Bulletin

OTIF

Organisation intergouvernementale pour les transports internationaux ferroviaires
Zwischenstaatliche Organisation für den internationalen Eisenbahnverkehr
Intergovernmental Organisation for International Carriage by Rail

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Bulletin of International Carriage by Rail

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Joint logo of the three conventions (Source: https://www.brsmeas.org)
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EDITORIAL

Dear reader

In the last issue of the Bulletin, you were informed about the entry into force of the Luxembourg Protocol and the new, global task that OTIF will take on as a result.

There is more! Following China's application for associate membership and Moldova's application for full membership, OTIF is another big step closer to the Euro-Asian railway area.

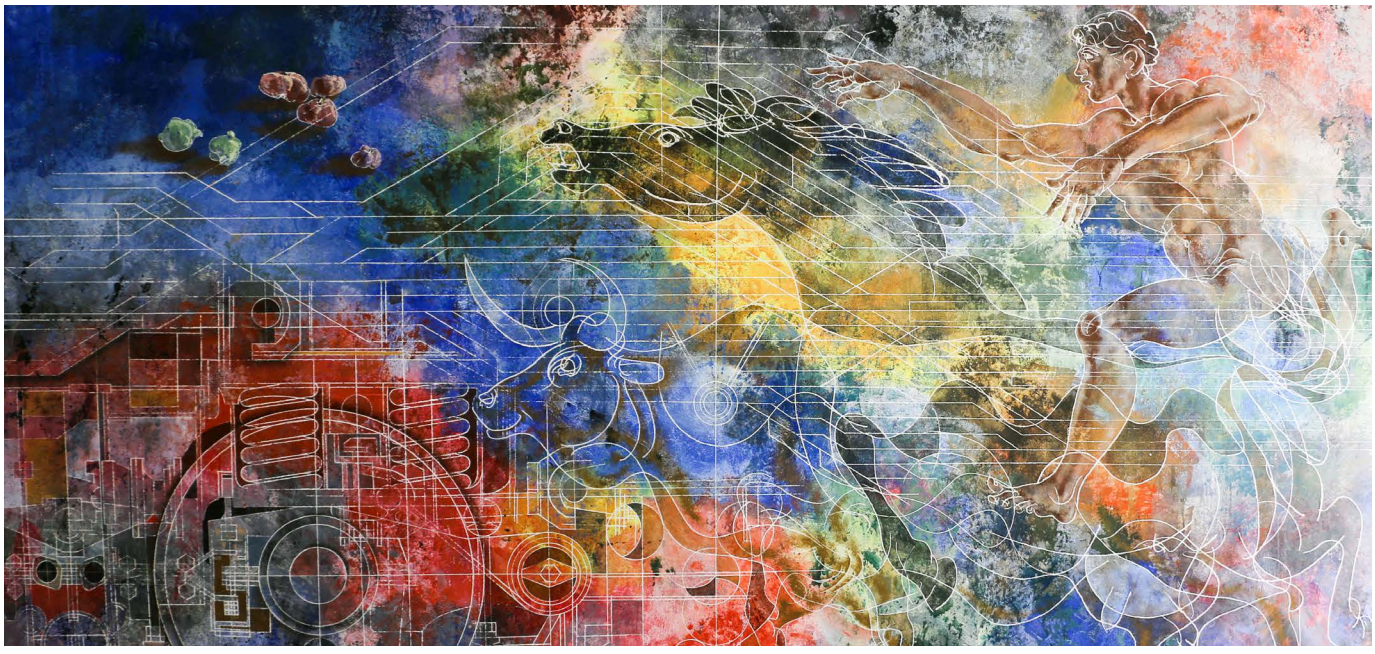
You may wonder whether this is the right time for this, given the global political environment. In my view it is. In terms of the "level playing field" of transport modes and the sustainability of international rail transport, this step is long overdue.

This issue of the Bulletin also contains important information on the results of the ad hoc Committee on Legal Affairs and International Cooperation. This is where some real groundwork has been done together with the sector and I hope that the Committee will be able to continue its important work.

I would like to thank the ad hoc Committee for its support in drawing up OTIF's long-term strategy. Of course, the decision of OTIF's 16th General Assembly in September of this year remains to be seen. This will be an exciting moment.

I wish you all an interesting read and a wonderful summer!

Wolfgang Küpper
Secretary General



Hans Erni, mural, approximately 20m2, 1965, entrance to the Secretariat

MEMORANDUM OF UNDERSTANDING: OTIF – UNESCAP

The Intergovernmental Organisation for International Carriage by Rail (OTIF) and the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) signed a memorandum of understanding on 7 February 2024.

OTIF has a long history of close cooperation with other international organisations. International cooperation is one of the key factors in promoting, improving and facilitating international rail traffic.

The new memorandum of understanding between OTIF and UNESCAP is a renewal of the agreement concluded in 2018, which expired on 31 December 2023. With the exception of a few non-substantive changes, the new memorandum carries over the terms of the 2018 memorandum.

The memorandum guarantees the exchange of relevant information and establishes a general framework for consultations and cooperation, with the possibility for each party to send representatives to relevant meetings of the other party.

One of the priority areas for joint activities is to encourage interested ESCAP member countries to accede to COTIF.

In this way, the OTIF Secretariat is contributing to ESCAP's work on the development of the railways by presenting the solutions that COTIF can provide to the problems that currently exist in Asia and the Pacific in terms of legal and technical interoperability.

The Secretary General welcomes this renewal and commends the quality of existing and future cooperation.

ESCAP was set up in 1947 and is one of the UN's five regional commissions. Its overall objective is to promote sustainable and inclusive economic and social development in Asia and the Pacific. At its 62nd session on 12 April 2006, ESCAP adopted the Intergovernmental Agreement on the Trans-Asian Railway Network with the aim of promoting and advancing rail transport within Asia and between Asia and neighbouring regions.

86th SESSION OF THE INTERNATIONAL TRANSPORT COMMITTEE IN GENEVA

The 86th session of the International Transport Committee of the United Nations Economic Commission for Europe (UNECE) was held at the Palais des Nations in Geneva from 20 to 23 February 2024.

On 20 February 2024, OTIF's Secretary General, Mr Wolfgang Küpper, took part in the high-level debate on "Taking ambitious climate action – Moving towards decarbonised inland transport by 2050". More specifically, he was invited to speak at the 3rd panel discussion on international cooperation, intergovernmental support and partnerships for climate action.

Mr Küpper first explained that "despite the current geopolitical situation, the underlying worldwide political conditions for international rail transport have never been so favourable. We really have the opportunity to make rail the most important transport mode of the 21st century."

He then noted that the role of OTIF and the interest shown in the Convention concerning International Carriage by Rail (COTIF) were growing all the time. In the areas of rail contract law, interoperability and the safe transport of dangerous goods, the benefits to the sector of applying COTIF are unquestionable.

Lastly, he called for greater harmonisation of international rail transport law rather than regulatory fragmentation. "Close cooperation between all organisations involved in the development of international rail transport is of the utmost importance in order to develop synergies between work programmes, avoid duplication of work and provide maximum effective use of the resources and experience available."

ENTRY INTO FORCE OF THE LUXEMBOURG PROTOCOL

At a ceremony during a special intergovernmental meeting hosted by the Intergovernmental Organisation for International Carriage by Rail (OTIF), the Luxembourg Rail Protocol to the Cape Town Convention on International Interests in Mobile Equipment formally entered into force on 8 March 2024.

The Luxembourg Rail Protocol applies in four contracting states: Luxembourg, Gabon, Sweden and Spain. Several other states are well on course to ratify the Protocol.

OTIF is now formally the Secretariat of the Supervisory Authority, which supervises the implementation of the Luxembourg Protocol, i.e. it supervises the establishment and operation of the International Registry of Interests in Rolling Stock. The Luxembourg-based public International Registry is operational 24/7 and is able to accredit users, allocate unique numbers for rolling stock (URVIS), accept registrations of security interests and facilitate searches against these interests.

“With the entry into force of the Luxembourg Protocol, OTIF has reached a great milestone” explained Mr Wolfgang Küpper, Secretary General of OTIF. “The Supervisory Authority is established, the International Registry is going live. For OTIF, the task of the Secretariat will be new and challenging, because it will be quite different from its existing task, which is to promote, improve, and facilitate, in all respects, international traffic by rail. I am convinced that the new global task in the framework of the Luxembourg Protocol will help interested states better to understand the role and the full portfolio of OTIF. Governments and the railway industry can no longer afford to ignore this additional financing tool. This is where the Luxembourg Protocol fits in perfectly”.

“The entry into force of the Luxembourg Rail Protocol is a tremendous achievement that supports urgently needed access to private credit for the rail industry” said Mr Ignacio Tirado, Secretary General of the International Institute for the Unification of Private Law (UNIDROIT), depositary of the Luxembourg Rail Protocol. “At a time when an increasing number of states seek to implement transport policies that contribute towards the UN’s Sustainable Development Goals, the Protocol is a key instrument recognised by regional bodies, including UNECA, the African Union, UNECE and the EU. UNIDROIT believes that the Luxembourg Rail Protocol has the potential to unlock enormous benefits for all stakeholders as its ratification rolls out around the world”.

“This is a momentous day for the rail industry,” said Rail Working Group Chair Mr Howard Rosen. “It opens up new possibilities for the private sector to provide much-needed and cheaper financing for railway rolling stock around the world. With the clear social, economic, and environmental benefits of moving the transportation of goods and people onto the railways, and public funding nearly always limited, governments now need to move forward at the earliest opportunity to ratify the Protocol.”

“We are pleased to launch the International Registry of Interests in Rolling Stock” said ISC President and CEO, Shawn Peters. ISC is the parent company of the newly appointed registrar for the International Registry, Regulis SA. “Both ISC and Regulis are proud of the economic and environmental impact the Rolling Stock Registry will have as it supports the growth of the global rail sector by providing a trusted source for interests in rolling stock. We value our partnerships with UNIDROIT, OTIF, and the Rail Working Group, and we look forward to working with all stakeholders who will benefit from the registry, as well as growing the registry in the years to come.”

The Luxembourg Rail Protocol to the Convention on International Interests in Mobile Equipment on Matters specific to Railway Rolling Stock facilitates financing for the acquisition of rolling stock. It sets up a new legal regime for the recognition and enforcement of securities of lenders, creditors and conditional sellers when these securities are in railway rolling stock.

Luxembourg Rail Protocol Status (signatures, ratifications and accessions)

Luxembourg Rail Protocol: French, German, English.

GROUND-BREAKING

On Thursday, 14 March 2024, the symbolic ground-breaking ceremony was held to mark the start of the renovation work on the headquarters of the Intergovernmental Organisation for International Carriage by Rail (OTIF) in Berne. A ceremony was held to mark the occasion, attended by around twenty guests.

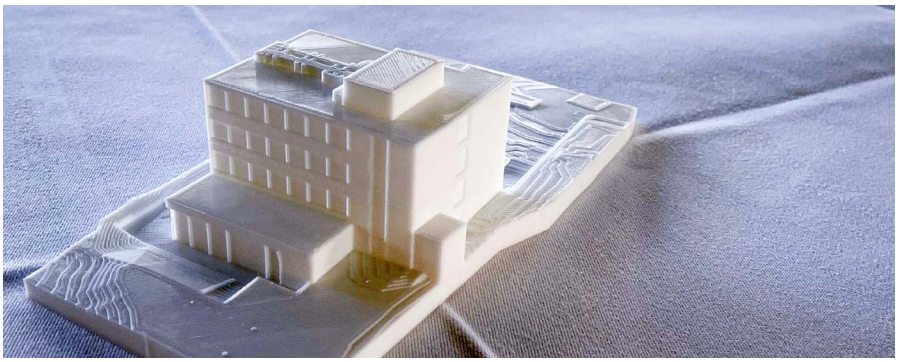
The Secretary General of OTIF, Mr Wolfgang Küpper, welcomed those invited. He went on to explain that the renovation of the headquarters building in Berne was an obvious choice, bearing in mind the Organisation's history and its roots in Berne and Switzerland. Lastly, he warmly thanked the Swiss authorities for their unfailing support.

Other speakers included Mr Alec von Graffenried, mayor of Berne, Ms Dominique Bühler, First Vice-President of the Grand Council of the Canton of Berne, Mr Peter Füglistaler, Director of the Federal Office of Transport, and Mr Ueli Gfeller, Managing Director of BauSpektrum. Among other things, they underlined the importance of OTIF's historic presence in Berne for the last 130 years and welcomed the ambition to equip itself with a modern, energy-efficient and environmentally-friendly renovated building.

Also taking part were Mr Gilles Mugnier, Secretary General of the International Rail Transport Committee (CIT), Mr Masahiko Metoki, Director General of the Universal Postal Union (UPU), Mr Thierry Merle, member of the FIPOI Management Committee, and Ms Berta Fernandez-Alfaro, Chief of Mission at the IOM Coordination Office for Switzerland and Liechtenstein.

To close the first part of the ceremony, Ms Lunesterline Andriamahatahitry, who leads the renovation project and who is the Head of OTIF's Administration and Finance Department, gave an overview of the project. She emphasised that the fact that the project was now taking shape was thanks to the determination of OTIF's Secretary General, Mr Wolfgang Küpper, the support of OTIF's Member States and the support of the host state.

The OTIF headquarters building was built in the 1960s and opened in 1966. There has been no major renovation to the building for more than 50 years. In summer 2023, the entire Secretariat team moved to temporary offices in order to enable the project to go ahead under the best conditions possible. The renovation of the OTIF headquarters includes two major innovations: the extension of the meeting room to allow simultaneous interpretation at meetings, and Minergie Eco certification. Among other things, this implies a significant reduction in energy consumption in future years and the use of materials that are environmentally friendly and free from harmful substances. The renovation work should be completed in the first quarter of 2025.



DEVELOPMENT OF THE RAILWAYS AND COOPERATION IN SOUTH-EAST ASIA

On 25 March 2024, the Secretary General of OTIF, Mr Wolfgang Küpper, took part in the kick-off meeting for the project on "leveraging Trans-Asian Railway for more efficient and resilient transport connectivity and logistics in ASEAN and beyond", organised by the Association of South-East Asian Nations (ASEAN).

ASEAN, in cooperation with UNESCAP, has begun implementing a project aimed at strengthening regional cooperation between its Member States in the field of rail transport. The aim of the project is to draw up a strategic plan to enhance rail interoperability between ASEAN Member States. The purpose of the project launch meeting was to discuss the methods for implementing the project.

The Secretary General of OTIF gave a presentation entitled "Enhancing railway interoperability among ASEAN Member States". After presenting OTIF and the advantages of acceding to COTIF, the Secretary General emphasised the added value of COTIF for the members of ASEAN.

MOLDOVA: APPLICATION FOR ACCESSION TO OTIF

The Republic of Moldova has submitted an application for accession to the Convention concerning International Carriage by Rail (COTIF) of 9 May 1980 in the version of the Protocol of Modification of 3 June 1999 (Vilnius Protocol), in accordance with Article 37 of COTIF.

Article 37 only stipulates one substantial condition in order to accede to COTIF: railway infrastructure must be operated on the territory of the state concerned. The Republic of Moldova satisfies this condition.

The Republic of Moldova will apply Appendix B to COTIF, i.e. the Uniform Rules concerning the Contract of International Carriage of Goods by Rail (CIM). In accordance with the first sentence of Article 42 § 1 of COTIF, the Republic of Moldova declared that it would not apply Appendices A (CIV), C (RID), D (CUV), E (CUI), F (APTU) and G (ATMF) to the Convention.

The Secretary General, in his capacity as Depositary of the Convention, notified the governments of the Member States of OTIF of the application for accession in a circular letter dated 26 March 2024. Unless five OTIF Member States object, the application for accession is deemed to be accepted three months after this first notification, i.e. on 26 June 2024.

The Secretary General will then send the Member States a second notification informing them that the application has been fully accepted and accession will take effect on the first day of the third month following this notification. Moldova will therefore become the fifty-first Member State of the Intergovernmental Organisation for International Carriage by Rail (OTIF).

CHINA: APPLICATION FOR ACCESSION TO OTIF

On 26 April 2024, the People's Republic of China deposited an application to accede to the Intergovernmental Organisation for International Carriage by Rail as an Associate Member in accordance with Article 39 of the Convention concerning International Carriage by Rail (COTIF).

Article 39 only stipulates one substantial condition in order to become an Associate Member: railway infrastructure must be operated on the territory of the state concerned.

An Associate Member may participate in the work of the organs of OTIF, except the Administrative Committee, in an advisory capacity, and must pay contributions to the Organisation. Unlike the Member States, Associate Members are not contracting parties to COTIF.

China and OTIF have been cooperating for several years. In spring 2016, the Chinese National Railway Administration (NRA) expressed its interest in OTIF's work and in the legal framework offered by COTIF. The Secretary General of OTIF then invited the Deputy Minister for Transport and a delegation from the NRA to Berne. On 12 July 2016, OTIF and the NRA signed a memorandum of understanding. This memorandum marks the start of cooperation between China and OTIF.

The Secretary General, in his capacity as Depositary of the Convention, notified the governments of the Member States of OTIF of the application for accession in a circular letter dated 26 April 2024. Unless five OTIF Member States object, the application for accession is deemed to be accepted three months after this first notification, i.e. on 26 July 2024.

The Secretary General will then send the Member States a second notification informing them that the application has been fully accepted and accession will take effect on the first day of the third month following this notification. China will therefore become the second Associate Member of OTIF, alongside Jordan, which has been an Associate Member since 2010.

A CELEBRATION OF THE ENTRY INTO FORCE OF THE LUXEMBOURG RAIL PROTOCOL

On 9 April 2024, the International Institute for the Unification of Private Law (UNIDROIT) organised a major event in Rome to celebrate the entry into force of the Luxembourg Rail Protocol.

The Secretary General of OTIF, Mr Wolfgang Küpper, and the Secretary General of UNIDROIT, Mr Ignacio Tirado, opened the event, before Their Excellencies Ms Michèle Pranchère-Tomassini, Ambassador of Luxembourg to Italy, and Ms Nosipho Nausca-Jean Jezile, Ambassador of South Africa to Italy, also took the floor.
Mr Küpper pointed out that "railway rolling stock is very expensive and, as has successfully been the case in aviation, the system of international securities introduced by the Cape Town Convention can contribute to significant cost savings in procurement.

It will become considerably more important in the future to simplify the manner in which the railways are financed. This is where the Luxembourg Protocol will build a missing link and help to fill the financial gap that obviously exists.

There are substantial arguments in support of an optimistic perspective in terms of the future development of the Luxembourg Protocol and the International Registry."

Mr Küpper concluded by saying: "I would like to take this opportunity to thank all those who have invested their full energy in the last 17 years since the Diplomatic Conference in Luxembourg, especially Mr Howard Rosen and the Rail Working Group, for their commitment, stamina and the enormous amount of work.

I would also like to thank Professor Sir Roy Goode for his tremendous work on the Official Commentary pursuant to resolution No. 4 adopted by the Luxembourg Diplomatic Conference and for his work on the Regulations for the International Registry.

My special thanks also go to the colleagues of UNIDROIT, which acts as the Depositary of the Luxembourg Protocol."

Following the opening remarks, Mr Howard Rosen gave an overview of the benefits of the Protocol, and Ms Laurel Garven, Vice-President of the ISC, explained the role of the International Registry.

Lastly, declarations of support for the Protocol were made by Paraguay, Sweden and the United Kingdom.

UNIDROIT Member States, Cape Town Convention Contracting States, stakeholders and experts gathered to attend the celebrations. Around sixty people attended the event, including delegations from 25 UNIDROIT Member States. At the end of the day, a reception was organised in partnership with the Embassy of Luxembourg in Rome.

RESULTS OF THE AD HOC COMMITTEE ON LEGAL AFFAIRS AND INTERNATIONAL COOPERATION

The 6th session of the ad hoc Committee on Legal Affairs and International Cooperation was held in Vienna from 16 to 18 April 2024. This was the last session before the next ordinary session of the General Assembly, and the following provides a review of the work carried out so far.

At its 15th session in September 2021, the General Assembly decided to set up the ad hoc Committee on Legal Affairs and International Cooperation in accordance with Article 13 § 2 of COTIF for a period of three years (September 2021 - September 2024). It assigned the following tasks to the ad hoc Committee:

- prepare draft amendments or supplements to the Convention;
- provide legal advice on its own initiative or at the request of the organs referred to in Article 13 §§ 1 and 2 of COTIF or at the request of the organs established by them;
- promote and facilitate the functioning and implementation of COTIF;
- monitor and assess legal instruments;
- take decisions on cooperation with other international organisations and associations, including establishing and dissolving consultative contact groups with other international organisations and associations and monitoring the functioning of contact groups.

Between November 2021 and April 2024, the ad hoc Committee met six times. At the 1st session, the ad hoc Committee elected Germany as Chair and the United Kingdom and France as Vice-Chairs.

Member States, international organisations and associations, experts and academics all took an active part in demonstrating their interest in the ad hoc Committee and the issues it addressed.

The Member States gave the ad hoc Committee on Legal Affairs and International Cooperation a 2022-2024 work programme, which they developed over time. The initial work programme adopted at the 1st session of the ad hoc Committee in November 2021 defined around twenty objectives; by April 2024, almost half of the objectives had been achieved.

Following the decision taken at the 15th session of the General Assembly and in accordance with its work programme, the ad hoc Committee assisted the Secretary General throughout the preparation of the “long-term strategy for OTIF”. It also provided opinions and advice. The General Assembly, which will be held from 25 to 26 September 2024, will now have to decide on the adoption of this strategy.

In accordance with its mandate, the ad hoc Committee adopted a number of documents (non-exhaustive list):

- Recommendation on involving stakeholders in OTIF’s work (adopted the 2nd session)
- Guidelines on cooperation with international intergovernmental organisations (adopted at the 3rd session)
- Guidelines on the application of procedures for the modification of COTIF (adopted at the 3rd session)

- Advisory legal opinion on the interpretation of the CUI UR (adopted at the 5th session)
- Recommendation on the use of electronic signatures in official communications between OTIF and its members (non-public document adopted at the 6th session).

At its 4th session, on the basis of a preliminary draft from the OTIF Secretariat concerning gender-neutral language, the ad hoc Committee recommended that the Secretariat should ensure the consistent use of gender-neutral language in the relevant legal instruments by means of guidelines on the use of gender-neutral language. These guidelines have been published on OTIF's website here.

The ad hoc Committee on Legal Affairs and International Cooperation was set up for a period of three years, until September 2024. The next General Assembly will decide whether to renew the ad hoc Committee's mandate for a further period.

The OTIF Secretariat is pleased with the work that has been carried out. The Secretariat would also like to express its sincere thanks to the United Kingdom and Austria for hosting the 3rd and 6th sessions of the ad hoc Committee respectively.

DEPOSITARY NOTIFICATIONS
Since March 2024 (Bulletin 1/2024)

NOT-24004	26.3.2024	Moldova – Application for accession to COTIF
NOT-24006	26.4.2024	China – application for accession as an Associate Member of OTIF

OTIF'S 16th GENERAL ASSEMBLY: 25-26 SEPTEMBER 2024

OTIF will hold its 16th General Assembly on 25 and 26 September 2024 in Berne, Switzerland. The General Assembly will be an in-person meeting. The General Assembly is OTIF's supreme decision-making body (Article 14 of COTIF 1999).

The Assembly General's particular tasks include designating the members of the Administrative Committee, approving the strategic plan and setting the Organisation's maximum amount of expenditure. It also decides on certain proposals to modify COTIF.

The General Assembly elects the Secretary General. At this 16th session, Member States will be able to choose between four candidates.

The General Assembly is made up of all OTIF's Member States and the regional economic integration organisations that have acceded to COTIF. Associate Members also take part in the General Assembly.

Upon invitation, non-Member States interested in acceding to COTIF and international organisations and associations linked to the rail sector may also attend the Assembly as observers.

INTERCHANGEABLE VEHICLES

In the scope of the APTU and ATMF UR, COTIF offers a comprehensive set of technical requirements and procedures for the approval of vehicles so that they can be used in international traffic. The COTIF vehicle requirements, like the EU rules on which they are based, are mostly functional and describe minimum performances rather than technical solutions. This freedom of design promotes innovation in terms of optimising vehicles for the purpose for which they are intended. The requirements do not therefore hamper innovation or lock in obsolete technology. At the same time, international railway operations particularly require highly standardised vehicles that can be easily interchanged and coupled into a train. This article explores current possibilities and new developments in this regard.

From RIV and RIC to COTIF

For roughly 100 years, the construction and international use of passenger coaches was governed by the “Regolamento Internazionale delle Carrozze” (RIC) and the construction and international use of freight wagons by the “Regolamento Internazionale Veicoli” (RIV). The RIC and RIV were administered by the International Union of Railways, UIC. The RIV has been abrogated completely and its commercial and contractual aspects have been superseded by the general contract of use for wagons (GCU), jointly managed by UIC, UIP and ERFA. The commercial and contractual agreement of the RIC still exists and is managed by UIC, but it is no longer a basis on which authorities approve vehicles.

The technical provisions for RIC and RIV were replaced by the COTIF provisions with the introduction of the APTU UR (technical requirements) and the ATMF UR (admission procedures and use of vehicles). Currently, states rather than railway undertakings define the minimum technical and safety requirements for rolling stock interoperability. In particular, the Uniform Technical Prescription for freight wagons (UTP WAG), the UTP for locomotives and passenger rolling stock (LOC&PAS), the UTP Noise and the UTP concerning accessibility for people with disabilities and people with reduced mobility (PRM) are the legal successors to the technical provisions of RIC and RIV.

Categories of interoperable vehicles

Vehicles suitable for free circulation

According to Article 6 § 3 of the ATMF UR, a vehicle suitable for free circulation means that its initial admission to international traffic is valid in all Contracting States. Free circulation therefore relates to the legal acceptance of a vehicle because of its compliance with the minimum legal requirements in all the states concerned. Vehicles suitable for free circulation are characterised by their harmonised maximum gauge, maximum axle loads, and their ability to be detected by several types of train detection systems.

Free circulation does not mean that the vehicle can literally be used on every line of each network; this always remains subject to route compatibility checks. These checks are the responsibility of the railway undertaking that uses the vehicle, on the basis of information provided by the infrastructure manager.

If a vehicle is suitable for free circulation, it does not guarantee that it can be easily exchanged between railway undertakings, as explained in the next paragraph.

Interchangeable Vehicles

In order easily to couple vehicles from different origins together into a train, harmonised inter-vehicle interfaces are useful or even required. This is the case for vehicles that are not used by only one railway undertaking, but which are exchanged between multiple railway undertakings. This concerns most freight wagons and, to a certain extent, passenger coaches as well. These types of vehicles are usually equipped with similar couplers, brake interfaces, brake characteristics and, if relevant, data and power connectors. This allows railway undertakings to integrate such vehicles into trains easily, together with other vehicles with similar interfaces.

UTP requirements

The vehicle-related UTPs are based on and equivalent to the provisions of the EU’s TSIs. The basic idea underpinning the development of TSIs by the EU was that the railway system is broken down into subsystems, such as rolling stock, infrastructure, energy, etc. The TSIs lay down the minimum legal requirements for each subsystem and the interfaces between the subsystems. TSIs were never intended to become full design specifications. Rather, the TSI requirements had to describe minimum performance levels that could be achieved by different technologies. This would foster innovation and ensure that market forces would lead to the most efficient solutions. It would also avoid locking in obsolete

technology. The conceptual understanding was that specific technical solutions had only to be mandated for the interfaces between subsystems, for example the wheel-rail interface and the pantograph-overhead line interface. The idea underpinning the development of TSIs at EU level also became the rationale underpinning OTIF's UTPs.

The UTP for freight wagons

At the development stages of the TSI WAG at EU level, over a decade ago, there was debate as to whether the specifications for inter-vehicle interfaces (i.e. compatibility within the rolling stock subsystem) belonged in the legal (TSI) domain or rather in the domain of voluntary standards/harmonisation, which is controlled by the sector. One of the arguments against mandating interfaces within the rolling stock subsystem in the TSI was that these requirements were not legally necessary for interoperability and could be managed by the industry actors. The industry actors nevertheless requested legal certainty and a legal alternative to the comprehensive specifications offered by the RIV. A compromise was found by specifying three layers of mandatory and optional requirements in the TSI and UTP WAG:

1. **Basic parameters.** These mandatory requirements are set out in chapters 4 (for subsystems) and 5 (for interoperability constituents) of the TSI and UTP. They are strictly necessary for interoperability, including safety and compatibility between subsystems. However, they do not form a comprehensive description of how to design or construct a vehicle. These basic parameters are, where possible, defined by functional/performance requirements, and only describe technical solutions where necessary to ensure compatibility between subsystems (e.g. the wheel tread profile, to fit the rail head profile).

2. **Specifications for free circulation.** These optional requirements are described in point 7.1.2 of the TSI and UTP. The initial admission of a wagon complying with 7.1.2 is valid for an area of use covering multiple Contracting States, without the need for separate admission by each of these Contracting States. These wagons are built with particular technical solutions, such as a common type of braking system, and they are compatible with several train detection systems, for example. If the applicant chooses to apply the provisions of point 7.1.2, it must be applied in its entirety. A wagon meeting these conditions may bear the "TEN" marking.

3. **Specifications for interchangeability.** These optional requirements are described in Appendix C of the TSI and UTP. An interchangeable vehicle means a vehicle that meets the requirements for free circulation of point 7.1.2 and complies with Appendix C. Such a wagon is equipped with standardised inter-vehicle interfaces, enabling integration into a train composition alongside other interchangeable wagons and facilitating the exchange of wagons between railway undertakings. The application of Appendix C also facilitates the use of new wagons in a pool together with older wagons built in accordance with the former RIV agreement. Wagons meeting these criteria may be marked "GE" or "CW", in addition to the "TEN" marking, as shown in Figure 1.

Most wagons used in international traffic are built to comply with these three levels.

The UTP for locomotives and passenger rolling stock

Passenger coaches are covered by the UTP LOC&PAS. From its inception in 2015, this UTP did not provide the full specifications needed for free circulation or interchangeability. However, the former RIC provisions could no longer be used for the approval of

Figure 1: a wagon featuring TEN and GE markings

new vehicles, as the UTP mandated new and additional requirements, e.g. for passenger alarms for which no harmonised solutions existed. This meant that applying the RIC requirements was not sufficient to comply with the UTP or TSI.

As a result of discussions within OTIF a decade ago (see Bulletin 3/2014, pp. 10-12), the subject of developing specifications for interchangeable passenger coaches was placed on the EU agenda for inclusion in the LOC&PAS TSI. Consequently, a new point 6.2.7a was added to the TSI version of 16 May 2019. Point 6.2.7a listed optional requirements for units intended to be used in general operation. The provisions did not yet allow for free circulation of these coaches, meaning their approval was still on a state-by-state basis. However, this was a step in the right direction. The corresponding UTP LOC&PAS entered into force on 1 January 2022.

On 10 August 2023, the EU replaced the provisions of 6.2.7a of the TSI LOC&PAS with a new section 7.1.1.5, allowing the authorisation of passenger coaches not limited to a particular area of use. This concept corresponded to the ATMF concept of free circulation. Coaches meeting these conditions could now be authorised for use on several or all networks in one procedure. The new provisions go into more detail than previously, so that coaches complying with these optional provisions can be more easily used in international traffic. This brings benefits in terms of operational planning. It also creates perspectives for financing and leasing rolling stock, which, due to its wider area of use, would probably retain a high resale value.

The OTIF Secretariat prepared draft proposals to carry these specifications over into the UTP LOC&PAS for review by the WG Tech at its meeting on 13 June 2024.

Provisions for locomotives and multiple units (trainsets)

Vehicles with electric traction and driving cabs have additional and more complex interfaces with the infrastructure (signalling, traction power supply, electromagnetic compatibility) than wagons and coaches have. Currently, it is not feasible to define a comprehensive set of requirements that would make locomotives or trainsets suitable for free circulation.

In the future, it might be possible to capture the technical solutions for locomotives and trainsets that are successfully used internationally and list them as optional requirements in a UTP. However, describing proprietary technologies should be avoided. Such optional specifications should therefore be carefully considered and defined with the help of the sector (e.g. UIC, CER, UNIFE) and standardisation bodies.

Giving more prominence to the provisions for general operation

Vehicles that can be easily used or exchanged in international traffic are of major importance to the scope of COTIF and the aims of OTIF. The UTPs are the legal instruments of OTIF that facilitate this. In the current structure of the UTPs, the provisions for free circulation and the provisions for interchangeability are currently either not prominent, incomplete or do not exist at all.

The Committee of Technical Experts therefore decided in 2023 to give more prominence in COTIF to the provisions for free circulation and to the specifications that facilitate the use of vehicles in general operation. In particular, it suggested solutions in chapter 0 of the UTPs and, where relevant, new annexes to the respective UTPs to facilitate the identification and, where relevant, isolation of all provisions that apply to vehicles that can be used freely in international traffic.

A proposal for a new version of the UTP WAG contains clear definitions and requirements in the beginning of the document concerning free circulation and interchangeable vehicles. This proposal will be subject to a vote at the 16th session of the Committee of Technical Experts (Bern, 11-12 June 2024). Similar provisions are included in the draft proposal for revision of the UTP LOC&PAS that will be reviewed by WG Tech at its 52nd session (Ittigen, 13 June 2024).

Bas Leermakers

63rd SESSION OF THE UN SUB-COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS
(Geneva, 27 November to 6 December 2023)

The 63rd session of the UN Sub-Committee of Experts was the second session in the 2023/2024 biennium. The decisions of the UN Sub-Committee of Experts are incorporated into the 24th revised edition of the UN Model Regulations and form the common basis for all the mode-specific dangerous goods regulations. In the context of harmonising RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods, these decisions will later be carried over into the 2027 editions of RID, ADR and ADN.

The 63rd session of the UN Sub-Committee of Experts was held from 27 November to 6 December 2023. It was chaired by Mr Duane Pfund (United States of America) and 23 states, 6 governmental organisations and 23 non-governmental organisations were represented at it. As all the decisions of the UN Sub-Committee of Experts have repercussions for the dangerous goods provisions of the various modes, the Intergovernmental Organisation for International Carriage by Rail (OTIF) was represented as a modal organisation.

Classification issues

Ethylene oxide

As part of the fourteenth Adaptation to Technical Progress (ATP) of Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP Regulation) of the European Parliament and of the Council, which entered into force on 9 September 2021, the subsidiary risk of corrosivity was established for ethylene oxide. Based on the available data, it can be stated that ethylene oxide can lead to irreversible damage to skin even in lower concentrations. For UN numbers 1040, 1041 and 3300, which include ethylene oxide alone or mixtures of ethylene oxide with nitrogen or carbon dioxide, Germany proposed to include the risk of corrosivity. The prohibition on the transport of ethylene oxide in portable tanks proposed at the last meeting of the UN Sub-Committee of Experts was no longer pursued due to a lack of support.

The UN Sub-Committee of Experts agreed to include the subsidiary risk of corrosivity for UN numbers 1040, 1041 and 3300.

For RID/ADR/ADN, this means that a new classification code for flammable corrosive gases must be included in the classification provisions for Class 2 and, in one case, the hazard identification number must be adapted.

Ammonium hydrogendifluoride, solid

Ammonium hydrogendifluoride is a chemical compound used as a sterilizer in electroplating and in the ceramic and glass industries. It is also used as a cleaning product, in the treatment of metallic and non-metallic surfaces and as a chemical intermediate in the production of hydrofluoric acid.

UN 1727 Ammonium hydrogendifluoride, solid is a corrosive substance of Class 8 and is assigned to packing group II. However, after an incident during loading, it was realised that ammonium hydrogendifluoride also meets the criteria for oral toxicity of Class 6.1. The subsidiary risk of toxicity also results from the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and the CLP Regulation.

The UN Sub-Committee of Experts agreed with Sweden's proposal to assign the subsidiary risk of toxicity to UN number 1727. A transitional measure was not considered necessary because the time interval between publication in the UN Model Regulations and publication in the mode-specific dangerous goods regulations, which also provide for a general six-month transitional period, was considered sufficient to adapt to the amended regulations.

Hydrazine

Hydrazine, anhydrous of UN number 2029 is a widely used raw material which, because of its high heat of combustion, can be used as a foaming agent, insecticide or water treatment agent or as rocket fuel. Hydrazine is assigned to Class 8 with the subsidiary risks of flammability and toxicity.

Tests at a Chinese university have shown that reactions such as explosion, deflagration and combustion can occur with different packaging configurations. The stronger the confinement, the more hazardous the reaction.

The UN Sub-Committee of Experts decided to assign special packing provision PP 5 to UN number 2029, which requires packagings to be so constructed that explosion is not possible by reason of increased internal pressure. The use of cylinders, large cylinders and pressure drums for this substance is also prohibited. During transport, the substance must be protected from direct sunlight and evolution of heat. Packages may only be stored in cool, well-ventilated places away from sources of heat.

Chlorophenols

There are currently two entries for chlorophenols in the dangerous goods regulations, i.e. UN 2020 Chlorophenols, solid and UN 2021 Chlorophenols, liquid. Both entries are assigned to Class 6.1, packing group III. It has now been established that most monochlorophenols and dichlorophenols have both toxic and corrosive properties. However, the corrosive properties are not reflected in either of the two existing entries.

Based on a proposal transmitted by Germany, the UN Sub-Committee of Experts decided to use the previous UN numbers only for chlorophenols that only have the risk of toxicity. Two new UN numbers have been added for chlorophenols that are only corrosive and for chlorophenols that have the secondary risk of toxicity in addition to the primary risk of corrosivity. This was based on the example of chlorosilanes, for which three different UN numbers are provided, depending on the risks involved (UN numbers 2985, 2986 and 2987). The suffix "n.o.s" (not otherwise specified) has been added to all four collective entries for chlorophenols to distinguish them from specific individual entries for chlorophenols (e.g. UN 3155 Pentachlorophenol). The question of whether the technical name of chlorophenols should be specified in future (special provision 274) was left open until the next meeting.

Electric storage systems

Hybrid batteries

Hybrid batteries are batteries that contain both lithium-ion and sodium-ion cells connected in series. Hybrid batteries combine the advantages of the high energy density of lithium-ion batteries and the adaptability of sodium-ion batteries to low-temperature environments. Due to these advantages, it is anticipated that hybrid batteries will be widely used in the automotive and energy storage industry.

The UN Sub-Committee of Experts adopted a proposal from China to include new provisions for hybrid batteries in the dangerous goods regulations. It did not consider it necessary to provide new UN numbers for these. In view of the fact that the energy density of hybrid batteries is between that of lithium-ion and sodium-ion batteries and that hybrid batteries cannot be fully discharged, it was decided to treat these batteries in the same way as lithium-ion batteries both with regard to the test procedures and the conditions of carriage. In future, the classification provisions for Class 9 will explain what is meant by a hybrid battery. A new special provision refers to the assignment to the existing UN numbers for lithium-ion batteries. In addition, consequential amendments must be made at various places in the dangerous goods regulations.

Lithium batteries and sodium-ion batteries in articles, engines and vehicles

2.2.9.1.7 of RID/ADR 2023 (2.2.9.1.7.1 of RID/ADR 2025) and 2.2.9.1.7.2, which will apply from 1 January 2025, contain provisions for the classification of lithium batteries and cells and sodium-ion batteries and cells. Both paragraphs indicate the UN numbers to which the batteries and cells are to be assigned.

Various special provisions of Chapter 3.3 indicate that lithium cells or batteries or sodium-ion cells or batteries must comply with the provisions of these two paragraphs if the cells or batteries are contained in articles, engines or vehicles.

As the UN numbers to which the special provisions apply are not listed in 2.2.9.1.7.1 and 2.2.9.1.7.2, various users encounter difficulties of interpretation.

The UN Sub-Committee of Experts decided to delete the references to the UN numbers in 2.2.9.1.7.1 and 2.2.9.1.7.2 and to refer to articles, engines or vehicles in addition to equipment which contains the batteries.

Battery mark

Provisions for sodium-ion batteries will be included in the 2025 edition of RID/ADR/ADN. According to the new special provision 400, such batteries are exempt from the other provisions if they are fully discharged. They must also meet further conditions to prevent damage to the batteries during transport. Despite the exemption, sodium-ion batteries carried under special provision 400 must be marked with a battery mark.

Spain had observed that in order to make the provisions consistent, special provision 400 must also be

mentioned in 5.2.1.9.1. For batteries exempted under special provision 188, this paragraph requires the battery mark to be affixed.

During the discussion, it was proposed, among other things, that the requirement for a battery mark in special provision 400 should be deleted, as fully discharged sodium-ion batteries do not pose a risk. The battery mark would convey precisely the opposite. However, as this issue has to be dealt with separately, the UN Sub-Committee of Experts first agreed to make the consequential amendment proposed by Spain so that it can still be included in the 2025 amendments for the various modes of transport.

Affixing the battery mark

For danger labels, RID/ADR/ADN specifies that they must be affixed to the same surface of the package. No such requirement has yet been included for battery marks.

The UN Sub-Committee of Experts decided that the mark for lithium batteries and sodium-ion batteries should also be located on the same surface of the package as any danger labels.

Transport of gases

Revised standards

The UN Sub-Committee of Experts approved the inclusion of references to updated versions of the following standards:

- ISO 11515:2022 Gas cylinders – Refillable composite reinforced tubes of water capacity between 450 l and 3000 l – Design, construction and testing;
- ISO 14246:2022 Gas cylinders — Cylinder valves — Manufacturing tests and examinations;
- ISO 22434:2022 Gas cylinders - Inspection and maintenance of valves;
- ISO 11114-1:2020/Amd 1:2023 Gas cylinders – Compatibility of cylinder and valve materials with gas contents – Part 1: Metallic Materials.

Use of the pV product as a new limit for pressure receptacles

At the last meeting of the UN Sub-Committee of Experts, it was decided to supplement the previous volume limitation of pressure receptacles with a limitation of the product of pressure and volume (pV product). This pV product is intended to limit the physical and, indirectly, the chemical energy stored in a pressure receptacle and to contain potential incidents during carriage to a non-catastrophic level. The maximum permissible value for the pressure volume product was set at 1.5 million bar litres.

The UN Sub-Committee of Experts adopted various consequential amendments that had remained open at the last meeting:

- Inclusion of new definitions of “pressure volume product” and “usable water capacity”;
- Explanation of the information to be included in the approval certificate of the salvage pressure receptacle, taking into account the usable water capacity and the pressure volume product of the pressure receptacles to be used;
- Indication of the usable water capacity, the test pressure and the maximum pressure volume product on the salvage pressure receptacle marking.

Portable tanks

Service equipment made of fibre-reinforced plastics

Following the inclusion of provisions for the construction and testing of portable tanks with shells made of fibre-reinforced plastics (FRP) in the 2023 editions of the dangerous goods regulations for the individual modes of transport, an informal working group of the UN Sub-Committee of Experts discussed whether FRP could also be used for the construction of service equipment. After several meetings of the informal working group, the work has now been finalised and the UN Sub-Committee of Experts decided to include a new section in Chapter 6.9 with provisions for the design, construction and testing of FRP service equipment for portable tanks.

Among other things, the new 6.9.3 includes:

- a definition of “FRP service equipment”, which specifies that it can be used for both FRP and metallic shells;
- Definitions of various manufacturing procedures;
- References to various paragraphs of Chapter 6.7 that must also be complied with for FRP service equipment;
- Requirements for the manufacturer’s quality system, which refers in part to existing provisions of Chapter 6.9;
- Requirements for the materials to be used, some of which have been taken over from the general provisions of Chapter 6.9;
- Consideration of the deterioration of material properties due to the effects of salt fog exposure and ultraviolet radiation;

- Provisions for the initial inspection and the periodic inspection, whereby the latter must be performed as part of the periodic 5-year inspection and the periodic 2.5-year intermediate inspection of the portable tank;
- Provisions for the marking of relief devices and stop valves made of FRP.

Tribute to Mr Claude Pfauvadel (France) and election of a new deputy Chair

After Mr Claude Pfauvadel (France) had stepped down as Chair at the last Joint Meeting due to his impending retirement, he also ended his mandate as Vice-Chair of the UN Sub-Committee of Experts at this meeting. The UN Sub-Committee of Experts recognised his outstanding contribution to the Sub-Committee's work over the past 28 years. Mr Pfauvadel has been a member of the French delegation since 1995 and deputy Chair of the Sub-Committee since 2007. His leadership skills, expertise and participation in the work of informal working groups and other intergovernmental bodies dealing with the transport of dangerous goods were particularly recognised.

At the proposal of Spain, Mr Remko Dardenne (Belgium) was elected as the new Vice-Chair for the remainder of the biennium.

Next session

The 64th session of the UN Sub-Committee of Experts will be held in Geneva from 24 June to 3 July 2024.

Jochen Conrad

RID/ADR/ADN JOINT MEETING
(Berne, 25 to 28 March 2024)

The RID/ADR/ADN Joint Meeting in March 2024 was the last meeting at which decisions could still be taken for the 2025 editions of RID, ADR and ADN. For the 2025 editions, only proposals relating to decisions that had already been taken were considered. For completely new topics, entry into force was postponed until 2027.

The Joint Meeting of the RID Committee of Experts and the Working Party on the Transport of Dangerous Goods of the United Nations Economic Commission for Europe took place during the Easter week and was therefore shortened by one day.

Delegates from 22 states that apply RID, ADR and/or ADN, the European Union and 13 non-governmental organisations took part in the discussions. Zimbabwe was also represented as an observer.

Tanks

The documents on tank issues were dealt with by the working group on tanks, which had already held an online meeting at the end of February. 31 experts from 12 states and five non-governmental organisations took part in the work of this working group, which had already submitted its report before the Joint Meeting.

Exemption from accreditation in case of competent authorities performing inspection tasks themselves

The last Joint Meeting discussed the question as to whether competent authorities that do not approve inspection bodies, but perform the inspection bodies' tasks themselves, must also be accredited in accordance with standard EN ISO/IEC 17020:2012. As the last sentence of 1.8.6.2.1 refers to 1.8.6.3, which, in 1.8.6.3.1, requires accreditation of all inspection bodies, doubts had arisen in this regard.

The working group on tanks returned to this issue. It confirmed that competent authorities that perform the tasks of the inspection body themselves do not have to be accredited. However, in order to prevent inspection bodies that are designated under national law to act as the competent authority from being exempt from the accreditation requirement, the working group on tanks decided to amend 1.8.6.2.1 to close this loophole.

However, the amendment to 1.8.6.3.1, which governs the general requirements for the inspection body, adopted at the last Joint Meeting, was confirmed. The last sentence, which previously required accreditation of the inspection body in addition to compliance with the general requirements, was amended and now only clarifies that the general requirements are deemed to be met if accreditation has been carried out in accordance with standard EN ISO/IEC 17020:2012.

Inspection of tanks for which the specified date for the intermediate inspection has passed

At the last Joint Meeting, it was noted that inspection bodies are still uncertain as to what type of inspection should be carried out when the specified date of the intermediate inspection according to 6.8.2.4.3 and the permitted three-month tolerance period have elapsed. It was agreed that in cases where the deadline for the intermediate inspection has been missed, it is sufficient to perform an intermediate inspection.

The working group on tanks agreed to clarify this in 6.8.2.4.3. However, depending on the period during which the inspection is overdue, the tank owner or operator may also decide to have a periodic inspection carried out instead of the intermediate inspection.

The Joint Meeting noted that this amendment to the provisions merely provided clarification for the competent authorities and their inspection services. It decided that this amendment would enter into force in 2027. In the meantime, this clarification will be included in the list of interpretations on the UNECE and OTIF websites.

Filling of multiple element gas containers (MEGCs)

For the filling of UN multiple element gas containers (UN MEGCs), RID/ADR 4.2.4.5 contains provisions for the working pressures, filling ratios and the maximum permissible gross mass. No such detailed provisions are currently included in Chapter 4.3 for MEGCs used exclusively in land transport.

The Joint Meeting decided to reflect the content of 4.2.4.5 in 4.3.3.2.5 and to apply it not only to MEGCs but also to battery-wagons and battery-vehicles. This amendment will also enter into force in 2027.

New transitional measure for portable tanks of Chapter 6.7

In the context of harmonising RID/ADR/ADN with the UN Model Regulations, a distinction was made between degree of filling and filling ratio, whereby the term “degree of filling” will now only be used for liquids and solids. In addition, the term “maximum allowable mass of gas filled” was also introduced for gases. This amendment has an impact on the tank plates of portable tanks, on which the term “degree of filling” is currently used.

The UN Sub-Committee of Experts on the Transport of Dangerous Goods had already adopted a transitional measure that allows existing portable tanks with the old marking to continue to be used. For RID/ADR, it was decided to include this transitional measure in the 2025 edition.

Exemption from calculating the actual holding time for tank-containers and portable tanks for road transport only

According to ADR 4.3.3.5, tank-vehicles are excluded from the calculation of the actual holding time. The relatively short transport time and the presence of the driver, who can influence the conditions in the tank if necessary, makes premature activation of the pressure relief device a rare occurrence in road transport. These conditions would also apply to tank-containers or portable tanks used exclusively for carriage by road, i.e. without transhipment to or from another mode of transport. For these, however, the current provisions require that the actual holding time must be determined.

It is difficult to determine the actual holding time, because a lot of information is required for the calculation, which must first be obtained. On the other hand, the added value is debatable, as an average, well-insulated tank has an actual holding time expressed in weeks, not days, and the entire journey by road is completed within a week and often in just one or two days.

The Joint Meeting supported the proposal to dispense with the obligation to calculate the holding time for tank-containers and portable tanks carried exclusively by road and to harmonise with the current legal situation for tank-vehicles. This amendment will enter into force in 2025.

Holding time for the carriage of tanks with refrigerated liquefied gases.

At the last Joint Meeting, a proposal from the International Union of Railways (UIC) was adopted not to apply the determination of the actual holding time to uncleaned, empty tanks that have contained refrigerated liquefied gases. At the same time, it was stipulated that the pressure in uncleaned, empty tanks must be reduced to a level that ensures that the pressure relief devices do not activate during transport.

The last Joint Meeting was unable to take a decision on the question of whether the consignor's obligations in 1.4.2 should clarify that the consignor must determine the actual holding time and reduce the pressure in uncleaned, empty tanks. However, the working group on tanks had confirmed that the consignor is responsible for reducing the pressure. Nevertheless, opinions were divided as to whether this needs to be reflected in the regulations.

After the RID Committee of Experts’ standing working group had already supported UIC’s proposal at its meeting in November 2023 to allocate to the consignor the obligation to determine the holding time and, in the case of uncleaned, empty tanks, to reduce the pressure sufficiently, the Joint Meeting made an addition to the consignor’s obligations.

Standards

After the working group on standards had checked that the following standards:

- EN ISO 10297:2024 (Gas cylinders – Cylinder valves – Specification and type testing),
- EN 12972:2018 + A1:2024 (Tanks for transport of dangerous goods – Testing, inspection and marking of metallic tanks),
- EN 13322-1:2024 (Transportable gas cylinders - Refillable welded steel gas cylinders - Design and construction - Part 1: Carbon steel) and
- EN ISO 17871:2020 + A1:2024 (Gas cylinders – Quick-release cylinder valves – Specification and type testing)

were in conformity with RID/ADR, the Joint Meeting adopted the references to these standards in the 2025 editions of RID and ADR.

The Joint Meeting agreed that the standards referred to would have to be published by the end of May 2024 at the latest so that a reference could be included in RID/ADR 2025.

Interpretation of RID/ADR/ADN

Criminal records requirements for participants in the carriage of dangerous goods

Chapter 1.10 of RID/ADR/ADN was introduced to minimise the theft or misuse of dangerous goods. At national level, the United Kingdom recommends that undertakings involved in the transport of

dangerous goods check whether potential employees have a criminal record. RID/ADR/ADN itself does not contain any provisions on whether employees with a criminal record may be employed for work involving the transport of dangerous goods or whether record checks must be carried out before employees are employed.

The United Kingdom asked the Joint Meeting whether provisions should be included in RID/ADR/ADN requiring employers to carry out checks to ensure that employees carrying out tasks involving the carriage of dangerous goods do not pose a security risk.

Most delegations agreed that the provisions of RID/ADR/ADN are mainly aimed at safety in the carriage of dangerous goods and that new requirements going beyond the provisions for security in Chapter 1.10 are not necessary. Since the issue raised is linked to criminal or administrative law, any security checks should be regulated at the national level of the contracting states/contracting parties and not at international level.

New proposals

Pressure receptacles approved by the Department of Transportation of the United States of America

RID/ADR 1.1.4.7 permits the import and export of gases in pressure receptacles approved by the United States Department of Transportation. As the headings of 1.1.4.7.1 and 1.1.4.7.2 explicitly mention the import and export of gases, they are interpreted to mean that the provisions apply only to pressure receptacles for the carriage of substances of Class 2 and not to pressure receptacles for the carriage of other substances which do not fall under Class 2 but are listed in packing instruction P 200. One substance that does not fall under Class 2 but is carried in pressure receptacles is, for example, UN 1052 Hydrogen fluoride, anhydrous. This substance is used by the European industry, but is not readily available on the European market with the required quality.

The representative of the United States of America explained that at the same time as 1.1.4.7 was introduced into RID/ADR/ADN, a corresponding provision had been included in the USA's dangerous goods regulations (CFR 49) in order to allow the carriage of pressure receptacles approved in a Contracting Party to RID, ADR or ADN in the USA. This corresponding provision of CFR 49 permits the carriage of all substances that are permitted in pressure receptacles in accordance with RID/ADR/ADN.

During the discussion, it was confirmed that the original intention of the text included in RID/ADR/ADN was not to exclude the carriage of non-gaseous substances from the provisions of 1.1.4.7. The Joint Meeting therefore agreed to clarify the headings of 1.1.4.7.1 and 1.1.4.7.2, although this amendment will not come into force until 2027. It was suggested that a special multilateral agreement be initiated to permit the transport of dangerous substances other than gases before this date.

Paints and printing inks classified as environmentally hazardous substances

A transitional measure was included in RID/ADR/ADN 2023, which grants an exemption from the requirement for performance testing for packagings for certain environmentally hazardous paint products assigned to UN number 3082. This transitional measure, which relates to paints that become environmentally hazardous substances due to the admixture of three named preservatives, expires on 30 June 2025. It is very difficult to substitute these preservatives and this is not currently foreseeable. In addition, no suitable UN-approved packagings are available, which are required for the carriage of these water-based paints and printing inks in quantities between 5 and 30 litres. The packagings used for paints must be able to be opened and safely resealed several times in order to enable the tinting of water-based paints at point-of-sale locations (e.g. do-it-yourself stores) and the repeated use of ink concentrates when preparing colour-matched finished inks for printing facilities.

The European Council of the Paint, Printing Ink, and Artist's Colours Industry (CEPE) requested an extension to the transitional measure and at the same time an extension to other preservatives that will be classified as environmentally hazardous substances as a result of future adaptations to technical progress (ATP) of the European Union Regulation on classification, labelling and packaging of substances and mixtures (CLP).

The Joint Meeting only agreed to an extension of the transitional period until 30 June 2027. Further amendments to the transitional measure will have to await discussion at the UN Sub-Committee of Experts on the same topic.

Subsequent amendments to texts that have already been adopted for entry into force in 2025

The Joint Meeting made various subsequent amendments to texts that are to enter into force in 2025 in the context of harmonising RID/ADR/ADN with the UN Model Regulations. This mainly involved the extension of existing provisions to the new sodium-ion cells and batteries.

Tributes

The Joint Meeting noted that Mr Wolfgang Küpper (Secretary General of OTIF), Mr Yuwei Li (Director of the UNECE Sustainable Transport Division), Mr Alfons Hoffmann (Germany) and Mr Claude Despont (Switzerland) would be retiring shortly or later in the year, and wished them all a long and happy retirement. It thanked Mr Claude Despont in particular for his valuable contributions to the Joint Meeting's working group on tanks and Mr Alfons Hoffmann for his commitment and valued contributions to the work of the Joint Meeting over more than three decades.

Alfons Hoffmann

Next session

The next Joint Meeting will be held in Geneva from 9 to 13 September 2024 and will continue work on the 2027 editions of RID/ADR/ADN.

Jochen Conrad

TRANSBOUNDARY MOVEMENT OF WASTES: CURRENT LEGAL SITUATION AND DEVELOPMENTS (PART 2)

The first article in a series on the transboundary movement of wastes was published in the last issue of this Bulletin in 2023 (see Bulletin 4/2023, pp. 22-28). The article mainly described the relevant and almost universal international convention – the Basel Convention.

This article presents a regional convention that governs the transboundary movement of hazardous wastes on the African continent and contains provisions that go beyond those of the Basel Convention.

In addition, global agreements are presented that mainly deal with the regulation of certain chemicals and likewise address the movement of waste.

Bamako Convention

Origins

At the end of the 1980s, the global community was appalled by several cases of illegal waste shipments from industrialised countries to Africa.

One of the cases from 1987 concerned the import of large quantities of toxic wastes (2900 m^3), including polychlorinated biphenyls (PCBs), to Nigeria by the Italian companies Ecomar and Jelly Wax. The wastes were declared as substances "for the construction industry" and as "residual substances and related chemicals" and were imported under this cover. In the small fishing village of Koko in the Niger Delta, an unsuspecting Nigerian farmer agreed to store the drums of toxic waste in his backyard for $100 a month. The corroding drums soon began to leak and contaminated the soil and groundwater, causing serious health problems for several villagers.

Toxic waste at the Port of Koko (Source: "Amici della terra" http://www.amicidellaterra.it/index.php/1980-1990/la-nave-dei-veleni)

The discovery of the illegal disposal site by the Nigerian authorities in 1988 initially led to a diplomatic crisis between Nigeria and Italy. However, the Italian government finally agreed to organise the removal of the toxic wastes and transport them back to Italy.

Although the waste originated in Italy, there was strong resistance from the Italian population to bringing it back. In keeping with the NIMBY ("not in my backyard") principle, they protested massively against accepting the two cargo ships *Karin B* and *Deep Sea Carrier*, which were supposed to return the toxic waste drums to Italy and which became known to the public as "poison ships". Following a month-long odyssey on the high seas and several unsuccessful attempts to dock in the ports of other countries, the two ships finally returned to Italy.

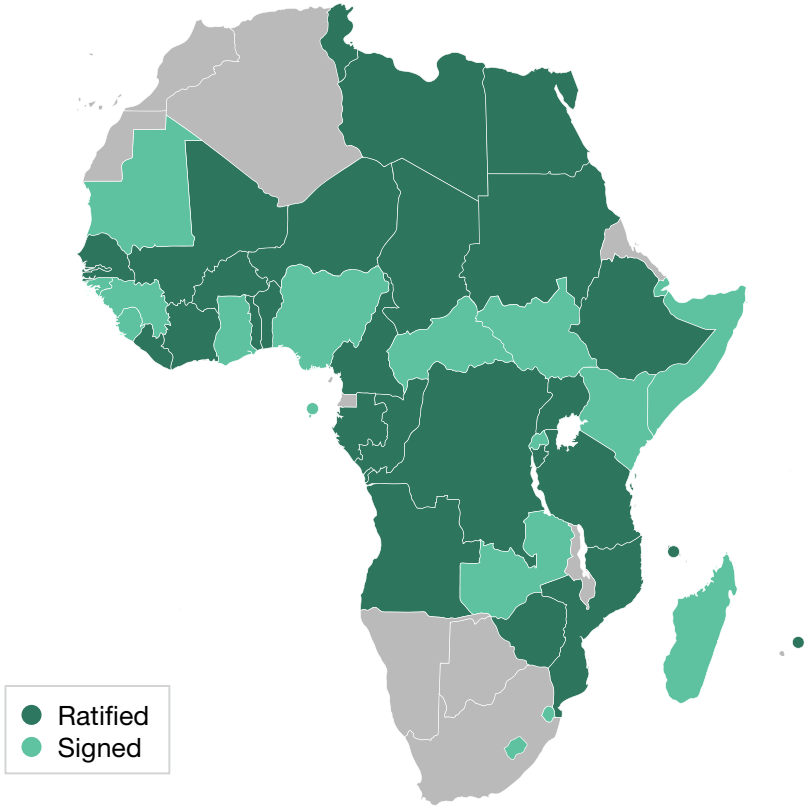
This was just one of the cases known about in which industrialised countries exported hazardous wastes to developing countries. They gave rise to a strong need for regulation of the transboundary transport of hazardous wastes and ultimately led to the adoption of the Basel Convention in 1989.

As already explained in edition 4/2023 of the Bulletin, the "Ban Amendment" to the Basel Convention, which completely bans the transboundary movement of hazardous wastes from richer industrialised countries to poorer developing countries, was adopted in 1995, but only came into force in 2019.

Owing to the increasing illegal importation of hazardous wastes to Africa and the long absence of a general ban on transboundary movements of such wastes to developing countries in the Basel Convention, several African countries saw a need for action to halt or at least curb these negative developments.

According to Article 11 of the Basel Convention, Parties may enter into bilateral, multilateral, or regional agreements on hazardous wastes, provided that they stipulate provisions which are not less environmentally sound than those provided for in the Convention, in particular taking into account the interests of developing countries. With this in mind, the "Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa", or Bamako Convention for short, was adopted by 12 African Union states (at that time the Organisation of African Unity) in Bamako, the capital of Mali, on 30 January 1991. The Convention came into force on 22 April 1998 and now has 30 Parties[1].

Contracting Parties to the Bamako Convention:



The boundaries shown on this map do not imply the expression of any opinion on the part of OTIF'S Secretariat concerning any legal status of any country, territory, or concerning the delimitation of its frontiers

1 See the current status on the website of the African Union (https://au.int/en/treaties/bamako-convention-ban-import-africa-and-control-transboundary-movement-and-management).

Content and objectives

The Bamako Convention is an international environmental agreement focussing on the control of transboundary movements of hazardous wastes in and to Africa. The Convention was intended to ban or at least severely restrict the transport of hazardous wastes to Africa and within Africa.

The Bamako Convention is similar in form and language to the Basel Convention.

In contrast to the Basel Convention, the scope of the Bamako Convention also covers radioactive material. In addition, it considers all wastes that have one or more of the hazardous properties listed in its Annex II to be hazardous.

The Bamako Convention contains two general bans:

1. Ban on the import of all hazardous (including radioactive) wastes, for any reason, into Africa;

2. Ban on the dumping or incineration of hazardous wastes in the Parties' internal waters, territorial seas, exclusive economic zones and in the continental shelf, including their disposal in the seabed and sub-seabed.

The Bamako Convention also contains provisions for waste management within Africa. The Parties should significantly reduce the generation of hazardous wastes and cooperate to ensure that wastes are treated and disposed of in an environmentally sound manner. In addition, they should minimise the transboundary movement of hazardous wastes within Africa. As in the Basel Convention, hazardous wastes may only be exported with the prior informed consent (PIC) of the States of import and transit.

In order to ensure that the Parties are able to properly handle and dispose of hazardous wastes, efforts should be made to raise awareness of the problem and develop capacities in African countries. To this end, exchange and cooperation with the secretariats of the Basel Convention and the Rotterdam and Stockholm Conventions should also be intensified.

It is undisputed that the Bamako Convention is an important regional instrument in terms of minimising the negative impact of waste management on the environment and the health of people in Africa and promoting sustainable development on the African continent. In order to achieve some of the objectives of the Convention, in particular to ensure the safe and environmentally sound transport of hazardous wastes within Africa, the Regulations on the Transport of Dangerous Goods by Road (ADR) and Rail (RID) can be used. The Contracting Parties to ADR and the Contracting States to RID, as well as other interested states striving for the safe transport of all dangerous goods in accordance with the latest scientific and technical knowledge can apply the two sets of regulations as best practices.

Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants is an international environmental agreement that was signed in Stockholm on 22 May 2001 and came into force on 17 May 2004. The aim of the Convention is to restrict the production, use and release of persistent organic pollutants and ultimately to eliminate them. The Convention currently has 186 Parties[2].

Persistent organic pollutants (POPs) are a group of chemical compounds that are considered to be particularly hazardous to the environment and human health. Some of the characteristic features of POPs are:

- **Persistence:** POPs are very stable and resistant to degradation, which means that they only degrade slowly or not at all in the environment. Some POPs can persist in the environment for hundreds to thousands of years.

- **Bioaccumulation:** POPs are able to accumulate in living organisms. Once released into the environment, they can enter the food chain and accumulate in higher concentrations in organisms at the top of the food chain.

- **Long-range environmental transport:** owing to their persistence and their ability to spread easily over long distances, POPs can be transported over long distances by air and water currents. This means that they can also occur in areas where they have never been used.

- **Toxicity:** many POPs are highly toxic and have serious effects on human health and the environment. They can be carcinogenic, impair the immune system, interfere with reproduction and development and cause other health problems.

The Stockholm Convention originally regulated twelve POPs. These included pesticides such as aldrin, DDT (dichlorodiphenyltrichloroethane) and dieldrin, industrial chemicals such as polychlorinated biphenyls (PCBs) used in various applications such as transformers, capacitors

2 See the current status on the website of the Stockholm Convention (https://www.pops.int/Countries/StatusofRatifications/PartiesandSignatoires/tabid/4500/Default.aspx)

and hydraulic systems, and substances produced as unwanted by-products of industrial processes (polychlorinated dibenzodioxins and dibenzofurans). Since then, new POPs have been included in the scope of the Convention which, among other things, meet the criteria specified in Annex D of the Convention with regard to persistence, bioaccumulation, long-range environmental transport potential and adverse effects on human health or the environment.

All POPs regulated by the Convention are listed in one of the Annexes A, B or C. The production and use of the POPs listed in Annex A is prohibited and the Parties must take measures to eliminate them. This category includes polychlorinated biphenyls, for example. In addition, the Parties must restrict the production and use of the substances listed in Annex B. This applies to DDT, for example. For both categories, however, production or use-specific exemptions apply, which are defined in the respective annex and can only be applied by the Parties that register for them. Annex C lists POPs that are unintentionally formed and released from anthropogenic sources during thermal processes involving organic substances and chlorine. Such industrial sources include waste incinerators, cement kilns firing hazardous wastes, production of pulp using elemental chlorine and thermal processes in the metallurgical industry. The Parties must take appropriate measures to achieve continuous minimisation, with the aim of completely eliminating releases of these undesirable by-products.

Tractor spraying pesticides on an agricultural field (Source: Wikimedia commons CC BY 2.0 Deed, https://commons.wikimedia.org/wiki/File:Tractor_Fertilize_Field_Pesticide_And_Insecticide.jpg)

Capacitor containing PCBs

The import of a chemical listed in Annex A or B may only take place for the purpose of environmentally sound disposal or for the use authorised for the importing Party in accordance with Annex A or B.

Similarly, the export of such chemicals is only permitted for the purpose of environmentally sound disposal or to a Party that is authorised to use this chemical in accordance with Annex A or B. Export is also possible to a state that is not Party to the Convention, provided that this state has provided an annual certification to the exporting Party. Among other things, this certification must specify the intended use of the chemical and include a statement that the State of import is committed to protecting human health and the environment by taking all the necessary measures. Any export of POPs listed in Annex A or B must be carried out in accordance with the Prior Informed Consent (PIC) procedure.

Article 6 of the Convention requires Parties to take measures to reduce or eliminate releases of POPs from stockpiles and wastes. The term “wastes” covers wastes that consist of, contain or are contaminated with a chemical listed in Annex A, B or C. Products and articles that meet these requirements and are sorted out for disposal also become such wastes. Stockpiles of POPs that are no longer allowed to be used must also be managed as waste. Large quantities of such wastes are produced when former landfill sites and contaminated industrial sites, such as scrap yards, factories for transformers and capacitors and plastics and metal processing plants, are cleaned up as part of the remediation of contaminated sites. The Parties must ensure that these wastes are handled, collected, transported, stored and disposed of in an environmentally sound manner. They may only be transported across international boundaries when taking into account relevant international rules, standards and guidelines. These

international rules include the Basel Convention, the Rotterdam Convention and the regulations for the international carriage of dangerous goods. The competent bodies of the Basel Convention have drawn up and published general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants.

Rotterdam Convention

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade is an international agreement whose main objective is to regulate and control the cross-border trade of hazardous chemicals. It was adopted in Rotterdam on 10 September 1998 and came into force on 24 February 2004. The Convention has 166 Parties[3].

The Rotterdam Convention contains provisions aimed at improving transparency and the transmission of information in international trade in certain hazardous chemicals. At the same time, it gives States of import the opportunity to make an informed decision on the acceptance of such chemicals by introducing the Prior Informed Consent (PIC) procedure.

While the Convention itself does not contain any direct provisions on the handling, transport and disposal of wastes from hazardous chemicals, the PIC procedure is one of the cornerstones for the transboundary movement of hazardous wastes in accordance with the Basel Convention (see also Bulletin 4/2023, pp. 24-26). As mentioned above, the Bamako Convention and the Stockholm Convention also make use of the PIC procedure.

Joint Secretariat

The Secretariat of the Basel Convention and the Stockholm Convention is administered by the United Nations Environment Programme (UNEP) and is located in Geneva. The Secretariat of the Rotterdam Convention is run jointly by UNEP and the Food and Agriculture Organization of the United Nations (FAO). It has two seats: one in Geneva and one in Rome. In 2012, the secretariats of the Basel Convention and the Stockholm Convention as well as the UNEP part of the Rotterdam Convention Secretariat moved from three separate secretariats to a single secretariat serving the three conventions.

BASEL / ROTTERDAM / STOCKHOLM
CONVENTIONS

Joint logo of the three conventions (Source: https://www.brsmeas.org)

Although each of these conventions has a different focus, their objectives and principles often overlap. A joint secretariat helps to manage these overlaps efficiently and to promote synergies between the conventions. It ensures that the provisions of the various conventions are harmonised and consistently applied.

Minamata Convention

The Minamata Convention on Mercury, which was adopted in 2013 and entered into force in 2017 and whose main objective is to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds, was already presented in Bulletin 3/2021 (pp. 20-21).

As a reminder: mercury is a toxic heavy metal that occurs in various forms, is characterised by its ability to bioaccumulate in living organisms and can have serious effects on the nervous system, kidneys, brain and other organs. In the past in particular, it was used in various branches of industry, such as in the manufacture of chlorine, acetaldehyde, batteries, electronics, fluorescent lamps and measuring instruments.

Examples of products containing mercury (Source: Adobe Stock)

The Minamata Convention includes a number of provisions to reduce mercury emissions, control the trade and use of mercury, and treat mercury wastes and contaminated sites.

The provisions on mercury wastes are contained in Article 11 of the Convention.

For the purposes of the Convention, mercury wastes means substances or objects consisting of mercury or mercury compounds, containing mercury or mercury compounds or contaminated with mercury or mercury compounds, in a quantity above the relevant thresholds defined by the Conference of the Parties, in

3 See the current status on the website of the Rotterdam Convention (https://www.pic.int/Countries/Statusofratification/PartiesandSignatories/tabid/1072/language/en-US/Default.aspx)

collaboration with the relevant bodies of the Basel Convention.

Each Party must ensure that mercury waste is managed and disposed of in an environmentally sound manner The relevant technical guidelines developed under the Basel Convention and requirements to be adopted in the future in an additional annex to the Minamata Convention under Article 27 must be taken into account. The draft of this new annex, which will also take into account national waste management regulations and programmes of the Parties, is currently in the preparatory phase.

According to the Minamata Convention, mercury wastes may only be recovered, recycled, reclaimed or directly re-used for a use allowed to a particular Party under the Convention or for environmentally sound disposal.

Parties to the Basel Convention may transport mercury wastes across international boundaries solely for the purpose of environmentally sound disposal in accordance with the Minamata Convention and the Basel Convention. In circumstances where the Basel Convention does not apply to transport across international boundaries, a Party may allow such transport only after taking into account relevant international rules, standards, and guidelines.

The Conference of the Parties is encouraged to seek to cooperate closely with the relevant bodies of the Basel Convention in the update of the technical guidelines on mercury wastes.

Conclusion

It is clear that the various international conventions presented above, which deal exclusively or only partially with the transboundary movement of hazardous wastes, show some significant synergies in their objectives, endeavours and methods.

All the conventions aim to minimise the transboundary movement of hazardous wastes. If transboundary movement is authorised, it is usually only for the purpose of environmentally sound disposal. This may only take place in accordance with the provisions laid down in the various conventions and, above all, in accordance with the Prior Informed Consent procedure. The secretariats and competent bodies of the various conventions work closely together to develop and publish relevant guidelines. By promoting international cooperation, exchanging information and disseminating best practice, they help to address effectively the challenges associated with hazardous wastes.

Katarina Burkhard

CALENDAR OF OTIF'S MEETINGS IN 2024

DATE	EVENT	ORG	LOCATION
18 - 19 June	139th Session of the Administrative Committee		**Berne - Switzerland**
20 June	Candidates' forum		**Berne - Switzerland**
9 - 13 September	RID/ADR/ADN Joint Meeting	**UNECE**	**Geneva - Switzerland**
18 - 19 September	Working Group WG TECH. 53rd Session		**Berne - Switzerland** (HYBRID MEETING)
25 - 26 September	16th General Assembly		**Berne - Switzerland**

EVENTS WITH OTIF PARTICIPATION IN 2024

DATE	EVENT	ORG	LOCATION
17 - 18 June	Workshop on Anticipation and Preparation for Emerging Critical Risks	**OECD-ISO**	**Geneva - Switzerland**
24 June - 3 July	64th session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods	**UNECE**	**Geneva - Switzerland**
25 - 26 June	Railway Interoperability and Safety Committee (RISC)	**European Commission**	**Brussels - Belgium** (HYBRID MEETING)
2 - 3 July	UIC 104th General Assembly	**UIC**	**Lisbon - Portugal**
8 - 9 July	Luxembourg Rail Protocol Ratification Task Force	**UNIDROIT**	**Rome - Italy** (HYBRID MEETING)
23 - 24 July	Bilateral meetings- Minister of Transport and Infrastructure, TCDD, TCDD Taşımacılık	*	**Ankara - Türkiye**
20 - 23 August	Group of Experts on Annex 2 to SMGS "Provisions for the Carriage of Dangerous Goods"	**OSJD**	**Warsaw - Poland**
2 - 4 September	Revisions Committee to the Model Rules on the Permanent Identification of Railway Rolling Stock (SC.2/RC.1) - 2nd session	**UNECE**	**Geneva - Switzerland**
5 - 6 September	General Assembly of UTP	**UTP**	**Martigny - Switzerland**
24 - 26 September	Innotrans	**Messe Berlin**	**Berlin - Germany**

* Ministry of Transport and Infrastructure/ TCDD/ TCDD Taşımacılık

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Thank you for your continued interest.
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