



## Combined transport – a glimmer of hope

Politicians and society have high expectations when it comes to moving traffic on to the rails, but as anyone who works with combined transport knows, there are considerable challenges involved – particularly with regard to intermodal terminals: By using the existing infrastructure more productively the aim is to close what has been recognised as a capacity gap.

*Andreas Schulz, Chairman of the Board, Deutsche Umschlaggesellschaft Schiene – Straße (DUSS) mbH [German Road-Rail Transshipment Company]*

The new Federal government's coalition agreement specifically states the following: „... we will increase rail freight transport to a 25% modal share by 2030 ...“. The EU has set out its climate objectives and resulting requirements for the transportation sector in the Green Deal. Switzerland has even adopted the shifting of freight trans-

port to rail in its Federal Constitution. So, politicians and society have high expectations when it comes to rail as a mode of transport. Using Germany as an example, you can see how ambitious this objective actually is just by looking at the annual

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Efficiency:  
A must for terminals

4



Safety: Adisseo relies on  
Wascosa safe tank car®

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Flexibility: High-Cube  
Containers score

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Dear readers,

*Two years on and we are once again at a turning point. I strongly condemn the war in Ukraine and my sympathy goes out to all the victims of this unspeakable aggression. Compared to the personal suffering of those affected, the indirect consequences for our industry seem insignificant. But they are substantial nonetheless, and they become more tangible with each passing day that the war continues.*

*The major freight wagon builders in neighbouring countries are facing enormous challenges. Deliveries of steel and other necessary raw materials are either non-existent or have been greatly reduced. There is also a shortage of workers. Even before the conflict, the market for new wagons had been under strain for years. Now, an exacerbation seems unavoidable. Energy and fuel prices have also sky-rocketed. While this bolsters our competitiveness over road transport, the consequences for the economy could more than outweigh these gains. The crisis caused by the war in Ukraine, as well as the shortage and increase in the price of new wagons and wheel sets, will also increase the rental prices for freight wagons.*

*In the medium term, however, our objective remains the same: An overall increase in the use of rail transport. The focus of this issue of our infoletter is on the terminals in their role as the crucial interface of intermodal transport, which is the growth segment of our industry. Two industry heavyweights, Andreas Schulz of DUSS (lead article) and Gottfried Eymmer of ÖBB Rail Cargo (see page 4), describe to us how they think the course should be set so that in acting as interfaces, the terminals do not become bottlenecks.*

*For a comprehensive and up-to-date source of information on the rapidly growing number of terminals in Europe (as well as outside of Europe), I recommend intermodal-map.com (see last page). This and many other interesting topics are covered in this Wascosa infoletter. In the meantime, let's give optimism a chance!*

Philipp Müller  
Chairman of the Board of Directors

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growth rates: Rail freight transport grew by 2.4% every year in the five years before the pandemic. By contrast, a growth rate of 5.6% per year is what will be needed to reach the modal share presented in the coalition agreement (Source: Roland Berger, VDV). By far the greatest contributor to this growth will be combined transport (CT), with an average change of 6.8% per year.

#### **In focus: Intermodal terminals**

Traffic shifting may offer a glimmer of hope but it brings with it major challenges for all those involved in combined transport. Of particular concern are the access points to the intermodal chain: the terminals, which raises the following questions: Are the facilities' transshipment capacities sufficient to shift the forecast volumes to rail, and what are the strategic approaches needed to increase the capacity of the transshipment facilities?

#### **Expanding and building new transshipment facilities is essential**

At present, terminals in Europe's industrial heartlands are already working flat out. There is an urgent need to expand existing transshipment facilities and to build new ones. In Germany, a whole raft of meas-

ures was introduced as part of the German Plan for Federal Traffic Routes. DB Netz and its subsidiary Deutsche Umschlaggesellschaft Schiene – Straße DUSS alone have begun 14 new construction and expansion projects which will be completed by 2030. Germany is leading the way, compared to other European countries many of which are not expanding their terminal infrastructure with quite the same determination. When you consider that it takes 5 to 10 years from start to finish, to get a terminal ready for operations, it is clear that investing in "steel and concrete" will not be enough to cover capacity needs by 2030. So the only way to close the capacity gap, as mentioned earlier, is to make more productive use of the existing infrastructure.

#### **A more productive use of the existing infrastructure**

DUSS is currently pursuing three approaches that will allow it to use the existing infrastructure more productively and therefore close what have been identified as capacity gaps.

##### **1. Spreading demand evenly**

At present, terminals are used in line with customers' requirements. Most users still want to have the transport done overnight





coupled with a lengthy slot throughout the day for early pick-up and delivery in the afternoon. Road pickups are conspicuously concentrated within the 7:00 a.m. to 5:00 p.m. time slot; the beginning and end of the day are times which are seldom requested. This results in peaks in demand that exceed the technical capacity of cranes as well as noticeable off-peak periods. Spreading the demand evenly frees up capacity and reduces process costs in the form of maintenance and throughput times. Synchronising traffic leads to increased productivity, not just for the terminal but also for the upstream and downstream stages of the value-added chain.

A fundamental prerequisite for increasing the spare capacity is that all the parties involved must be genuinely committed to this endeavour. This also includes a mutual understanding that terminals are not outsourced storage facilities nor are they buffers for disrupted delivery chains. When containers remain idle for long periods of time at the terminals, which is what one notices first and foremost today in the maritime chain, the results are quality problems and a reduction in capacity for transshipments.

## 2. Digitalisation of the processes

The second driving force for increasing the productivity of terminals is to digitalise the operational processes in terms of the processing times for road and rail vehicles alike. The shorter the processing time is for a truck and the faster that the trains can be prepared, the more transshipments a terminal can carry out. This requires doors with video monitoring and automated identification of loading units as well as a detection system for dangerous goods and damage. Outdated dispatch counters also need to be phased out for dangerous goods and for customs clearance, and paperless dispatch must become a standard process. Productivity can be boosted further if the customer and terminal operator can exchange all the loading unit data and the information to be presented to customs in advance.

At the Ulm site, DUSS has successfully piloted what is known as "Slot management", which will be made available at all locations throughout the year. The freight forwarder or haulier can digitally check the availability of their loading unit, add data and send a notification when it arrives. After it is automatically identified at the terminal, it

is guided through the facility without any paperwork and without the driver having to get out.

## 3. Automating the crane systems

The third way of increasing capacity is by automating the crane systems. Rather than focussing on speed, automation aims to achieve consistency and autonomous pre-sorting before crane operations with customer contact occur. DUSS is planning new terminals with remote crane control and automated features, and even major existing facilities are being gradually upgraded with this technology. And last but not least, digitally monitoring the individual crane components enables proactive routine maintenance to minimise downtimes.

## A two-track strategy to success

The challenges and approaches to the solutions that we have shown demonstrate that only a two-track strategy – new constructions and consistent use of spare capacity via digitalisation and automation – will make it possible to achieve the desired level of shifting to railways at the access points – the intermodal terminals.



DUSS Terminal Hamburg Billwerder: Crane beam modernisation completed by the end of 2021.



# We need terminals which are more efficient – and more of them

Most of the time, the rail tracks end but the goods have not yet reached their final destination. They often travel the last mile to their destination in a truck or continue their journey via sea or air. What terminals do is to act as a link in the inter-modal transport chain and connect the railways with roads. Without additional, more efficient terminals, it will be impossible to achieve the modal shift that the EU is aiming for.

*Ass. jur. Gottfried Eymmer, ÖBB Rail Cargo Group Board Member*

Terminals in freight transport have many parallels with train stations in passenger transport. Anyone wishing to take the train from Paris to Rotterdam may need to change trains in Brussels – in other words, the train station in Brussels is like the terminal in freight transport. The freight must be transhipped and/or distributed at a port, a shunting yard or terminal before it is transported further, and often many modes of transport are involved here. Goods can arrive at the Rotterdam port by ship, where they are transhipped onto a freight train and transported to Terminal Budapest (BILK) from where they complete

their journey to their final destination by road. As such, terminals are a linchpin of the freight transport sector. Whether they are shippers, freight forwarders or operators, railway undertakings or shipping companies – all transport providers will go through a terminal.

## Every container has to go through a terminal

ÖBB Rail Cargo Group (RCG), Europe's second-largest rail logistics company, operates nine terminals internationally, although it also works closely with many partner terminals – from Rotterdam all the

way to Turkey and from Italy all the way to China. In 2021, RCG shipped over 1.4 million TEUs of combined transport through terminals across Europe, over 471,000 TEUs of which were transported through its own terminals. The high number of transshipments shows that terminals play a crucial role in rail freight transport. Goods are almost exclusively put on to trains when they are transhipped via terminals.

## An increase in freight transport and a modal shift

However, there are a number of challenges to be contended with in the face of an ever-growing freight transport market. Forecasts for Europe estimate that the demand for freight transport will increase by a total of 30% by the year 2030, which would mean one million additional trucks on the road. To prevent this scenario – which would have a significant impact on our environment due to massive CO<sub>2</sub> emissions – there needs to be a transport modal shift. This is not only the view of the rail freight transport sector but also of the European Union as well: "We must drastically shift transport from road to rail", said



Photo: © Veronika Milei

Budapest container terminal (BILK).





Photo: © Zoltan Iro

the President of the EU Commission Ursula von der Leyen in her speech on transport day at the United Nations Climate Change Conference COP26 in Glasgow in November 2021. As far back as 2011, the European Commission set a target of shifting by 2030, as much as 30% of freight which is transported more than 300 km by road to other modes of transport, such as the railways or the waterways, – and of increasing this to more than 50% by 2050. It is a crucial contribution that will enable Europe to become climate-neutral by 2050, which is the stated objective of the European Green Deal.

The Rail Freight Forward Initiative – a coalition of European freight railways – is also pushing strongly for a greater share for rail freight. Rail Cargo Group is not only a founding member but also chairs the coalition. The objective that unites all the participating rail freight companies is to increase railfreight's modal share in Europe from its current state of roughly 18% to 30% by 2030. This is where terminals will play a crucial role because a shift in traffic will see an increase in the quantities of goods moving over to rail. So terminals will be the key because of their role as a link in this shifting of goods from road to rail.

### Challenges and approaches to the problem

The greatly increased transshipment volumes which will result from the required increase in the rail modal share as described above along with the extra capacities that would need to be provided at the terminals, will lead to bottlenecks. On the

one hand, the existing terminals will have to be expanded to counteract this; on the other hand, new terminals will need to be built at strategically chosen locations that meet key criteria – such as the appropriate rail track lengths or road and rail connections.

Furthermore, there are additional approaches to the problem that are still currently being considered. One need that was recognised, for example, is to connect more and more medium-sized customers to the railways, but they often don't have the necessary railway sidings or other facilities for transshipping goods onto rail. One solution could be to build smaller, decentralised terminals, but to do so, a needs assessment would need to be undertaken in the area and various sites would need to be evaluated – namely in areas where reducing the pressure on customers is possible and where it makes sense. Furthermore, investment will be needed in making semitrailers suitable for handling by crane so that they are tough enough to endure standard road/rail transshipment operations. However, this will require investment and/or subsidies.

Nonetheless, it is clear that if there is to be a permanent shift of freight transport from road to rail it will only be achievable by means of a consistent transport policy framework which will apply to the whole of Europe. At the same time, the participants will need to receive properly channelled support. Essentially, the aforementioned approaches to the problem are also what the Rail Freight Forward Initiative is call-

ing for: First of all, freight railways need to get the basics right on how to become faster, more modern and more customer-focused. Second, there needs to be investment in Europe-wide, coordinated and fit-for-purpose infrastructure. Third, we also need to place the onus on politicians to create fair transport policy framework conditions. Driving a train through Europe needs to be as easy as it is to drive a truck.

Lastly, it is in everyone's interest to double the share of rail freight transport in Europe which means bringing it up to 30% so as to be able to absorb the unquestioned and inevitable future growth in traffic. This is why the appropriate preliminary measures are also needed for the key locations which are vital for freight transport – the terminals. And this is no longer a case of "simply" having functional freight transport; but, it also concerns our environment.



Photo: © Veronika Milei

Budapest container terminal (BILK).



# On course for growth in south-eastern Europe

The steady increase in freight traffic from Western Europe to the south-east in the Balkans and further to Turkey is evident. Combined transport is at the heart of it, but ensuring logistics and providing quality services is a challenge. Wascosa understood this trend and decided to develop its presence in South-East Europe.

At this moment our clients deliver the goods with the help of Wascosa intermodal wagons suitable for the transport of containers, swap-bodies and semi-trailers,

up to the border between Hungary and Romania at Curtici. Here, in the Trade Trans terminal, the wagons are unloaded, and units are transhipped on trucks headed for

Romania, Bulgaria, Serbia, Greece, Turkey or to the port of Constanta on the Black Sea. There is also a regular railway route from Bucharest to Constanta for which Wascosa also delivers intermodal wagons. The Curtici terminal also receives loading units brought by trains and which are then loaded for onward transport to Western Europe.

## Today: 7 trains come and go daily

"In general, we are talking about 7 trains a day that arrive loaded and leave loaded from Curtici", explains Nucu Morar, Wascosa's agent for Romania and Bulgaria. "Our clients and others regularly use this route. In order to offer them a complete and high quality service, we provide mobile maintenance services on site in the Trade Trans



The excellent location makes Curtici the gateway for Romania and an important transit point between Western Europe and the Middle East.



terminal through our partner Wagons Maintenance SRL." Wagons with small defects or wear and tear can be quickly put back into service, thus reducing downtime and ensuring a high level of utilization – which are key factors in making rail freight competitive. What's more, Wascosa and its partner Wagons Maintenance can provide preventive maintenance, such as changing axles or replacing damaged parts.

#### Since 2019: Wagon Maintenance as a local, established partner in and around Curtici

Wascosa established a spare parts warehouse in Curtici for various components, e.g. wheel sets or brake blocks. In addition, Wagon Maintenance's mobile teams can intervene at various other locations in

the region whenever wagons need repair." By gradually developed our collaboration since 2019, we have established a very efficient flow of information through which we can inform our customers in real time and solve problems quickly," points out Nucu Morar.

Increasing the transport of containers, swap-bodies and semi-trailers by rail is environmentally friendly and fast. The lack of drivers and increasing international regulations on road transport have led to more and more transport companies switching to rail transport. The aim is to open new railway routes that will directly connect Western Europe with the port of Constanta on the Black Sea. Nucu Morar sees signs of further expansion: "Our clients plan to

service a direct Bucharest-Curtici route with our wagons. New terminals, such as the one at Teius in Romania will soon be opened to help shift more truck traffic to rail." Wascosa has developed a network for repairs and revisions in the south-eastern part of Europe in order to deliver these services with its partners locally in Romania and Bulgaria. It is also very demanding in its selection of partner companies and requires them to ensure the highest quality and safety standards that Wascosa is known for.

The growth of the main pan-European and eastern transport corridors through the Balkans to Turkey is a challenge that Wascosa is happy to take on.





# Safety is Adisseo's number one priority

Adisseo has made safety its priority and is determined to do everything possible to integrate safety equipment into its rail logistics. This was one of the fundamental reasons why Adisseo chose Wascosa, as early as 2012, for the transport of CS<sub>2</sub> (Carbon disulphide) with the commissioning of 30 Wascosa safe tank cars® which were fitted with all the safety devices available for rail freight transport.



Site of Adisseo at Roches à Saint-Clair-du-Rhône (Isère).

Adisseo, one of the world's leading animal nutrition companies, has invested 110 million Euro in a new MMP (methylthio propionaldehyde) production unit at its Les Roches site in Saint-Clair-du-Rhône (Isère, south-east France). MMP is the first intermediate ingredient used in the synthetic

production of methionine which is itself a sulphur-containing amino acid used as a nutritional supplement for poultry farming.

This product is transported by pipeline to Adisseo's Roussillon plant (which has 120 employees) and by rail to Commentry in the Allier department in the centre of France. At both sites, methionine is produced in powder form. In Burgos (Spain), it is transformed into liquid methionine. In total, methionine represents 70% of Adisseo's turnover.

Adisseo is in the process of increasing its production capacity so as to be able to meet the growth in the global methionine market. The market has been increasing by 6% per year in recent years, following the creation of poultry farms in China and South America in particular.

**"We are very pleased to have been chosen in 2020 for the construction of new tank wagons for the transport of MMP between France and Spain," explains Luc Le Formal, Wascosa Sales Agent for France**



## Different track widths in Spain and France ...

There are various explanations of why the Iberian Peninsula has a different gauge. They range from conversion errors between English feet and Castilian feet, to higher cornering speeds of train compositions with a wider gauge, which was very visionary back in 1844!

The fact is, wagons arrive at Hendaye in France on the 1,435 mm UIC track, before continuing the journey at Irún in Spain on 1,668 mm wide rails. What is easy for passengers, who can simply "reload" them-





*On the move at the border between Spain and France: The new Zacns tank wagons for Adisseo.*

selves by foot, poses certain difficulties for freight wagons, and so the first transfer station was opened in Hendaye in 1950. The wagons are supported, and the brake and the incoming wheelset are released and pushed away. The outgoing wheelset is then fixed so that it is ready for use. The wagon can then continue its journey with the new gauge 90 minutes later, once a brake test has been carried out. A gauging station for freight wagons still exists today at the second border crossing between Cerbère in France and Port Bou in Spain.

#### ... no problem for Wascosa and Adisseo

Wascosa has equipped Adisseo's tank wagons with specially designed Y25Lse1 bogies and also provides sufficient wheelsets in each gauge at the border station to guarantee a smooth process. On average, each of the tank wagons passes the border between 6 and 8 times per month. And switching bogies is better, faster and more environmentally friendly than pumping 70,000 litres each time.

#### About Adisseo

Adisseo is a company committed to sustainable growth through the application of its key expertise. Adisseo is unique because of its history and also because of its industrial and research investments, which have enabled it to provide a competitive and innovative range of products and services. And finally, Adisseo is unique, in terms of its nutritional and industrial expertise, its innovation programmes, its products and services and, beyond that, thanks to the skills and dedication of all those who work for the company. Aided by these assets, Adisseo aims to be the standard-setter in animal nutrition. Its mission is to contribute to the improvement of the food chain by supporting the key players in animal nutrition.



# New-build wagon project risks – Identify early, minimise and prevent

New-build wagon procurement is a risky business. In order to be able to identify and minimise these risks for its clients at an early stage, Wascosa relies on complete project monitoring with the “Wascosa Production Module”. This quality assurance system is based on a six-stage “Quality Gate” system that helps to significantly reduce project risks.

Every wagon keeper which is involved in renewing or enlarging its fleet can relate to this fact: There are lots of risks associated with procuring new wagons which bring with them a host of potential problems. These include planning uncertainties, excess costs (initial and operating costs), delayed deadlines (production-related or approval-related), additional expense together with the associated inconveniences, quality problems in the execution process (design, functionality, options, loss or restriction of use, operational failures, supply bottlenecks, insufficient return and profitability). Without a comprehensive quality assurance system, new-build wagon projects can very quickly end up being “derailed”.

## “Wascosa Production Module”

This is the reason why Wascosa has been taking advice from recognised experts for the last 10 years. Following professional training provided by Deutsche Bahn (German Railways), an effective procurement and quality assurance concept was established to identify and minimise project risks. The “Wascosa Production Module”

includes complete project monitoring and risk management at every stage of wagon production.

With the help of a “Quality Gate” system, project risks are identified and minimised early on. The objective is to ensure that the development, manufacturing, commissioning and delivery of the new wagons are carried out in accordance with the contract, on time, on budget and in line with requirements. The contractually agreed responsibility and liability of the General Contractor remain unaffected.

## The “Quality Gate” principle

“Quality Gates” basically take the form of joint meetings between Wascosa and the General Contractor. The General Contractor outlines the specific project status and progress based on a set of criteria/checklist and also presents the critical path which needs to be followed so that the contract is completed on time and to the required quality standards. Wascosa then presents its assessment of contract fulfilment and project risks before deciding how to proceed through the Quality Gate.



Wagon acceptance of a newly built Wascosa grain hopper wagon.

### Quality Gate I: Clarification of project implementation

Quality Gate I ensures that the General Contractor has fully and completely understood the contract and has incorporated it within its project organisation and planning. As part of this gate, the dates of the other Quality Gates are agreed jointly between Wascosa and the General Contractor.

### Quality Gate II: Construction completion

Quality Gate II ensures that the development and construction of the entire wagon has been completed according to the technical description, and that the implementation of the contractually agreed requirements for every part of the wagon have been demonstrated to Wascosa.

### Quality Gate III: Approval of sub-assemblies

Quality Gate III ensures that the sub-assemblies are manufactured in accordance with the technical description, that the functional requirements are met, and that the production and testing process is handled properly by the General Contractor and its subcontractors.

### Quality Gate IV: First wagon approval

Quality Gate IV ensures that the first fully assembled but not yet commissioned wagon meets the contractually agreed implementation requirements. This must be demonstrated separately for each wagon configuration.

### Quality Gate V: Preparation for the acceptance of the first wagon of the series

Quality Gate V ensures that all requirements specified in the contract regarding the delivery of the first wagon for acceptance testing have been met.

### Quality Gate VI: Preparation of the warranty agreement

Quality Gate VI ensures that the General Contractor's warranty support complies in particular with the acknowledgement of defects in accordance with the contractually agreed requirements.



**Method of implementation**

There is a checklist for each Quality Gate. During the Quality Gate meeting, the general contractor provides answers and any documents for all of Wascosa's questions on the items on the checklist and comments on the assessment made by Wascosa. Measures are jointly agreed with responsibilities and deadlines.



**This is a service that can benefit our customers too!**

The "Wascosa Production Module", with its Quality Gate system, is a service which Wascosa is pleased to offer its customers, to enable them to significantly reduce their project risks in new-build wagon procurement. So it benefits not only the wagon keeper, but also the manufacturer and ultimately the user of the wagon.




**Interested? Then please contact us for further details at [info@wascosa.com](mailto:info@wascosa.com)**

**Assessment**

The information/documents presented by the General Contractor on the individual points of the checklist are assessed using the table below to determine their level of completion and relevance or effect with regard to the achievement of the objectives:

Completeness / plausibility / impact on the project risk	Complete = 1	More than 50% = 2	Less than 50% = 3
Plausible / no impact = 1	1	2	3
Somewhat plausible / low impact = 2	2	4	6
Not plausible / high impact = 6	6	12	18

The sum of the ratings for "completeness" and "effect on the project risk" results in a rating score for each item on the checklist. The overall score of the Quality Gate (as calculated from the individual rating scores) is indicated using a traffic-light system:

-  → No relevant risks were identified in the evaluation of the individual points from the Quality Gate criteria list.
-  → Risks were identified which require appropriate measures for minimising the risks to be implemented.
-  → Serious risks were identified which must be remedied by the contractor within a 14-day period. If they are not, an immediate clarification of the further actions to be taken will be required. This may result, if necessary, in the project being terminated.



Production steps of a grain hopper wagon.



# A lifetime of tanks and tank wagons

Dangerous goods and tanks are his job: For the past 15 years, Ernst Winkler has been Wascosa's dangerous goods officer. In addition to being a highly respected expert, he has also been a regular contributor to the Wascosa infoletter since its second issue in 2003. Nowadays, he is gradually stepping back from professional life.

## You've been writing articles for the Wascosa infoletter for almost 20 years. Are the topics still relevant today?

Ernst Winkler: Yes, many of the topics are still relevant today. For example, the differences between tank wagons and tank containers. This topic is more important than ever with the development of oversized tank containers. Then there are specific questions about the implementation of RID regulations. As early as 2010, for example, I highlighted unresolved issues concerning the date of the intermediate inspection being exceeded and the tank wagon not being marked with the letter "L" – issues that remain unresolved to this day. The topic of my first article on the filling levels of tank wagons for liquid substances is also still relevant today.

## Where do you see the greatest need for action on the regulations for transporting dangerous goods by rail (RID)?

Interoperability: There is an urgent need here to regulate the mutual recognition of tests and approvals. There needs to be an equivalent market control and implementation of the regulations in all RID Member States. Furthermore, adequate training needs to be provided in all member states to anyone involved in the dangerous goods process. The regulations should probably also be made simpler to read with clear sketches and drawings added.

## If you were faced with a career choice today, would you choose to work with "dangerous goods" again?

As a tank specialist, I moved from beer and wine tanks to hazardous goods tanks at an

early age when I was still a young mechanical engineer. First, I was responsible for testing and approving tanks at the Swiss Federal Laboratories for Materials Science and Technology (EMPA) and the Swiss Association for Technical Inspections (SVTI) / Swiss Federal Inspectorate of Dangerous Goods (EGI) as head of the large tanks division. Then I worked at the BAV Federal Office for Transport as head of the delegation for Switzerland on the international committees in the further development of rules and regulations. Finally, I was a training organiser and course leader as well as an accredited inspector for dangerous-goods safety advisers. So, it wasn't an actual career choice, but rather a vocation and a fascination that I had for the transport of dangerous goods.

## Wascosa expresses its sincere thanks

In 2006, Wascosa appointed Ernst Winkler as external dangerous goods safety adviser. Time and time again, his knowledge as a tank and dangerous goods specialist has been of invaluable assistance to the company at its training courses.

**Philipp Müller paid tribute to his professional work:** "In addition to his tremendous expertise and numerous expert opinions and statements on the further development of tank wagons as well as the development of oversized tank containers, there is one particular milestone that I share with Ernst Winkler: In 2004, together with other former EMPA and EGI employees, Ernst Winkler founded the company Retest GmbH to push for the liberalisation of tank testing and to break the monopoly of EGI at the time. A successful court case lasting one year, resulted in tank testing opening up to all accredited testing companies. We are extremely grateful to Ernst for this contribution to liberalisation, but also for all his other contributions to the safety and competitiveness of rail freight transport."





# “High cubes and high-volume Swap-bodies offer greater flexibility”

More combined transport on the railways and roads – for Wecon Managing Director Daniel Hemker, it’s all but inevitable. In addition to high cubes, which are now an essential standard, he predicts major opportunities for high-volume swap-bodies.



High cube containers in use.

“In intercontinental trade, containers are nowadays primarily used for sea freight, although they are also seeing increased use on land within the EU because they are the perfect transportation asset, suitable for road, railway and waterway transport alike. These large boxes have attracted particular attention due to the enormous volumes of goods that are shipped in them. High cubes in particular have become increasingly prevalent over the past few years”, says Daniel Hemker, Managing Director of Wecon GmbH, which specialises in goods vehicles and container technology for intermodal transport.

## Succeeding with a volumetric advantage

The success of high cube containers can be attributed to the extra space that they offer compared to standard ISO containers: They are roughly 30 centimetres greater in height and in some cases are longer as well. And depending on whether they are a 20 or 45-foot container, they offer volumes between 37.4 and 86 cubic metres, meaning up to nearly 32 square meters, which represents an enormous volumetric capacity. “As a result, freight forwarders and the transport industry can not only transport more general cargo, but with an internal height of almost 2.70 metres they can also transport very tall individual parts such as machines or components”, explains the Wecon Managing Director.

## Flexible and cost-effective

The 45-foot variant with its large loading area has extra space for up to seven more pallets than the standard ISO container. When compared, these volumetric and surface area advantages also mean greater cost-effectiveness, stresses Hemker, since users don’t need to load as many containers, thereby reducing transport distances and costs. High cubes can hold any type of general cargo, which makes using them very flexible. For instance, with the appropriate extensions and fittings, you can also use them to transport refrigerated goods or bulk freight. “And despite

their height, each high cube can also be transported on railways and roads using the Gooseneck-Tunnel”, explains Wecon’s intermodal expert.

## Over 50% market share in sea freight

Nowadays, 40-foot long high cube boxes already account for more than half of all sea containers, and for more than eight years now there have been more of them than there are standard containers. After all, American freight forwarder Malcom Purcell McLean first started using large containers for transport on lorries and ships back in 1956 – 66 years ago.







Photo: © Wecon

45-foot swap-body from Wecon with support legs.

Nowadays, high cubes have become virtually a standard in the maritime transport business. Wecon's Managing Director predicts that sooner or later, road and rail will go the same way as well. But what he has observed is that the trend in continental freight transport is also moving towards transport systems with high-volume swap-bodies.

#### High-volume swap-bodies – a great alternative on land

"We have detected increased demand for custom-designed and configurable high-volume swap-bodies like our Emperor model", points out Hemker. Customers order design variants from him – some of which are original, customised products – in order to capitalize on their competitive advantages via freight transport special

applications. "Customers use individuality and flexibility to create differentiating factors, which our vehicles must deliver accordingly", explains Hemker.

Some of the challenges involved include extremely low floor assemblies for more loading space while at the same time offering stability for loading by crane. Wecon's Managing Director expects that ideas will emerge from research and development – particularly where there is an interface between road and rail: "We can expect to see some future innovation when it comes to combining transport modes."

#### Tare weight, volume and payload: a challenging trio

Less tare weight, greater volume, higher payload: Hemker believes that high-vol-

ume containers have the advantage in terms of these three challenges: "They offer greater flexibility compared to ISO containers. On 45-foot long, high-volume swap-bodies alone, the configuration with a lateral sliding curtain and sliding cover offers lots of options, such as loading and unloading from four sides." The high-volume swap-body range includes model variants for the beverage industry which can accommodate 34 Euro pallets, a model for the steel industry with coil troughs that are 8.5 meters in length or for the automotive industry with 34 spaces for three stacked cages per space. Furthermore, high-volume swap-bodies are approved for railway transport once they have undergone the appropriate approval process.



## ROLLOUT EVENT

Victoria Station, London UK  
June 28<sup>th</sup> 2022  
Sign up and get your free VIP ticket!

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# Calendar of events

Due to the current situation in Ukraine as well as the Covid-19 pandemic, there may be changes in dates, venues and the format of the events (e.g. online). Please consult the individual websites of the event organisers for the definitive dates and event types.

Date	Event	City	Website
30.05. - 01.06.2022	11th International Railway Summit	Berlin, DE	<a href="http://www.irits.org">www.irits.org</a>
31.05. - 02.06.2022	28th International Exhibition for Track Technology (iaf)	Münster, DE	<a href="http://www.iaf-messe.com/en/">www.iaf-messe.com/en/</a>
31.05. - 02.06.2022	SIL Barcelona	Barcelona, ES	<a href="http://www.silbcn.com/en/">www.silbcn.com/en/</a>
01.06.2022	UIC International Sustainable Railway Awards (ISRA)	Berlin, DE	<a href="https://sustainable railway.awardstage.com">https://sustainable railway.awardstage.com</a>
06. - 10.06.2022	World Congress on Railway Research 2022	Birmingham, UK	<a href="https://shift2rail.org/events/">https://shift2rail.org/events/</a>
13. - 15.06.2022	Smart Rail Europe	Rome, IT	<a href="https://smartrailcongress.com">https://smartrailcongress.com</a>
14. - 16.06.2022	Multimodal	Birmingham, UK	<a href="http://www.multimodal.org.uk">www.multimodal.org.uk</a>
15. - 17.06.2022	UNIFE General Assembly	Paris, FR	<a href="http://www.unife.org/activities/general-assembly-2022/">www.unife.org/activities/general-assembly-2022/</a>
20. - 22.06.2022	VDV-Annual Meeting	Frankfurt a.M., DE	<a href="http://www.vdv.de/vdv-jahrestagung.aspx">www.vdv.de/vdv-jahrestagung.aspx</a>
21. - 23.06.2022	RailTech Europe	Utrecht, NL	<a href="http://www.railtech-europe.com">www.railtech-europe.com</a>
22.06.2022	VPI-Member Meeting and Get Together 2022	Berlin, DE	<a href="http://www.vpihamburg.de">www.vpihamburg.de</a>
23.06.2022	22nd Technical Information Day	Berlin, DE	<a href="http://www.vpihamburg.de">www.vpihamburg.de</a>
24. - 25.08.2022	CRSC Information Day and Member Meeting	Halberstadt, DE	<a href="http://www.crsc.eu.com">www.crsc.eu.com</a>
07. - 08.09.2022	Rail Freight Summit	Warsaw, PL	<a href="https://events.railfreight.com">https://events.railfreight.com</a>
08.09.2022	RFG Awards Dinner	London, UK	<a href="http://www.rfg.org.uk">www.rfg.org.uk</a>
14. - 16.09.2022	17th International Conference on Critical Information Infrastructures Security (CRITIS)	Munich, DE	<a href="https://critis2022.comtessa.org">https://critis2022.comtessa.org</a>
16. - 22.09.2022	European Mobility Week	Europe	<a href="https://mobilityweek.eu">https://mobilityweek.eu</a>
20. - 23.09.2022	InnoTrans 2022	Berlin, DE	<a href="http://www.innotrans.de">www.innotrans.de</a>
04. - 06.10.2022	EPCA Annual Meeting	Berlin, DE	<a href="https://epca.eu">https://epca.eu</a>
05.10.2022	RFG Annual Conference	London, UK	<a href="http://www.rfg.org.uk">www.rfg.org.uk</a>
05. - 07.10.2022	International Rail Forum Conference (IRFC)	Prague, CZ	<a href="https://irfc.eu/en/">https://irfc.eu/en/</a>
12. - 13.10.2022	Rail Infra Forum	Germany	<a href="https://events.railtech.com/rail-infra-forum-2022/">https://events.railtech.com/rail-infra-forum-2022/</a>
19. - 20.10.2022	Rail Freight on Tour	Debrecen, HU	<a href="https://events.railfreight.com">https://events.railfreight.com</a>
19. - 21.10.2022	Deutscher Logistik-Kongress (German Logistics Conference)	Berlin, DE	<a href="http://www.bvl.de/dlk">www.bvl.de/dlk</a>
07. - 09.11.2022	9th International Transport & Logistics Exhibition	Warsaw, PL	<a href="https://translogistica.pl/en">https://translogistica.pl/en</a>
08. - 10.11.2022	Intermodal Europe	Amsterdam, NL	<a href="https://www.intermodal-events.com/en.html">https://www.intermodal-events.com/en.html</a>
09.11.2022	Scandinavian Rail Optimisation	Stockholm, SE	<a href="https://scandinavianrail.co.uk">https://scandinavianrail.co.uk</a>
14. - 17.11.2022	Transport Research Arena (TRA)	Lisbon, PT	<a href="https://traconference.eu">https://traconference.eu</a>
15. - 17.11.2022	Intelligent Rail Summit 2022	As yet unscheduled	<a href="https://events.railtech.com/intelligent-rail-summit-2022/">https://events.railtech.com/intelligent-rail-summit-2022/</a>
29.11. - 01.12.2022	Rail Live 2022	Málaga, ES	<a href="https://www.terrapinn.com/conference/rail-live/">https://www.terrapinn.com/conference/rail-live/</a>
07. - 08.12.2022	European Silk Road Summit	Duisburg, DE	<a href="https://events.railfreight.com">https://events.railfreight.com</a>
08.12.2022	101st UIC General Assembly	Paris, FR	<a href="https://uic.org/events/">https://uic.org/events/</a>

## Impressum

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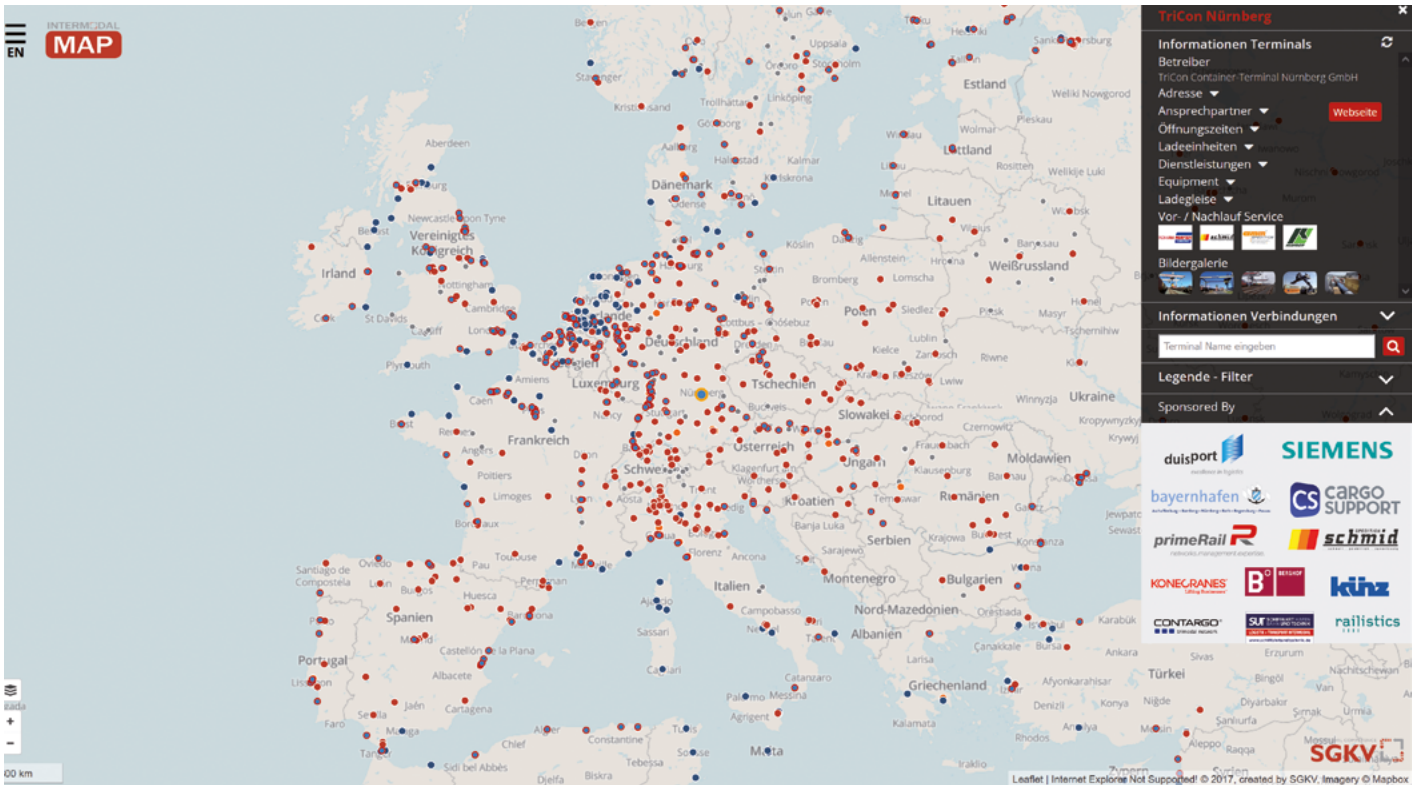


# Intermodal-Map.com – The most comprehensive, neutral source of information for terminals in Europe and beyond

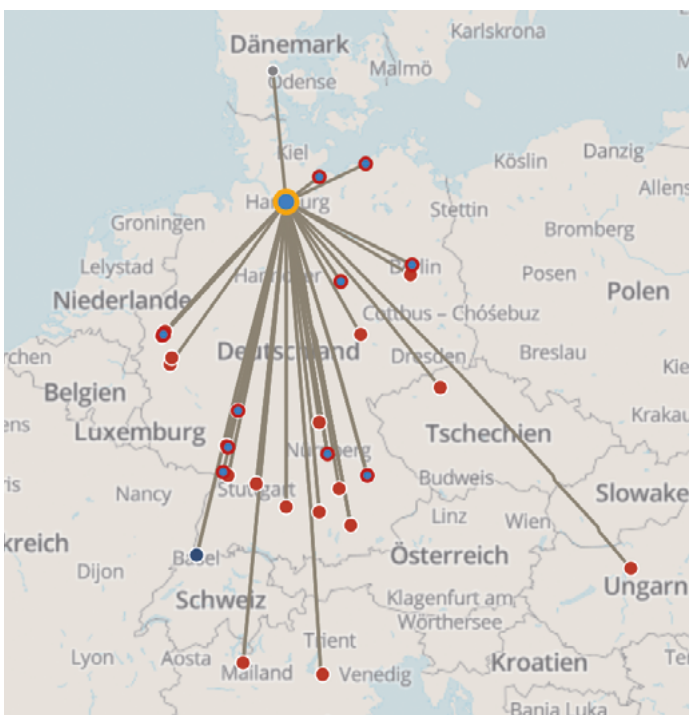
The Intermodal Map provides a comprehensive representation of all relevant information in a clear and intuitive map format. Information on services, contact persons and contact information, connec-

tions via rail, water or road along with all the relevant additional information, as well as providers of pre- and on-carriage services, are available for all terminals where information has been collected by the termi-

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Currently, the interactive Intermodal Map features 1973 terminals and depots throughout Europe and beyond. In the medium term, the objective is to map CT terminals worldwide.



INTERMODAL COMPETENCE

# SGKV

Intermodal-Map.com is operated by the CONTARGO SGKV German Promotion Centre for Intermodal Transport (Studien-gesellschaft für den Kombinierten Verkehr e.V.). The objective of this association is to promote and develop combined transport by bringing research and practice together.

[www.intermodal-map.com](http://www.intermodal-map.com)

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Example: Hamburg South-West Terminal: Overview of combined transport (CT) connections.