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Rail freight: CIM, SMGS and track gauge

Block trains and single wagonload, wagon types, 1435 and 1520 mm gauge, the CIM consignment note, SMGS, the common CIM/SMGS note, carrier liability and the Middle Corridor

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SHORT ANSWER

International rail freight is governed by CIM, Appendix B to COTIF, when the places of taking over and delivery are in two different OTIF Member States; Türkiye is a Member State. The contract is confirmed by a CIM consignment note, and the carrier's liability for loss is limited to 17 SDR per kilogram of gross mass short. SMGS applies in Eastern Europe and Asia; between the two areas, the common CIM/SMGS note avoids rewriting the note at the border. Between the 1520 mm lines of the Caucasus and Central Asia and Europe's 1435 mm lines, cargo is transhipped or wagon bogies are exchanged.

Block trains and single wagonload

Rail freight is produced in two basic ways. Which one suits you depends on your volume and on how close your destination is to the line.

- **Block train:** a freight train whose wagons are all of a similar specification and which runs from one origin to one destination without being remarshalled on the way. It often carries a single commodity, but it can also be made up of container wagons. The definition comes from the common glossary of Europe's rail infrastructure managers (RNE).
- **Single wagonload:** wagons from different consignors are assembled into one train at a marshalling yard in the region of origin. At a marshalling yard in the region of destination the train is broken up again, and the wagons travel separately to their final destination. According to RNE, this service needs a more complex organisation, a large network and enough scale.

What it means in practice. This paragraph is our own reading of the definitions. If you have regular volume that can fill a train, a block train is more predictable because it does not wait at intermediate yards. If your volume is limited to a few wagons, single wagonload opens the door, but every marshalling point adds time. Container trains sit between the two: they gather containers from different shippers into one block train.

Wagon types

In Europe, freight wagons are classified by a **category letter** marked on the wagon. The list below comes from the letter-marking appendix published by the European Union Agency for Railways (ERA). Small index letters added after the capital letter describe the wagon in more detail; here we give only the main categories.

Letter	Category
E	Open high-sided wagon
F	Open high-sided wagon, special type
G	Covered wagon
H	Covered wagon, special type
I	Temperature-controlled wagon
K	Two-axle flat wagon, ordinary type
L	Two-axle flat wagon, special type
O	Mixed flat and open high-sided wagon
R	Bogie flat wagon, ordinary type
S	Bogie flat wagon, special type
T	Wagon with opening roof
U	Special wagons
Z	Tank wagon

The wagon is chosen together with the carrier, based on the type of cargo, its weight and how it will be loaded. Dangerous goods by rail also fall under RID; see **Dangerous goods transport: IMDG and ADR**. For out-of-gauge cargo, see **Project cargo and out-of-gauge loads**.

Containers and combined transport: the rail side

The difference between multimodal, intermodal and combined transport, swap bodies, accompanied transport (RoLa) and the Türkiye–Trieste link are covered in **Intermodal and combined transport**. Here we look only at three points that matter for the rail contract:

- **CIM recognises the loading unit.** The CIM Uniform Rules define containers, swap bodies, semi-trailers and similar loading units as "intermodal transport units" (Art. 3).
- **There is a separate consignment note specimen for combined transport.** The CIM consignment note manual (GLV-CIM) of the International Rail Transport Committee (CIT) includes a separate CIM note for combined transport, on which the unit's number, type and gross mass are entered.
- **The road leg can fall under CIM.** Carriage by road or inland waterway in the internal traffic of a Member State that supplements a cross-border rail carriage is also subject to CIM when it is part of a single contract (Art. 1 §3). A sea leg falls under CIM only on services listed under Article 24 of COTIF (Art. 1 §4).

The reverse also exists: if a loaded truck or trailer travels part of the way by train without the goods being unloaded, the contract stays under CMR. That rule is explained in **The CMR Convention and the consignment note**.

Track gauge: 1435 and 1520 mm

Track gauge is the distance between the inner edges of the two rails. Europe's standard gauge is **1435 mm**, and the EU's TEN-T Regulation, renewed in 2024, provides for migration of the network to this gauge. According to a 2023 World Bank report, the lines on the Kazakhstan, Azerbaijan and Georgia section of the Middle Corridor are **1520 mm**.

Where the gauge changes, a train cannot simply carry on. The break is handled in one of two ways: the cargo, usually a container, is transferred from one train to another, or the wagons' bogies are exchanged. Both add time and cost, so the capacity of these border points sets the capacity of the corridor.

Section	Track gauge	Source
China (up to the Kazakh border)	1435 mm	Railway Gazette, 14.06.2021
Kazakhstan, Azerbaijan, Georgia	1520 mm	World Bank, November 2023
Akhalkalaki (Georgia) – Kars – Türkiye	1435 mm	Railway Gazette, 2017
European standard	1435 mm	EU TEN-T Regulation 2024/1679

The Caucasus link. The Baku–Tbilisi–Kars (BTK) railway opened on 30 October 2017. The Marabda–Akhalkalaki section in Georgia is 1520 mm, the new line to Kars is 1435 mm, and the gauge changes at a facility in Akhalkalaki. After reconstruction, the line was opened at full capacity at a ceremony in Akhalkalaki on 2 June 2026. Kazakhstan's Ministry of Transport reported that annual freight capacity rose from 1 million to 5 million tonnes. A trade press report on the opening says wagons switch from 1520 mm to 1435 mm at the Akhalkalaki terminal by bogie exchange.

The China–Kazakhstan border. Kazakhstan's 1520 mm network meets China's 1435 mm lines at the Dostyk border, where the break of gauge is handled at transhipment terminals.

COTIF and CIM: which carriage do they cover?

COTIF is the Convention concerning International Carriage by Rail. It is administered by the Intergovernmental Organisation for International Carriage by Rail (**OTIF**); today's text is the 1980 Convention as amended by the 1999 Vilnius Protocol. COTIF has seven appendices. The **CIM Uniform Rules**, which govern the contract for the carriage of goods, are **Appendix B**. According to OTIF, this text entered into force on 1 July 2006, and its latest amendment entered into force on 1 May 2016. Türkiye is an OTIF Member State; OTIF's list of members also includes Georgia, Azerbaijan, Iran and Russia, but not Kazakhstan.

CIM applies to every contract of carriage of goods by rail for reward when the place of taking over and the place of delivery are in **two different Member States** (Art. 1 §1). If only one of those places is in a Member State, the parties can agree that the contract is subject to CIM (Art. 1 §2).

The legal framework in Türkiye. International carriage is subject to CIM. The carriage provisions of the Turkish Commercial Code leave special rules on carriage by rail in place (TCC Art. 852). Rail operations were liberalised by Law No. 6461 (Official Gazette, 1 May 2013). Under that law, public legal entities and companies may become train operators on the national network once authorised by the Ministry (Art. 6). If a forwarder organises the carriage, see **Operator licences for international carriage in Türkiye** for its licence.

The CIM consignment note

Under CIM, the contract of carriage is confirmed by a **consignment note** that follows a uniform model. If the note is missing, irregular or lost, the contract is still valid (Art. 6 §2). The consignor and the carrier sign it (Art. 6 §3). A separate note is made out for each consignment; unless agreed otherwise, one note may not cover more than one wagon load (Art. 6 §6). The note may also be an electronic record, provided it is functionally equivalent to the paper note (Art. 6 §9).

The required entries are listed in CIM Art. 7. Besides the consignor, carrier, consignee, description of the goods and their mass, the note must state that the carriage is subject to CIM, notwithstanding any clause to the contrary. The note's evidential value and how it differs from other transport documents are covered in **Transport documents compared**; the note is not a document of title.

The paper note and its sheets. According to CIT's GLV-CIM manual, the paper note is a pad of five numbered sheets:

Sheet	Name	Kept by
1	Original of the consignment note	Consignee
2	Invoice	Carrier at destination
3	Arrival note / customs	Customs or the destination carrier
4	Duplicate of the consignment note	Consignor
5	Duplicate invoice	Forwarding carrier

Practical points for the consignor:

- **You fill in boxes 1 to 30**; unless agreed otherwise with the carrier, these boxes belong to the consignor (GLV-CIM).
- The note is completed in one or more languages, one of which must be **English, French or German**; the parties may agree other arrangements (GLV-CIM).
- **Agree in writing who loads.** Without an agreement, the carrier loads packages and the consignor loads full wagon loads (CIM Art. 13 §1). If you loaded the goods yourself, the carrier can rely on a special-risk exemption for damage caused by poor loading (Art. 23 §3).
- **Customs.** For consignments within the EU customs territory or under the common transit procedure, the note must meet the requirements of CIM Art. 7 (Art. 6 §7). The note has a box for the MRN of the customs declaration. The transit procedure itself is covered in **Transit shipments and customs transit**.

Transit period. The parties agree the transit period. Without an agreement, it may not exceed the maximums in CIM Art. 16 §2:

Consignment	Period for consignment	Period for carriage
Wagon load	12 hours	24 hours for each 400 km or fraction thereof
Less than a wagon load	24 hours	24 hours for each 200 km or fraction thereof

The period starts when the goods are taken over and does not run on Sundays and statutory holidays (Art. 16 §4).

SMGS and OSJD

SMGS is the international rail freight agreement applied in Eastern Europe and Asia. Its secretariat is run by the Organisation for Co-operation between Railways, **OSJD**, founded at a conference of railway ministers in Sofia on 28 June 1956. According to CIT's 2017 comparison guideline:

- SMGS first entered into force on 1 November 1951 and was completely revised with effect from 1 July 2015.
- SMGS is an agreement **between states**, not between railway companies.
- Its official language versions are **Russian and Chinese**.
- Most OSJD members apply SMGS; some of them are also OTIF Member States.

This is why the World Bank's 2023 report describes the Middle Corridor as a meeting point of two rail transport law systems: OTIF with the CIM consignment note on one side, OSJD with the SMGS consignment note on the other.

Note. We could not open and read the SMGS text itself for this page. In the comparison below, the SMGS column comes from CIT's 2017 guideline, which is based on the SMGS text of 1 July 2015, and contains no figures. For a shipment under SMGS, ask your carrier for the current text.

The common CIM/SMGS consignment note

For cargo moving between the CIM and SMGS areas, the classic method is to rewrite the SMGS note as a CIM note (or the other way round) at the **reconsignment point** on the border. The **common CIM/SMGS consignment note** replaces this: the same document is used as a CIM note where CIM applies and as an SMGS note where SMGS applies. Source: GLV-CIM/SMGS, the joint manual of CIT and OSJD (July 2021 edition).

- **Legal basis:** CIM Art. 6 §8 and SMGS Art. 13.
- **Two separate contracts:** the reconsignment point is the destination of the first contract and the forwarding station of the second. Acceptance there counts as delivery under the first contract. The point is entered in box 29. So even with one document, two transport laws apply along the route.
- **Format:** six numbered A4 sheets. Each box is marked CIM, SMGS or both. Box headings are in two or three languages: one is Russian, another English, French or German. Chinese is added for China.
- **Customs:** the common note can also be used as a customs document.

- **Status:** the manual is a recommendation and binds CIT and OSJD members only to the extent they adopt it.

What this means for Türkiye. The participant list in the 2021 edition of the manual includes Georgia, Azerbaijan and Kazakhstan, but not Türkiye. For a Eurasian shipment to or from Türkiye, get written confirmation from your carrier of which note will be used and up to which point.

Carrier liability: limits and time bars

Under CIM, the carrier is liable for total or partial loss of, and damage to, the goods between taking over and delivery, and for exceeding the transit period, whatever the railway infrastructure used (Art. 23 §1). The figures below are taken from the CIM text. The "unit of account" in CIM is the IMF's SDR (COTIF Art. 9).

Item	CIM (COTIF Appendix B)	SMGS (per CIT's 2017 guideline)
Loss	Up to 17 SDR per kilogram of gross mass short (Art. 30 §2)	No per-kilogram limit; compensation up to the value of the goods
Damage	Equal to the loss in value of the goods (Art. 32)	Not specified separately in the guideline
Delay	Loss caused by delay, up to four times the carriage charge (Art. 33 §1); not added to compensation for total loss (Art. 33 §2)	Compensation is payable; see the SMGS text for the limit
Raising the limit	Declaration of value (Art. 34) or of special interest in delivery (Art. 35)	—
Losing the limit	Intent, or recklessness with knowledge that loss would probably result (Art. 36)	No such rule, because the full value applies
Time bar	1 year; 2 years in certain cases such as intent or recklessness (Art. 48 §1)	See the SMGS text for the period; not extended for wilful misconduct

Special risks. If the loss could have arisen from carriage in open wagons, inadequate packing, loading by the consignor, an incorrect description or the carriage of live animals, CIM presumes it did; the claimant must prove otherwise (Art. 23 §3, Art. 25 §2).

Wastage in transit. For goods that lose mass by their nature, the carrier is not liable for wastage up to 2% of the mass for liquid or moist goods and 1% for dry goods (Art. 31 §1).

Time limits.

- Accepting the goods generally extinguishes rights of action for partial loss, damage or delay (Art. 47 §1). The exceptions are listed in Art. 47 §2.
- If loss or damage that was not apparent at delivery is discovered after acceptance, ascertainment must be requested no later than **7 days** after acceptance (Art. 47 §2).
- The limitation period runs from the 30th day after the transit period expires for total loss, and from the day of delivery for partial loss, damage or delay (Art. 48 §2).
- The claim is made in writing to a carrier against whom an action may be brought (Art. 43 §1): the first carrier, the last carrier or the carrier that performed the section where the loss occurred (Art. 45 §1).

Example. A 20,000 kg wagon load is totally lost. Under CIM the limit is 20,000 × 17 = 340,000 SDR. By road under CMR, the same cargo would be limited to 20,000 × 8.33 = 166,600 SDR. If the cargo is worth more, the difference is uninsured. For a comparison across modes and cargo insurance, see **Carrier liability and cargo insurance**; for the claim file, see **Cargo damage and the claims process**.

The Middle Corridor and the link to Europe

The Middle Corridor (Trans-Caspian International Transport Route) links China with Europe through Central Asia and the Caucasus, combining rail with Caspian and Black Sea crossings. The route itself is described in **Two corridors from Türkiye**. Here are the data points that matter for rail, with their dates:

- **Transit time (2022).** According to the World Bank's November 2023 report, moving cargo from Dostyk or Khorgos on the Chinese border to Constanta in Romania took 50–53 days on average in 2022. The same report says the time via Türkiye was significantly lower (40–45 days), but capacity was limited.
- **Bottlenecks.** The report links the greatest delays to intermodal transfers in ports. It recommends simpler border procedures, better vessel availability and port productivity on the Caspian and Black Sea crossings, and a paperless consignment and pre-notification system.
- **Target.** The report projects that, with the right policies and investments, volumes could triple and travel time could halve by 2030. This is a target, not an outcome.
- **BTK (June 2026).** The line opened at full capacity on 2 June 2026, with an announced annual capacity of 5 million tonnes (see track gauge).

Towards Europe. Türkiye's line to Kars and the European network use the same 1435 mm gauge. For a shipment from Türkiye to Europe, if the countries of departure and destination are OTIF Member States, the contract is subject to CIM from start to finish. For Türkiye's rail share of exports and data by direction, see **Choosing a transport mode**.

Capacity, frequency and transit times on these corridors change quickly. Check the date of every figure in this section, and confirm the current situation with your carrier before asking for a quote.

Which courses cover this topic?

In our course map, rail freight and CIM is a dedicated course in 4 programmes and part of another course in 27. In Eskişehir Technical University's rail systems associate degree, the subject is split across several courses.

- Giresun University — Logistics Management (BA) — Rail Transport
- Osmaniye Korkut Ata University — International Trade and Logistics (BA) — Rail Transport
- Kastamonu University — International Trade and Logistics (BA) — Road and Rail Transport (AİS001)
- Eskişehir Technical University, Vocational School of Transportation — Rail Systems Management (associate degree) — Rail Transport I and II (RAY227, RAY226); in the same programme, Rail Systems Traffic (RAY102), New Approaches in Rail Traffic Management (RAY266) and Rail Systems Cost Analysis (RAY238)
- University of Antwerp — Master of Maritime and Logistics Management — Antwerp rail school (2143TEWKOO)

Where to go next in the guide

- Mode definitions, loading units and RoLa: **Intermodal and combined transport**
- How the CIM note differs from other documents: **Transport documents compared: bill of lading, sea waybill, AWB, CMR and CIM**
- Limits and insurance: **Carrier liability and cargo insurance**; notices and the claim file: **Cargo damage and the claims process**
- The customs side: **Transit shipments and customs transit**
- Comparison with road: **International road freight: CMR, FTL and groupage, road permits**
- Mode choice and emissions: **Choosing a transport mode**
- Who organises the carriage: **What does a freight forwarder do?**

Test yourself

1. A consignment note was issued for a wagon load from Türkiye to Germany, but the statement that the carriage is subject to CIM was left out. Is the contract subject to CIM? *(Answer: Yes. The places of taking over and delivery are in two different Member States, so CIM applies (Art. 1 §1). An irregular note does not affect the validity of the contract (Art. 6 §2).)*
2. No transit period was agreed for a 1,200 km wagon load. What is the maximum transit period under CIM? *(Answer: 12 hours for consignment + 3 × 24 hours for carriage = 84 hours. Sundays and statutory holidays are not counted.)*
3. 2,000 kg of an 18,000 kg consignment is lost. What is the most the carrier pays under CIM? *(Answer: Based on the mass short, 2,000 × 17 = 34,000 SDR. If a value was declared, the declared amount replaces the limit.)*
4. With a common CIM/SMGS consignment note, does one transport law apply along the whole route? *(Answer: No. One contract applies up to the reconsignment point and another after it; the common note only removes the need to rewrite the note at the border.)*
5. You discover damage that was not apparent at delivery 10 days after accepting the goods. What happens under CIM? *(Answer: Ascertainment had to be requested no later than 7 days after acceptance (Art. 47 §2). As the period has passed, the right based on the damage may be lost; review any other exceptions with a lawyer.)*

Frequently asked questions

Which rules apply to rail freight from Türkiye to Europe?

If the places of taking over and delivery are in two different OTIF Member States, the contract is governed by the CIM Uniform Rules (CIM Art. 1 §1). Türkiye is a Member State. The contract is confirmed by a CIM consignment note.

Can a CIM consignment note be transferred like a bill of lading?

No. The CIM note is evidence of the contract of carriage and of the taking over of the goods; it is not a document of title. The goods are delivered to the consignee named in the note.

What does the common CIM/SMGS consignment note do?

For cargo moving between the CIM and SMGS areas, it avoids rewriting the note at the reconsignment point on the border. The same document works as a CIM note in the CIM area and as an SMGS note in the SMGS area, but two separate contracts and two separate laws still apply along the route.

How far is the carrier liable under CIM?

For loss, up to 17 SDR per kilogram of gross mass short (Art. 30 §2); for delay, up to four times the carriage charge (Art. 33 §1). A declaration of value or of special interest in delivery raises the limit; the limit does not apply in case of intent or recklessness (Art. 36).

How does a break of gauge affect my cargo?

Where 1520 mm and 1435 mm lines meet, a train cannot simply carry on. The cargo is transferred to another train or the wagons' bogies are exchanged. Both add time and cost; on the route to Türkiye this point is Akhalkalaki in Georgia.

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