for the interior rail services.

In the Dutch-Belgian-German area different modes have been or will be tried to improve regional cross border rail transport:

A Member State could insert powers, relating to the establishment and operation of regional cross border connections in their contracts with public rail transport operators, with the consent of a neighbouring public transport authority. For example, a Belgian state contract or a Dutch state contract could permit a transport authority to run an agreed service to the next rail transport node (preferably high speed station) behind the German border (for example Aachen or Düsseldorf central station).

In the case of Germany, the above arrangement could be achieved by tendering a regional cross border rail connection to the free market in co-operation with the neighbouring public transport authority. The problem is that there is a high possibility that the cross border tendering of an economically interesting regional cross border rail connection would conflict with already existing Belgian or Dutch state contract concessions. That means that this solution would be difficult to apply in the case of Belgium. It would also be challenging in the case of the Netherlands. Though the Dutch provinces already have a certain kind of autonomy to contract rail operators (or bus and rail operators combined), the common use of one rail track, which is being used by one concessionaire, by another (cross border) rail operator is not a standard. In this case a solution could be the cross border harmonization of contract durations to rail operators.

The Commission should issue guidelines and/or Directives that oblige Member States and/or public transport authorities or member states to take cross border rail connections into consideration when preparing rail networks or rail lines for contracting (see Belgian state contract and next Dutch state contract). Public transport authorities should have to explain to the EC which contractual measures they want to take to connect their network with the one of their neighbour. The connecting of HST-hubs (such as Aachen, Liège, Lille etc.) via regional rail services across the border can dramatically increase efficiency and have significant socio-economic benefits for the EU and furthermore through the networking effects produce a considerable added value on top of the funding of TEN-axes.

It often occurs that a unilateral interest to improve cross border rail connections is not returned by the neighbouring member state. If by means of negotiations between the neighbouring public transport authorities no progress can be made, the interested member state needs stronger support from the EC. The EC should reflect on how to put stronger pressure on the inactive public transport authority, when no successes can be made through negotiations. At least should the inactive public authority / member state be obliged to consent a tendering process for regional cross border rail connection to the next important (high speed) node initiated by the interested neighbouring public authority / member state, even though the tendering affects railway sections with already existing concessions to other rail operators.

4. Infrastructure



4.1 General Description

Increasing national and European capital expenditure in rail infrastructure is of primary importance. Money is not the only factor (political will, expertise, etc.) in improving a rail service, but it definitely helps. At the moment it is a serious problem due to widespread government cutbacks across the EU. Significant investment in rail is needed to promote decarbonisation and should foster a shift to sustainable modes with the final objective of creating a highly performing network that meets customers' needs. Directly linked to this area is the rollout of new interoperable technologies such as the European Rail Traffic Management System (ERTMS).

Peripheral regions as border regions from a member state point of view with often neglected rail infrastructure tend to be the principal victims of government cutbacks on money for infrastructure (for example TEN-axes Belgian border - Aachen – Düren, Dutch border – Emmerich – Oberhausen). The consequences bear public transport authorities, infrastructure companies and rail operators which try to satisfy growing rail transport demand by for instance reducing necessary time table flexibilities on important parts of the rail network.

To give an example: In the Dutch-German-Belgian area there are very important railway axes such as

- the TEN-axe Paris/London – Brussels – Liège – Aachen – Cologne/Rhine-Ruhr/Rhine-Main
- the main east-west rail freight corridor Belgium – Visé – Aachen – Cologne/Rhine-Ruhr/Rhine-Main (Montzen line) and additionally
- dense regional public rail services in the agglomerations (Liège, Maastricht, Aachen etc.).

While there has been made significant progress on most part of the TEN-axes during the last few years on the secondary routes it became apparent that the railway infrastructure in the above mentioned region is significantly congested (for example Aachen West rail freight junction, 10 km long one-track section Heerlen – Herzogenrath with partially 6 trains per hour on it, Liège station area etc.). Numerous minor train delays add up to bigger delays that spread throughout the whole network. Even scheduled maintenance work forces the public rail transport operators to reduce their passenger services in such a dramatic way that it becomes intolerable for the travelling public (for example, part of TEN-axe between Aachen – Cologne). Consequently all involved parties like rail infrastructure companies, public rail transport operators, and public transport authorities are under huge pressure to deliver a good service.

Some reasons why there is a lack of funding cross border rail infrastructure projects could be identified:

- usually less rail traffic goes over the border than there is in the interior of a member state

- different railway power systems => system changing device must be installed => extra costs
- different signalling systems in spite of standard ETCS because of different national definitions of ETCS levels => system changing device must be installed => additional expenses
- obtaining agreement with the neighbour member state (politicians and civil servants) is always necessary => this process is extremely time consuming as advanced diplomacy is required
- integration into national infrastructure funding schemes is complex, because those schemes generally end at the border => in general one cross border rail infrastructure measure (for example Heerlen – Herzogenrath) has to be split up into two different national ones which from the moment of the splitting have to be co-ordinated with extra cross border administrative work
- CBA-methodology (traffic models, traffic demand prognosis) often ends at national borders (for example IGVP⁵-methodology of North Rhine-Westphalia) => results are not applicable, passenger demand is often underestimated

4.2 Current EU Actions

The Trans-European Transport Networks are a planned set of road, rail, air and water transport arrangements designed to serve the entire continent of Europe. The TEN-T networks are part of a wider system of Trans-European Networks (TENs), including a telecommunications network (eTEN) and a proposed energy network (TEN-E or Ten-Energy). The European Commission adopted the first action plans on trans-European networks (transport, energy and telecommunications) in 1990. The transport network is known as TEN-T.

Transport infrastructure is fundamental for the mobility of persons and goods and for the territorial cohesion of the European Union. The EU 27 has 215.400 km of rail lines, out of which 107.400 km electrified. Most of the rail infrastructure has been developed under national policy premises. In order to establish a single, multimodal network that integrates land, sea and air transport networks throughout the Community, the European policymakers decided to establish the Trans-European transport network, allowing goods and people to circulate quickly and easily between Member States and assuring international connections.

Establishing an efficient Trans-European Transport Network (TEN-T) is also a key element for the newly launched EU 2020 Strategy. If Europe is to fulfil its economic and social potential, it is essential to build the missing links and remove the bottlenecks in the transport infrastructure, as well as to ensure the sustainability of the transport networks into the future. Furthermore, it is vital that there are strong environmental protection requirements with a view to promoting sustainable development.

The European Community is supporting the multi-billion euro TEN-T implementation by several Community financial instruments and by loans from the European Investment Bank. Grants, in

⁵ Integrierte Verkehrsplanung in Nordrhein-Westfalen
Cross border public (rail) transport problems in North West Europe
6/4/10

particular under the TEN-T budget line and the Cohesion and European Development Funds, play a major role in both project preparation and implementation phases.

The INTERREG program is not aimed at major public infrastructure projects such as rail infrastructure projects. Nevertheless, especially in border regions, it helps lay the foundation for further project development and working relations.

There are existing procedures that Member States have to follow when the infrastructure manager encounters conflicts between train paths requests, which in some cases can lead to the setting up of capacity enhancement plans. There is no EU funding obligation attached to a capacity enhancement plan.

On 22 July 2009 the Commission adopted a European Deployment Plan for a European Rail Traffic Management System (ERTMS). This is a universal and EU-compatible signalling system, which provides for the progressive deployment of ERTMS along the main European rail routes. The objective is to reduce running costs and improving the system's efficiency on long cross-border distances.

4.3 Possible EU Actions

There could be an enlargement of the TEN-T framework with two further rail programs; HST-connect and cross border projects. Additional funding could be given as an incentive to encourage neighbouring authorities to working closer together. For example could there an extra 20 % of the infrastructure costs be given to a cross border project when the two neighbouring member states apply together. Also, there needs to be stronger supervision from the European Institutions.

There are serious questions about the current CBA methodology on member state or regional level. There needs to be a methodology that takes into account the added extra value of cross border programmes and the positives coming from the economies of agglomeration.

Special consideration should be given to smaller projects generating a capacity increase in the network (e.g. bottleneck relief, improvements in nodes, freight transport bypass routes around agglomerations, overtaking tracks) with comparatively small investments. This should be part of a larger package focused clearly on the highest priorities and providing a coherent plan which might encompass renewal and maintenance of the entire viable rail network, reform, infrastructure charges and the level and funding of social obligations

There could be two possibilities to get onto the programs:

1. Member state or even better two or more neighbouring member states apply with projects
2. EC actively initiates a capacity enhancement plan when there are severe congestion problems being recorded or forecast. This key information could be forwarded by any public transport authority, public transport operator or infrastructure company to a newly empowered ERA (See regulatory body section).

Any coordination process concerning the allocation of train paths that should be undergoing problems due to conflict between different transport authorities or operators should be reported to the ERA. The aim would be to obtain a spatial overview of capacity problems so enlargement projects could be developed. In case of inactivity of member states the EC or the ERA should

have more power to actively initiate and enforce capacity enhancement plans without questioning the principle of subsidiarity.

An enlargement of the ETCS-program is also required. The EC should insist on the harmonization of ETCS levels, provide extra subsidies for making railways conform to ETCS (also secondary routes, not only TEN-users routes) and integrate the ETCS-program into the TEN-, the HST- and the cross border programme. EU funding only should be given when the proposed ETCS complies with EU standards or, if an EU standard is not in place, two neighbouring countries agree on installing the same or fully compatible ETCS levels (also in case of upgrading ETCS already in place) for cross border sections.



5. Rolling Stock



5.1 General Description

While the quality of rolling stock for passenger rail transport has improved considerably during the last few years, especially in border regions, rolling stock is still a constant point of discussion.

The main reasons are:

- Member states in North West Europe use a large quantity of different power and signalling systems
- Rolling stock and rail transport operators need safety certificates for every member state
- The builder and the purchaser of new modern rolling stock (for example a rail operator) is highly dependent on reliable infrastructure planning and reliable guidelines by public transport authorities

Table 2: Example: View of selected cross border railway sections

Cross border railway sections	Signalling systems	Power systems
Aachen Hbf (G) – Liège (B)	PZB 90 and Crocodile between Aachen Hbf and Belgian border Crocodile and ETCS level 1+ between Belgian border and Liège (normal railway) ETCS level 2 on high speed line between Belgian border and Liège	3 kV between Aachen Hbf and Liège (normal railway, exception on German territory) 25 kV on high speed line between Belgian border and Liège
Aachen Hbf (G) – Heerlen (NL)	PZB 90 between Aachen Hbf and Dutch border ATB between Dutch border and Heerlen	15 kV between Aachen Hbf and Dutch border no electrification between Dutch border and Landgraaf 1,5 kV between Landgraaf and Heerlen

The construction of rolling stock that can cope with more than one system is still expensive, especially against the background of the comparatively small number of train sets needed for cross border rail services. It is important to state that investment in this type of multi-system rolling stock usually gets delayed by the long and drawn out decision making of infrastructure companies, especially in the case of signalling systems to be installed in the future. The major concern of the latter relates to the upgrading of cross border railway sections. Table 2 shows the current complex situation. There are often a considerable number of upcoming different up-

grading plans which prevent current investment for modern rolling stock by the potentially interested rail operator.

This confusing process also impacts upon the public transport authority when it prepares the tendering. For example, potential bidders must get reliable information on infrastructure planning for the contract duration (at least 10 years). Furthermore, the potential bidder has to take into account the considerable length of time for ordering and cross border certification procedures (at least 3-4 years in total before going into service).

Experience shows that possible decision-making by infrastructure companies, public rail transport authorities and (potential) public rail transport operators, especially in the case of existing or planned cross border rail services, is difficult because of the description of the above messy process and the low financial benefits (if any) for the parties involved. In reality this practice leads to decisions getting postponed for years and the opting for low risk non-innovative solutions, which means to abstain from cross border services with multi-system rolling stock.

5.2 Current EU Actions

As already said rail infrastructure properties and suitable rolling stock are closely related. The interoperability Directive 2008/57/EC aims at removing the technical barriers for European railway integration and the creation of a truly European railway market. Interoperability aims to enhance European rail market opening without compromising railway safety. The gradual implementation of interoperability of the rail system is pursued through the harmonisation of technical standards (European Rail Management System – ERMTS, Technical Specifications for Interoperability - TSI).

Technical Specifications for Interoperability (TSI) are drafted by the European Railway Agency and adopted in a Decision by the European Commission, to ensure the interoperability of the trans-European rail system. The interoperability issues apply to the lines within the Trans-European Rail network.

In this context, the European Railway Agency (ERA) has an important role to play in the elaboration of Technical Specifications of Interoperability (TSIs) for the different rail subsystems.

5.3 Possible EU Actions

The major objective of the EU should be to streamline approval procedures, especially in the case of already existing given approvals by at least one member state, without the lowering of safety demands.

Approval procedures of rolling stock should be closely monitored by the European Railway Agency. The European Railway Agency should be informed of any application for approval of rolling stock that already is approved in at least one member state. The European Railway Agency in those cases should be able to intervene out of its own will or on request of the applicant (the national approbation body or the public transport authority) to mediate approval procedure.

Even though approval of rolling stock in the member states can be accelerated, there is still a need for installing many different power and signalling systems on one train set. This makes train sets expensive and approval procedures longer.

While the harmonization of power systems is not an option, the EU should concentrate on the harmonisation of signalling systems. In addition to the existing guidelines the EU should put more pressure on the member states to harmonise ETCS levels with the clear objective that there should not be different interpretations of ETCS levels by member states in the near future.

We propose a research and development program for common ETCS levels based in the knowledge centres of North West Europe. The ambition should be to develop common ETCS levels for within the region, at least. The EU should support a funding program for the upgrading of rolling stock for cross border passenger rail services and cross border (secondary) railway infrastructure sections. This funding program should also comprise the installation of technically up-to-date overhead traction lines and power system changing locations.

Another aspect is the covering of extra costs for regional cross border rolling stock. When a public authority invites to tender cross border rail connections often play a minor role in the total of the rail network. The comparatively small number of train sets needed for cross border sections often considerably increases the amount of necessary subsidies to be paid by the public transport authority to the rail operator. To disburden public transport authorities and rail operators from the disproportionate cost of regional cross border rail services the EU should cover the extra costs for necessary multi-system rolling stock. In the case of an invitation to tender for a cross border rail line all bidders could be obliged to state the extra costs for cross border rolling stock in their offer, so that market forces would be still existent. In the case of a planned direct contracting for a regional cross border rail connection a member state / public transport authorities or two neighbouring member states / public transport authorities together should have the possibility to apply for EU funding for the additional costs for rolling stock.

Also for the development of technologically advanced multi-system rolling stock the knowledge centres in North West Europe could play a key role in a research and development program issued by the EU.

6. Passenger issues

Rail customers have to be the reference point when developing the transport system of the future. As stated by many of Europe's leading political and scientific voices, rail is the most environmentally sustainable form of transport. In North West Europe we notice that the customers have to struggle with different tariff and ticketing systems alongside relatively inefficient information facilities.



6.1 Tariff Systems

6.1.1 General Description

The high number of public transport tariff systems in one member state is mind-boggling; this is before one considers the labyrinth of systems across the EU which negatively affects consumer activity. In densely populated North West Europe the nuisance posed by the different pricing systems has a severe effect on the travelling public.

The table shows the number of tariffs available for interior traffic and for travel across the border in a region of ca. 50 km diameter.

Table 3: Example: Regional public transport tariffs in the border region of Belgium, Germany and the Netherlands

To ...	Netherlands(Province Limburg)	Belgium (Province Liège, Province Limburg)	Germany (AVV area)
From...			
Netherlands(Province Limburg)	Veolia tariff for bus & Veolia trains NS tariff for NS trains	euregioticket for bus & train (only restricted train services) Special bus tariffs for cross border services International tariff for trains (exception: SNCB tariff to Maastricht station)	euregioticket for bus & train (only restricted train services in Belgium, no restriction in AVV area) Veolia tariff for bus AVV tariff for bus AVV/Veolia combination tariff for bus & train to Heerlen International tariff for trains
Belgium (Province Liège, Province Limburg)	euregioticket for bus & train (only restricted train services) Special bus tariffs for cross border services International tariff for trains (exception: SNCB tariff to Maastricht station)	TEC tariff for TEC buses De Lijn tariff for De Lijn buses SNCB tariff for trains	euregioticket for bus & train (only restricted train services in Belgium, no restriction in AVV area) Simple tariff addition for bus AVV tariff for bus Special tariff (AIX pressticket) and international tariff for train
Germany (AVV area)	euregioticket for bus & train (only restricted train services in Belgium, no restriction in AVV area) Veolia tariff for bus AVV tariff for bus AVV/Veolia combination tariff for bus & train to Heerlen International tariff for trains	euregioticket for bus & train (only restricted train services in Belgium, no restriction in AVV area) Simple tariff addition for bus AVV tariff for bus Special tariff (AIXpressticket) and international tariff for train	AVV tariff for bus & train

Many consumers' inquiries and complaints have shown us during the last years that the existing cross border tariff arrangements are too complicated, very expensive, and not flexible.

It is obvious that a laissez-faire attitude towards the tariff autonomy of public transport authorities hasn't delivered more consumer friendly tariffs for regional cross border public transport. To be clear: we are not calling for lower fare prices, but for systematic and comprehensive cross border tariffing systems.

Experience has shown that those public transport authorities or other administrative bodies that integrate national grant or welfare systems into tariff systems create additional confusion, especially when these tariffs are only available for citizens of one member state. One notable example is that of the Dutch OV-studentenkaart (student travel card). There have been many consumers' complaints and enquiries by MEPs about the availability of this card. The Dutch OV-studentenkaart is given without charging exclusively to Dutch students at Dutch universities. Students from other member states attending Dutch universities, who pay equally university fees, are not able to even purchase the OV-studentenkaart, because it is part of the Dutch student grant scheme.

Similar problems are created by national subsidy systems for persons with reduced mobility or aged persons. This leads to the confusing situation that even when there exists one agreed cross border tariff, the underlying national subsidy systems stop at the border with the consequence that in those cases an extra tariff has to be created.

6.1.2 Current EU Actions

The European Commission adopted the Action Plan on Urban Mobility in 2009. The Action Plan proposes twenty measures to encourage and help local, regional and national authorities in achieving their goals for sustainable urban mobility. With the Action Plan, the European Commission presents for the first time a comprehensive support package in the field of urban mobility. According to many EU sources, many of the aspects of the Action Plan will be included in the upcoming White Paper on Transport.

Regarding Tariff Systems, the EU Action Plan on Urban Mobility refers to information exchange on urban pricing schemes. The document states that the Commission will facilitate information exchange among experts and policy-makers on urban pricing schemes in the EU. They will use input from existing initiatives and include information on consultation processes, scheme design, information provision to citizens, public acceptance, operating costs and revenue, technological aspects, and the impact on the environment.

6.1.3 Possible EU Actions

There has been slow progress made in the area of cross border public transport tariff systems. Therefore the supporters of this document favour stronger binding guidelines on the subject. Our conclusion is that the autonomous actions of the member states have not succeeded in providing suitable cross border tariff systems for their travelling public.

We propose the following basic guidelines at EU level that should be followed with special regard to cross border tariffing:

- Public transport tickets must be made available to any member state citizen. Possible preconditions should be determined at EU level, for example for the following groups: child (agree on age limit), elderly person (agree on age limit). Other groups such as pupils / students / apprentices / people with reduced mobility (with certificate) should
 - o receive direct state aid and not indirectly via public transport tariffs
 - o or all member states agree on standardised certificates for the mentioned groups (pupils, student etc.) that have to be recognized by every member state.
- No fixed combination of national schemes (for example student grants) with public transport tariffs; if a member state decides to subsidy certain groups, first it should be independent from nationality or residence and second it should not be integrated into the standard tariff systems to avoid complications. For example, if a member state or region wants to subsidy pupils, it should not create a special public transport tariff, but pay the subsidies via other channels (school, parents etc.) on the basis of the standard child tariff, or make separate contracts with certain groups (for example AVV-JobTicket for employees, AVV-SemesterTicket for students)

There should be no need for the passenger to buy more than one ticket for cross border (regional) public transport connections. This can be achieved by:

- placing an additional cross border tariff system on top of national / regional systems without interfering with the domestic tariff systems (for example: the **eu^{regio}ticket** in the Euregio Maas-Rhine, the cross border tariff Aachen - Heerlen)
- agreeing on expanding one of the tariff systems into a neighbouring member state (for example: Belgian SNCB-tariff to Maastricht station)

- merging two neighbouring tariff systems at the border and creating cross border tariffs in accordance with the respective national tariff system (for example: AIXpress-tariff between Aachen and Liège) combining the above methods

The EC should intervene with stronger regulation and insist on transparent and accountable tariff systems to the customers' advantage. These activities regions should be monitored on a regular basis by the EC.

6.2 Ticketing Systems



6.2.1 General Description

As the ticket distribution is closely related to the tariff system, many of the problems are interrelated. The authors will attempt to avoid any unnecessary repetition. Many ticket machines and online systems in North West Europe don't sell international (regional) tickets, which makes it hard for the consumer to purchase a proper ticket. Purchasing this type of ticket is becoming increasingly hard as public transport authorities or public transport operators introduce electronic ticketing schemes without proper coordination between the cross border stakeholders.

To give an example: In the Dutch-Belgian-German area the following electronic ticketing schemes are being introduced:

- OV-chipkaart in the Netherlands
- SmartCard in Belgium
- Mobile phone ticket in Germany (additionally also chip cards in some regions)

All of the above systems have been developed on a member state level. The consequence is that at the current state none of them is interoperable with the other. As the Netherlands have progressed considerably with the installation of their system, initial consumers' enquiries have begun in Germany with regard to the new Dutch ticketing system.

Table 4: Electronic ticketing schemes for regional public transport in the DBG border region

To ...	Netherlands(Province Limburg)	Belgium (Province Liège, Province Limburg)	Germany (AVV area)
From...			
Netherlands (Province Limburg)	OV-chipkaart (not available in Belgium or Germany, not compatible to Belgian or German distribution and control systems)	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs (exception: Belgian SmartCard to Maastricht station)	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs
Belgium (Province Liège, Province Limburg)	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs (exception: Belgian SmartCard to Maastricht station)	SmartCard (not available in Netherlands (exception: Maastricht station) or Germany, not compatible to Belgian or German distribution and control systems)	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs
Germany (AVV area)	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs	Euregional tariffs via mobile phone ticket Paper tickets for cross border bus & train services not covered by euregional tariffs	Mobile phone ticket (available via any mobile phone to any user with credit card, manual visual control possible)

Many public transport authorities are reluctant to install electronic ticketing schemes because of:

- High installation costs (in trains, buses, at stations, etc.)
- Risk of short life cycles of installed technology due to quick technological advances
- Lack of interoperability of systems, especially in the area of cross border (regional) travel.

The biggest loser is the customer who has to cope with all kinds of technical variations of electronic ticketing (chip cards, check-in-check-out-systems, be-in-be-out-systems etc.) which have been introduced partly on municipal level, partly on regional level, partly on a member state level, and in some cases they have been combined with additional tariffs variations (for example London Oyster Card).

One practical solution found in the Dutch-Belgian-German border region was the distribution of regional cross border tariffs via the German mobile phone ticket scheme. The advantages seen by public transport authorities and operators in the mentioned region are:

- No installation costs as the consumer carries his or her own device
- Discrimination free - every owner of a mobile phone and a credit card can use it

- System consists mainly of software - upgrading is easy and cheap
- Short life cycles for hardware devices (mobile phones) carried by the consumer are no financial problem for public transport authorities because investment is provided by consumer
- Manual visual control possible, no extra control device has to be bought by public transport operator
- Electronic control via a mobile phone camera that reads 2D barcode and common decrypting software, no additional hardware, such as chip card readers etc., is required

There is research being conducted on whether the mobile phone ticket can bridge the gap to the Dutch OV-chipkaart, to the Belgian SmartCard and even to "Ticketless" fare collecting schemes from rail operators on commercial lines like ICE and Thalys, which include the use of regional public transport to and from selected HST-stations.

6.2.2 Current EU actions

The EU Action Plan on Urban Mobility discusses some concrete actions relating to ticketing. The Commission will look at, for example, electronic ticketing and payment, traffic management, travel information, access regulation and demand management. The Commission will also launch a study on improving the interoperability of ticketing and payment systems across services and transport modes, including the use of smart cards in urban transport with a focus on major European destinations (rail stations).

6.2.3 Possible EU Actions

The current development of electronic ticketing schemes shows that many public transport authorities give the introduction of new and fancy ticketing schemes priority over the interoperability of electronic ticketing systems. Instead of recognizing the benefits of the former, many public transport authorities and operators run high financial risks with regional electronic ticketing systems.

We propose the following basic guidelines on EU level that should be followed with special regard to cross border ticketing:

- In North West Europe the language interface of conventional ticket machines in the public transport sector should be in English, Dutch, German and French. All regional cross border tickets should be available to purchase at ticketing machines. All ticket machines should accept at least credit cards.
- The electronic ticketing sector is in urgent need for EU wide operational standardisation. There should be no need for the customer to buy and carry an extra device for every region. We believe, due to its flexibility, the mobile phone is a suitable device that could function as an EU wide recognised public transport ticket carrier.
- The intention to introduce electronic ticketing schemes should involve notifying the EU. The public transport authority or operator in question should have to explain how the requirements of interoperability and cross border travel can be fulfilled within the EU rail system. There should be no EU funding for non-interoperable systems. Furthermore the EU should see the invest-

ment of public member state money into non-interoperable electronic ticketing systems as retrogressive.

- We also propose an EU initiated research and development program for the standardisation of electronic ticketing systems on the basis of mobile phone devices. There is expertise available in the knowledge centres in North West Europe. The ambition should be to make this system available for on-site installation on short call. University institutes or other comparable technology centres should be in charge of the program instead of public transport authorities or operators. Public transport authorities or operators should perform some important advising duties. The development of application software with extra services (for example GPS, social navigation) in addition to the basic standardised system should be left to private enterprises.

There should be also an establishment of an EU award scheme for authorities with the most successful ticketing practices. Financial aid could be possibly given to electronic ticketing systems that try to solve the compatibility problems by putting into service EU standardised schemes in the form of pilot trials. Innovative schemes are currently evident in some regions of North West Europe. Note the successful **euregion** ticket scheme in the Euregio Maas-Rhine involving mobile phone ticketing (SMS and Java application).

6.3 Passenger Information



6.3.1 General description

Consumers need to be provided with up-to-date information when using public transport both when they are planning the trip (pre-trip) and when they are travelling (on-trip). While on a member state level, the pre-trip information systems are wholly evident, the provision with on-trip and real-time information is still incomplete.

In the case of cross border regional rail connections, some train operators and mobile phone software developers offer applications (websites, etc.) with trip information (often real-time), whereas others concentrate purely on the territory of the member state. The integration of bus services on both sides of the border into those information systems is still far from finished. For example: The Aachen Public Transport Authority provides a comprehensive time table program on its website that includes nearly all bus and train services in the Euregio Maas-Rhine (pilot scheme). Unfortunately there are not many public transport operators that deliver real-time information.

As far as we can see there has been a lot of progress made in the area of timetable data management, compatibility, and availability. The main barrier is the reluctance of transport authorities and operators to share data. Some public transport operators regard their timetable and especially their real-time data as company secrets. Furthermore there are many technological problems that have to be solved. These include the integration of all the cross border data into a central server from where they can be retrieved by the customer.

6.3.2 Current EU Actions

The EU via regulation (1371/2007) has been very concrete on rail passengers' rights and obligations. The regulation even includes passages relating to rail passenger information and minimum service quality standards. Please see some interesting extracts enclosed:

The minimum information to be provided by railway undertakings and/or by ticket vendors:

Part I: Pre-journey information

- General conditions applicable to the contract
- Time schedules and conditions for the fastest trip
- Time schedules and conditions for the lowest fares
- Accessibility, access conditions and availability on board of facilities for disabled persons and persons with reduced mobility
- Accessibility and access conditions for bicycles
- Availability of seats in smoking and non-smoking, first and second class as well as couchettes and sleeping carriages
- Any activities likely to disrupt or delay services
- Availability of on-board services
- Procedures for reclaiming lost luggage
- Procedures for the submission of complaints.

Part II: Information during the journey

- On-board services
- Next station
- Delays
- Main connecting services
- Security and safety issues.

The minimum service standards are:

- Information and tickets
- Punctuality of services, and general principles to cope with disruptions to services
- Cancellations of services
- Cleanliness of rolling stock and station facilities (air quality in carriages, hygiene of sanitary facilities, etc.)
- Customer satisfaction survey
- Complaint handling, refunds and compensation for non-compliance with service quality standards
- Assistance provided to disabled persons and persons with reduced mobility.

The EU Action Plan on Urban Mobility refers to several aspects of passenger information. There is one action that deals with the upgrade of data and statistics. To address this lack of information, the Commission will launch a study on how to improve data collection for urban transport and mobility. Synergies with existing Commission activities will be explored. A second action relates to the establishment of an urban mobility observatory. The Commission will set up a vir-

tual platform to share information, data and statistics, monitor developments and facilitate the exchange of best practices.

Another action from the EU Action Plan on Urban Mobility focuses on the improvement of travel information. The Commission will work with public transport operators and authorities on facilitating the provision of travel information through different media, including information addressing the needs of disabled persons. It will also support the development of national and regional multimodal journey planners, and links between existing planners, with the ultimate aim of providing users with a public transport travel portal at EU level on the internet. There will be a particular focus on the main nodes in the TEN-T network and their local and regional connections.

6.3.3 Potential EU Actions

The goal in the long term should be the installation of a European-wide intelligent framework to support standardised customer information systems to provide compatible technology between member states and across transport modes (train, bus, car-sharing etc.). The ERA could play an important role in this process.

Comparing the EU guidelines on passenger information with the usual practice in North West Europe shows that a common binding standard concerning the public bus transport sector and other potential transport sectors is still missing. To extend this existing EU guideline from rail transport only to public bus transport should be a first step taken by the EU.

In general public transport operators should be obliged to provide the necessary travel information (pre-trip and on-trip, both real-time) to the customer. This should be done via a third independent party that collects the data and puts them at the customers' service, for example by means of a website.

It seems that many public transport operators are still reluctant to provide their (real-time) data to third parties, for example public transport authorities. It should be regulated by EU that every public transport operator which receives public subsidies should be obliged to provide the necessary (real-time) data to centralized consumer information systems.

Pre-trip and on-trip information

There should be a standard on how to make pre-trip and on-trip information available to the consumer. For border regions this is of particular importance, because consumers don't want to deal with all the different systems the often numerous public transport operators a region provide.

EU guidelines should aim at the following minimum standard for passenger travel information:

- All information given to customer should take into the consideration the whole (cross border) public transport network. If neutral parties with no economic interest with regard to one of the public transport operators, such as public transport authorities, don't want to or can't provide the necessary trip information, a third neutral party should do the job (for example [www.9292ov](http://www.9292ov.nl) in the Netherlands). In case a private transport operator does the job (for example www.bahn.de), the offer should be controlled by the public transport authority or member states or the ERA whether its service complies with the required standards for consumers.
- Pre-trip information should be available at every station or bus stop (information given by staff at every major station, plans and static time tables at smaller stations or bus stops), on websites and via mobile phone. The information given by staff and the information via mobile phone and

website should be real-time. The staff should be able to deal with customers in the required languages.

- On-trip information should be available in every means of public transport (real-time), at every station (real-time) or bus stop (real-time at major bus stops) and via mobile phone (real-time).
- The website and the mobile phone should offer at least an electronic timetable and a routing function (both real-time). The website also should provide maps, tariffs etc.
- To avoid the parallel existing of various websites with time tables for the same region the responsible public transport authority or another third party should provide a centralised website which is fed by the (real-time) data input of every public transport operator in the region.

7. Regulatory Body



7.1 General Description

The European Railway Agency (ERA) in Valenciennes, France, helps to build an integrated European railway area by reinforcing rail safety and promoting interoperability. Set up in 2006, ERA develops common technical standards and common approaches to safety, working closely with stakeholders from the rail sector as well as with national authorities, the EU institutions and other interested parties. Featuring a dedicated Safety Unit, ERA also monitors and reports on rail safety in the EU.

7.2 Current EU Actions

The EU sees the main working area of the ERA being interoperability and safety. Its responsibilities are limited as strong national railway regulatory authorities (NRRAs) in the EU oversee capacity allocation, regulatory pricing (e.g. price caps on use of infrastructure), subsidy levels, safety and technical requirements and the provision of railway licences.

Other areas such as ticketing or tariff systems are mainly regulated by member states or regional (public transport) authorities.

7.3 Potential EU Actions

We have seen that cross border regional public transport is not developing because of mainly lacking cross border administrative co-operation, funding and EU wide regulation.

For the following activities a stronger role of the EC – for example by means of a supporting body on European level - with a special focus on cross border public transport is seen as an advantage:

- stimulate harmonization of the national rail markets to make the connecting of rail networks over the border easier,
- improve safety levels and harmonization of technical requirements with regard to infrastructure and rolling stock (already core responsibilities of ERA),
- better monitor rail capacity, capacity allocation procedures and the setting up of capacity enhancement plans,
- stimulate harmonization of tariff and ticketing systems as well as ticket distribution
- set standards for public transport customer / passenger information
- create and enforce a “Single European Rail” concept based on the experiences made with the Single European Sky initiative⁶.

Instead of forming a new European Railway Body to do some of the above, there a strong overhaul of the ERA should be considered by the EC. It should be more noticeable (better communication with relevant authorities, advertising, etc.) and given additional powers. It should be able to control compliance of public transport market with EU guidelines, but primarily see its role as an independent mediator between national or regional interests. Moreover the European Railway Agency could play a more central role in overseeing the activities the national regulatory bodies.

⁶ In the Single European Sky initiative a Community regulator will merge upper European airspace, currently divided into national regions. This body will organize this airspace uniformly, with air traffic control areas based on operational efficiency, not national borders. The airline industry after its deregulation developed common security standards, common booking systems and has a common business language. For the airline sector also common safety certificates exist, handed out by the European Aviation Safety Agency.

8. Conclusions

The fact that after the 2001 White Paper on Transport the subsequent document targets the achievement of sustainable transport structures underlines in this context the importance of public (rail) transport for future EC activities.

The experiences in North West Europe illustrate that in spite of many EU guidelines or directives being in place, on the way to creating international (regional cross border) interoperable and consumer-friendly rail services many obstacles still have to be overcome.

This document wants to give some hints where possible focal points of future EU action concerning (cross border) public rail transport have been identified.

To achieve their goals the EC should strengthen their efforts in the following key areas:

- enlarge the EC's perspective on the rail market organisation from mainly long distance (high speed) free market connections to regional cross border connections between two existing neighbouring rail networks, which in general have to be subsidised
- find instruments (for example by means of guidelines etc.) and incentives for the rail market development that help and stimulate and convince public transport authorities or member states to find (on the administrative and financial level) simpler solutions for the financial maintenance or creation of regional cross border connections
- systematically monitor railway capacity problems, enforce the capacity enhancement, enforce the installation of ETCS or even the reactivation of rail infrastructure with special regard to (regional) cross border sections that improve connections to HST-hubs (HST-Connect) by means of particular funding programs which should be additive to national funding programs and reward joint application by neighbouring public transport authorities or member states
- enforce the EU wide harmonization of ETCS levels
- help speed up and simplify approval procedures of rolling stock that already is approved in at least one member state
- help cover additional costs for multi-system rolling stock through easy to handle funding procedures which give financial security to public transport authorities that invite to tender cross border lines; reward the joint invitation to tender by two neighbouring member states
- enforce consumer friendly cross border tariff systems
- discourage national, regional, local authorities from introducing public transport tariffs that are fixed combinations of common public transport tariffs and national, regional or local grant or welfare schemes and therefore have no cross border compatibility
- standardise electronic and conventional ticketing systems; discourage national, regional, local authorities from developing non-compatible systems

- set minimum standard for travel information (pre-trip, on-trip) that has to be made available to the user of regional (cross border) public transport (bus & train)
- strengthen powers of regulatory body on EU level (for example European Railway Agency) to monitor and actively stimulate the achievement of the above mentioned goals

For some of the aspects mentioned above the Single European Sky Initiative can be a model. One could speak of a “Single European Rail” initiative.

9. Follow Up

In this document there is a focus on experiences made in North West Europe with special emphasis on cross border public (rail) transport. Many other parts of the EU are struggling with the same problems. The intention of this document is to support the development of EU wide solutions or policies, for example in the Commissions’ White Paper on European Transport Policy 2010.

The participating partners intent - with this document as a contribution to the White Paper on European Transport Policy 2010 as a starting point – to establish a close and long-term co-operating relationship with the EC. The aim is to exchange and share experiences and knowledge, which is also useful for currently running INTERREG-projects, such as “RoCK – Regions of Connected Knowledge”, and future INTERREG- or other EU initiated programs.

To go a step further, the participating partners are interested to serve as a “laboratory” to help develop and prove draft EU policy strategies, new technologies and standards (for example ETCS), new administrative or contractual procedures (for example in the EU rail market) etc. before they come officially operative in the whole EU.