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Bicycle Carriage on Long-Distance Trains in the European Union

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Update – November 2006

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1 Management Summary

The present study has been commissioned and financed by the European Cyclists' Federation (ECF), an umbrella organization representing 48 national member associations from 36 countries. The main goal of the European Cyclists' Federation is the promotion of the bicycle at European as well as international level and to create a favourable climate in transport, environmental and tourism policies.

1.1 Why this Study?

The **use of the bicycle is increasingly popular** in Europe and bicycle tourism is one of the most rapidly growing sectors in the European economy.

Bicycle **carriage on trains is a relevant issue for the further development of bicycle usage** in Europe, allowing an optimal intermodal combination of friendly modes of transport and the creation of efficient mobility chains.

If bicycle carriage is already widespread on local and regional rail services, the recent evolution of long-distance rail transport has not considered the needs of customers with bicycles and has caused a **significant decrease in the offer and of the number of bicycles carried on long-distance trains** in the EU over the last 10 years. Currently, **less than 10 % of EU long-distance trains allow bicycle carriage**.

Several national and European bodies have recognized the **relevance of this issue**. Among them, the European Parliament which has asked for bicycle carriage facilities on long-distance trains within the Regulations for Sustainable Tourism as well as in the Third Railway Package.

Both **railway undertakings** (RUs) and the **railway industry** have in many cases not yet seriously considered this issue, unlike the automotive and airline sectors where the needs of customers with bicycles have been answered. Supposed disadvantages deriving from seasonality, reduction of capacity, delays at stations are often the consequence of an "a priori" closure toward the bicycle carriage, without a global analysis of the opportunities and the challenges of this issue.

This is proved by the contradictory policies adopted by the different European railway undertakings and confirmed by the few of them that are successfully allowing bicycle on long-distance and high-speed trains.

In order to **stimulate a further debate on these issues**, the ECF has carried out a market analysis aimed at an in-depth study and evaluation of the EU market for bicycle carriage on long-distance trains. This analysis involves technical and political aspects and provides useful elements for the further discussion of this issue at a European level, with particular reference to solutions allowing the bicycle carriage on high-speed trains.

Consequently, this study has not been primarily thought of as a guide for bicycle users. However, the analysis follows the point of view of the final customer and contains interesting information.

The content is based on ECF internal know-how, analysis of publicly available documents, information obtained from railway undertakings and rolling stock producers, united with the technical support of the German railway consulting company SCI Verkehr GmbH.

This study has been co-financed by the European Commission.

2 About this Study

2.1 Aim

The aim of this study is:

- to give an **overview** and an **evaluation** of the **current market**
- to present the **relevant conditions** for developing the bicycle carriage on long-distance trains
- to work out **development scenarios** for the **policies** and **technologies** being operated.

2.2 Subject

The main focus of this study is on products and services allowing **carriage of complete bicycles on long-distance railway passenger transport services in the European Union (EU 25), Switzerland and Norway**. Long-distance railway services include both national and international, as well as day and night services.

- *Bicycle hire and bicycles as unaccompanied luggage as well as carriage of dismantled bicycles are not considered. Due to the relevant differences in the demand and supply of these services, they have to be considered as complementary and not substitutive markets (bicycle tourists want to use their own bicycles and their dismantling is uncomfortable and often complicated).*
- *Regional railway services are not considered. This is mainly due to the fact that bicycle carriage on local and regional railway services is altogether satisfactory. Exceptions are a local issue that has to be handled with the regional transport authorities and railway undertakings involved.*
- *Infrastructural services at stations are also not considered. They are the competence of the station management bodies and also in this case a relevant role can be played by local authorities where the station is located.*

However, a clear separation among the different services is not always possible (for example ticket machines selling both long-distance and regional tickets), so that it makes sometimes sense to consider the railway system as a whole.

2.3 Methodology

The core of the study is an analysis of **32 railway undertakings (RUs) offering long-distance railway services** (Chapter 4). In order to achieve a comparable overview and evaluation of the services offered by the various operators, the study focuses on the following **four categories**:

1. **Carriage Offer:** *availability of bicycle carriage on long-distance services. If operated, both high-speed and international services are separately considered.*
2. **Ticket and Reservation Schemes:** *available ticket and reservation schemes in national and international long-distance transport.*
3. **Sales Channels:** *availability of tickets and reservations at manned counters, automatic machines, online as well as through other channels (telephone, on board).*
4. **Website Information:** *availability of a bicycle carriage query function in timetable search engines and of information about bicycle carriage conditions in the national and foreign languages. Information about the UIC Webpage Railpassenger.info as well as content of the information delivered to that website is also analysed.*

Each RU is then consequently evaluated according to **sixteen common indicators**, thus summarizing the complexity and variety of services offered by long-distance RUs in Europe (larger and smaller RUs, active countrywide or only on few connections, offering one or more categories of services). These sixteen common indicators have been grouped into **three main areas** as follows:

1. Carriage:

- *Availability of bicycle carriage on all train categories*
- *Availability of bicycle carriage on all train services*
- *Availability of bicycle carriage on high-speed trains*
- *Availability of bicycle carriage on some international services*
- *Availability of bicycle carriage on some national services*

2. Sale (grouping “Ticket and Reservation Schemes” and “Sales Channels” categories):

- *Availability of bicycle space reservation when not compulsory*
- *Availability of bicycle tickets at automatic counters*
- *Availability of bicycle tickets online*
- *Availability of bicycle reservation at automatic counters*
- *Availability of bicycle reservation online*
- *Availability of free bicycle carriage*
- *Availability of the international bicycle ticket*

3. Website:

- *Availability of timetable search engine with bicycle carriage query option*
- *Availability of online information about bicycle carriage*
- *Availability of online information in English about bicycle carriage*
- *Availability of link to the Railpassenger webpage from the bicycle webpage of the RU*

For each indicator, the values **1**, **o** or **n** (not operated) are possible. The **area values** are a weighted arithmetical average of the numerical values (the carriage offer is weighted twice, due to the particular importance of this area). The **final values** are the sum of the area values.

The complete evaluation matrix is in the Annex.

Where possible the whole study follows this methodological approach with the adoption of the same four categories illustrated above: this occurs in the overview of the European market (Chapter 3), and in the concluding assessments (Chapter 7).

Hence, the study analyses the role of the railway industry (Chapter 5) and of the European organizations (Chapter 6).

3 The European Market

This chapter provides an introduction and an overview of the European Market (EU 25, Norway and Switzerland) for bicycle carriage on long-distance trains. Some aspects will be gone into in depth in the following chapters.

3.1 Carriage offer

- **Long-distance railway passenger transport is basically a national issue.** Even where the European Union has tried to create a European framework, this has happened through directives which have been applied in different ways by the national countries.
- **Long-distance services in Europe are offered by national railway undertakings.** International services are in most cases offered by joint ventures or regulated by bilateral agreements.
- **International railway organizations are an expression of the national RUs and/or of the national governments** (which are in most cases the RUs owners) without a strong independent guide. The European integration has to take care of the specific national characteristics and interests.

The result is a quantitatively poor and qualitatively confused bicycle carriage offer:

- **Bicycle carriage is allowed on less than 10 % of long-distance railway services in the EU.** In many countries, only a few long-distance connections allow bicycle carriage, resulting in a lack of connections or unacceptable travel times.
- **Each RU adopts different rules and criteria for bicycle carriage.** An organic and attractive European offer is still missing. In international services the situation gets worse proportionally to the number of borders crossed.
- **Train producers** have not developed adequate systems for bicycle carriage (see Chapter 5).
- The bicycle carriage offer is mostly based on **emotional decisions without serious analysis** (see Chapters 4 and 7).

Fig. 1: Connections on 6.11.2006 according to the HAFAS timetable system

Connection	Without bicycle carriage	With bicycle carriage
Paris – Amsterdam	16 daily; min. duration: 4h 11m	8 daily; min. duration: 12h 12m
Vienna – Warsaw	4 daily; min. duration: 7h 27m	2 daily; min. duration: 29h 01m
Milan – Luxembourg	16 daily; min. duration: 8h 49m	1 daily; min. duration: 11h 46m
Prague – Brussels	8 daily; min. duration: 10h 58m	1 daily; min. duration: 14h 35m

3.2 Ticket and Reservation Schemes

- National long-distance railway passenger transport is based on **national tickets and reservation schemes.** Bicycle tickets and reservations are normally not sold online or by other companies.
- An **International Bicycle Ticket** has been created within the International Passenger Tariff (TCV): it is sold and accepted by only ten European RUs (ÖBB-SNCB-CD-DB-DSB-CFL-MAV-NS-ZSSK-SBB). Its price varies from 5 to 12 Euro, depending on the selling RU.

- Other RUs may issue other international tickets, often **valid only on international trains** and not to the final destination.
- International tickets like **Interrail, Eurodomino** and **Eurail** do not consider the carriage of bicycles.

3.3 Sales Channels

- Sales Channels are controlled by the national RUs. A **few companies, mainly in the UK, offer free bicycle carriage** with free compulsory reservation.
- Bicycle tickets and reservations are **often not available at automatic counters or online**.
- It is normally **not possible to purchase a bicycle ticket and/or reservation for a foreign country**, even in the case of a return ticket.

3.4 Website Information

- The UIC maintains the webpage **www.railpassenger.info** offering among others, information for passengers with bicycles in the main EU-countries. Information is provided directly by the railway undertakings on a voluntary basis. As a result, information is often generic, some RUs are not listed; others (Renfe, ZSSK) provide only a direct link with their own webpage offering information in their national language. Strategic information like an online timetable with a bicycle carriage query function and the possibility of bicycle space reservation is also missing (see also 6.1).
- There is no official European database. De facto many online timetables are based on a **common HAFAS database**. This database has a bicycle carriage query option but the data is unreliable, because it is often wrong or incomplete (see 6.3).

As a result, even where there is a carriage offer, **information is often insufficient, incomplete or even wrong**.

Fig. 2: SNCB/NMBS website information about international carriage offers and prices

“...Here’s a look at the possibilities and the prices:

Destinations	Trains and fares per single journey departing from Belgium*
Benelux	All Benelux trains 9.00 Euro per bike and 15.00 Euro per tandem
Germany	Regional trains between Liège and Aachen (max. 5 bikes) <ul style="list-style-type: none"> • Passengers with a normal fare ticket: 9.00 Euro per bike • Passengers with an “Aixpress-ticket” or an “IRq Aachen” season ticket: day ticket at 7.30 Euro per bike
France	Direct trains to Lille 9.00 Euro per bike and 15.00 Euro per tandem
Switzerland	Day trains Vauban (EC 90/91) to Basel and Iris (EC 97/96) to Zürich and Chur 9.00 Euro per bike and 15.00 Euro per tandem + 3.00 Euro compulsory booking (for both)

** For departures from the Grand Duchy of Luxembourg the prices are set by CFL, from the Netherlands by NS, from Germany by DB and from Switzerland by CFF/SBB. When departing from a French station, the fares for the transport of bikes will be paid to the on-board attendants.”*

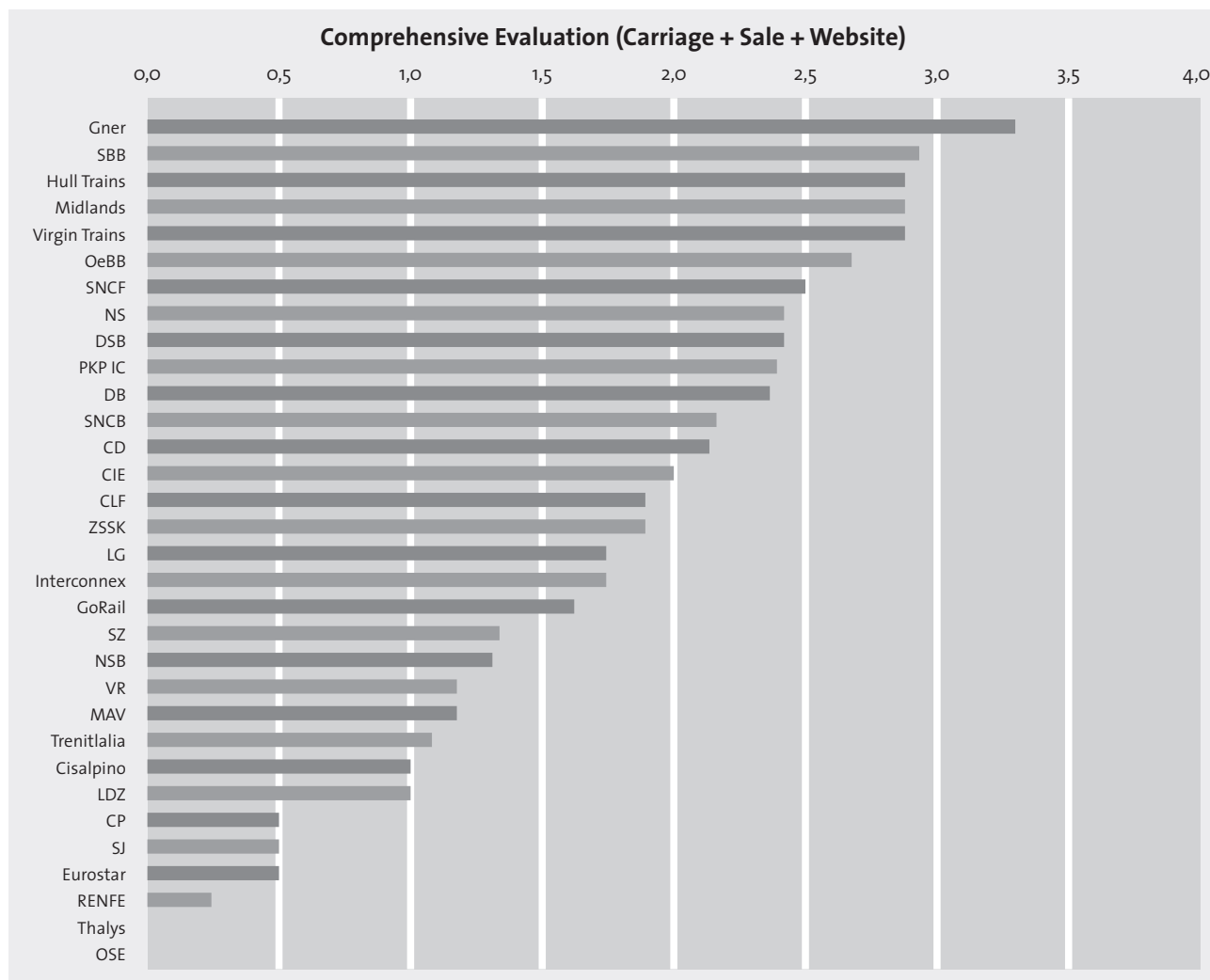
4 Company Reports

This chapter contains reports from 32 European railway undertakings ordered alphabetically by country and company names.

N.B: Some international connections are covered by joint ventures owned by national railway undertakings (Artesia, Cisalpino, Elipsos, Intercity Night Line, Lyria, Thalys, ...). Cisalpino and Thalys play a significant role in the context of this analysis and are therefore considered separately from their shareholders. The other above mentioned joint ventures are analysed according to the countries in which the services are operated, together with the railway undertakings that provide traction and train drivers.

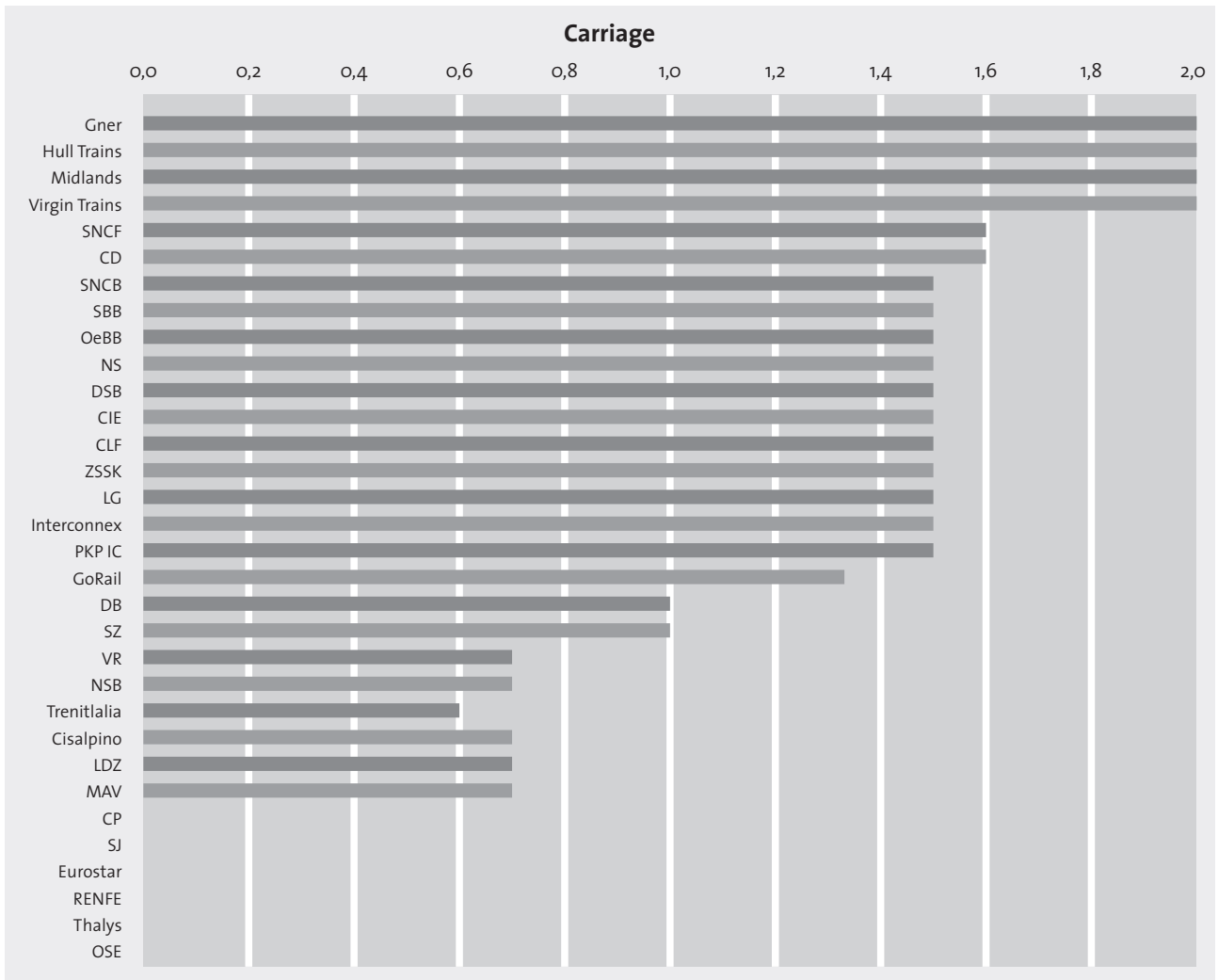
The following table describes the **comprehensive evaluation** of the 32 RUs: **GNER (UK)** is the most bicycle friendly long-distance railway undertaking, followed by **SBB/CFF/FFS (CH)**. The list is closed by **Thalys (BE)** and **OSE (GR)**, where no bicycle carriage is possible and also sale and website information is unsatisfactory.

Fig. 3: Comprehensive Evaluation of the Railway Undertakings in Europe



The above table results from the sum of the following three areas: **Carriage** (availability of the service); **Sale** (tickets and reservation schemes as well as sales channels); **Website** (online information) according to the methodology described in Chapter 2.

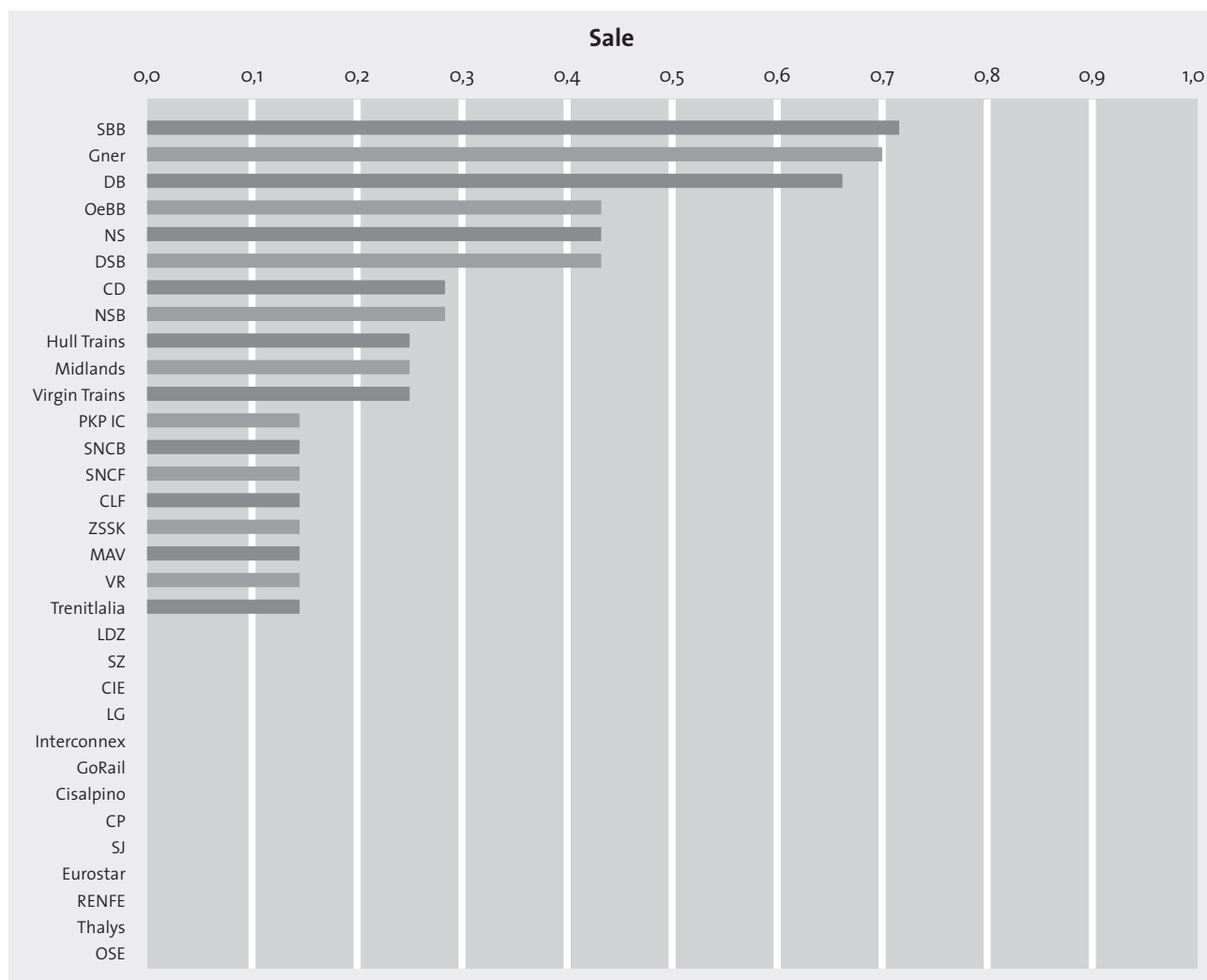
Fig. 4: Evaluation of the Railway Undertakings in Europe – Carriage



In the **carriage area**, four UK railway undertakings (**GNER, Hull Trains, Midlands Mainline and Virgin Trains**) reach the maximum score, since they allow free bicycle carriage on all long-distance services. The minimum score is attained by **CP, SJ, Renfe, Eurostar (UK)** and **OSE**, where bicycle carriage is not allowed.

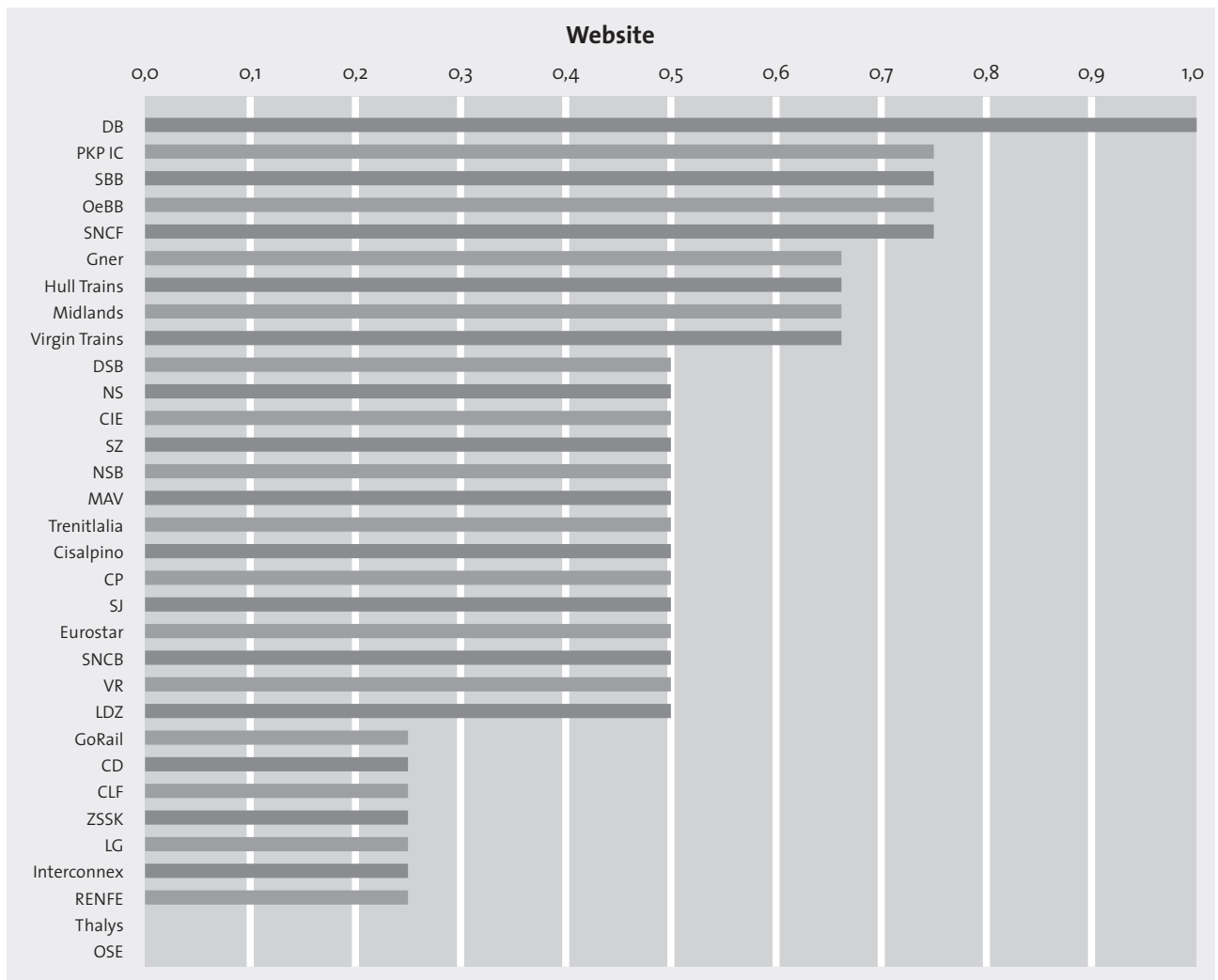
In the **sale area** the best services for cyclists are offered by **SBB**, followed by **GNER** and **DB**. The last positions are occupied by **LDZ, SZ, CIE, LG, Interconnex, Go Rail, Cisalpino, CP, SJ, Eurostar (UK), Renfe, Thalys and OSE**.

Fig. 5: Evaluation of the Railway Undertakings in Europe – Sale



In the **website area** the maximum score has been reached by **DB**, followed by **SBB, ÖBB, SNCF** and **PKP**. The less bicycle friendly webpages are those of **Thalys and OSE**.

Fig. 6: Evaluation of the Railway Undertakings in Europe – Website



In the following pages each railway undertaking will be analysed in detail. The complete evaluation matrix is in the Annex.

4.1 Austria – ÖBB

4.1.1 Carriage Offer

- **Conventional trains:** all four train categories – ÖBB EC/IC; EC/IC; D; EN – but not all train services allow bicycle carriage, with possibility of reservation.
- **High-speed trains:** German ICE-trains are operated between Vienna and several German cities. Hence, ÖBB bought three ICE-T trains from DB in 2005, operated as “4011” on the connections Vienna-Munich and Vienna-Bregenz starting from December 2006. Further ICE-T trains will be operated by DB from December 2007 between Frankfurt/Main and Vienna. On these services, bicycle carriage is not allowed.
- **International trains:** around **40%** of long-distance direct connections allow bicycle carriage. Reservation is sometimes possible.

4.1.2 Ticket and Reservation Schemes

- A bicycle day ticket in long-distance transport costs 6.80 Euro. The same ticket is valid also for tandems, trailers and tricycles. A regional transport day ticket (2.90 Euro) can be upgraded by paying the difference (3.90 Euro).
- A free reservation is recommended but not compulsory and has to be purchased at least three hours before the train departure from the first station.
- Week and month tickets are available only in regional transport.
- The special ticket “1 Plus Freizeitticket” allows free bicycle carriage on EC/IC trains. A reservation can be bought for 5 Euro.
- The international bicycle ticket costs 12 Euro.

4.1.3 Sales Channels

- EuroBicycle tickets are available at manned counters.
- Bicycle tickets and reservations are not available at automatic machines or online. Only an online request with postal delivery is possible.

4.1.4 Website Information

- Timetable search engine: available in German and English, with “bicycle carriage” query option.
- Information about ticket prices and reservation: information available only in German. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: only from the German version of the Passenger Charter page. Not from the bicycle page.

4.1.5 Evaluation

- 6th place in the final ranking list, resulting from 7th in Carriage, 4th in Sale and 2nd in Website. The main concern for the future is the consideration for bicycle carriage in the planned implementation of high-speed trains (ICE-T and Railjet).

4.2 Belgium – SNCB/NMBS

4.2.1 Carriage Offer

- **Conventional trains:** Eurocity, Intercity and night trains. All these train categories – but not all train services – allow bicycle carriage, with the possibility of reservation. It is not possible to load/unload bicycles at Brussels Central, Brussels Chapelle and Brussels Congres.
- **High-speed trains:** are not operated (services are operated by Eurostar and Thalys. French TGV and German ICE without bicycle carriage).
- **International trains:** around **5%** of long-distance direct connections allow bicycle carriage. The reservation is often mandatory.

4.2.2 Ticket and Reservation Schemes

- National one-way ticket costs 4.40 Euro (8.40 Euro for a tandem or bicycle and trailer). A day ticket costs 7.30 Euro (14.60 Euro for tandem or bicycle and trailer).
- Reservation is either mandatory or not possible.
- International bicycle ticket prices vary according to the destination: 9.00 Euro per bike and 15.00 Euro per tandem within Benelux and to France; 15.00 Euro on DB NachtZug to Berlin (the only long-distance connection with Germany allowing bicycle carriage). For international return tickets prices are set by the RU in the country of departure.

4.2.3 Sales Channels

- Bicycle tickets are available at manned counters.
- Bicycle tickets and reservations are not available at automatic machines or online.

4.2.4 Website Information

- Timetable search engine: available in French, Flemish, German and English, without “bicycle carriage” query option.
- Information about ticket prices and reservations: information available in French, Flemish, German and English. Bicycle ticket and reservation are not available online.
- Link to Railpassenger.info: not available.

4.2.5 Evaluation

- 12th place in the final ranking list, resulting from 7th in Carriage, 12th in Sale and 10th in Website. The main problems concerning bicycle carriage are the lack of a reservation possibility, the lack of bicycle tickets and reservations at automatic machines as well as timetables without bicycle carriage query options. There are very few international long-distance trains with bicycle carriage and this is an obstacle for instance for foreign tourists willing to cycle in Belgium.

4.3 Belgium – Thalys

Thalys is owned by SNCF (70%) and SNCB/NMBS (30%). Trains are co-owned also by NS and DB. The company is providing high-speed services in Belgium, France, Germany and the Netherlands.

4.3.1 Carriage offer

- **Conventional trains:** not operated
- **High-speed trains:** the transport offer is limited to Thalys trains, strictly derived from the French TGVs. On these services, bicycle carriage is not allowed. The provision of bicycle facilities may be taken into consideration during the modernization of Thalys trains, foreseen in 2007.
- **International trains:** all trains are international. The bicycle carriage rate is 0%.

4.3.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations are not available.

4.3.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.3.4 Website Information

- Timetable search engine: available without “bicycle carriage” query option.
- Information about ticket prices and reservations: information not available. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.3.5 Evaluation

- 31st place (last place) in the final ranking list, resulting from 27th in Carriage (last place), 20th in Sale (last place) and 31st in Website (last place). Bicycle carriage is not allowed and also information and/or services for customers with bicycles are unsatisfactory. The hope is that the planned modernization of Thalys will consider bicycle carriage.

4.4 Czech Republic – CD

4.4.1 Carriage Offer

- **Conventional trains:** EC/IC trains, RR-trains as well as EN trains. All these train categories – but not all train services – allow bicycle carriage with the possibility of reservation.
- **High-speed trains:** since December 2005 Alstom 680 Pendolinos are connecting Prague with Ostrava classified as SC Supercity trains. On these services, bicycle carriage is allowed.
- **International connections:** around **30%** of long-distance direct connections allow bicycle carriage.

4.4.2 Ticket and Reservation Schemes

- A one-way bicycle ticket costs 20 CZH. Bicycle tickets for two to seven days cost from 60 to 200 CZH.
- Reservation costs 30 CZH and it is compulsory on SC and on some EC/IC trains, and also possible in other trains. It has to be purchased at least two hours before the train departs from the first station.
- The international bicycle ticket costs 5 Euro.

4.4.3 Sales Channels

- Bicycle tickets are available at manned counters or on the trains.
- Bicycle tickets and reservations are not available at automatic machines or online.

4.4.4 Website Information

- Timetable search engine: available in Czech and English, without “bicycle carriage” query function.
- Information about bicycle ticket prices and bicycle reservations: information is available only in Czech. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.4.5 Evaluation

- 12th place in the final ranking list, resulting from 5th in Carriage, 7th in Sale and 24th in Website. Very positive is the bicycle carriage on Pendolino services. Unsatisfactory is the absence of bicycle tickets at the (still few) automatic ticket machines, the lack of a bicycle carriage query function in the online timetable as well as the poor information in English online.

4.5 Denmark – DSB

4.5.1 Carriage Offer

- **Conventional trains:** Eurocity, IntercityLyn, Intercity, Interregional and night trains. Eurocity normally does not carry bicycles.
- **High-speed trains:** not operated
- **International connections:** around **20%** of long-distance direct connections allow bicycle carriage.

4.5.2 Ticket and Reservation Schemes

- Bicycle ticket prices vary according to zones: 10 to 50 DKK. Tickets are valid 1 day.

- Reservation is possible on IC and IClyn trains. Reservation can be made at DSB stations or by telephone, but not online or at automatic counters. On InterCity and InterCityLyn trains a reservation is compulsory from May to August. A reservation costs 20 DKK.
- The international bicycle ticket costs 10.50 Euro.

4.5.3 Sales Channels

- Bicycle tickets are available at manned counters as well as automatic machines, not online.
- Reservations are available at manned counters or – for internal connections – by telephone.

4.5.4 Website Information

- Timetable search engine: available in Danish, English and German. A “bicycle carriage” query function is only available for national connections.
- Information about ticket prices and reservations: information available only in Danish. Bicycle ticket and reservation are not available online.
- Link to Railpassenger.info: not available.

4.5.5 Evaluation

- 8th place in the final ranking list, resulting from 7th in Carriage, 7th in Sale and 10th in Website. Lack of bicycle carriage on all trains, lack of bicycle reservation at automatic machines and online as well as poor information in English in the websites are the main remarks.

4.6 Estonia – GoRail

4.6.1 Carriage Offer

- **Conventional trains:** the only long-distance service in Estonia is operated by the private company GoRail on the route Tallinn-Narva-Moscow (1 daily). This train allows free bicycle carriage, but reservation is not possible.
- **High-speed trains:** not operated
- **International connections:** no long-distance international services with EU countries.

4.6.2 Ticket and Reservation Schemes

- Bicycle tickets are not available. A bicycle is considered as a piece of luggage.
- Reservation is not possible.
- The international bicycle ticket is not sold.

4.6.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.6.4 Website Information

- Timetable search engine: available only in Estonian without a “bicycle carriage” query function.
- Information about ticket prices and reservations available only in Estonian. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available. Railpassenger is also not providing info about Estonia.

4.6.5 Evaluation

- 19th place in the final ranking list, resulting from 18th in Carriage, 20th in Sale and 24th in Website. An evaluation of the Estonian long-distance railway transport, however, makes little sense, due to the almost complete absence of such transport offer for passengers in general. Cyclists would, however, appreciate more information in English about the bicycle carriage conditions on GoRail and in general on Estonian trains and a search engine with a bicycle carriage query function.

4.7 Finland – VR

4.7.1 Carriage Offer

- **Conventional trains:** Intercity, Intercity2, Express and night trains. Bicycle carriage is possible on all Intercity and Intercity2 (three bicycle spaces with mandatory reservation), as well as on day and night Express trains with luggage compartments (marked in the timetable). No bicycle carriage on night trains.
- **High-speed trains:** Pendolino trains are operated on north-south connections, bicycles are not allowed.
- **International connections:** Finland has no international rail services with EU countries.

4.7.2 Ticket and Reservation Schemes

- One-way bicycle tickets: 9 Euro. Tandems: 18 Euro. Bicycle trailers: 9 Euro.
- Reservation is free. On IC and IC2 a bicycle space must be booked in advance from VR Telephone Service or at stations. In InterCity trains it is possible to lock the bicycle with a 0,50 Euro coin, which is returned when the bicycle is removed. On other trains reservation is not possible.
- The international bicycle ticket is not sold.

4.7.3 Sales Channels

- Bicycle tickets are available at manned counters and automatic machines, not online.
- Bicycle reservations are possible at manned counters or by telephone.

4.7.4 Website Information

- Timetable search engine: available in Finnish, Swedish and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Finnish, Swedish and English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.7.5 Evaluation

- 22nd place in the final ranking list, resulting from 21st in Carriage, 12th in Sale and 10th in Website. Bicycle carriage is not possible on Pendolinos and night trains. Reservation is not possible when not compulsory, an online timetable with a bicycle carriage query function is also missing. Very practical is the bicycle lock solution on Intercity trains.

4.8 France – SNCF

4.8.1 Carriage Offer

- **Conventional trains:** the three train categories – Corail Teoz (up to six bicycles), Corail Intercites and night trains Corail Lunea – allow bicycle carriage but not on all trains. Reservation is compulsory on Teoz and Lunea.
- **High-speed trains:** A high-speed network connects the main cities, operated with TGV trains. On TGV trains bicycle carriage is allowed with compulsory reservation. Exceptions are TGV Atlantique and TGV Duplex, where bicycle carriage is not allowed.
- **International connections:** around 15% of long-distance direct connections allow bicycle carriage.

4.8.2 Ticket and Reservation Schemes

- On TGV and Corail Teoz bicycle carriage is free with compulsory reservation worth 10 Euro for each train service. On other Corail trains bicycle carriage is free.
- Where not compulsory, a free reservation is recommended and has to be purchased at least three hours before the train departs from the first station.
- The international bicycle ticket is not sold in France.

4.8.3 Sales Channels

- Bicycle tickets do not exist. Reservations are available only at manned counters. Reservation on board costs an 8 Euro surcharge.

4.8.4 Website Information

- Timetable search engine: available in several languages, without a “bicycle carriage” query function.
- Information about ticket prices and reservation: information available in French and in English. Bicycle reservations are not available online.
- Link to Railpassenger.info: Not from the bicycle page.

4.8.5 Evaluation

- 7th position in the final ranking list, resulting from 7th in Carriage, 12th in Sale and 2nd in Website. Very positive are the bicycle carriage facilities on many TGVs, with the hope that the entire TGV fleet will be soon available for passengers with bicycles. The reservation cost of 10 Euro per train results in high total costs in case of journeys with several connections. Not satisfactory are the lack of bicycle tickets and reservations at automatic machines and online and that the international bicycle ticket is not accepted. A search engine with a bicycle carriage query function is also missing.

4.9 Germany – DB

4.9.1 Carriage Offer

- **Conventional trains:** on most EC and IC trains bicycle carriage is allowed, with the possibility of reservation. On night trains CityNightLine (CNL) UrlaubsExpress (UEx) and DB NachtZug (NZ) bicycle carriage is allowed with compulsory reservation. On most D-Nacht (D-Nacht) trains travelling mainly to eastern international destinations bicycle carriage is not allowed.
- **High-speed trains:** in Germany are marked as ICE-trains. On these services, bicycle carriage is not allowed.
- **International connections:** around 30 % of long-distance direct connections allow bicycle carriage.

4.9.2 Ticket and Reservation Schemes

- Only single trip tickets are available: 8 Euro in IC, EC, NZ, EN, D, CNL, UEx trains (6 Euro for BahnCard owners).
- On the following night trains a bicycle ticket incl. compulsory reservation costs 15 Euro: NZ 242/243 Berlin – Brussels/Paris, NZ 236/237 Hamburg – Brussels/Paris, NZ 260/261 Munich – Paris and NZ 360/361 Frankfurt/Paris.
- A reservation is highly recommended but not compulsory. Reservation is free if it is obtained at the same time as buying a ticket, otherwise it costs 3 Euro. In some international trains (especially from France, Italy and the Czech Republic) a reservation is not possible due to technical reasons.
- The international bicycle ticket costs 10 Euro.

4.9.3 Sales Channels

- Bicycle tickets are available at manned counters, bicycle hotline and at automatic machines.
- Reservations are available at manned counters and bicycle hotline; not available at automatic machines
- Bicycle tickets and reservations are not available online.

4.9.4 Website Information

- Timetable search engine: available in several languages, with a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in German. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: Not from the bicycle page.

4.9.5 Evaluation

- 11th place in the final ranking list, resulting from 19th in Carriage, 3rd in Sale and 1st in Website. DB has the most complete website service for passengers with bicycles and one of the best sale offer and system. Unfortunately DB has resigned from bicycle carriage on ICE trains and this excludes passengers with bicycles from over 60% of long-distance trains.

4.10 Germany – Interconnex (Veolia Verkehr)

4.10.1 Carriage offer

- **Conventional trains:** Interconnex trains. Bicycle carriage is allowed.
- **High-speed trains:** not operated
- **International connections:** not operated

4.10.2 Ticket and Reservation Schemes

- Single trip ticket: 5 Euro
- Bicycles are carried only with reservation (free by phone).
- The international bicycle ticket is not sold.

4.10.3 Sales Channels

- Bicycle tickets are available on board.
- Compulsory free reservation by phone.

4.10.4 Website Information

- Timetable search engine: available in German, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in German. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.10.5 Evaluation

- 17th place in the final ranking list, resulting from 7th in Carriage, 20th in Sale and 23rd in Website. Bicycle ticket reservation is possible only by phone. Poor information in English online.

4.11 Greece – OSE

4.11.1 Carriage offer

- **Conventional trains:** IC-trains, IR-trains and D-trains do not carry bicycles.
- **High-speed trains:** not operated.
- **International connections:** there are few direct long-distance connections from Thessaloniki to Skopje/Beograd, Sofia and Istanbul. Bicycle carriage is not allowed.

4.11.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations are not sold.

4.11.3 Sales Channels

- Bicycle tickets and reservations are not sold.

4.11.4 Website Information

- Timetable search engine: available in Greek and English, without a “bicycle carriage” query function.

- Information about ticket prices and reservations: information available in Greek and in English. No mention about bicycle carriage.
- Link to Railpassenger.info: not available.

4.11.5 Evaluation

- 31st place (last place) in the final ranking list, resulting from 27th in Carriage (last place), 20th in Sale (last place) and 31st in Website (last place). Greece as a country has the worst result in this study. Bicycle carriage is not allowed on any long-distance train and also information and/or services for customers with bicycles are unsatisfactory.

4.12 Hungary – MAV

4.12.1 Carriage offer

- **Conventional trains:** ICR, IC, IP and Ex trains. None of these train categories allow bicycle carriage.
- **High-speed trains:** not operated.
- **International connections:** around 15 % of long-distance direct connections allow bicycle carriage.

4.12.2 Ticket and Reservation Schemes

- National tickets are available only for local and regional transport.
- International ticket prices depend on the final destination of the trains: for trains to Slovenia and Slovakia the price is 5 Euro. For trains to Austria and Germany and to Italy (via Slovenia) the price is 10 Euro.
- Reservation is mandatory and included in the price.
- Charges for tandems are double.

4.12.3 Sales Channels

- Bicycle tickets are available only at manned counters.

4.12.4 Website Information

- Timetable search engine: available in Hungarian, German and English with a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in Hungarian. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.12.5 Evaluation

- 22nd place in the final ranking list, resulting from 21st in Carriage, 12th in Sale and 10th in Website. Bicycle carriage is possible only on some international long-distance trains, bicycle tickets are available only at manned counters. Online information is available only in Hungarian.

4.13 Ireland – CIE

4.13.1 Carriage Offer

- **Conventional trains:** IC-trains connecting the main cities. On most IC-services bicycle carriage is allowed.
- **High-speed trains:** not operated
- **International connections:** the cross-border Enterprise service, Dublin to Belfast, allows free bicycle carriage (not before 9:30 a.m. Monday to Friday) of up to four bicycles without a reservation system.

4.13.2 Ticket and Reservation Schemes

- Bicycle day ticket costs 3 Euro.
- There is no reservation system.
- International bicycle tickets are not available.

4.13.3 Sales Channels

- Bicycle tickets are available at manned counters.
- Bicycle tickets and reservations are not available at automatic machines or online.

4.13.4 Website Information

- Timetable search engine: available in English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: very poor information available in English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.13.5 Evaluation

- 14th place in the final ranking list, resulting from 7th in Carriage, 20th in Sale and 10th in Website. Bicycle carriage is possible on most trains but it is not easy to identify these trains online. Bicycle tickets are available only at manned counters. Online information is poor.

4.14 Italy – Trenitalia

4.14.1 Carriage Offer

- **Conventional trains:** EC/IC trains as well as EN- and Espresso night trains. Bicycle carriage is not allowed.
- **High-speed trains:** are operated as Eurostar Italia. Bicycle carriage is not allowed.
- **International connections:** around 20 % of long-distance direct connections allow bicycle carriage.

4.14.2 Ticket and Reservation Schemes

- The bicycle ticket for long-distance services using international trains costs 5 Euro and it is valid 24 hours from the time of validation.
- Reservations are not available.
- The international bicycle ticket costs 10 Euro. 5 Euro if the ticket is issued by SZ, MAV or HZ.

4.14.3 Sales Channels

- Bicycle tickets are available at manned counters.
- Bicycle tickets are not available at automatic machines or online.

4.14.4 Website Information

- Timetable search engine: available in Italian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Italian and English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.14.5 Evaluation

- 24th place in the final ranking list, resulting from 26th in Carriage, 12th in Sale and 10th in Website. Bicycle carriage is possible only on some international long-distance trains, bicycle tickets are available only at manned counters. Online timetable without a bicycle carriage query function.

4.15 Latvia – LDZ

4.15.1 Carriage Offer

- **Conventional trains:** not operated
- **High-speed trains:** not operated
- **International connections:** few long-distance direct connections with Lithuania on which bicycle carriage is not allowed.

4.15.2 Ticket and Reservation Schemes

- Neither bicycle tickets nor reservations are sold.
- The international bicycle ticket is not sold.

4.15.3 Sales Channels

- Bicycle tickets are not available.

4.15.4 Website Information

- Timetable search engine: available in Latvian, Russian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Latvian, Russian and English
- Link to Railpassenger.info: not available.

4.15.5 Evaluation

- 25th place in the final ranking list, resulting from 21st in Carriage, 20th in Sale and 10th in Website. An evaluation of the Latvian long-distance railway transport, however, makes little sense, due to the almost complete absence of a transport offer for passengers in general. Cyclists would, however, appreciate more information in English about the bicycle carriage conditions and a search engine with a bicycle carriage query function.

4.16 Lithuania – LG

4.16.1 Carriage Offer

- **Conventional trains:** operated only as international connections, without bicycle carriage.
- **High-speed trains:** not operated
- **International connections:** few direct connections with Belarus, Latvia and Russia, without bicycle carriage.

4.16.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations are not available.

4.16.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.16.4 Website Information

- Timetable search engine: available in Lithuanian, Russian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information not available.
- Link to Railpassenger.info: not available.

4.16.5 Evaluation

- 17th place in the final ranking list, resulting from 7th in Carriage, 20th in Sale and 24th in Website. An evaluation of the Lithuanian long-distance railway transport, however, makes little sense, due to the almost complete absence of a long-distance rail transport offer for passengers in general. Cyclists would, however, appreciate more information in English about the bicycle carriage conditions and prices and a search engine with a bicycle carriage query function.

4.17 Luxembourg – CFL

4.17.1 Carriage Offer

- **Conventional trains:** available only as part of international connections. Availability of bicycle carriage dependent on train owner.
- **High-speed trains:** French TGVs to/from Paris without bicycle carriage.
- **International connections:** around 40 % of international trains allow bicycle carriage.

4.17.2 Ticket and Reservation Schemes

- A national bicycle ticket does not exist because bicycle carriage on national regional trains is free, with no reservation possibility.
- The international bicycle ticket costs 12 Euro.

4.17.3 Sales Channels

- International bicycle tickets are available at manned counters.

4.17.4 Website Information

- Timetable search engine: available in French, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in French. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.17.5 Evaluation

- 15th place in the final ranking list, resulting from 7th in Carriage, 12th in Sale and 24th in Website. The bicycle carriage service is dependent on the foreign RUs operating international services in Luxembourg. However, international bicycle tickets at automatic machines, an online timetable with a bicycle carriage query function as well as information in English about bicycle carriage conditions would be appreciated.

4.18 Netherlands – NS

4.18.1 Carriage Offer

- **Conventional trains:** IC trains. Bicycle carriage is allowed on almost all train services outside peak hours on work days (6.30-9.00 a.m. and 16.30-18.00 p.m. except July and August).
- **High-speed trains:** German ICEs and French Thalys trains are operated in the Netherlands without bicycle carriage.
- **International connections:** around 20 % of long-distance direct connections allow bicycle carriage.

4.18.2 Ticket and Reservation Schemes

- The NS bicycle day ticket costs 6 Euro.

- Bicycle space reservation is not possible.
- The international bicycle ticket costs 12 Euro.

4.18.3 Sales Channels

- Bicycle tickets are available at manned counters, at automatic machines and online.

4.18.4 Website Information

- Timetable search engine: available in Dutch and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in Dutch. Bicycle tickets are available online.
- Link to Railpassenger.info: not from the bicycle page.

4.18.5 Evaluation

- 8th place in the final ranking list, resulting from 7th in Carriage, 7th in Sale and 10th in Website. Bicycle carriage is mainly allowed outside peak times. An increasing problem is German and Belgian high-speed trains not allowing bicycle carriage. It is not yet known, if the new AnsaldoBreda high-speed trains due to enter service in 2008 will allow bicycle carriage. The possibility of reservation, online timetable with a bicycle query function as well as some more information in English would be appreciated.

4.19 Norway – NSB

4.19.1 Carriage Offer

- **Conventional trains:** Bicycle carriage is allowed on most trains and reservations are possible.
- **High-speed trains:** not operated
- **International connections:** direct long-distance trains to Sweden do not accept bicycles.

4.19.2 Ticket and Reservation Schemes

- The bike ticket costs 10 % of an ordinary ticket. Minimum fare for a bicycle on the train is NOK55. The price for taking a bicycle on the Bergen Railway is NOK150 regardless of the distance, and NOK60 on the Flåm Railway.
- Free reservation is highly recommended. It is possible only in Norway
- The international bicycle ticket is not available.

4.19.3 Sales Channels

- Bicycle tickets are available at manned counters and at automatic machines.
- Bicycle tickets and reservations are not available online.

4.19.4 Website Information

- Timetable search engine: available in Norwegian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Norwegian and English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.19.5 Evaluation

- 21st place in the final ranking list, resulting from 21st in Carriage, 7th in Sale and 10th in Website. Bicycle carriage is not allowed on international trains to Sweden. A bicycle carriage query function in the online timetable would be useful.

4.20 Poland – PKP Intercity

4.20.1 Carriage Offer

- **Conventional trains:** EC, IC, Express TLK and Hotel night trains. All these train categories – but not all train services – allow bicycle carriage, but without the possibility of reservation.
- **High-speed trains:** not operated
- **International connections:** only 10 % of long-distance direct connections allow bicycle carriage.

4.20.2 Ticket and Reservation Schemes

- The only ticket available in long-distance transport is the one-way ticket (9 PLN).
- Reservation is not possible.
- The international bicycle tickets are not sold.

4.20.3 Sales Channels

- Bicycle tickets are available at manned counters and on board without surcharge.
- Bicycle tickets and reservations are not available at automatic machines or online.

4.20.4 Website Information

- Timetable search engine: available in Polish and English, with a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in Polish. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.20.5 Evaluation

- 10th place in the final ranking list, resulting from 7th in Carriage, 12th in Sale and 2nd in Website. Bicycle carriage is allowed on most trains, however, often without dedicated space: bicycles are mostly carried in the first and last carriage. The provision of some bicycle spaces would be needed, thus allowing also a reservation scheme. In Poland there are not yet automatic ticket machines. The website contains all the necessary information.

4.21 Portugal – CP

4.21.1 Carriage Offer

- **Conventional trains:** Intercidades IC-trains. Bicycle carriage is not allowed.
- **High-speed trains:** trains ETR460 Alfa Pendular are operated without bicycle carriage.
- **International connections:** no bicycle carriage on direct connections.

4.21.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations not available.
- International bicycle tickets are not sold.

4.21.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.21.4 Website Information

- Timetable search engine: available in Portuguese and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Portuguese and English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.21.5 Evaluation

- 27th place in the final ranking list, resulting from 27th in Carriage, 20th in Sale and 10th in Website. Bicycle carriage is not possible on long-distance trains in Portugal. At least it is clearly stated on the webpage.

4.22 Slovakia – ZSSK

4.22.1 Carriage Offer

- **Conventional trains:** EC and IC trains. Bicycle carriage is allowed on most trains.
- **High-speed trains:** not operated
- **International connections:** around 20 % of direct connections with bicycle carriage.

4.22.2 Ticket and Reservation Schemes

- Bicycle carriage is not allowed on long-distance transport. In regional transport one-way (Sk 20) daily (Sk 50) as well as weekly tickets (Sk 180) are available.
- Bicycle space reservation is not possible.
- International bicycle tickets are available as well as one-way tickets on cross-border regional services.

4.22.3 Sales Channels

- Bicycle tickets are available at manned counters.

4.22.4 Website Information

- Timetable search engine: available in Slovak without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in Slovak. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.22.5 Evaluation

- 15th place in the final ranking list, resulting from 7th in Carriage, 12th in Sale and 24th in Website. Bicycle carriage on long-distance trains is available on most trains. However, cyclists would appreciate a reservation scheme, more information in English about the bicycle carriage conditions and an online timetable with a bicycle carriage query function.

4.23 Slovenia – SZ

4.23.1 Carriage Offer

- **Conventional trains:** EC/IC, MV, and EN trains. All these categories – but not all train services – allow bicycle carriage, but with no possibility of reservation.
- **High-speed trains:** tilting trains ETR460 connect as Inter City Slovenja (ICS) Ljubljana, Maribor and Venezia. Bicycle carriage is not allowed.
- **International connections:** only 10 % of long-distance direct connections allow bicycle carriage.

4.23.2 Ticket and Reservation Schemes

- A bicycle ticket in domestic transport costs SIT 630,00 (2.63 Euro).
- The international bicycle ticket costs 1.198,00 SIT (5 Euro), except to Italy where the price is double because of the included compulsory reservation.
- Reservation is otherwise not possible.

4.23.3 Sales Channels

- Bicycle tickets are available at manned counters.
- Bicycle tickets and reservations are not available at automatic machines or online.

4.23.4 Website Information

- Timetable search engine: available in Slovenian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Slovenian and in English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not from the bicycle page.

4.23.5 Evaluation

- 20th place in the final ranking list, resulting from 19th in Carriage, 20th in Sale and 10th in Website. Bicycle carriage not available on Pendolino and on many international trains. Absence of a reservation scheme and of an online timetable with a bicycle carriage query function.

4.24 Spain – Renfe Operadora

4.24.1 Carriage Offer

- **Conventional trains:** Alaris, Altaria, Alvia, Arco, Diurno, Estrella, Euromed, Intercity, Talgo, Talgo 200 as well as Trenhotel. Bicycle carriage is not allowed.
- **High-speed trains:** operated as AVE on the corridor Zaragoza-Madrid-Seville. Further extensions are under construction or planned. On these services, bicycle carriage is not allowed.
- **International connections:** no bicycle carriage on direct connections.

4.24.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations are not available.

4.24.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.24.4 Website Information

- Timetable search engine: available in Spanish and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available only in Spanish. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.24.5 Evaluation

- 30th place in the final ranking list, resulting from 27th in Carriage, 20th in Sale and 24th in Website. Bicycle carriage is not possible. It avoids the last position thanks to a webpage (only in Spanish) where this is clearly stated.

4.25 Sweden – SJ

4.25.1 Carriage Offer

- **Conventional trains:** the SJ offer is characterized by regional trains and by night trains. Both mostly do not allow bicycle carriage.
- **High-speed trains:** X 2000 trains are operated without bicycle carriage.
- **International connections:** no long-distance direct connections with bicycle carriage.

4.25.2 Ticket and Reservation Schemes

- Bicycle tickets and reservations are not available.

4.25.3 Sales Channels

- Bicycle tickets and reservations are not available.

4.25.4 Website Information

- Timetable search engine: available in Swedish and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Swedish and English. Bicycle tickets and reservations are not available online.
- Link to Railpassenger.info: not available.

4.25.5 Evaluation

- 27th place in the final ranking list, resulting from 27th in Carriage, 20th in Sale and 10th in Website. Bicycle carriage in Sweden is not possible. The website explains this in English and Swedish and indicates alternatives.

4.26 Switzerland – Cisalpino

4.26.1 Carriage Offer

- **Conventional trains:** international trains connecting Switzerland with Germany and Italy, mostly with bicycle carriage.
- **High-speed trains:** international tilting trains connecting Switzerland with Germany and Italy without bicycle carriage.
- **International connections:** bicycle carriage allowed on 40 % of connections.

4.26.2 Ticket and Reservation Schemes

- Cisalpino relies on SBB/CFF/FFS, DB and Trenitalia ticket conditions and sales channels.
- An international bicycle ticket has to be bought. Price dependent on the issuing country.
- Free reservation is compulsory.

4.26.3 Sales Channels

- Cisalpino relies on SBB/CFF/FFS, DB and Trenitalia ticket conditions and sales channels.

4.26.4 Website Information

- Timetable search engine: available in German, French, Italian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in German, French, Italian and English. Bicycle day cards and reservations are not available online.
- Link to Railpassenger.info: available.

4.26.5 Evaluation

- 25th place in the final ranking list, resulting from 21st in Carriage, 20th in Sale and 20th in Website. Tilting trains are not allowing bicycle carriage and the bad news is that starting from 2008, only tilting trains will be operated. Ticket and sale services rely on national RUs and this causes poor results in Italy (see Trenitalia above). An online timetable search engine with a bicycle carriage query function is missing.

4.27 Switzerland – SBB/CFF/FFS

4.27.1 Carriage Offer

- **Conventional trains:** ICN, EC/IC, IR as well as international night train categories accept bicycles – not on all services – with the possibility of reservation (sometimes compulsory).
- **High-speed trains:** on the Swiss network are operating German ICE trains (bicycles not allowed), French TGV trains (bicycles allowed) as well as Cisalpino trains (bicycles not allowed on tilting trains).
- **International connections:** 40 % of long-distance direct connections allow bicycle carriage.

4.27.2 Ticket and Reservation Schemes

- A day ticket (Tageskarte) costs 15 CHF. An annual ticket costs 195 CHF.
- Reservation is sometimes compulsory and has to be purchased at least three hours before the train departs from the first station. It costs 5 CHF.
- The international bicycle ticket costs 20 CHF, with reservation of the cross-border connection. Further reservation if possible costs 5 CHF.
- Children with a “Junior-Karte” have free bicycle carriage if accompanied by an adult with a bicycle ticket.
- Young people with a “Gleis-7-Karte” have free bicycle carriage after 7 p.m.

4.27.3 Sales Channels

- Bicycle tickets are available at manned counters.
- Bicycle tickets and reservations are available at automatic machines. A bicycle day ticket is available online.

4.27.4 Website Information

- Timetable search engine: available in German, French, Italian and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in German, French, Italian and English. Bicycle day cards are available online. Bicycle reservations are not available online.
- Link to Railpassenger.info: not available.

4.27.5 Evaluation

- 2nd place in the final ranking list, resulting from 7th in Carriage, 1st in Sale and 2nd in Website. The Carriage offer is indirectly penalized by the lack of bicycle carriage on high-speed train services operated by Cisalpino and DB (TGVs to France mostly allow bicycles). The ticket and sale offer is reliable and complete. The lack of a bicycle carriage query function in the online timetable is surprising.

4.28 United Kingdom – Eurostar

4.28.1 Carriage Offer

- **Conventional trains:** not operated
- **High-speed trains:** Eurostar is the high-speed train operator between Brussels, London and Paris, operated with Eurostar trains, derived from the French TGV. Bicycle carriage is not allowed.
- **International connections:** all services are international and without bicycle carriage.

4.28.2 Ticket and Reservation Schemes

- Not available. Only folded bicycles are allowed.

4.28.3 Sales Channels

- Bicycle tickets are not available.

4.28.4 Website Information

- Timetable search engine: available in Dutch, French, and English, without a “bicycle carriage” query function.
- Information about ticket prices and reservations: information available in Dutch, French, and English. Bicycle reservations are not available online.
- Link to Railpassenger.info: not available.

4.28.5 Evaluation

- 27th place in the final ranking list, resulting from 27th in Carriage, 20th in Sale and 10th in Website. Eurostar is the missing link between TGVs and UK high speed services, both allowing bicycle carriage. It is not clear why bicycle carriage is technically not possible if GNER has been able to offer it on trains leased from Eurostar.

4.29 United Kingdom – GNER

4.29.1 Carriage Offer

- **Conventional trains:** not operated.
- **High-speed trains:** connections London-Yorkshire-North East England-Scotland. Free bicycle carriage also on Eurostar trains leased by GNER.
- **International connections:** not operated.

4.29.2 Ticket and Reservation Schemes

- Bicycle carriage and compulsory reservation are free.
- The international bicycle ticket is not sold.

4.29.3 Sales Channels

- Bicycle tickets are not necessary.
- Bicycle reservations are available at manned counters or online, not at automatic machines.

4.29.4 Website Information

- Timetable search engine: available in English, without a “bicycle carriage” query function (however, bicycle carriage is always allowed).
- Information about ticket prices and reservations are provided in English. Bicycle reservations are available online.
- Link to Railpassenger.info: not available.

4.29.5 Evaluation

- 1st place in the final ranking list, resulting from 1st in Carriage, 2nd in Sale and 6th in Website. Bicycle carriage is always allowed and free: this eases also the sale services. GNER is hence the only RU in Europe selling online bicycle reservation. To reach the maximum ranking, bicycle reservations at automatic machines as well as selling and reservation services for foreign connections (international bicycle ticket) would be needed.

4.30 United Kingdom – Hull Trains

4.30.1 Carriage Offer

- **Conventional trains:** long-distance railway services on the connection London King’s Cross – Grantham, Doncaster, Selby, Brough and Hull. Free bicycle carriage.

- **International connections:** not operated.

4.30.2 Ticket and Reservation Schemes

- Bicycle carriage is free. Free reservation is required.
- The international bicycle ticket is not sold.

4.30.3 Sales Channels

- Bicycle tickets are not necessary.
- Bicycle reservations are available at manned counters or by telephone.

4.30.4 Website Information

- Timetable search engine: available in English, without a “bicycle carriage” query function, (however, bicycle carriage is always allowed).
- Information about ticket prices and reservations: information available in English. Bicycle reservations are not available online.
- Link to Railpassenger.info: not available.

4.30.5 Evaluation

- 3rd place in the final ranking list, resulting from 1st in Carriage, 9th in Sale and 6th in Website. Bicycle carriage is always allowed and free, easing also the sale services. Bicycle reservation is not possible at automatic counters or online. Selling and reservation services for foreign connections (international bicycle ticket) would also be appreciated.

4.31 United Kingdom – Midland Mainline

4.31.1 Carriage Offer

- **Conventional trains:** Meridian Trains on the connections London St. Pancras – East Midlands – South Yorkshire – Manchester. Free bicycle carriage with mandatory reservation.
- **High-speed trains:** are also operated on the same connections. Free bicycle carriage with mandatory reservation.
- **International connections:** not operated.

4.31.2 Ticket and Reservation Schemes

- Bicycle ticket is not necessary.
- Free reservation is mandatory.
- International bicycle ticket is not available.

4.31.3 Sales Channels

- Bicycle tickets are not necessary.
- Bicycle reservations are available at manned counters or by telephone.

4.31.4 Website Information

- Timetable search engine: available in English, without a “bicycle carriage” query function, (however, bicycle carriage is always allowed).
- Information about ticket prices and reservations available in English. Bicycle reservations are not available online.
- Link to Railpassenger.info: not available.

4.31.5 Evaluation

- 3rd place in the final ranking list, resulting from 1st in Carriage, 9th in Sale and 6th in Website. Bicycle carriage is always allowed and free, easing also the sale services. Bicycle reservation is not possible at automatic counters or online. Selling and reservation services for foreign connections (international bicycle ticket) would also be appreciated.

4.32 United Kingdom – Virgin Trains

4.32.1 Carriage Offer

- **Conventional trains:** Voyager and Super Voyager trains with free bicycle carriage.
- **High-speed trains:** Alstom Pendolino trains with free bicycle carriage.
- **International connections:** not operated.

4.32.2 Ticket and Reservation Schemes

- A bicycle ticket is not required.
- Free reservation is compulsory.
- International bicycle ticket: not available.

4.32.3 Sales Channels

- Bicycle tickets are not required.
- Bicycle reservations are possible at manned counters and by telephone.

4.32.4 Website Information

- Timetable search engine: available in English, without a “bicycle carriage” query function, (however, bicycle carriage is always allowed).
- Information about bicycle ticket prices and reservations: information not available. Bicycle reservations are not available online.
- Link to Railpassenger.info: not available.

4.32.5 Evaluation

- 3rd place in the final ranking list, resulting from 1st in Carriage, 9th in Sale and 6th in Website. Bicycle carriage is always allowed and free, easing also the sale services. Bicycle reservation is not possible at automatic counters or online. Selling and reservation services for foreign connections (international bicycle ticket) would also be appreciated.

5 Railway Vehicles

This chapter describes the technical solutions adopted by railway undertakings to allow bicycle carriage and explores new trends in the railway industry that may bring about the creation of innovative facilities for bicycle carriage on long-distance trains.

There are two types of long-distance trains:

- **divisible train compositions** – formed by locomotive, several **coaches** and a second locomotive (or a driving trailer), which still constitute a relevant part of conventional Intercity trains and all night trains.
- **blocked train compositions** – formed by **multiple units**, increasingly adopted on high-speed train services

New long-distance trains are mainly purchased as multiple units, because they offer several advantages compared to locomotive-hauled trains (energy efficiency, power distribution, comfort, ease in operation, ...). Traditional coaches are still purchased for Intercity connections (speed range 160–230 km/h). Even traditional locomotive-hauled trains are, however, increasingly operated as blocked compositions, with the same coaches (and sometimes even the same locomotives) always being operated together. This allows a better rolling stock management and the elimination of cost- and time-consuming shunting.

From the point of view of **bicycle carriage** it has to be noted that:

- **luggage coaches** are progressively being eliminated and withdrawn; dedicated bicycle coaches are available only on some night trains.
- long-distance passenger coaches are often fitted with **multifunctional spaces**, where also bicycles can be accommodated. Some companies, like PKP Intercity, allow bicycle carriage also without bicycle spaces, in the first and last vestibule of each train.
- multiple units have not been thought to offer bicycle carriage facilities, they are “focused on businessmen, neglecting holiday and leisure customers”. **Bicycle spaces, when available, have been retrofitted mainly directly by the RUs.** A reorientation towards these last categories is currently taken place.

On high-speed trains some operators developed after-sale solutions:

- SNCF has transformed a technical space into four bicycle spaces at a cost of 6,604 Euro per train unit.
- CD has installed three vertical bicycle racks (similar to those adopted on car roofs) in one vestibule of each Pendolino train.
- DB decided in 1994 to purchase ICE-2 and ICE-T with bicycle carriage facilities. This decision has been partially withdrawn, however, between 1999 and 2002 ICE-T with bicycle facilities circulated between Stuttgart and Zurich. Since then, bicycle carriage is not possible on ICE trains.
- DB-Autozug and Trenitalia are considering the possibility of carrying bicycles on car transport wagons.
- Thalys is considering the creation of bicycle facilities in the frame of the announced fleet modernization.

It is, however, interesting to note that the presence or absence of bicycle carriage facilities is not strictly dependent on the type of rolling stock. Decisive is the approach of the RU towards bicycle carriage.

Fig. 7: Different bicycle carriage policies of comparable railway vehicles in Europe

	RUs not allowing bicycle carriage	RUs allowing bicycle carriage
Alstom Pendolino (ETR 460 and derived series)	VR (FI), Trenitalia (IT), CP (PT), SZ (SI), Cisalpino (CH),	CD (CZ), Virgin (UK)
Alstom TGV	Thalys (BE), Trenitalia (IT)	SNCF (FR), SBB/CFF/FFS (CH)
Alstom Eurostar	Eurostar	GNER (UK)

This phenomenon is even more visible in divisible train compositions (coaches) where on some international trains bicycle carriage is allowed only to the border, although some coaches travel further.

5.1 New Rolling Stock

New long-distance conventional and high-speed rolling stock is produced by a few big companies with worldwide presence. In Europe the main actors are Alstom, AnsaldoBreda, Bombardier and Siemens. After an initial phase, where the main players cooperated in the development of new products (ETR 500, ICN), currently every producer is active on the market independently.

5.1.1 Alstom

- **passenger coaches:** not produced
- **multiple units:** **Coradia** regional platform up to 200 km/h; **Pendolino** (tilting and non-tilting) platform (450, Alaris; the new generation will be delivered to Trenitalia and Cisalpino in 2007). **TGV** (including Thalys and Eurostar) is the Alstom high-speed train; a new generation called AGV is in preparation. Only Coradia is offering bicycle carriage as optional equipment. Some Pendolino and TGV units have been adapted by the operators.

5.1.2 AnsaldoBreda

- **passenger coaches:** not produced
- **multiple units:** DMU IC4 for Denmark, EMU72 for Norway in conventional segment. ETR 500 and the new HSA train for the HSA due to operate the Amsterdam-Antwerp-Brussels high-speed line.

5.1.3 Bombardier

- **passenger coaches:** IC2000 for SBB and I11 for SNCB/NMBS
- **multiple units:** AM96, Contessa, Regina, Turbostar, Voyager and Meridian in conventional transport. In the high-speed train segment Bombardier has the experience of the Swedish X2000 as well as involvement in several projects (like the German ICE and the Italian ETR 500). It is currently developing a new train, named Zefiro (see also 5.3).

5.1.4 Siemens

- **passenger coaches:** are based on the Viaggio platform and are available as single- and double-deck coaches. The modular design of the coaches offers a huge number of design options, included bicycle carriage facilities. Viaggio coaches will be operated by ÖBB as Railjet up to 2008. Hence Siemens offers passenger wagons for night trains.
- **multiple units:** as an upgrade of the ICE3, Velaro is the high-speed train platform. Venturio is the platform for conventional Intercity trains. Despite high flexibility, bicycle carriage facilities are not foreseen.

5.1.5 Other constructors

Other relevant constructors active in the production of long-distance rolling stock in Europe are the Spanish companies CAF (multiple units in Spain and Turkey) and Talgo (producing multiple units as well as passenger and night train coaches segment). They do not offer bicycle facilities as standard equipment.

5.2 Modernization of Rolling Stock

The average life cycle of a railway vehicle is about **30 years**. During this life cycle there is at least one **main interior modernization**: seats and interior lining are completely removed and substituted, new layout and design solutions are adopted, electrical and communication systems are updated. After such a modernization the interior is completely new and comparable to a new railway vehicle. One or two **additional internal refreshments** are common in the life cycle of a railway vehicle.

In the frame of in-depth vehicle modernizations – like the undergoing renewal of the German ICE-1, the recent completion of 900 Italian Trenitalia Intercity coaches, the planned modernization of Thalys multiple units – the introduction of bicycle facilities should be considered already in the planning phase.

5.3 High-Speed Trains: not only for business customers

The first European HST – the French TGV – was 25 years old in 2006. It was conceived and realized with a focus on the business travel market and this is reflected in the nature of its vehicles.

Today, high-speed trains (new lines for speeds of more than 250 km/h, upgraded lines for speeds up to 200 km/h or 230 km/h) are the new product offered by railway undertakings in order to accommodate their transport offer with new mobility trends and the advance realized by other modes of transport (low cost airlines, motorway routes):

- **High-speed trains are gradually replacing traditional long-distance railway connections:** in some EU countries (Belgium, France, Germany) the high-speed train market share is **already above 50 %** of the comprehensive long-distance railway offer.
- **Several EU countries are actively investing in high-speed train connections.** In many cases the infrastructural efforts are financially supported by the European Union in the frame of the Trans European Network. According to the European Commission the network should increase from 3200 km in 2003 to 7500 km in 2010.
- **The high-speed train offer is increasingly extended** on the European core railway network, with conventional trains remaining as feeder services. Only the consideration of high-speed trains guarantees timetable connections and attractive travel times.
- This increasing integration of high-speed trains in the comprehensive transport offer, the necessity of the RUs to find new customer targets, the lowering of ticket prices due to the concurrence of cheap airlines **are reducing the “exclusivity” of high-speed trains. They are increasingly used by new groups of customers**, with beneficial economic effects for RUs. This trend will continue in the next years on the example of the Asian countries where high-speed trains are used much more often by commuters and their share of first class seats is much lower than in Europe.

All in all, the introduction of high-speed trains has not considered the increasing trend in bicycle usage in Europe. As a result in the last ten years there has been a rapid decrease in the replacement of traditional Intercity connections. The trend is very visible in Germany, where following the replacement of IC trains with ICE trains, the number of bicycles carried by DB in long-distance transport has dramatically declined from 629,000 (1995) to 270,000 (2003). Many tourist regions are no longer accessible by train in reasonable times and routes. As a result many bicycle tourists are finding other ways: DB had 145 million

passengers in 2000 and only 117 million passengers in 2004 (-20% in four years). A similar trend is clearly noticeable in several other European countries.

Fig. 8: Reduction of bicycles carried by DB in long-distance transport since 1995

Year	Bicycles carried by DB in long- distance services	Reduction compared to 1995
1995	629,000	0%
1998	525,000	17%
2001	340,000	46%
2002	312,000	51%
2003	270,000	57%

It is not only a problem of bicycle transport: The compartments in high-speed trains are too small for large pieces of luggage or prams. Train producers are starting to recognize the problem and are promising a new generation of more flexible trains, as shown in the following text, taken from the presentation of the new Zefiro high-speed train recently proposed by Bombardier:

“... where seats and interior architecture is concerned, flexibility is the key. With regard to the flexibility of luggage capacity, these new proposals enable the train operator to quickly adapt the interior layout to the type of operation on a particular time of the day, for example – with a simple and fast adaptation – the luggage capacity and number of seats can be increased or decreased according to the particular needs. High-speed and very high-speed trains running today don’t have this level of flexibility.

The convertible seating concept by Bombardier is aimed to maximise the capacity of the carriage throughout the full daily cycle of the train operation. Similar in essence to the airline concept of converting short haul business class to standard class at all peak times, it is based on selling two standard class seats as one business class ‘compartment’. Flipping over the seat base cushion provides a surface usable as a side table, wardrobe, extra storage, slide out table or ottoman. An operator could equip two or three cars with the special seats increasing significantly the flexibility to adapt the same area to suit different demands and service requirements...”

Such convertible seating concepts may be adopted also on existing rolling stock, during modernization and renewal of interior design.

Convertible seating concepts are already common in the automotive sector: integrated in flexible interior designs and bicycle transport accessories, these solutions (Flexi-fix, Radfazz, Easy-Flat...) are responding to the increasing demand of bicycle transport.

6 International Organizations

There are dozens of organizations active in the transportation and railway sector at European level. In this study, the focus has been concentrated on three kinds of organizations that deal more concretely with the issue of bicycle carriage on long-distance trains.

6.1 Railway Organizations: UIC, CER, CIT

UIC, CER and CIT are formally three separate organizations, but they can be seen as three parts of a unique body.

The **International Union of Railways (UIC)** is the worldwide organization for international cooperation among railways and promotion of the rail transport mode. It was founded in 1922 for the standardisation and improvement of conditions for railway construction and operations, especially in view of international traffic. UIC groups have 171 members on all five continents. The headquarters are located in Paris.

The only body directly dealing with bicycle issues is a UIC **“Train + Bicycle Working Group”** set up in 2003 in the context of the dialogue with European consumer associations (among them the ECF) on the implementation of the Passenger Charter. The goal was to better inform target customers about international travel possibilities for passengers with their bicycles and to harmonize the product. Due to very low participation (five participating RUs: SBB/CFF/FSS, DB, SNCF, MAV, ÖBB) and a lack of effective decisional power, the working group has had a very limited field of action. The only noticeable result has been the creation of the webpage www.railpassenger.info with information on bicycle transport in Europe (see also 3.4). Information here is, however, very generic, uncompleted and without any efficient coordination and layout work. Much more useful is for example the **“Cycling by Train”** guide edited regularly by the UK National Rail Enquiries (www.nationalrail.co.uk) sponsored by Brompton cycles: a very simple and practical leaflet with all necessary information. Today, it is unclear what the UIC working group will do in the future.

Other UIC working groups (price, rolling stock, ...) are dealing from time to time with the bicycle carriage issue, up to now without noticeable results.

The **Community of European Railway and Infrastructure Companies (CER)** brings together 54 railway undertakings and infrastructure companies from the European Union and other European countries. CER can be considered as an “UIC embassy in Brussels”, taking care of lobbying and public relations with the EU bodies and with the customer organizations like the ECF.

Twice a year CER organizes meetings with consumer organizations, dealing mainly with the **CER/CIT/ UIC Rail Passenger Charter issue (which does not consider the bicycle)** and related issues. Requests are mainly forwarded to the competent UIC working groups.

In a press release dated 28.09.2005 CER has officially criticised the request of the European Parliament for bicycle transport on European trains contained in the first approval of Third Railway Package.

The **International Rail Transport Committee (CIT)** aims to achieve the uniform application and practical implementation of the intergovernmental convention concerning International Carriage by Rail (COTIF) with standardization of the legal relations between customers, railway undertakings and infrastructure operators. COTIF has not a direct relevance for bicycle carriage but it constitutes the premise for the **TIV and the international bicycle ticket** (see 3.2).

6.2 Political Organizations: the European Parliament

The European Parliament has repeatedly recognized the necessity to improve the condition for bicycle carriage on long-distance trains in the European Union.

On **22. 9. 2005** the European Parliament has concluded the first reading of the Third Railway Package asking that railway undertakings *“shall transport the bicycle of the passenger in all trains, including transborder and high speed trains, possibly on payment of a charge. The contract must be confirmed by one or more tickets issued to the passenger”*. The Third Railway Package has been modified by the European Council; a second reading in the Parliament is foreseen in late 2006.

On **8. 9. 2005** the EU Parliament has also voted in favour of the bicycle asking for bicycle carriage in all trains in the frame of a regulation on sustainable tourism with a resolution that *“emphasizes the need to promote combined train and bicycle travel and considers the ‘Eurovelo’ network to be a good basis for this; also requests that railway enterprises allow bicycles on trains, including long distance and cross-border trains, as is already the case with the French TGV”*. This resolution has been forwarded to Council and Commission.

The European Parliament is also engaged in the approval of a directive on Passenger Rights, which would indirectly also affect bicycle carriage (ticket, reservation, information policies and rights).

6.3 Commercial Organizations: HaCon

HaCon is not an international organization. HaCon is a private German company, specialized in software solutions for transportation applications. Its main product is the **HAFAS timetable information system**, launched in 1989, it is currently the leading timetable information system in Europe.

HAFAS has been adopted by several EU railway operators and provides the **timetables available online** and the **information delivered at counter desks**. HAFAS handles over 5 million enquiries per day, and can be accessed on a wide variety of platforms, from call centres to printed media, on the Internet or on the move via PDA or mobile phone.

The HAFAS timetable contains a bicycle carriage query and allows the research of transport solutions for customers with bicycles.

Unfortunately, the information concerning bicycle carriage is sometimes inaccurate or even completely wrong. For example, the information about trains carrying bicycles on Trenitalia and GNER trains is completely missing (Stand October 2006).

According to HaCon, the information is provided by the operators to Deutsche Bahn and delivered from Deutsche Bahn to HaCon. The ECF has already tried in the past to get in touch with Deutsche Bahn and with Trenitalia to solve this problem, up to now without positive results.

7 Assessments and Perspectives

Both bicycle and railway are experiencing a renaissance in the last decades. Traffic congestion, environmental and health issues are some of the main reasons behind the increased promotion and usage of these two modes of transport.

Several studies at European, national and local level confirm the growing trend in bicycle and train usage, for both commuter and leisure purposes. The European Union, as well as national and local bodies are actively engaged in the further promotion of these two forms of mobility: the Trans European Network rail corridors and the EuroVelo bicycle routes are examples of EU-projects carried out at national and local level.

Bicycle carriage on long-distance trains is an ideal combination to achieve a further development of these two modes of transport. Cyclists can extend their action radius without the necessity to turn back to the car parked at the starting point. Railway undertakings can profit from the satisfaction of this demand.

Bicycle tourism is one of the faster growing leisure activities, with relevant economic benefits for many European regions. This trend will continue and therefore a further quantitative and qualitative increase of the demand for bicycle carriage on long-distance trains has to be expected in Europe in the next years.

7.1.1 The Customers' Point of View

From the customers' point of view, the current offer can be summarized as follows:

- **Poor transport offer in quantitative and qualitative terms** (lack of connections offering bicycle carriage but also necessity to buy additional bicycle tickets during the journey as well as the impossibility of reserving a bicycle space for the entire connection origin-destination);
- **Complicated and unfriendly procedures for ticket and reservation purchase**
- **Difficult access to information**
- **International services as a weak point of the railway offer, also in countries where national services offer good standards.**

As a result in many cases customers are **not aware** of the possibility to take their bicycles on long-distance trains, **discouraged** by unclear rules and procedures, **afraid** of complications and failures in the service provision.

Potential customers are therefore increasingly looking at alternative forms of bicycle carriage (private car, bus trailers,...)

7.1.2 The Railway Undertakings Point of View

Many RUs have admitted that they have never seriously investigated and analysed the bicycle carriage market. Other RUs stated that they developed bicycle carriage as a result of spontaneous action by internal employees or as unorganised reaction to external lobbies and pressures. In very few cases is there a specific know-how and planning.

Most companies see bicycle carriage as a problem and not as an opportunity. The main factors against bicycle carriage are:

Fig. 9: Problems and solutions in bicycle carriage in Europe

Factors against bicycle carriage according to RUs	Some solutions adopted by other RUs
Costs of rolling stock adaptation	6,604 Euro for 4 bicycle places on TGVs
Costs of capacity reduction	Not necessarily true for other RUs. Bicycle carriage has increased the loading factor and the number of sold tickets
Overcrowding and discomfort for other passengers	Not true for other RUs. Relocation of bicycle spaces
Punctuality reduction due to loading/unloading of bicycles	Relocation of a few bicycle spaces to each end of train. Platform announcements
Seasonality and consistency of the demand	Promotional and/or free bicycle carriage at off-peak times. Flexible rolling stock solutions
Cannibalization of bicycle offer on regional services	Not true for other RUs. Better segmentation of the offer.

In many cases there are unfounded fears, in other cases the problems are a consequence of inappropriate management of the bicycle carriage demand. It is interesting to note that answers to these fears and solutions to these problems can be easily found with a benchmark analysis among the EU railway undertakings. In other words, GNER in the UK has not found or easily solved the problems listed by Deutsche Bahn as reasons against bicycle carriage on high-speed trains. On the other side, Deutsche Bahn has not found or easily solved the problems listed by Trenitalia or Renfe as reasons against bicycle carriage on conventional Intercity trains.

7.2 Bicycle Carriage: an opportunity, not a problem

The comprehensive evaluation of the European countries identifies two main needs:

- **Standardization of the offer**
- **Extension of the offer**

The following suggestions are mainly addressed to railway undertakings and to the organizations representing them. However, a normative framework and support at European level would safeguard passenger rights and facilitate a rapid implementation of the proposed measures.

7.2.1 Carriage Offer

A) Rolling stock compatibility as a prerequisite...

The railway industry seems to have forgotten bicycle carriage in the recent long-distance train design. When available, bicycle carriage is still based on old technical solutions; new concepts in train design (flexibility – modularity) have not brought new solutions for bicycle carriage, as has happened with other modes of transport (automotive – airline). The technical possibilities for new solutions in bicycle carriage on long-distance trains are under investigated. On the other hand, this aspect is the natural premise to put railway undertakings in a condition to offer their customer a reliable and consistent offer. Flexible and modular space usage with the possibility to rapidly transform and adapt the internal train configuration according to the demand is probably the way to allow bicycle carriage on long-distance trains. Bicycle carriage on long-distance train is a niche market with significant seasonality: it can nevertheless positively increment the loading factor. Minimal technical requirements in this area seem feasible and reasonable in order to make the European long-distance fleet technically compatible with

the carriage of complete bicycles. On this point, a normative approach (e.g. European directive) is not seen as problematic. The industry is already going in this direction.

B) ...for the creation of an attractive transport offer

The European Parliament asked in September 2005 for compulsory bicycle carriage on all European trains (Third Railway Package – 28. 9. 2005). The Community of European Railways has heavily criticised this point, underlining that such a decision should be left to the RUs. The RUs, however, do not have a common view on this point: relevant differences among the countries can be derived from emotional or “a priori” decisions more than from technical and operative based strategies. This is due both to the old idea that long-distance and especially high-speed trains are “only for business customers” and to the lack of awareness about the possibilities that would be offered by a more friendly and flexible train interior design.

As a general rule, **bicycle carriage should be technically possible on all trains and allowed on all trains where the passenger loading factor make it reasonable** (outside peak hours – following the rules adopted in the Netherlands). At the same time, RUs should be encouraged to improve the sale system and to reduce the number of unsatisfied bicycle carriage requests.

7.3 Ticket and Reservation Schemes

Each railway undertaking has the right to define its price and reservation schemes. However, it is in the common interest of the RUs to offer an integrated and attractive scheme. This is very simple in a niche market like the bicycle carriage.

It is worth remembering that an agreement on bicycle tickets (of low economic impact) would increase the attractiveness of rail transport and the sale of additional passenger ticket (of high economic impact).

The ECF proposal is to rapidly achieve a mutual acceptance on a European Bicycle Ticket, valid on all European rail services allowing bicycle carriage. The proposed price is 10 Euro, reservation (if needed) included. Of course railway undertakings may continue to offer bilateral international tickets for cross-border services at a lower price.

Price differential among the European countries is not an issue: 10 Euro is a reasonable price for customers willing to carry their bicycle internationally.

European tickets like Interrail and Eurodomino should offer free or discounted bicycle carriage: negligible economic impact and relevant commercial and promotional value.

As a general rule, **the reservation policy of bicycle spaces on long distances should follow the reservation policy of passenger seats: mandatory where also passenger reservation is mandatory, possible where also passenger reservation is possible.** Of course railway undertakings may encourage the reservation of bicycle spaces by offering them for free. On the other hand experience shows that especially in the case of delays passengers with bicycles should be able to board the following train even without purchasing a further reservation, if there are available spaces. Exactly as it works for passengers without bicycles.

7.4 Sales Channels

A European bicycle ticket would automatically solve the problem of ticket availability in destination countries or on return journeys. It would be possible to buy these tickets in advance and to validate them when needed.

This ticket, as well as national bicycle tickets, should be available at manned counters, automatic ticket machines and online. This should be easily attainable considering that bicycle tickets are independent from the travelled connections and could be easily standardized also at an international level.

The possibility of bicycle space reservation on national and international routes should also be increased. **The European Union should support and require compatible databases to allow the emission of international tickets and reservations.** This is still a relevant problem also for customers without bicycles: how can the train compete with low cost carriers if it is not possible to rapidly check online the price of international railway tickets?

7.5 Website Information

An international simplification and coordination of the bicycle carriage policies would indirectly also simplify information and communication, both at stations and online. A reliable online information is today an essential tool to communicate the offered services. This should involve:

- **Timetable search engine:** should be available in the national language and in English, with a “bicycle carriage” query function. The HaFas timetable information system (see 6.3) is already used by many operators and could constitute the common basis. The reliability of delivered information should be improved and the price information (for passengers and for bicycles) should be enhanced
- **Information about ticket and reservation schemes** should be available in the national language and in English. Bicycle tickets and reservations should be available online.
- **Railpassenger.info could be the basis of a common information platform**, if the information proves to be complete and reliable (see 6.1 also the confrontation with the UK National Rail Enquires guide). It should hence be integrated with timetable and price information, generated by a common European database.
- Website information should also be a channel to communicate and promote **special offers and schemes to further encourage the carriage of bicycles on long-distance trains.**

7.6 Bicycle Carriage: an opportunity, not a problem

The last part of this study places the accent on some additional aspects, presently often neglected in the consideration of integrated policies for bicycle carriage on long-distance trains.

7.6.1 Integration of Mobility Chains

The liberalization of the European transport market is offering European citizens increasing modal opportunities and choices. This stimulates the different transport undertakings active at international, national and local levels to compete and to improve their transport offer in order to maintain their present customers and to attract traffic share.

In this process **only an integrated transport offer on the whole mobility chain origin-destination is able to be attractive and competitive.**

A traditional national railway undertaking can improve this integration at two levels:

- **vertical internal integration** (*regional – long distance – high speed*): *if the transport offer is improved in one of these services, also the remaining services will profit thanks to the comprehensive improvement of the mobility offer as a whole. A bicycle carriage service on a new high-speed line would increase the number of customers with bicycles also on other lines. The wider the integrated network, the bigger the positive effect.*
- **horizontal external integration** (*among different operators*). *The integration should also be expanded beyond one company. Passenger transport at the Brenner Pass (Italy-Austria) has decreased 20% since 2000, while the motorway running parallel is registering traffic increases. This poor performance has to be connected to a lack of integration and cooperation among Italian, Austrian and German railway undertakings. An improvement of the bicycle carriage offer on Italian long-distance trains and a better coordination of ticket and reservation schemes would increase the rate of railway utilization*

also in Austria and Germany, countries with a high number of cycle tourist attracted by the Italian market.

7.6.2 Exploitation of Niche Markets

A further consequence of the increasing competition in the passenger transportation sector is the **necessity to fragment the transport demand and to capture niche markets with dedicated and flexible offers**. Even if bicycle carriage on long-distance trains is often not promoted and even discouraged, it is today – according to several railway undertakings – **a niche market worth around 0.3 – 0.5% of the total long-distance market on an annual basis** and it is **spontaneously increasing**.

Other transport undertakings and producers (automotive, airline and bus carriers) are increasingly adopting technical and operational instruments in order to facilitate bicycle transport (bicycle racks, flexible seats, ...).

It is in the strategic interest of the RUs to design this value adding contribution as a direct service to the customer and perform this under their own responsibility. Railway undertakings could thus:

- *further intensify their proximity to the customer, at the same time as increasing their service quality.*
- *strengthen the efficiency of sales by making use of new synergies as well as opening up low-cost sales channels and reviewing those which are cost-intensive.*
- *offer to their customers the benefits of a reliable range of services all at once.*
- *raise the amount of takings by increasing passenger numbers, reducing the failure rates and specifically adapting the pricing structures.*

7.6.3 Bicycle Carriage as Marketing Tool

As already mentioned, the sales volume of bicycle tickets has a reduced direct economical value, but it can allow relevant economic results thanks to the increased sale of additional passenger tickets.

This fact provides the opportunity to **utilize the bicycle ticket as a marketing and promotional tool to increase the loading factor**.

Empty bicycle spaces should be avoided at all costs, offering promotional or even free bicycle carriage at off-peak times. In the UK, where the railway undertakings are more exposed to the concurrence and therefore more sensitive to customer needs, most long-distance railway undertakings are already offering free bicycle carriage on long-distance trains. In Switzerland holders of some season tickets have free bicycle carriage in the evening.

The creation of “bike interrail” and “bike eurodomino” tickets is up to now unexplored.

Targeted offers with bicycle carriage can be proposed in cooperation with local authorities and tourism boards on special connections and periods.

8 Annex

The following figure represents the evaluation matrix of the 32 analysed railway undertakings.

Fig. 10: Evaluation matrix of the 32 analysed railway undertakings

Country	Company	A	B	C	D	E	Carriage	F	G	H	I	J	K	L	Sale	M	N	O	P	Website	Total
UK	Gner	1	1	1	n	1	2,00	n	n	1	o	1	1	o	0,60	n	1	1	o	0,67	3,27
CH	SBB	1	o	n	1	1	1,50	1	1	1	1	o	o	1	0,71	o	1	1	1	0,75	2,96
UK	Hull Trains	1	1	n	n	1	2,00	n	n	n	o	o	1	o	0,25	n	1	1	o	0,67	2,92
UK	Midlands	1	1	1	n	1	2,00	n	n	n	o	o	1	o	0,25	n	1	1	o	0,67	2,92
UK	Virgin Trains	1	1	1	n	1	2,00	n	n	n	o	o	1	o	0,25	n	1	1	o	0,67	2,92
AT	OeBB	1	o	n	1	1	1,50	1	1	o	o	o	o	1	0,43	1	1	o	1	0,75	2,68
FR	SNCF	1	o	1	1	1	1,60	o	o	o	o	o	1	o	0,14	o	1	1	1	0,75	2,49
NL	NS	1	o	n	1	1	1,50	o	1	1	o	o	o	1	0,43	o	1	o	1	0,50	2,43
DK	DSB	1	o	n	1	1	1,50	1	1	o	o	o	o	1	0,43	1	1	o	o	0,50	2,43
PL	PKP IC	1	o	n	1	1	1,50	o	o	o	o	o	o	1	0,14	1	1	1	o	0,75	2,39
DE	DB	o	o	o	1	1	0,80	1	1	o	1	o	o	1	0,57	1	1	1	1	1,00	2,37
BE	SNCB	1	o	n	1	1	1,50	o	o	o	o	o	o	1	0,14	o	1	1	o	0,50	2,14
CZ	CD	1	o	1	1	1	1,60	1	o	o	o	o	o	1	0,29	o	1	o	o	0,25	2,14
IR	CIE	1	o	n	1	1	1,50	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	2,00
LU	CLF	1	o	n	1	1	1,50	o	o	o	o	o	o	1	0,14	o	1	o	o	0,25	1,89
SK	ZSSK	1	o	n	1	1	1,50	o	o	o	o	o	o	1	0,14	o	1	o	o	0,25	1,89
LT	LG	1	o	n	1	1	1,50	o	o	o	o	o	o	o	0,00	o	1	o	o	0,25	1,75
DE	Interconnex	1	1	o	n	1	1,50	o	o	o	o	o	o	o	0,00	o	1	o	o	0,25	1,75
EE	GoRail	1	o	n	1	n	1,33	o	o	o	o	o	o	o	0,00	o	1	o	o	0,25	1,58
SI	SZ	o	o	o	1	1	0,80	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	1,30
NO	NSB	o	o	n	o	1	0,50	1	1	o	o	o	o	o	0,29	o	1	1	o	0,50	1,29
FI	VR	o	o	o	n	1	0,50	o	1	o	o	o	o	o	0,14	o	1	1	o	0,50	1,14
HU	MAV	o	o	n	1	o	0,50	o	o	o	o	o	o	1	0,14	1	1	o	o	0,50	1,14
IT	Trenitalia	o	o	o	1	o	0,40	o	o	o	o	o	o	1	0,14	o	1	1	o	0,50	1,04
CH	Cisalpino	o	o	o	1	n	0,50	n	n	n	n	n	o	n	0,00	o	1	1	o	0,50	1,00
LV	LDZ	o	o	n	1	o	0,50	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	1,00
PT	CP	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	0,50
SE	SJ	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	0,50
UK	Eurostar	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	1	1	o	0,50	0,50
ES	RENFE	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	1	o	o	0,25	0,25
FR	Thalys	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	o	o	o	0,00	0,00
GR	OSE	o	o	o	o	o	0,00	o	o	o	o	o	o	o	0,00	o	o	o	o	0,00	0,00

- A: Availability of bicycle carriage on all train categories
- B: Availability of bicycle carriage on all train services
- C: Availability of bicycle carriage on high-speed trains
- D: Availability of bicycle carriage on some international services
- E: Availability of bicycle carriage on some national services
- F: Availability of bicycle space reservation when not compulsory
- G: Availability of bicycle ticket at automatic counters
- H: Availability of bicycle ticket online

- I: Availability of bicycle reservation at automatic counters
- J: Availability of bicycle reservation online
- K: Availability of free bicycle carriage
- L: Availability of the bicycle international ticket
- M: Availability of timetable search engine with bicycle carriage query
- N: Availability of online information about bicycle carriage
- O: Availability of online information in English about bicycle carriage
- P: Availability of link to the Railpassenger webpage from the RUs own bicycle webpage

