

VCI position on

Strengthening combined transport

Mobility in the transport of goods is an essential prerequisite for the competitiveness of industry and economic growth. This needs a strong logistics system where combined transport (CT) as a growth segment has an important role for the chemical industry – for efficient and environmentally sound transportation. However, measures must be taken to increase the attractiveness of CT; only then can its share further increase.

In the year 2017, CT accounted for 25% (= 88 million tonnes) of total rail freight transport (= 349 million tonnes) and 11% (= 22.7 million tonnes) of total inland waterway transport (223 million tonnes). In the period from 2005 to 2016, the volumes transported in CT in Germany rose by just under 60%. 111.5 million tonnes were transported in CT in 2017¹, as compared with 70.3 million tonnes back in 2005.

The reasons for these increases – and thus for the advantages of CT – are obvious. It combines the advantages of rail or inland waterways for the main carriage (environmentally sound, lower burden on roads, increased transport safety) with those of road transport for the pre- and on-carriage (high flexibility, higher payload in CT [44 t]) and is therefore used increasingly, also by the chemical industry. For the chemical industry CT has the highest potential in continental transport of bulk (unpacked) goods as well for hinterland connectivity of seaports.

Importance of combined transport for the chemical industry

The structure of CT in the chemical industry is mainly characterised by

- unaccompanied CT where only loading units are transported and transhipped,
- a particularly high volume of liquid and bulk goods in tank- and silo- as well as packaged goods in box-containers, cranable trailers and swap bodies,
- a volume focus on the north-south axis, from chemical industry locations in Germany and the Benelux to Switzerland, Austria and Italy,
- for geographical reasons, a high share of CT for transports to the United Kingdom, Ireland and Scandinavian countries.

¹ Source: Studiengesellschaft für den Kombinierten Verkehr, Zahlen und Fakten 2018, Reporting year 2017 - There is no differentiation by freight departments. Consequently, there is no database for the share of chemical products transported, either.

In order to enable chemical industry shippers to continue and more so, even increasingly make use of the advantages of CT (e.g. on additional routes), they require the performance and reliability of CT to be improved significantly. Only then, CT will be able to contribute to

- coping with the expected significant increase of transport volumes over the next years,
- creating the prerequisites for the politically desired shift from road to rail,²
- ensuring investment security for the chemical industry (plant construction with special loading and unloading facilities for containers as well as rail systems in large chemical plants), and
- intensifying the use of rail freight transport as a major contribution to reducing the carbon footprint of freight transport operations.

Measures to improve combined transport

With a view to increasing the efficiency and reliability of CT and to ensure good access to the CT network, against the above-described background particularly the following aspects should be considered and suitable measures should be taken:

■ Terminal

- Ensure sufficiently suitable³ CT terminal capacities in the conurbations and sales markets of the chemical industry.
- Launch a systematic review and overarching, well-coordinated planning of an optimal network structure of CT terminals regarding their availability and range of services (e.g. spatial density and proximity to loading and unloading points, terminal opening hours, terminal capacities, suitability of transshipment facilities, adequate offers of train connections and their departure frequency)⁴.
- Ensure defined infrastructure planning: Avoid an uncoordinated “uncontrolled growth” of often insufficiently productive and, therefore, uneconomical CT terminals.
- Safeguard sufficient storage capacities (more buffer storage space) in the terminals to avoid bottlenecks (reduced waiting times).

² See White Paper on Transport of the European Commission (2011) [[Link to White Paper](#)].

³ Compliance with TEN-T infrastructure parameters, in particular according to Articles 12 and 39 of REGULATION (EU) No 1315/2013 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 December 2013 on Union guidelines for the development of the trans-European transport network [[Link to Regulation](#)].

⁴ See also UIRR request for a definition of "suitable terminal" according to the "Amendment of the CT Directive 92/106 - the sector proposal to the triologue negotiators" of 8.1.2019 [[link to UIRR position](#)].

- Ensure adequate road access (sufficient capacity/optimal traffic management to avoid tailbacks)
 - Reliably provide sufficient entry and exit tracks as well as marshalling yard capacities and the existence of shunting and siding tracks to optimise the interface between terminal and rail network.
 - If there is no terminal availability, make the existing restrictions more flexible (e.g. exceeding the 150 km distance rule in the preliminary leg should be permissible in justified individual cases).
 - Drive forward the standardisation of loading units as the basis for automated and innovative transshipment techniques.
 - Improve the connection of the terminals (on the first and last mile) and thus ensure the punctual handover and takeover of CT trains to and from the terminals.
 - Another aspect is the need for a potential link between transshipment (through the CV terminal) with intermediate storage facilities for buffer stocks (also for dangerous goods). Currently, CT terminals are used exclusively for transshipment. However, it would be desirable to extend the range of services by supplementing CT transport chains with intermediate storage facilities (intermediate stopover for transport reasons) close to terminals (volume bundling). This would certainly make another contribution to increasing the volume share of CT in the total volume of goods transport.
- **Rail infrastructure: planning and construction / maintenance and repair**
- Under procedural law, replacement new buildings should be treated as repairs and not as new buildings (faster approval procedure, demand to politicians).
 - Create or further develop a more consistent European corridor management along the main corridor routes, connecting routes between corridors, as well as alternative routes in the event of planned or unplanned route interruptions.
 - Carrying out and implementation of infrastructure planning which is coordinated at national, regional and European levels (systematic and consistent implementation of the TEN-T master plan for rail freight corridors as well as furthergoing requirements).
 - Optimisation of funding incentives (in particular, for maintenance and repairs).
 - Increasing the transport capacities for rail freight transport, especially along heavily used main lines.
 - Construction of additional railway lines as alternative or relief lines, and extend the tunnel profiles for CT (P400).

- Giving consideration to the specific requirements of freight transport as regards train length (740 metres), train weight (2,000 t with 1 locomotive), avoidance of double traction and bank engines as well as overtaking and parking lanes (necessary production resources in mixed transport: passengers/goods). ECTS expansion to increase the frequency of trains, in order to increase train capacities.
 - Improve the national and cross-border coordination and provide early information on forthcoming construction sites in the rail network.

- **Capacity management: train path allocation and operation**
 - Providing sufficient capacities for rail freight transport; where possible, exclusively for rail freight transport (avoiding conflicts with passenger trains).
 - When allocating train paths, ensuring that it is coordinated at European level and meets the operational needs and requirements of CT operators and railway undertakings.
 - Improving international cooperation between infrastructure managers and railway undertakings (particularly in the event of incidents), taking into account the specific requirements of freight transport regarding staff resources and incident management for freight trains running at weekends (freight trains run seven days a week and must not be at disadvantage compared to passenger train timetables which are currently changed at weekends).

- **Railway undertakings and inland waterway transport**
 - Setting up initiatives to recruit qualified personnel (in particular, train drivers and skippers), in order to counter the demographic development.
 - Reducing the system-related costs in the main leg (e.g. infrastructure costs) to increase the economic viability of intermodal transport chains.
 - Establishing and implementing the masterplan for inland navigation (“Masterplan für die Binnenschifffahrt”) which defines measures to increase the attractiveness of inland navigation in CT, such as for example:
 - Creating further (trimodal) connections and their optimisation in terms of terminal capacities and operation, both in seaports and in the hinterland.
 - Improving time window management and accessibility of terminals in seaports (better time coordination of inland navigation schedules with the priority lay times of seagoing vessels).
 - Increasing the transport capacities for inland waterway container transport by barge (e.g. raising the height of bridges to enable carriage of containers stacked in 2- and 3-high layers).

- Faster implementation of urgently necessary lock renovation and modernisation.
- Removal of structural bottlenecks on the Middle and Lower Rhine (levelling and dredging of river bed) to reduce the consequences of low water periods.

■ **Integration of modes of transport and transport chain formation by forwarders**

Furthermore, it is important to improve the bundling of part loads in the field of packaged goods (this is a potential that has so far been utilised only to a limited extent: exploitation of synergy effects to increase productivity). Such bundling is currently very difficult due to the strict timing of transports. In order to optimise it, CT should be adapted to such transport timing (or vice versa). This requires the following:

- Either a holistic time window management by the system forwarder (integration of CT in the main leg of the system forwarder: preliminary leg – main leg – subsequent leg coordinated with each other);
- or cross-system planning (linking terminals with logistics centres);
- as well as concepts to involve medium-sized industry at the regional locations.

■ **Digitalisation**

Digitisation is particularly important because of the large number of actors and interfaces in CT. Therefore, the following points are paramount for a fully digital and transparent transport chain:

- Paperless document management (electronic);
- cross-system tracking and tracing (open data concept) including the preliminary leg on the road, in order to increase visibility and to optimise terminal operation; and
- needs-based, proactive reporting of delays, including provision of reliable ETA⁵, at terminals as well as at loading or unloading points⁶.

■ **Quality management**

- In coordination with all parties involved in the provision of services: Establishment of a holistic (and thus more effective) quality management system for the purpose of measuring and managing the reliability (punctuality) of CT on selected international rail freight routes ("end-to-end" = from CT terminal to CT terminal, uniformly defined at European level):

⁵ Estimated Time of Arrival

⁶ See also projects "KV 4.0" [\[link to KV 4.0\]](#) and "ELETA" (Electronic ETA) project [\[link to ELETA\]](#).

- measuring the punctuality of departures from and arrival in terminals and at selected route and handover points;
- stating the provisioning times of loading units in the terminals for efficient subsequent leg steering;
- measuring the degrees of delay on a time scale, in a meaningful gradation ranging from 30 minutes up to delays of more than 6 hours;
- gathering information to find out what and who causes delays;
- establishing and conducting “quality circles”, for the purpose of jointly determining improvement measures (infrastructure managers, railway undertakings, CT operators, terminal operators, logistics service providers and representatives of shippers at a round table);
- increasing transparency on the development (trend) of quality (punctuality).

■ **Special requirements of the chemical industry**

The chemical industry needs sufficient possibilities for the transport and transshipment of temperature-controlled as well as dangerous goods. Terminals and CT trains often lack facilities for the heating and temperature monitoring of goods requiring temperature management during interim storage and transit, requiring the installation of suitable plug-in facilities for thermo-containers and trailers.

Demands on transport policy, the German Federal Ministry of Transport and rail freight transport authorities

- In the course of establishing the “Single European Railway Area”, the European cooperation must be further intensified. In this connection, the following aspects are of special importance:
 - Optimise and strengthen the role of European rail freight corridors as the basis and driver for the harmonisation of processes and concepts – in order to improve the performance of cross-border rail freight transport along the corridor routes⁷;
 - support the European Union Agency for Railways (ERA) in the implementation of its mandate to harmonise the various national provisions and regulations for international rail freight transport. This includes the Europe-wide harmonisation and simplification of operating rules (e.g. operating language) as the basis for a better use of train capacities and staff resources; and
 - harmonise the technical requirements to equipment in order to increase interoperability.

⁷ Definition in the context of the forthcoming review of EU Regulation 913/2010

- Funding guideline for CT (expand funding in favour of CT), e.g. de minimis funding for the use of standardised loading units, national adoption of Europe-wide uniform definitions in combined transport and harmonised implementation of the CT Directive 92/106/EEC (or its forthcoming review) and thus ensuring the continuity of cross-border CT transports.
 - Continue and intensify the European dialogue and further cooperation in respect of the 2016 Rotterdam Ministerial Declaration: also support implementation of the Sector Priorities⁸ derived from the 2016 Rotterdam Sector Statement “Boosting International Rail Freight”.
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- Reduce bureaucracy / speed up approval procedures.
 - Review the provisions from other legal areas as to whether they are counter-productive for CT.

Conclusion

The further development and expansion of CT requires consistent implementation of the measures outlined in this document. Only with this help will it be possible to successfully meet the challenges that are facing freight transport as a system in its entirety.

⁸ [Link to Sector Statement](#)

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The VCI represents the politico-economic interests of around 1,700 German chemical companies and German subsidiaries of foreign businesses. For this purpose, the VCI is in contact with politicians, public authorities, other industries, science and media. The VCI stands for more than 90 percent of the chemical industry in Germany. In 2018, the German chemical industry realised sales of over 204 billion euros and employed ca. 462,000 staff.