



## The freight car market in Europe – development and price outlook from a manufacturer's point of view

**The historical development of the freight car market in Europe displayed a sine curve cycle of around 6 – 8 years in the past. The deflections in the cycles were relatively moderate. But a whole new picture has emerged since the political changes that began in Europe in 1989/90.**

The former Eastern European freight car manufacturers (primarily in the former GDR, Poland, Romania, Hungary, Yugoslavia and Bulgaria) suddenly became market rivals to the traditional Western European freight car manufacturers such as Talbot Aachen, Waggon Union Siegen, LHB Salzgitter, DUEWAG Uerdingen, Waggonbau Brüninghaus, Graaff in Germany and the freight car works in France, Italy, Belgium, Finland and Sweden. The big

former Russian market and the market in Eastern Europe collapsed almost completely for a longer period of time, the existing stocks of cars were in some cases far above the demand.

### Adjustment of production capacities

Thus, an increasing number of old cars were used on the market at low prices and more money was invested in modernising the low-wage, Eastern European freight car works whose technical

### No end to spiralling costs?

Dear readers, over the past two and a half years we have experienced some drastic increases in prices for new rolling stock. Just how drastic can be seen from the example of a new stainless steel tank car: it has doubled in price.

At the same time, costs such as those for car maintenance have rocketed. Changes to the basic conditions (AVV, TSI) also make the „Product freight car“ more expensive, though we are a far cry from being able to pass these on to the car rental prices.

Have we reached the limit for car prices or will they continue to rise even higher? The opinions of industry experts differ. But read about it for yourself and form your opinion.

One thing is certain: the industry hopes that we soon pass the zenith, especially since the chances of getting more freight systematically onto rails were never more favourable than at present.

Philipp Müller  
Delegated by the Board of Directors





Towards new horizons – but at what price?

equipment and existing know-how was by all means competitive. As a consequence of this situation (cost crunch and drop in demand for new cars) traditional freight car works, above all in France, Germany and Italy, gradually dropped out of the market or shifted their portfolio to products for local and long-distance passenger vehicles.

This development was accompanied by a sharp drop in development capacities at both the historical wagon builders and the specific suppliers. This was due on the one hand to product changes and on the other to mergers and take-overs.

#### **Fewer orders from state railways**

Freight car manufacture and the production of necessary components such as bogies, wheelsets, brakes, drawgear and buffers equipment, castings and forgings was no longer lucrative, the profit margins dropped to almost „0“ or were even negative for longer periods of time. This development was further accelerated by the persistent,

very cautious vehicle procurements by large state railways that lasted for several years (e.g. 2002 – 2006).

„The DB fleet,  
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Thomas Müller, Greenbrier Germany GmbH

The DB fleet, for example, was reduced from over 170,000 wagons to currently around 110,000 wagons, and similar developments were observed amongst Eastern European state railways, though also in France and Italy. All of this led to serious capacity bottlenecks with the freight car manufacturers and component suppliers.

#### **Sudden change in demand**

This situation changed almost over-

night in 2006. The beginning increase in demand from both state railways as well as rental companies could not be covered in time by the remaining freight car manufacturers, nor could the similarly diminished supplier industry follow this demand. Parallel to the dramatic increase in demand, a wave of price increases for steel swept through the industry which could only partly, and with some delay, be passed on to the car rental prices since these had usually been fixed in agreements 9-12 months previously. The exorbitant increase in price for wheelsets dealt a particularly hefty blow to wagon builders, so that even more traditional wagon builders went bankrupt. Some freight car manufacturers adjusted relatively quickly to the new situation on the market and are now able to offer cars at cost-covering prices. Concluded contracts, all of which now contain escalator clauses, were fulfilled on time. Others are still fighting the effects. Component manufacturers as well as freight car works are once again investing in expanding their capacity or increasing their efficiency.



Thomas Müller  
Greenbrier Germany GmbH

But it has to be said that there are in effect enough wagon construction capacities in Europe to cover the demand according to plan.

### Outlook

A different phenomenon can currently be observed. The extreme increases in the price of steel, components and oil/energy as well as vigorous changes in the exchange rate for some Eastern European currencies (zloty, Czech crown, forint, lei) and significant wage increase in these countries have led to necessary

price increases for freight cars that have not yet reached the user market and thus once again question the necessary investments in the freight car fleet. Car hirers in particular are finding it very hard to make up for the much higher car prices in their rental rates. The market is still trying to keep up with the actual circumstances of the cost development ! In combination with the weakening trade cycle and continued high steel and energy prices, we can expect a temporary drop in purchases of cars. A drop in the price of cars cannot be expected in either the short or medium term, we have to reckon with further rising prices and the market will have to adjust to this, even if prices should only rise moderately. There is no clear alternative to railway cars as an environmentally-friendly means of transport.

The current capacities of freight car manufacturers in Europe are more than sufficient for the expected medium-term demand, though the development capacities for creative new car so-

lutions need to be expanded. The prices of freight cars will continue to rise in line with the development of the material prices and inflation. The market will realise this situation, even if only with a delay. ■

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# Development of the prices for freight cars – the view of Deutsche Bahn AG

Due to the prolonged low demand for freight cars, the freight car and component manufacturers in Europe had reduced their production capacities. The companies were not prepared for the jump in demand at the beginning of 2006 due to the good economic climate. The demand above their capacities led to a sudden leap in the price of new cars and a substantial prolongation of delivery periods. We will be keeping a close eye on the development in car prices over the coming years.



## Looking back to before 2006

A glance back at the freight traffic market before 2006 shows that the Western European transportation companies had invested less in purchasing cars that would have been necessary to maintain the existing fleet. The fleet size was reduced on average.

The forecast purchases of freight car by Eastern European state railways had largely been postponed. On the European freight car market, freight car manufacturers and component suppliers had adjusted their capacities to the persistently low demand for new freight cars.

## Change in the market as of 2006

The beginning of 2006 saw a sudden leap in demand from European railway carriers, through also from hiring companies that were new on the European rental market for freight cars. Freight car manufacturers could not adjust their capacities at short notice to this rise in demand.

In addition, the sharp rise in the price of steel and supplier parts, in particular wheelsets, meant that some companies ended up in a precarious financial situation, especially if they had agreed fixed prices. The bankruptcies of Waggonbau Niesky GmbH (WBN) and Graaff Transportsysteme GmbH further aggravated the already tense supplier market situation. A considerable delay

in deliveries can be observed amongst many suppliers.

## Today's situation

In the meantime we can note that freight car and component manufacturers are expanding their capacities. The firms of IRS, Tatravagónka and Josef Meyer, for example, are investing millions in their existing sites and/or further production plants to expand their capacities.

Freight car manufacturers in China,

„The increases in capacities of existing and New suppliers will take the strain off the supply market situation in the long term“

Dr. Yan-ling Xu, Deutsche Bahn AG

India and Brazil are currently getting ready for deliveries to Europe (TSI, EN etc.). The expansion in capacities of existing suppliers as well as the capacities of potential new suppliers will take the strain off the supply market situation in the long term.

Although there is a continued demand for new freight cars, it will not rise so suddenly again on account of the wea-

ker economic situation. A temporary fall in the price of freight cars of certain designs is by all means possible. In the medium term, this new supply/demand situation will be reflected in a normalisation of the procurement prices. But assuming that the price of steel continues to rise, one can forecast a moderate rise in the price of cars.

### Outlook

With an increase in capacities of freight car and component manufacturers and through an expansion of the supplier market, the situation on the supply market will ease off with a moderate increase in demand. But the prices of cars will once again rise slightly in the medium term due to the rise in material prices. ■

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### On our behalf

## Gas car „T pieces“ put through their paces

**The operative safety of its fleet is a central concern for WASCOSA. It thus commissioned specialist workshops with endoscopic tests of the drain pipes of its entire fleet of several hundred gas cars. This work will be completed by the end of this year.**

The instruction to test the T-pieces of pressurized gas tank cars was issued in 2004 by the VPI by agreement with the Federal Railway Office. Although the endoscopy currently only affects Germany, WASCOSA is also having the gas and liquid phases of „T-pieces“ in its gas cars in Italy, Austria and Switzerland tested.

„This kills two birds with one stone“, explains Bernd Wassermann, a member of the WASCOSA maintenance department. For WASCOSA, Responsible Care is more than just a pretty-sounding catchword. „We want to offer our customers the maximum possible safety and are prepared to accept the corresponding costs of preventive maintenance. Through the endoscopic test we can minimise the potential risks and thus follow the wishes of the car leasers.“ The action was triggered by

Videos of a damaged  
and intact T-pieces  
can be found at

[www.kaminski-hameln.de/Sites/Downloads.aspx](http://www.kaminski-hameln.de/Sites/Downloads.aspx)

a pressurized gas tank car (from another company) which displayed a slight gas leak during filling in the middle of 2004.

This was caused by a leaky weld seam in the gas phase distribution pipe. X-rays of the affected and further weld seams of the „T-piece“ unearthed some shoddy workmanship. „Although the corresponding regulations only apply for gas cars used in Germany, we are putting our entire European fleet of gas cars through their paces“, emphasises Wassermann. „Each endoscopic test is confirmed by a TÜV certificate.“



A job for specialists: endoscopic test of the drain pipes of a WASCOSA pressurized gas tank car in a specialist workshop.  
© Franz Kaminski Waggonbau GmbH

In the appendix to the „Test instruction – endoscopy of filling and draining pipes in pressurized gas tank cars“ from the TÜV Hannover/Sachsen-Anhalt e.V. we find the section: „20% of pressurized gas tank cars from a series are initially to be tested at the latest during the next regular tank test „W“ or „Z“ according to RID 6.8.2.4.2. and 6.8.2.4.3.“ WASCOSA, however, is subjecting its entire fleet of gas cars to this test. ■

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## Good to know

# Innovative siding track logistics – successes of sidings track support in the Federal Republic of Germany

**In line with the strengthening of private sidings traffic that has already been in successful practice for several years in Switzerland and Austria, the „Guideline to promote the construction of new and expansion of existing as well as re-activation of private sidings (private sidings promotion guideline )“ came into force in 2004 in the Federal Republic of Germany at the initiative of the VDV.**

According to this, the German Federal Government has been supporting the construction and reactivation of private sidings since 1 September 2004. Since then, commercial enterprises from industry, business and trade have been able to submit application for projects to the pertinent Federal Railways Office (EBA).

The program offers support for investments in the construction of new private sidings, the reactivation of closed and no longer used sidings as well as investments in the expansion of existing private sidings whose capacity is no longer adequate on account of increases in quantities. This support program is initially limited until August 2009. But this support is interesting not only

for today's rail customers but also their suppliers and buyers who do not yet

**„This support for an innovative private sidings logistics is interesting not only for today's rail customers but also their suppliers and buyers“.**

**Marcus Gersinske, VDV**

have private sidings and were thus unable to settle their transports by rail up to now.

The grants are normally up to a maximum of 50 % of the eligible costs of the investment. The supported company must pledge to realise the agreed annual extra or new quantities – averaged over a period of five years. If the promised quantities are not achieved the EBA can demand a refund of a share of the grant. One further important aspect has to be fulfilled: Financing solely through private capital does not lead to the profitability of the private sidings project.

The applicant must prove this to the EBA in a calculation of profitability. In addition, construction work may not have begun at the time the application is submitted. This also includes the conclusion of possible delivery or

service level agreements. Up to now, an annual transport capacity of 1.5 billion ton-kilometres could be shifted from the road to rail within the scope of 45 logistics projects. This impressive shift of quantities was achieved with funds of only 35 million euros and thus represents one of the most efficient German subsidy schemes.



Marcus Gersinske, VDV

### Subsidy

Against the background of this success story, and not least on account of the current discussions of developments in the price of energy and the reduction of CO<sup>2</sup> emissions, the VDV will emphatically plead for a continuation of the sidings track support program in the Federal Republic of Germany.

Furthermore, the attention of political decision-makers will have to be drawn to the possibility of shifting traffic to private sidings on a European level. The joint event of ERFA and UIP to be held in Brussels on 20 October 2008 may provide some valuable stimuli. ■

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On our behalf

## Visit the new Filmbox at [www.wascosa.ch](http://www.wascosa.ch)

[www.wascosa.ch](http://www.wascosa.ch) now has a **Filmbox** section with interesting material on various aspects of the tank and freight car industry. This platform is also of interest to professionals.

Are you interested in how a crash buffer deforms on a scale of 1:1 or in slow motion? Or did you always want to see how a derailing detector brings a derailed train to a halt? Or how the automatic dome on WASCOSA dry bulk

freight cars works? Visit the Filmbox on [www.wascosa.ch](http://www.wascosa.ch) under the News/current section. Do you have video material that may be interesting for the Filmbox? If so, contact us at [infoletter@wascosa.ch](mailto:infoletter@wascosa.ch). ■

The screenshot shows the WASCOSA website interface. At the top, there is a navigation menu with links for 'Unternehmen', 'Dienstleistungen', 'Wagenpark', 'News / Aktuell', and 'Kontakt'. Below the menu, the 'Filmbox' section is highlighted. It contains a list of video topics with corresponding thumbnail images:

- Crashpuffer**: Der neue Standard für spezielle Gefahrgutprodukte
- Entgleisungsdetektor**: Die Pflichtausrüstung bei Neubauwagen bestimmter Gefahrgutklassen ab 1. Januar 2011
- Implosion**: Die Implosion eines Kesselwagens
- Automatischer Domdeckel**: Die neueste Generation: Staubgutwagen der WASCOSA AG

At the bottom right of the page, there is a small link: 'Top - Druckversion'.



Ernst Winkler, GEFAG Gefahrgutausbildung und -Beratung AG

## RID 2009

We already reported on the extension of the transitional period to fit tank cars with crash buffers in the last edition of the WASCOSA infoletter.

RID 2009 also specifies the new dates for intermediate inspections of tanks. These may only be carried out within a period of 3 months before or after the

set date. A summary of the most important changes to RID 2009 by Ernst Winkler, GEFAG Gefahrgutausbildung und -Beratung AG, can be downloaded from [www.wascosa.ch](http://www.wascosa.ch). ■

## In practice

# Noise reduction in freight cars – hitherto experience with K-blocks at SBB Cargo AG

**Around 260,000 people in Switzerland are exposed to noise emissions from railways that exceed the legal limits. A comprehensive plan to reduce noise has been in force for their protection since 2000 and is being financed by the FinöV-Fund. Apart from measures on rolling stock, noise barriers are being built where necessary and noise protection windows fitted in buildings. On behalf of the BAV, the noise emitted by freight cars of SBB has been reduced since 2005. What's more, SBB Cargo has only purchased new freight cars with low-noise brake systems since 2001.**



The technical conversion of brake systems is the focus of noise reduction work for freight cars. The only noise reduction measure that has been approved up to now is the installation of so-called K-blocks (composite brake blocks). SBB Cargo has already converted over 4000 freight cars in this way to help reduce noise (status 30.06.2008). What's more, SBB Cargo has only purchased new freight cars with low-noise brake systems since. This means that around half of the fleet of SBB Cargo cars is now running with less noise.

### Fewer emissions thanks to plastic blocks

K-block is the name given to brake blocks of plastic-composite materials.

The noise produced by freight trains is largely caused by the running noise of steel wheels on steel rails. This noise is amplified when the wheels and rails display microscopic irregularities (roughness). This primarily arises because the cast iron brake blocks used up to now roughen the wheels during braking, and these in turn the rails.

This does not happen with K-blocks since K-blocks spare the wheel tread whilst simultaneously improving the braking effect. This significantly reduces the wheel-rail noise. But the higher coefficient of friction of K-blocks calls for an adjustment of the brake system during the conversion of the vehicles. The noise emissions could be significantly reduced over the entire speed





Noise-protection walls – expensive, but effective in reduction of sound emissions.

© MÜLLER-STEINAG BAUSTOFF AG

range through the use of K-blocks. Various tests have proven a noise reduction of around 8-10 dB(A), corresponding to a subjectively perceived noise reduction of around half. The legal and political requirements are met through the use of K-blocks.

#### Higher wear

There is as yet no reliable data on the additional costs of K-blocks compared to cast iron blocks. A different wear behaviour of K-blocks has been determined up to now that depends on the type of car and conditions of use of the freight car. Thus, there is some occasional splintering of material from the friction surface, lamination of K-blocks due to unequal wear behaviour or cracks/through cracks in friction surfaces down to the carrier plate. The latter could be significantly reduced by providing an expansion joint in the middle of the brake shoe. If one of the damages described above occurs the K-block is normally replaced.

Switzerland is leading the way on an international level with a comprehensive

„Switzerland is leading the way on an international level with a comprehensive refurbishment of its rolling stock.“

Daniel Schwander, SBB Cargo AG

refurbishment of its rolling stock, but still pays attention to an internationally coordinated solution. Because the effectiveness of the Swiss noise reduction program depends to a very large extent on developments in neighbouring European countries. Against the background of liberalised freight traffic, the decisive factor is how strongly the refurbishment of cross-border freight car fleets is promoted.

#### LL-block as a possible alternative

As of 2006, new international freight cars may only be put into operation if they have low-noise brakes (K-blocks). Great hopes are also being pinned on brake shoes of the type LL for an all-over refurbishment of rolling stock abroad. These enable a cheaper conversion. Initial trials are being carried out by various European railways, including the SBB. But the approval process will still take quite some time. ■

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# IBS - a success story

Eight large European forwarding companies founded the „Interessengemeinschaft of Bahnspediteure (IBS) e. V.“ on 31 October 1996 in Berlin with the goal „More freight on rails – throughout Europe“. The IBS today has 67 members from 14 European countries.

The Community of Interest of Railway Forwarding Agents (IBS) has set itself the task of supporting basic conditions to promote the position of rail forwarders and carriers in Germany and Europe by exercising and influence over transport policy decisions in favour of the rail system and of being a contact organisation for transport politicians, the market as well as associations and organisations. A particular concern of

the IBS is support for European single car traffic.

During the transport logistic 2009 in Munich, IBS will for the first time be awarding an „IBS\*-RAIL-Science Prize“ endowed with 5,000 euros that honours a new theoretical approach to shifting transports onto rail. All companies interested in railway freight traffic can have themselves certified by the

IBS and receive the IBS\*-Seal of Quality „Q1 IBS\*“.

IBS has also been an associated member of the House of Rail since 2007.

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## On our behalf

### Salesman A. Fässler has the right credentials



Has been helping WASCOSA sales since March:  
André Fässler.

„Almost everything I have done over the past ten years of my professional life has been concerned with sales and customer service. This experience stands me in very good stead for my new job at WASCOSA“, says André Fässler. The 28 year-old has reinforced the Sales Department in the Swiss headquarters of the company since the beginning of

March 2008. What he really likes about the job: maintaining contacts with international WASCOSA customers gives him the opportunity to use his German, English and French language skills. And to round off his linguistic talents, the sports and nature fan Mr. Fässler is now learning Italian too. The basis is already there, he explains.

Fässler – he follows in the footsteps of Robi Duss, who left WASCOSA for personal reasons – regards constant professional further education as indispensable. Which is why he completed a Marketing and Sales Course at the Higher Professional School in Zurich between 2004 and 2007.

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# Calendar

06.11.2008 Frankfurt am Main (D)	VDV Marketing Forum Rail Freight Traffic	Info: VDV akademie@vdv.de / www.vdv.de
13.11.2008 Zürich (CH)	VAP Autumn Conference	Info: VAP Schweiz vap@cargorail.ch / www.cargorail.ch
13.-14.11.2008 Sofia (BG)	Railway Forum 2008	Info: Union of European Railway Engineer Associations (UEEIV) ueeiv@t-online.de / www.ueeiv.com
20.-21.11.2008 Göttingen (D)	VDV seminar „Award procedure and transport contracts in regional passenger rail transport“	Info: VDV akademie@vdv.de / www.vdv.de
24.-25.11.2008 Bonn (D)	Railway law & competition	Info: VDV-Akademie akademie@vdv.de / www.vdv-akademie.de
28.11.2008 Brussels (B)	Conference on Sidings and Last Miles	info@uiprail.org www.uiprail.org
<b>2009</b>		
03.-04.02.2009 Fulda (D)	11th EBA Experts Conference	Info: DVV Media Group GmbH nicole.hagen@dvvmedia.com www.eurailpress.de
03.-04.03.2009 Frankfurt am Main (D)	4th International Railway Congress: Procurement of resources and services for railways in European rail-freight traffic	Info: VDV akademie@vdv.de / www.vdv.de
31.03. - 02.04.2009 Utrecht (NL)	Rail-Tech Europe 2009	Info: Europoint b.v. info@railevents.eu / www.railevents.eu
07.05.2009 Zurich (CH)	VAP Spring conference	Info: VAP Switzerland vap@bluewin.ch / www.cargorail.ch
12.-15.05.2009 Munich (D)	transport logistic	info@transportlogistic.de www.transportlogistic.de
26.-28.05.2009 Lille (F)	SIFER 2009	Info: Mack Brooks sifer@mackbrooks.com / www.sifer2009.com
19.06.2009 Bremen (D)	VPI Annual Members Meeting	Info. Association of Private Freight Car Interested Parties mail@vpihamburg.de / www.cpihamburg.de
22.-24.09.2009 Karlsruhe (D)	Intergeo 2009	Info: Hinte Messe GmbH cfreier@hinte-messe.de / www.intergeo.de
11.-14.11.2009 Bern (CH)	suisstransport 09 Trade fair for transport, vehicles, equipment, maintenance	Info: BEA bern expo AG info@beaexpo.ch / www.beaexpo.ch



## Answers to the quiz for professionals

From Edition 11 / May 2008

There are some insiders in the industry. The winners were drawn from all correct entries.  
Our congratulations to the professionals! Here are the correct answers:

- When and by whom was the UIP founded?  
✓ By Switzerland, 1950 in Attisholz  

The Executive Committee Members: Mr. Sieber (Swiss representative) as President, Mr. Kesselring as General Secretary, Mr. Doucet (French representative) as well as Mr. Rassini (Italian representative) and Dr. Nettelrodt founded the UIP in 1950 in Attisholz.
- What is a tank card?  
✓ A document containing all technically relevant information for a tank and its test certificates.  

This consists of all documents such as test certificates, attestations, type approvals and material proofs.
- Where does the name Ermewa come from?  
✓ From Ermeco (Ernst Metzger Co)  

The firm of Ermewa was founded on the occasion of the sale of the wine department by Ermeco to Mr. Randon.
- What do the three red triangles (with a black exclamation mark) on a freight car stand for?  
✓ Push-off and impact prohibition  

These symbols mean that a push-off and impact is prohibited, cars have to be added by a motor vehicle and may not collide with and have to be protected against impacts with other vehicles.
- Which national association in the UIP has the most members?  
✓ The VAP Switzerland  

The VAP has the largest number of members, around 300. AFWP France has roughly 90 members, VPI Germany around 100 members.
- What do the 2 stars alongside the load limits of a freight car stand for?  
✓ Load limits (t) for cars that can run in trains up to 120 km/h, whereby the brakes do not fully meet the requirements of SS traffic.  

The 2 stars alongside the load limits mean that the car can run at up to 120 km/h when loaded using the load limits specified in the track class, whereby the car brakes do not fully meet the regulations of the „SS Traffic“.
- What is understood by the term tank tourism?  
✓ Fear of the approval authorities that the tank may be tested elsewhere in the event of a negative test.  

Switzerland and Belgium submitted various documents for the attention of the RID Expert Committee Meeting to prevent a negative tested tank car being taken to a different testing office where it can successfully pass the recurrent test.
- Who drew up the 1st version of the AVV?  
✓ F. Furrer, VAP, G. Pratt, PWF and H. Traumann, VPI D  

The first draft was resolved at the end of January 2001 in Hamburg by F. Furrer, VAP, G. Pratt, PWF and H. Traumann, VDI D. During the course of 2002 this paper was adopted as an official UIP Paper and was finally published in March 2003.
- When were the first tank codes introduced as a replacement for the tank types?  
✓ 2001  

BAM, Berlin, had already prepared a system in the course of the RID/ ADR reorganisation. This was refined by the tank study group and adopted in 2001 in the ADR and RID sets of rules that had been amended in a process lasting several years.
- What is the „Berner Raum“?  
✓ A space between rail vehicles where the personnel couple the vehicles  

The „Berner Raum“ is the name of a defined space between two touching ends of a railway vehicle. A safe space is needed where personnel can work to connect (couple) or uncouple the vehicles.