



Bulletin

OTIF

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

Unified railway law to connect Europe, Asia and Africa



SUMMARY

NEWS

OTIF

- 4 Bilateral OTIF-ONCF meeting
- 4 OTIF's 13th General Assembly: Highlights
- 6 Uniform railway law in the network society

COTIF

- 12 Modification of COTIF: Status of approvals
- 12 Entry into force of modifications to APTU and ATMF

COMMUNICATING AND DISSEMINATING

- 13 Speech at the African Union in Addis-Ababa on the "mail by rail" project
- 13 OTIF at Innotrans

DEVELOPMENT OF RAILWAY LAW

COTIF - OTIF

- 14 Revised procedure for amending the appendices to COTIF

RAILWAY TECHNOLOGY

- 15 Building infrastructure provisions within COTIF

DANGEROUS GOODS

- 18 53rd Session of the un Sub-Committee of Experts on the Transport of Dangerous Goods (Geneva, 25 June to 4 July 2018)
- 21 RID/ADR/ADN Joint meeting (Geneva, 17 - 21 September 2018)

DIARY OF EVENTS

Photos

Valerio Compagnone OTIF
Sarah Pujol OTIF

16.01.2019



After six years spent at the head of OTIF, I should like here to acknowledge the Member States and all of OTIF's partners for the trust they have placed in the Secretariat. Without this trust and ongoing discussions, a multilateral institution can achieve nothing. Thanks to the commitment shown by its staff and their creativity, the Organisation is now widely recognised. With the development of the silk routes, its *raison d'être* formulated at the end of 2013 – “unified railway law to connect Europe, Asia and Africa” – has taken on particular significance.

Since 2013, the new Bulletin formula has given priority to the discussion of ideas and the diversity of points of view. In years to come, it would be good to involve external contributors more often who can exchange and make heard their points of view. This is the cost of innovation. As Nietzsche wrote, “one must still have chaos in oneself to be able to give birth to a dancing star”.

In this Bulletin, I wanted to promote an idea that is slightly paradoxical: the unconscious adaptation of the rail system to the mobility of the future ([see page 6](#)).

I use the word adaptation advisedly, because as the railways are themselves an integrated network, and as a service that is the future of transport, they have all the assets to become the centre of mobility. In this context, the customer does not seek to own the means of transport (a private car, for example), but the successive and coordinated use of different modes, which digital networks render simple and efficient.

The adaptation is unconscious, because the rail system is still largely dominated by the vision of A to B transport or the concept of corridors. It has not yet been able to view itself or, more importantly, model itself as a network. This is especially the case for the regulatory bodies. The sector is beginning to structure itself in this direction, particularly via the UIC's digital platform.

I hope this edition of the Bulletin will contribute to promoting the discussion, which is still only the prelude to future solutions.

François Davenne

BILATERAL OTIF-ONCF MEETING

On 4 and 5 September 2018, the Secretary General of OTIF, Mr Davenne, and the head of the dangerous goods department, Mr Conrad, travelled to Rabat in Morocco to meet the Director General of the National Office of Moroccan Railways (ONCF), Mr Khlie, and his teams.

The meeting focused on ONCF's and Morocco's participation in the work of OTIF.

Mr Khlie explained the strategic challenges for the railways in Morocco, which are undergoing remarkable developments, particularly with the first high-speed line in Africa being brought into service between Rabat and Tangier. Mr Davenne and Mr Conrad presented the full range of OTIF's activities and explained the value of uniform law for Africa. Following the

discussion, it emerged that Morocco, which also applies the Regulation concerning the International Carriage of Dangerous Goods by Rail (RID), would be interested in taking part in OTIF's technical meetings, particularly the standing working group or the RID/ADR/ADN Joint Meeting.

Owing to its position in North Africa and its proximity to Europe, Morocco is a key state for international multi-modal rail-sea transport.

Following this meeting, Mr Khlie and Mr Davenne plan to organise a seminar on OTIF and uniform law, which would be held in the second half of 2019 in the framework of UIC's regional meeting for Africa.

The Secretary General thanked the Director General of ONCF, Mr Khlie, for his availability.

François Davenne



OTIF'S 13th GENERAL ASSEMBLY: HIGHLIGHTS

OTIF's 13th General Assembly was held in Berne on 25 and 26 September 2018.

35 of the Organisation's Member States attended, as well as China and Moldova as observers. The European Union, 5 international organisations and 11 international associations also took part.

In addition to the important improvements adopted by the General Assembly (see inset), this 13th General Assembly was marked by three highlights involving our partners.

First of all, Mr Yuwei Li, the Director of the Transport Division at the United Nations Economic Commission for Europe (UNECE), gave a presentation on the progress so far in the Unified Railway Law project and explained why it was necessary, particularly a draft legal regime on the contract of

carriage of goods. In this respect, the General Assembly instructed the Secretary General to continue cooperation with the UNECE, whilst recalling that it must take a prior decision with regard to participating in the preparation of any new text on international railway law whose scope of application and objectives may conflict or partially coincide with the scope of application of COTIF and the objectives of OTIF.

Later on 25 September 2018, Mrs Anna Veneziano, the deputy Secretary General of the International Institute for the Unification of Private Law (UNIDROIT), Mrs Elizabeth Hirst, the Director General of Regulis SA (the registrar) and Mr Peter Bloch, co-chair of the Preparatory Commission for the Luxembourg Protocol came to present the progress, future functioning and status of signatures of the Luxembourg Rail Protocol. The General Assembly also instructed the Ad-

ministrative Committee to define the arrangements for OTIF to designate three of its Member States as members of the Supervisory Authority. The Chair of OTIF's Administrative Committee and the Chair of the Supervisory Authority of the International Rail Registry will later be called upon to sign an agreement on the detailed conditions for exercising the role of secretariat of OTIF.

The first day closed with a buffet reception at the invitation of OTIF and the Swiss Confederation in order to celebrate the 125th anniversary of the Convention of Berne (1893), the predecessor to COTIF. 125 years of legal provisions for the international carriage of goods!

The General Assembly designated the members of the Administrative Committee for the period from 1 October 2018 to 30 September 2021

MEMBERS	DEPUTY MEMBERS
Germany	Hungary
Belgium	Switzerland
Bosnia-Herzegovina	Ukraine
Croatia	Slovenia
Estonia	Latvia
France	United Kingdom
Greece	Montenegro
Iran	Azerbaijan
Luxembourg	Monaco
Norway	Sweden
Pakistan	Macedonia (FYR)
Poland	Czech Republic
Portugal	Lithuania
Romania	Slovakia
Tunisia	Italy
Turkey	Serbia

The General Assembly was chaired by Mrs Monique van Wortel. Some of the main points it adopted were:

- the new Appendix H (EST) on the safe operation of trains – these new rules will make it possible to extend interoperability beyond the European Union;
- modifications to the Uniform Rules concerning the Contract of Use of Infrastructure (CUI UR) in order to make them clearly applicable to international transport and in due course to improve the consistency of the rules for allocating international train paths;
- a modification to Article 34 of COTIF to reduce the period for the entry into force of modifications to the Convention and its appendices to three years so as to adapt better to developments in the sector;
- the nomination of Mr Bas Leermakers as Secretary General ad interim until a new Secretary General to be elected at the end of February 2019 takes up his post sometime in 2019.



UNIFORM RAILWAY LAW IN THE NETWORK SOCIETY

The symbol of networks is what drives today's innovations. Whether in the field of transport (Uber), trade (Amazon) or holiday rentals (AirB&B), these global successes all apply the potentials provided by IT networks to an area of the real economy. The formal definition and technical operation of these IT networks are based on a number of principles that were clearly defined in the middle of the 1970s. However, rail transport law still uses a conceptual approach which is far removed from this. This is all the more damaging in that the functioning of the rail system is closely analogous to that of data transmission networks. In order to construct consistent, global uniform law, this opportunity must be seized.

This is not the first time that OTIF's Bulletin has dealt with the issue of the similarities between railway transport and data transmission. This is a cornerstone of rail transport's ability to take its natural place as the backbone of overland mobility. With its cargo carrying capacity, rail transport has a natural role in focusing freight and passenger traffic and in carrying freight and passengers quickly under the most favourable economic and ecological

conditions. The concept of being a backbone comes from the world of telecommunications, which has for a long time been modelling the characteristics that this type of infrastructure must have.

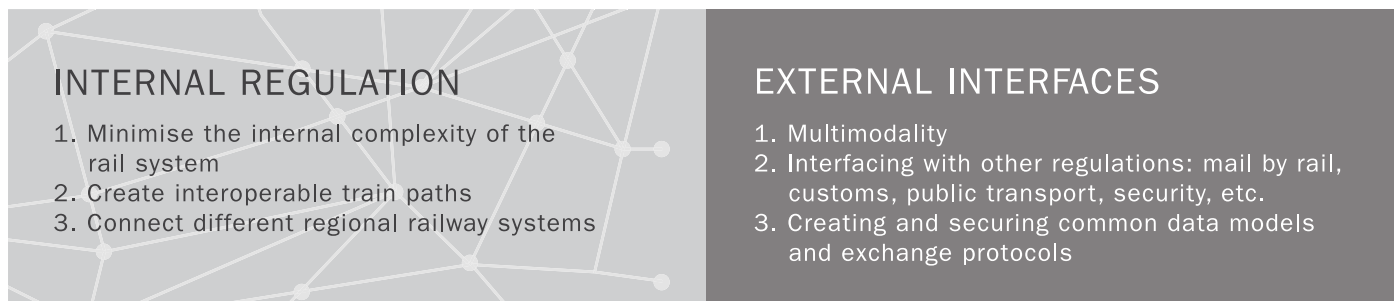
In order fully to fill this role, two main conditions must be met:

- The internal interfaces must be brought under control: in other words, the various problems of tech-

nical compatibility (interoperability) and legal problems (different types of contracts) must be overcome;

- The external interfaces must be brought under control: these are also both technical (how to ensure the continuity of mobility with local modes of transport, such as road or public transport) and legal (co-existence of contracts at different levels and managing customs procedures).

Figure 1: Conditions for the successful creation of a rail transport backbone



The articulation of these conditions indicates the significant steps that still have to be taken. While not underestimating the issue of investment in infrastructure and rolling stock, this article develops the assertion that it is equally important to work on a suitable conceptual model. Optimising the existing network by means of shared procedures, whether at national or international level, is full of new

possibilities. The creation of "shared software" must come from within the rail system.

Owing to the lack of space, only rail freight is considered in this article, as it has the closest analogies, although the same reasoning could be applied to passenger transport. We will therefore assume that at present, it is the functioning of the networks that has

to engender its consistency with the law, the objective for international transport law is therefore to redefine the interactions between its various components in order to rethink the rail system through its interfaces.

The functioning of the networks has an increasing effect on the logic of the law

The principle of the seamless functioning of transport has become a common assumption in transport law. This idea comes from the telecommunication networks. It illustrates their ability to enable two applications to communicate on remote machines by taking charge of the underlying complexity of

the data transmission networks. This gives the impression of “seamless” or uninterrupted transmission, whereas in fact, some complex interfaces are involved.

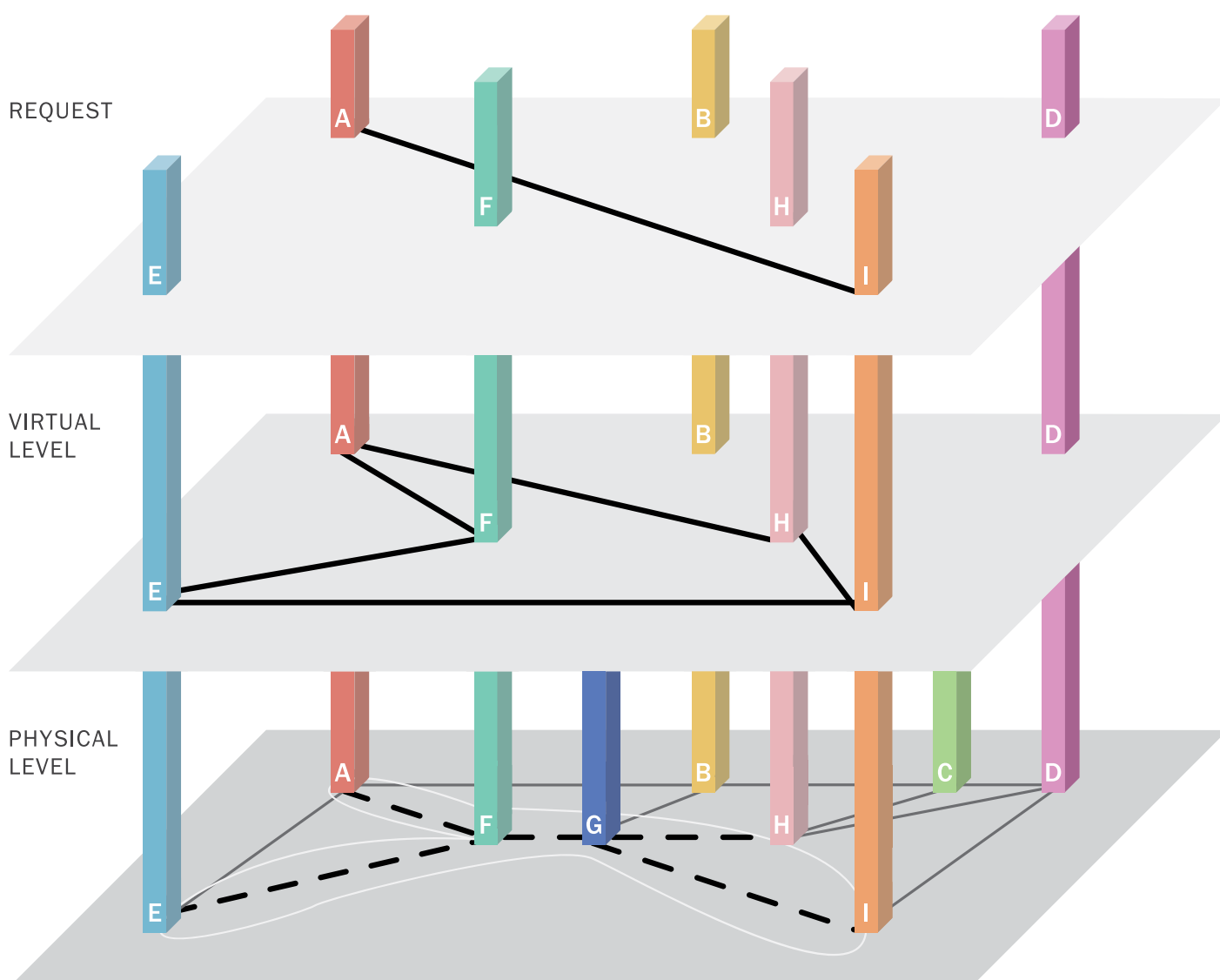
Typically, there are at least three levels that have to be considered:

- The data processing by the machines - themselves and the constraints of the dialogue protocol

used (requests level in the diagram);

- The virtual level, which shows how the administration of the various networks used represents the data path;
- The physical level, which represents the path the data actually follow.

Figure 2: The various layers at work in data transmission



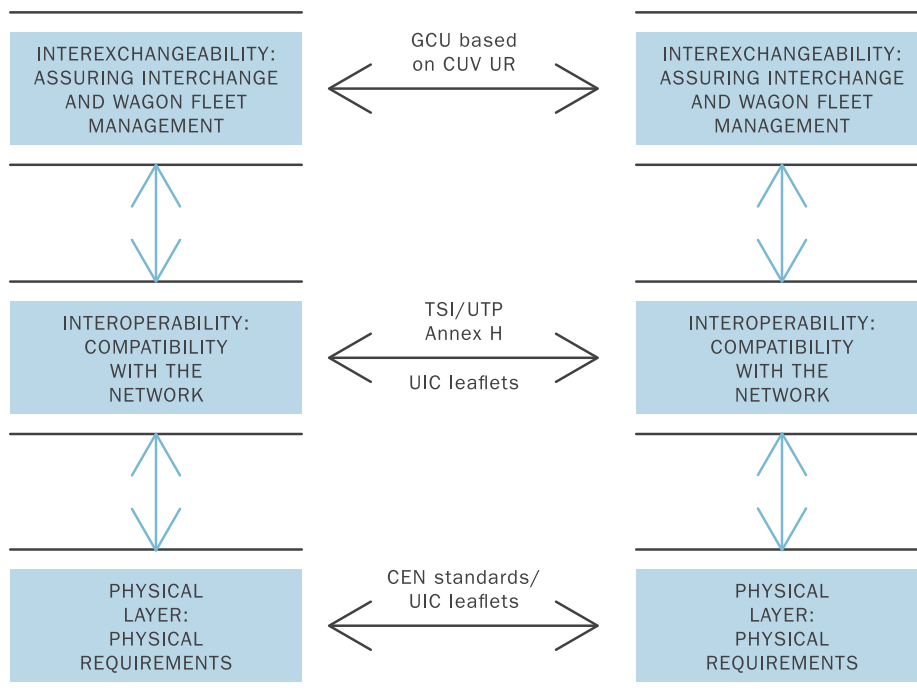
This type of representation might seem new in the field of transport, but it has been shaping the field of IT networks since the middle of the 1970s. The Internet “revolution” provided an impressive extension of the ability to connect, collect and process information, but it is still part of the conceptual framework of the OSI model (Open Systems Interconnection).

In an article in a previous Bulletin¹, I explained the conceptual analogies between the railway network and the OSI model, which still acts as the theoretical reference point for data transmission networks. This model breaks down into different layers the various protocols required to transmit data. Each layer resolves a certain number of problems relating to data transmission and provides well-defined services to the layers above. The upper layers are nearer to the user and handle more abstract data using the services of the lower layers, which format these data so that they can be transmitted on a physical medium.

If we replace the data packets with wagons, there is a fairly direct analogy with the issues that would be raised by establishing a freight transport service between a consignor and a consignee. For packets, as for wagons, it must be possible to sort and assemble them and ensure that each unit is transported from end to end. Without going into the detailed explanation given in the previous article, it is possible to compare the two models.

- The physical layer corresponds to the standardisation of the physical components: in the railway sector, this is done by means of standards (CEN, GOST etc.) and UIC leaflets.
- The transport layer corresponds to the rules on interoperability (TSI or UTP), which ensure compatibility between rolling stock and the network.
- The network layer corresponds to the procedures that enable traffic to be managed from end to end and the

Figure 3 : OSI-based modelling of a freight service



management of wagon fleets; for example, the GCU is part of this layer, but it should also include train path management.

- The service layer enables end users to use a seamless, end to end freight transport service; the CIM and CIV rules follow this logic. It must also include all the provisions that govern issues of liability and quality of service.

The value of such an analogy is to show which interfaces should be developed in order to make existing services more efficient. It also helps think about innovative services that could be provided by using what already exists, provided the functioning of the interfaces is improved.

It is a priority for an organisation responsible for railway law, such as OTIF, to think about the rail system in the context of this networking of the world. Continuing to think in terms of the old frameworks carries the risk that in due course, the railways will be margin-

alised. A good example of this is the problems the International Telecommunications Union encountered in reacting quickly enough to the emergence of the Internet at the beginning of the 1990s. The Internet is now administered by ICANN², a corporation under Californian law, in which states are only represented in an advisory capacity.

At a more technical level, the absence of a network “memory” and registered virtual circuits at the level of the Internet protocol has led to technical innovations such as “cookies”, which enable private internet companies to trace users’ connections. In theory, this type of functionality should not be managed in the high levels, as is the case with cookies, but in the structure of the network level itself. Most of the current problems that arise in terms of protecting privacy have their origins in this characteristic of the IP protocol. This example shows how important it is for the historical regulatory bodies of network activities to pay great attention to the impact of technological innovations.

¹ Bulletin 2/2017: “A model for the creation of new rail services: the example of parcel transport between China and Europe”.

² Internet Corporation for Assigned Names and Numbers.

In the case of ICANN, which began as the activity of a single person³ up until 1998, what Nietzsche said was true: “thoughts that come on doves’ feet guide the world”.

Redefine the interactions between the various levels of the law

Putting uniform law in place means defining a suitable vision for the railway system. Historically, OTIF began by getting involved in the high layers of the system by defining uniform contracts, such as the CIM UR. The relative simplicity of railway transport in the age of steam did not require a great deal of thought on issues of technical interoperability.

Since 1922, with RIV and RIC, the need has developed to organise the exchange and standardisation of wagons and coaches: this is the network layer that was beginning to be set up. At the same period, UIC initiated proper technical standardisation that took account of physical issues (rails, rolling stock) and the procedures necessary for the network to function, with issues relating to gauges and signalling systems.

Two factors led to the regulators’ and the sector’s not having the desire or interest to manage (see the definition) these interfaces in a more joined up manner:

- The small amount of international traffic as a proportion of the business of the state monopolies that were then in charge of rail transport. This meant that it was sufficient to act along the lines of a club for the exchange of wagons or coaches and to collaborate in operating international trains;
- The predominance of paper documents, which led both legislators and operators to become involved in standardising documents and rules, without concerning themselves with the interfaces with, for example, the information systems of the other

modes and the customs authorities, as there is no need for this with a paper document.

This concept nevertheless gradually emerged with the European Union’s various railway packages. The functional approach at work in the Interoperability Directive, which resulted in the preparation of the TSI, is based on the definition of interfaces between the various sub-systems and thus enables the standardisation bodies to establish the technical definition of the interoperability components. This could be interpreted as the beginning of the definition of the transport layer and physical layer respectively (see Figure 3).

Nevertheless, this approach remains confined to the technical aspects and the Framework Directive 2012/34/EU establishing a single European railway area is relatively evasive with regard to issues surrounding interconnection and the creation of a European network. For example, train path allocation is dealt with in two sentences in Article 40, even though this is a key issue: “Member States shall ensure that infrastructure managers cooperate to enable the efficient creation and allocation of infrastructure capacity which crosses more than one network of the rail system within the Union, including under framework agreements referred to in Article 42. Infrastructure managers shall establish appropriate procedures, subject to the rules set out in this Directive, and organise train paths crossing more than one network accordingly.”

As a result, what should have been the network layer and the service layer can be found in OTIF’s regulations, albeit in an incomplete form. The matter is obvious for CIM and CIV contracts, which are found on the service layer, but this must be emphasised for contracts that are ancillary to transport, which come under network management:

- The CUV UR, which govern the management of contracts between keep-

ers and railway undertakings, are a key element of the freight sector. In fact, traffic flows require structured multilateral contracts to link the economic operators of a wagon and railway undertakings and this agreement must cover both legal issues (liability) and technical issues (approval, maintenance, etc.). The GCU developed by UIP, UIC and ERFA deals flexibly with these issues. Moreover, it is no surprise that UIP is involved in setting up the RSRD² operational register to enable wagons to be exchanged under the best conditions⁴.

- The CUI UR, which govern international contracts of use of infrastructure⁵, should be able to offer the sector the same international framework governed both by international public law and agreements between operators. This is still largely a work in progress, as the revision of the CUI UR, which should make this possible, has just been adopted by OTIF’s General Assembly on 26 September 2018. This is one of the major focuses of OTIF’s work programme.

Against this background, the EU’s accession to OTIF had a very positive effect, as it made it possible to intensify the dialogue in the framework of the Administrative Arrangements signed in October 2013 between DGMOVE, ERA and OTIF. Since then, we have had a shared vision of the components needed for the emergence of a European network that can be used as a model to organise the major international networks that are developing in Asia and Africa. Today, the corridors approach, whether within the EU or OSJD, provides a significant advance in terms of structuring and efficiency. However, there are still some key questions to be resolved, such as multimodality and the smooth management of interconnections between the corridors and between the corridors and the national networks.

So the “software” of the railway backbone still has to be created, even though

³ Jon Postel, one of the fathers of the Internet, a researcher at the University of Southern California.

⁴ Rolling stock reference database

⁵ See the article entitled “Towards a uniform contract for international train paths” in Bulletin 1/2017.

virtually all the elements are in place, as we have seen here. It is therefore necessary to start background work on these issues by means of modern modelling of the interfaces: this is one of the ambitions of OTIF's working group of legal experts, which will begin its work in 2019. Lastly, as the models described here derive from tried and tested models in the IT and telecommunications sectors, they are perfectly suited to implementing the opening of competition in the rail sector, as they have been used daily in Europe within a liberalised framework for more than 25 years.

Specific ways of rethinking the system via its interfaces

The digitalisation that is underway in all sectors of the economy means that the cost of managing data is decreasing exponentially. The complexity today no longer lies in the diversity of the formalities, as it was in the paper era, but in the absence of a definition of the interfaces. Digitalisation helps gather and process information at lower cost so as to interact with the other members of the transport chain. But this has to be thought about in advance, because it is automated systems that will have responsibility for this processing. The right approach would then be to use concepts from data transmission networks within transport law.

Internal rail system interfaces

Depending on the position they occupy in the relationship with the end customer, the hierarchy of the various interfaces is particularly important: the consignor should not be concerned with what happens between the time he concludes the contract of carriage and when the consignee receives it. This is the same request that the end customer expresses: he wants to be in contact with the consignor and the consignor must be in a position to provide the customer with all the necessary information. In order to do this, it is necessary for the information that comes up from the lower layers, such as that relating to the hiring of wagons (network layer), to be taken into

account and processed.

As shown in Figure 4, the regulatory bodies and professional associations responsible for implementing the operational framework (UIC, CIT, UIP, etc.) have to focus their concerns on the exchanges of information between the different layers.

Attention should now be given to three essential tasks that all have to do with the way in which all the information from different sources interacts:

- Define shared data catalogues that can be used to support border crossing and to define a solution for a customs transit system by rail between Europe and Asia;

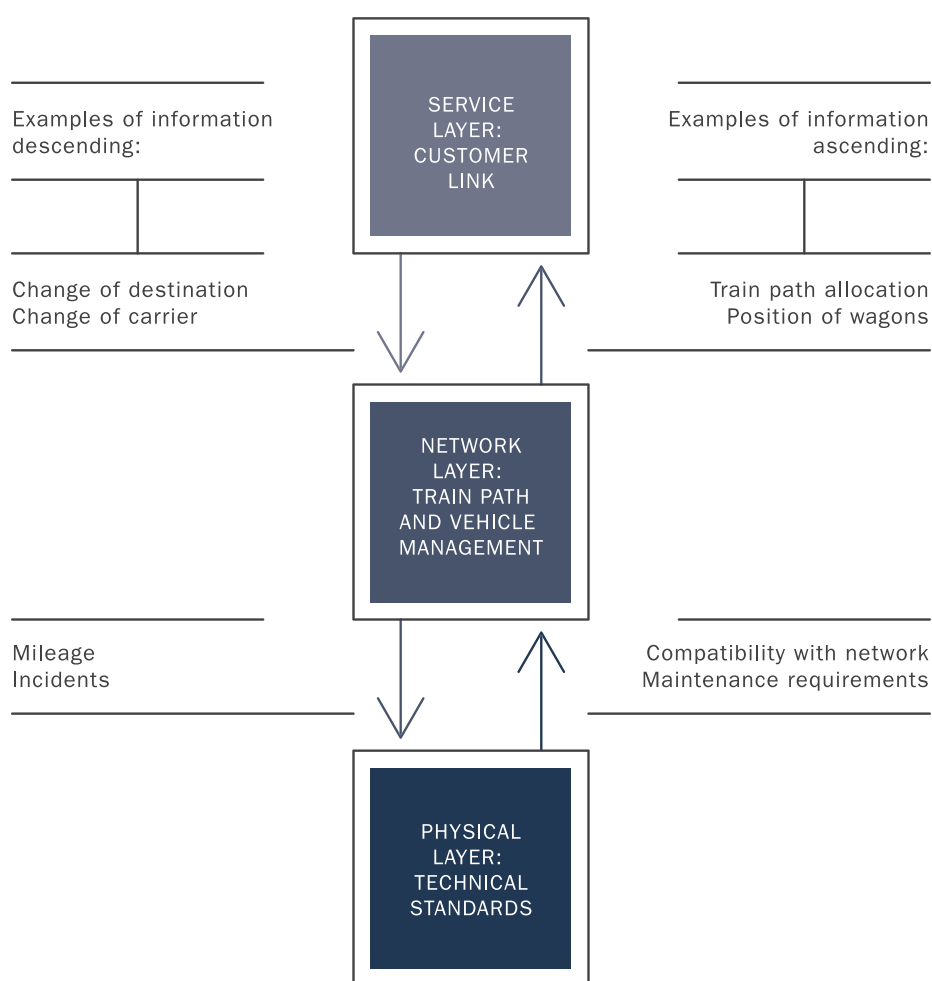
- Put in place common exchange and data processing controls;
- Draft guidelines to resolve issues concerning the interfaces between the various parties involved in transport.

External rail system interfaces

Like an IT backbone, the railway backbone must be capable of taking on the requirements of mobility, both for passengers and freight. It must therefore obtain all the information for seamless transport. This information must be available from:

- The rail system itself, which organises traffic using its own procedures

Figure 4: Exchanging information between the different layers



(allocation of wagons, change of trains, border crossing, etc.);

- The other transport modes and end customers with whom the rail system has to be able to interact.

Here too, the relevant conceptual analogies have to be found to establish the regulatory bodies' work programme so as to reposition the rail mode at the centre of mobility. While not losing sight of the difficulty inherent in this exercise, it must be possible to "encapsulate" the information that is of use to the end user and end transport within the different railway procedures, as may happen in an IT network:

- Upon entry to the backbone, the data that are relevant to the end user and those that come from the first part of the transport operation – generally road transport – are taken over;
- Within the backbone, the rail mode must be capable of completing carriage up to the next mode by processing the information that is relevant to border crossing and transit;
- At the end of transport by rail, the customer data necessary for delivery must be available to the local mode(s) of transport chosen.

Lastly, for Eurasian transport, the coexistence of OTIF and OSJD law is another difficulty that has to be overcome. In this respect, the traditional approach of unifying the two regimes under international law is not very relevant. It leads to very lengthy discussions which result in a hypothetical text, which itself then takes years to be ratified by a sufficient number of states. It is more effective to seek out the points the two regimes have in common – and there are many of them – in order to harmonise from the bottom up. An interface law has to be put in place, which enables transport to be organised without having to make changes to the legislation, the effect of which is uncertain.

There is no doubt that there is no other means to provide a solid legal basis

for the implementation of digital solutions within reasonable timescales. This is the assertion that the Secretariat of OTIF has defended since the UNECE started working on the unified railway law.

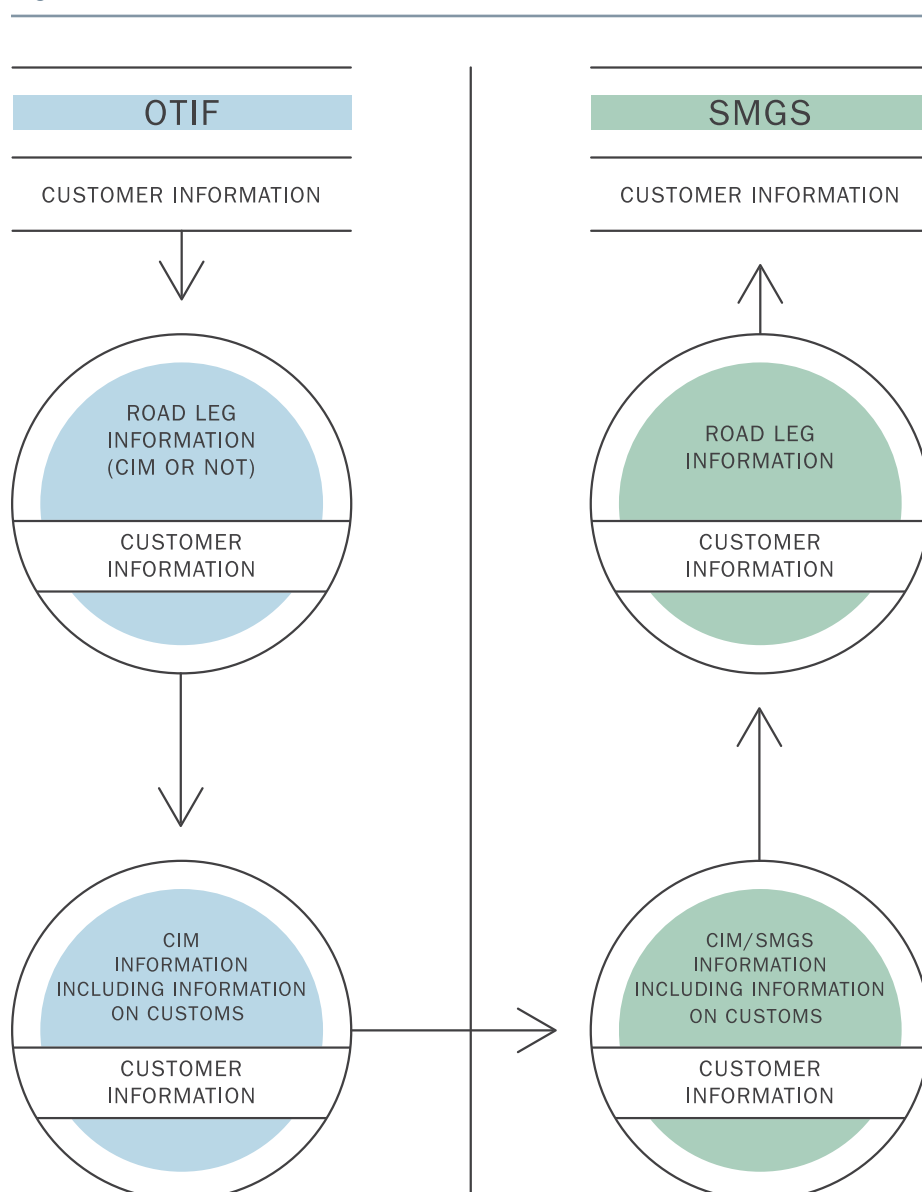
Why the need for this detour through models which, after all, are abstract and complex? It is certainly not in order to recommend their blind and mechanical application, but to guide considerations in an effective direction in correlation with the main technological developments. In future years, it would be wise not to scatter efforts throughout areas of work that reflect an out

of date state of the art, but instead to work together to conceptualise better the inside of railway services and adapt them to the digital world.

Recent developments have shown that the relationship with the customer has to be mastered by controlling the internal interfaces and flow of information. If this does not happen, there is a great risk that new actors will play the role of intermediary, which will deny those who provide railway services any access to the added value.

François Davenne

Figure 5: Processing the information necessary for transport



MODIFICATION OF COTIF: STATUS OF APPROVALS

At its 12th session (Berne, 29 and 30 September 2015) the General Assembly adopted modifications to the Convention and its Appendices D (CUV), F (APTU) and G (ATMF). The relevant depositary notifications are published on OTIF's website.

At its 13th session (Berne, 25 and 26 September 2018) the General Assembly adopted modifications to the Convention (including the adoption of Appendix H (EST)) and its Appendices E (CUI) and G (ATMF). The relevant depositary notifications are published on OTIF's website.

In accordance with Article 34 § 2 of COTIF, the modifications to the Convention will enter into force twelve months after their approval by two thirds of the Member States in accordance with their national law. In addition, in accordance with Article 34 § 3 of COTIF, the modifications to the Appendices will enter into force twelve months after their approval by half the Member States which have not made a declaration pursuant to Article 42 §

1, first sentence, that they do not apply the Appendices in question.

With regard to amendments adopted by the 12th General Assembly, only 12 Member States have deposited an instrument notifying the Depositary (Secretary General) of their approval of the amendments.

With regard to amendments adopted by the 13th General Assembly, no in-

struments of approval have yet been deposited.

In view of the importance of the amendments adopted by the 12th and 13th General Assemblies, the Secretary General urges the Member States to approve the amendments as soon as possible.

Instruments deposited as at 31 December 2018

MEMBER STATE	INSTRUMENT	DATE
Switzerland	Approval	21 October 2016
Sweden	Approval	13 March 2017
Finland	Acceptance	10 April 2017
Netherlands	Acceptance	1 May 2017
Hungary	Ratification	1 June 2017
Spain	Acceptance	23 August 2017
Germany	Approval	12 October 2017
Estonia	Acceptance	15 January 2018
Belgium	Approval	19 January 2018
Slovakia	Approval	30 April 2018
FYR Macedonia	Approval	1 May 2018
France	Approval	31 July 2018

ENTRY INTO FORCE OF MODIFICATIONS TO APTU AND ATMF

The 26th session of the Revision Committee adopted modifications to Appendices F (APTU) and G (ATMF) to the Convention. These modifications are necessary in order to harmonise some terminology with the new EU provisions and to take into account procedural changes in the EU, in particular the fact that the EU Agency for Railways

will have the competence to issue vehicle authorisations from June 2019. The modifications were notified by the Secretary General on 20 March 2018 and will enter into force on 1 March 2019 for all Member States that have not made a declaration not to apply Appendices F (APTU) and G (ATMF) in accordance with Article 42 § 1 of COTIF.

The texts are published on OTIF's website under Activities > Revision Committee > Notifications.

Bas Leermakers

SPEECH AT THE AFRICAN UNION IN ADDIS-ABABA ON THE “MAIL BY RAIL” PROJECT

In the framework of the Universal Postal Union's (UPU) 2018 Ministerial Strategy Conference, the Secretary General of OTIF presented the Organisation and the joint UPU-OTIF “Mail by Rail” project.

The Conference brought together 192 member countries of the UPU and four panels were organised in order to look

at the strategies, investments, legislation and partnerships that would be most likely to create a favourable climate for postal services to release their potential in terms of services and profitability.

On 7 September 2018, the Secretary General spoke on panel 4, entitled “Sustaining the relevance of the

sector through partnerships”. His presentation showed how to support the interconnection between the postal sector, online trade and international rail transport.

UPU’s invitation to OTIF is the manifestation of a vibrant partnership agreement between the two organisations.

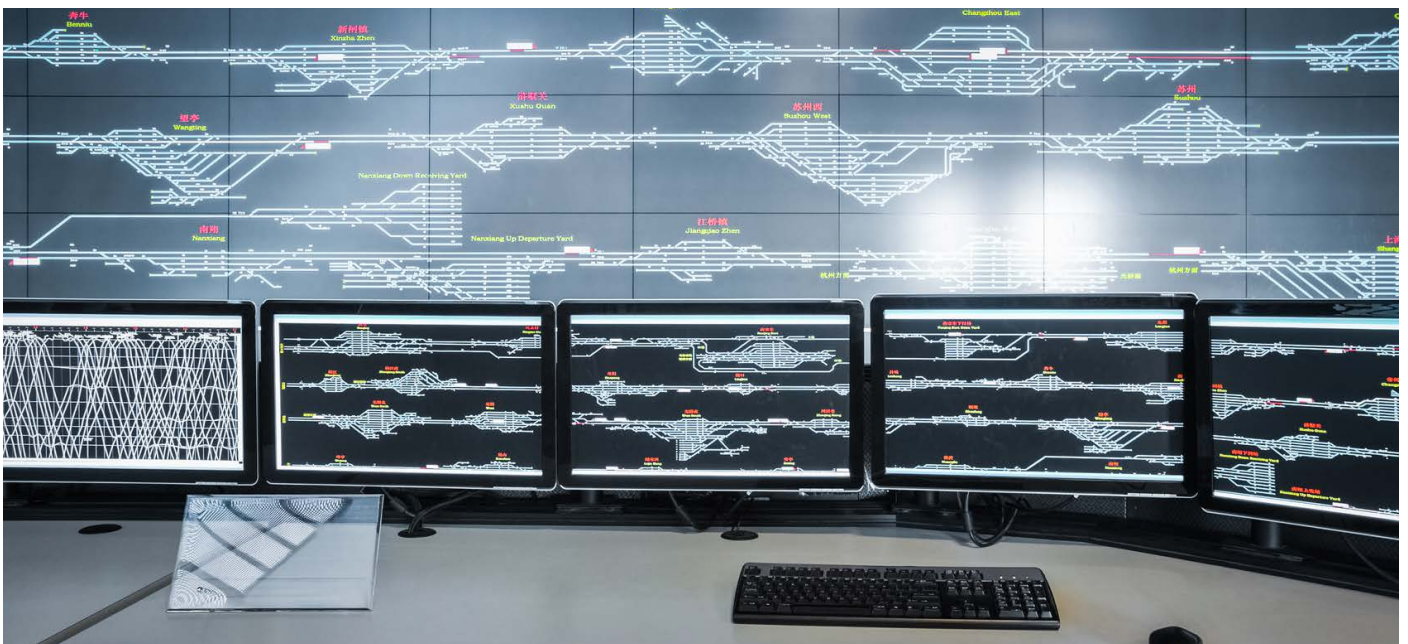
OTIF AT INNOTRANS

At this year’s INNOTRANS, OTIF was invited to attend a number of bilateral meetings, workshops, and events on digitalisation, research and innovation, and future cooperation and partnerships. The Organisation, represented by its Secretary General Mr François Davenne, also took part in the Platform of Rail Regulatory Bodies organised by the European Commission and the Eu-

ropean Union Agency for Railways; Ms Maria Price, Expert in the Technical Interoperability Department also attended the meeting. This event brought together representatives of transport authorities around the world, including the USA, GCC, Brazil, and Japan, who exchanged views on challenges and priorities with regard to rail transport. The highlight of the discussion was the need for a better understanding

of Uniform Rules within the EU and COTIF legal frameworks, as well as an overview on standardisation at EU and international levels – it is planned to discuss both topics in more detail in dedicated workshops in 2019.

Maria Price



REVISED PROCEDURE FOR AMENDING THE APPENDICES TO COTIF

A new amendment procedure enables the relevant provisions of COTIF uniform law to be adapted in a timely manner to a legal and economic environment that is constantly changing.

Need for a revised amendment procedure

The aim of the Intergovernmental Organisation for International Carriage by Rail (OTIF) is to promote, improve and facilitate, in all respects, international traffic by rail. In particular, this aim is achieved by establishing systems of uniform law in the form of Appendices to the Convention concerning International Carriage by Rail (COTIF). However, for the effective achievement of this aim, the adoption of uniform rules is not sufficient in itself; an efficient procedure to revise these uniform rules should also be in place.

The constantly changing needs of international society have made it essential to include in most multilateral treaties an effective mechanism for their amendment⁶. Experience has shown that it takes around six years for amendments to COTIF adopted by the General Assembly to enter into force. Consequently, OTIF faced the challenge of meeting the railway market's requirements in due time, thereby ensuring the competitiveness of rail transport. With this in mind, at its 13th session on 25 and 26 September 2018 the General Assembly amended the procedure for revising those provisions in the Appendices to COTIF that fall within its competence (i.e. Article 34 §§ 3 to 6 of COTIF). Without entering into details, it is sufficient to recall that certain provisions

of the Appendices are in the competence of the Committees and the procedure for revising them is efficient and timely.

Revised procedure

Modifications to the Appendices to the Convention adopted by the General Assembly enter into force for all Member States thirty-six months after their notification by the Secretary General with the exception of those which, before the entry into force, have made a declaration in terms that they do not approve such modifications. In other words, amendments to the Appendices adopted by the General Assembly enter into force automatically for all Member States thirty-six months after their notification by the Secretary General. It goes without saying that Member States which have made a declaration not to apply in their entirety certain Appendices to the Convention are not bound by the modifications.

The time between adoption of the modifications and their entry into force should be reasonable in order to allow national procedures to be completed and give the private sector time to prepare for the application of new rules. As a general rule, the three year time period, which also corresponds to the periodicity of the General Assembly, was considered as reasonable and sufficient. However, the General Assembly may decide by a simple

majority to defer the entry into force of modifications. For instance, three years may not be sufficient for comprehensive amendments.

Before the entry into force of modifications to the Appendices to the Convention, Member States may make a declaration in terms that they do not approve such modifications. Such a declaration will have the effect of suspending application of the Appendix in question. Declarations of non-approval may only be made and withdrawn by 'Qualified Authorities' (Heads of State, Heads of Government or Ministers for Foreign Affairs) or other authorities on condition that full powers are submitted.

Entry into force of the revised procedure

In accordance with Article 34 § 2 of COTIF, the revised amendment procedure will enter into force twelve months after it has been approved by two thirds of the Member States in accordance with their national law. When these modifications enter into force, this will be the case not just for those states that have approved them in accordance with their applicable national procedures, but also for all the other Member States, with the exception of those which, before the entry into force, have made a declaration in terms that they do not approve such modifications.

Aleksandr Kuzmenko

⁶ A. Aust. Modern treaty law and practice, third edition (2013): 235

BUILDING INFRASTRUCTURE PROVISIONS WITHIN COTIF

Over the past decade a comprehensive set of Uniform Technical Prescriptions for vehicles has been developed under COTIF, which allows for their consistent and harmonised admission in international traffic. In order for railway operations to become truly international, in addition to the harmonisation of vehicle requirements, infrastructure requirements should also be harmonised. This article analyses how and to the extent to which such harmonisation could be coordinated within the scope of COTIF

Introduction

There is a difference in principle between the application of COTIF to vehicles and the application of COTIF to infrastructure. As vehicles cross borders, it is very important that vehicles are mutually accepted by all Contracting States so that they can be used on the different networks in international traffic. Infrastructure on the other hand is stationary and is not therefore subject to such mutual acceptance. The interfaces between vehicles and infrastructure are however critical for successful and safe railway operations.

So far, only requirements which directly or indirectly concern vehicles have been developed under COTIF's APTU and ATMF Uniform Rules. One could argue that by defining the vehicle parameters that interface with fixed installations, the fixed installations are sufficiently defined as well. For example, once the wheel profile and the vehicle gauge are defined, the corresponding rail head profile and infrastructure gauge could be derived in order to accommodate these vehicles. According to this logic, it would not be necessary to develop harmonised infrastructure parameters. For relatively simple constructions, such as freight wagons, which have limited interfaces, both in number and in complexity, the existing specifications are indeed probably sufficient.

However, this logic is applicable mainly in a railway network where international transport takes place by exchanging wagons (or passenger coaches) between the networks with dedicated locomotives on each network to haul the wagons. If railway transport is to

become truly international in its operations by allowing complete trains to cross borders without reconfiguring them at border crossing stations, a more harmonised approach will be necessary to manage the interfaces between not only vehicles and infrastructure, but also between complete trains and international routes on which these trains are operated. This could concern parameters such as train length, train weight, train detection, train speed, compatibility with the signalling system, operational rules, etc.

Creating compatible infrastructure on international lines will increase the efficiency of international traffic. It is therefore in the interest of the members of the Organisation to harmonise the characteristics of infrastructure and other fixed installations as far as interfaces with vehicles are concerned. However, before we do so, three important elements must be taken into account:

- In addition, all Member States of COTIF have existing infrastructure on their territory and it is probably in their interest to ensure that all old, new or upgraded infrastructures allow similar vehicles to operate. It is therefore likely that there is no one-size-fits-all solution when it comes to infrastructure specifications.

The aims of infrastructure requirements

After discussions at its 11th session, the Committee of Technical Experts concluded that the aims of infrastructure requirements within COTIF should be to contribute to the gradual harmonisation of infrastructure between neighbouring countries. In accordance with Article 8 § 2a APTU and as is the case for vehicles, the provisions should not apply retroactively, meaning that there would not be an obligation for states to make their existing infrastructure compliant by a certain date. The main purpose of the provisions would be to ensure that new or upgraded infrastructure:

- can be safely and efficiently used for the operation of trains in international traffic,
- can be designed and constructed in an economically feasible manner,
- will allow states to maintain the necessary compatibility with existing lines, networks and specifications, including compatibility with EU law,
- contributes to interoperability and technical harmonisation.

In order to meet these aims, all inter-

faces between infrastructure and vehicles, such as wheel-rail interfaces, protection against derailment, gauging, etc., should be comprehensively covered by technical provisions. For the parts of rail infrastructure which do not directly interface with vehicles, such as fastening materials, joining techniques, catenary portals, etc., COTIF should be silent, so that each state retains the freedom to design, construct and, where relevant, certify their infrastructure in accordance with the norms and standards applicable in that state.

Different classes or categories of lines should be envisaged so that all lines can be constructed in the most economically viable way. However, an excessive number of different classes or categories of lines should be avoided; an optimum level of harmonisation should be pursued.

The provisions should take into account the need to maintain compatibility between new, upgraded or renewed lines and the networks to which they are connected or in which they are integrated. This may for example concern compatibility with lines used for domestic traffic or with lines in neighbouring states.

Developing specifications

There is a legal basis in COTIF for defining requirements applicable to infrastructure; the question is which kind of requirements would be most suitable? As indicated above, infrastructure is not subject to mutual acceptance between states, and states generally need a degree of flexibility to cater for their specific needs.

The member states of the European Union (EU) have agreed their target system for the different fixed installation subsystems in Technical Specifications for Interoperability (TSIs) concerning infrastructure, energy, safety in railway tunnels, control, command and signalling and accessibility. The

work on developing the COTIF infrastructure provisions started by first examining other existing infrastructure requirements, such as the EU Infrastructure TSI. As the EU is an OTIF member, is it important that alignment between the EU TSIs and COTIF provisions is ensured.

However, when considering TSI provisions with a view to carrying them over into a UTP, a number of considerations should be taken into account: First of all, it is in the interest of each state, when constructing new infrastructure, to ensure compatibility with its existing infrastructure. Additionally, most lines are not used exclusively for international traffic, which means that it is questionable as to whether it is justified to develop binding rules for infrastructure for the purpose of international traffic.

At the same time, harmonised provisions at international level could lead to the convergence of networks, which would bring added value to international railway traffic. Many of the OTIF MSs are party to the UNECE agreement on main international railway lines, suggesting that there is a will to harmonise. However, these UNECE provisions are rudimentary and do not address interoperability aspects, such as signalling, energy supply etc.

Moreover, the TSI provisions may not cater to everyone's needs. Some (potential) OTIF states are developing new lines or even a completely new railway system from scratch. As an example, the Gulf Cooperation Council states are creating a network with the primary purpose of moving goods and as such, they have designed the infrastructure to accommodate double stack wagons⁷ and 32.4 tonnes/axle and train lengths up to 2000m. Existing TSI line categories do not include such high capacity categories, although the TSI does not hinder or prohibit exceeding the TSI limits. It may therefore be appropriate also to include in a UTP specifications used by non-EU states when building or upgrading railway lines.

Legal form

As discussed above, it is not immediately obvious which legal form would be most suitable for the future infrastructure provisions, in particular how far they should be binding for states. It is important to bear in mind that the general scope of COTIF is international traffic by rail and that it does not concern domestic traffic. As most rail infrastructure will not be used exclusively for international traffic, the COTIF provisions would generally apply together with provisions applicable in each state for infrastructure used for domestic traffic. Strictly binding provisions would therefore not be suitable. Article 8 § 2 of APTU provides a legal basis by requiring that, in principle, each subsystem must be subject to one or more UTPs. At the same time, Article 8 § 2 of ATMF provides legal boundaries by requiring that the admission of infrastructure and the supervision of its maintenance remain subject to the provisions in force in the Contracting State in which the infrastructure is located. From the definition of 'technical prescription' in Article 2 of APTU, it is clear that UTPs provide binding provisions. However, there is room for gradual implementation as per Article 8 §§ 5 and 6 of APTU.

Taking into account all of the above, initial discussions at the Working Group Technology (WG TECH) in 2018 revealed that the appropriate legal form could be a binding UTP, while at the same time leaving each state the freedom to decide which lines the UTP applies to (or not). For new infrastructure projects, this would give states the choice either to apply the UTP in full, or not to apply it.

⁷ Wagons capable of carrying two containers on top of each other.

Next steps

The future UTP concerning infrastructure would facilitate coordination of infrastructure development between states and thus improve compatibility between their networks. As a next step, the coordinated application of

UTPs between states would help the gradual creation of compatible and interoperable networks. Together with the recently adopted new Appendix H to COTIF (the EST Uniform Rules), this would further develop the legal framework to support railway operations in becoming truly international.

The subject will be discussed further by WG TECH before a decision is taken by the Committee of Technical Experts in June 2019 at the earliest.

Bas Leermakers

53rd SESSION OF THE UN SUB-COMMITTEE OF EXPERTS ON THE TRANSPORT OF DANGEROUS GOODS (GENEVA, 25 JUNE TO 4 JULY 2018)

The 53rd session of the UN Sub-Committee of Experts was the third session in the 2017/2018 biennium. Its decisions 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 also be carried over into the 2021 editions of RID, ADR and ADN.

The 53rd session of the UN Sub-Committee of Experts on the Transport of Dangerous Goods was held from 25 June to 4 July 2018 under the chairmanship of Mr Duane Pfund (United States of America). 23 States entitled to vote, five observer States, seven governmental organisations and 36 non-governmental organisations were represented at the session. 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

Electronic detonators

Electric detonators for blasting are assigned to UN numbers 0030, 0255 and 0456. Blasting is triggered by an electric current.

Alongside these detonators, detonators, non-electric (UN numbers 0029, 0267 and 0455) and detonator assemblies, non-electric, for blasting (UN numbers 0360, 0361 and 0500) also exist in the dangerous goods regulations.

More recently, “electronic detonators” have also been used in practice. These can be programmed to determine the trigger time. The advantage of such detonators is that the individual stages of ignition can be specified precisely and better blasting results can be achieved, for example in quarries.

Another advantage is that they are secure against electromagnetic influences, stray currents and unauthorised use, as they cannot simply be initiated by an electric current. For this reason, they cannot reasonably be assigned to UN numbers 0030, 0255 and 0456, where electric current provides the trigger.

The UN Sub-Committee of Experts agreed to include the new UN numbers 0511, 0512 and 0513 and a definition of “Detonators, electronic, programmable”. It also recognised the need to add these new UN numbers to the list of high consequence dangerous goods.

Nitrocellulose mixtures

The stabilisation of nitrated cellulose mixture is a decisive and critical step in the production process of nitrocellulose and must be done and controlled properly for each production lot in order to achieve stable nitrocellulose products that can be transported and used safely without the danger of self-ignition over their entire shelf life. The wetting of nitrocellulose mixtures with alcohol, water or plasticizer only reduces the burning speed of the nitrocellulose; it has no effect on the stability of the nitrocellulose mixtures.

The UN Sub-Committee of Experts therefore recognised that additional tests are necessary to ensure that nitrocellulose mixtures are stable, even if these mixtures were to become completely dry. The UN Sub-Committee of Experts’ working group on explosives agreed that stabilisation was required to ensure safe handling

At this penultimate session of the 2017/2018 biennium, various decisions were taken for the 21st edition of the UN Model Regulations. However, some issues are still pending and will have to be decided at the last session of the biennium.

The main points of discussion were issues concerning packaging and lithium batteries.

of nitrocellulose, but also determined that the thermal stability test at 75°C described in the Manual of Tests and Criteria was not suitable for evaluating nitrocellulose stabilisation.

The UN Sub-Committee of Experts concluded that the Bergmann Junk test and the Methyl Violet Paper tests were suitable tests for such assessment and decided that when classifying nitrocellulose, these tests would be carried out instead of the thermal stability test.

These two tests are described in Appendix 10 of the Manual of Tests and Criteria. Special provisions referring to these tests will be assigned to the various UN numbers for nitrocellulose mixtures.

Packagings

Aluminium drums

6.1.4.1.7 and 6.1.4.4.4 contain a provision for steel drums and steel or aluminium jerricans that suitable internal protective coatings or treatments must

be applied if the material (steel or aluminium) can react with the substance being carried. However, there is no such provision for aluminium drums.

In the discussion, it was pointed out that 4.1.1.2 already contains the general requirement that for possible reactions of the contents with the packaging material, an inner coating or treatment must be provided.

The UN Sub-Committee of Experts nevertheless decided to include in 6.1.4.2 (Aluminium drums) and in 6.1.4.3 (Drums of metal other than aluminium or steel) an identical provision to that of 6.1.4.1.7 and 6.1.4.4.4. Delegates were also asked to check whether any other materials might be affected.

Revision of packing instruction P 801

Packing instruction P 801 applies to new and used batteries (accumulators) of UN numbers 2794, 2795 and 3028 containing acids or alkalis. These batteries may be carried in rigid outer packagings, wooden slatted crates or on pallets. Packing instruction P 801 of the UN Model Regulations also says that used batteries may also be carried in stainless steel or plastic boxes, provided they can contain any liquid that might be released. It is not clear how the additional provisions of packing instruction P 801 (e.g. protection against short circuits, prevention of movement of the batteries) can be complied with when they are carried loose in boxes.

This provision concerning loose carriage in boxes was not carried over into packing instruction P 801 of RID/ADR. Instead, the additional packing instruction P 801a was included, which contains particular requirements for boxes carrying used batteries. However, this packing instruction does not contain any provisions concerning protection against short circuiting.

Neither in RID/ADR nor in the UN Model Regulations does packing instruction P 801 contain a requirement that electrolyte must be prevented from leak-

ing from the outer packagings, slatted crates or pallets.

Since 2016, the UN Sub-Committee of Experts has been dealing with the question of how packing instruction P 801 could be improved so as to ensure that carriage takes place in accordance with the regulations. The UN Sub-Committee of Experts now agreed on an amendment to the packing instruction, which will now include various elements of packing instruction P 801a of RID/ADR. In addition, for the carriage of old batteries in collection receptacles, it will also be required that measures be taken to prevent short circuits (e.g. discharging the batteries, individual protection of the poles etc.).

Multiple marking of packagings, IBCs and large packagings

There is an increasing tendency amongst consignors to use packagings with more than one approval which simultaneously fulfil design criteria and performance test provisions of different design types. Such packagings have the advantage of being used flexibly. For example, these might be packagings that are approved for both liquids and solids, or IBCs that are simultaneously approved as boxes.

At the last session of the UN Sub-Committee of Experts, the problem of the multiple marking of packagings, IBCs and large packagings was already dealt with under Chapters 6.1, 6.5 and 6.6 (see Bulletin 1/2018, p. 20). However, the problem of the multiple marking of means of containment that meet the provisions of several of these chapters remained unresolved.

When applying the concept of design type approvals on the basis of design criteria and testing requirements, it is possible that certain design types and constructions, e.g. boxes and IBCs, meet the provisions for design types of other categories of packagings, IBCs and large packagings at the same time. It should therefore be possible to affix different markings for packagings, IBCs and large packagings on these

means of containment in order to indicate conformity with each design type.

At the last session of the UN Sub-Committee of Experts, it was pointed out that the definition of IBCs in 1.2.1, according to which IBCs are a “rigid, or flexible portable packaging, other than those specified in Chapter 6.1”, would rule out the multiple marking of IBCs.

The Sub-Committee confirmed that packagings, IBCs and large packagings can comply with more than one design type and may be marked accordingly. However, it did not consider it necessary to clarify the definition of IBC to say that the current definition does not rule out the testing and approval of an IBC as a packaging. The amendments to Chapters 6.1, 6.3 and 6.5 adopted at the last meeting were again revised and an additional paragraph was included in Chapter 4.1 that also deals with the affixing of several markings.

Pressure receptacles

Incidents with gas cylinders made of composite materials

The Danish Health and Safety Authority had recorded a series of incidents involving gas cylinders made of composite materials, which are made of two components glued together. These cylinders were manufactured in accordance with European standard EN 12245 and were used for liquefied petroleum gas (LPG). The investigations had shown that although the two-component gas cylinders complied with the requirements of design type approval on the basis of EN standard 12245:2002, users' safety was insufficiently safeguarded. The investigation also included single-component gas cylinders, which produced satisfactory results. The tests carried out by the Danish Health and Safety Authority proved that overheating causes the joint to become less tight. This can lead to separation of the two components, thus releasing the gas. The investigations resulted in the Danish Health and Safety Authority recalling these two-component gas

cylinders at national level.

This type of failure is not linked directly to liquefied petroleum gas, but can occur with any two-component gas cylinder of a similar design type used for other gases, e.g. refrigerant or CO₂. Gas cylinders with no lining, made of two components joined together with a polymer adhesive would behave similarly in the event of a fire, irrespective of the gas contained in the cylinders.

These incidents have already led to a Note being included under the reference to EN standard 12245 in the 2019 edition of RID/ADR to say that this standard may not be used for cylinders and tubes without a lining that are made of two components joined together.

The UN Sub-Committee of Experts decided to include the same Note for standards ISO 11119-3:2002 and ISO 11119-3:2013 as will be included for EN standard 12245 in RID/ADR 2019.

Marking provisions for UN pressure receptacles

In Europe, it is possible to have the design type approval issued in one country and the initial testing and inspection carried out in another country. For this reason, when the provisions for the certification marks of refillable UN pressure receptacles were carried over into RID/ADR from the UN Model Regulations, a Note was included to clarify that the country of approval should be understood to be the country in which the initial inspection and test was carried out and not the country in which the design type approval was issued. This also corresponds to the intention of the original authors of these provisions, who assumed that the country of the design type approval can be requested from the manufacturer, who can be identified from the manufacturing mark on the UN pressure receptacles.

As 6.2.2.5.5 of the UN Model Regulations also provides for the possibility that the inspection body the manu-

facturer chooses for inspections during production may be different from the inspection body used for the design type approval testing, the UN Sub-Committee of Experts approved the inclusion of a Note in 6.2.2.7.2 c) and 6.2.2.9.2 c) with wording based on the Note used in RID/ADR.

Portable tanks

Allowance for corrosion in the wall thickness of portable tanks

The special provision for portable tanks TP 19, which prescribes that the calculated wall thickness of the shell must be increased by 3 mm, is currently assigned to UN 1017 Chlorine and UN 1079 Sulphur dioxide. This wall thickness must be verified at intervals midway between periodic hydraulic tests. Depending on the concentration of the substances and the tank material used, the rate of corrosion can be up to 0.1 mm a year.

This provision can be interpreted in different ways. Firstly, it can be an additional safety measure for these very dangerous substances and secondly, it can also be an allowance for corrosion to prevent the wall thickness ever being less than the calculated value. The first interpretation would mean that the additional wall thickness of 3 mm has to be ensured throughout the entire lifetime of the tank, so additional measures to stem the corrosion must be taken. In the second interpretation, no additional measures would have to be taken, because at an assumed rate of corrosion of 0.1 mm a year, the wall thickness would only fall below the calculated wall thickness after 30 years.

The UN Sub-Committee of Experts recognised the need for clarification on the basis of the second possible interpretation.

Lithium batteries

Damaged or defective lithium batteries

The requirements of special provision 376 take insufficient account of certain scenarios for the carriage of damaged or defective lithium batteries, which can lead to difficulties for loaders and carriers.

The UN Sub-Committee of Experts adopted a Note proposed by the battery industry for special provision 376, which lists criteria that can be used to judge whether a lithium battery is damaged or defective.

Documentation

Holding time: information in the transport document

A provision was included in the 2017 edition of RID/ADR which says that for tank-wagons and tank-containers carrying refrigerated liquefied gases, the consignor must indicate the actual holding time (period until the pressure limitation devices discharge because of the application of heat) in the transport document.

Although for portable tanks the date of the end of the holding time has to be shown in the marking, adding this information to the transport document would seem worthwhile, as the personnel who organise carriage and deal with the transport documents do not usually work in the vicinity of the tank and do not therefore have any systematic access to the information in the tank marking.

In response to a proposal from Belgium, the UN Sub-Committee of Experts decided to include a new paragraph in Chapter 4.2 and Chapter 5.4 on the basis of the provisions in RID/ADR 4.3.3.5 and RID/ADR 5.4.1.2.2 (d).

Next session

The 54th session will be held from 26 November to 4 December 2018 in Geneva and will conclude the work on the 21st revised edition of the UN Model Regulations.

RID/ADR/ADN JOINT MEETING (GENEVA, 17 – 21 SEPTEMBER 2018)

The second RID/ADR/ADN Joint Meeting of the 2018/2019 biennium was held from 17 to 21 September 2018 in Geneva. 23 states, the European Union, the Committee of the Organisation for the Cooperation of Railways (OSJD) and 12 non-governmental organisations were represented. The Joint Meeting dealt with various minor proposals for amendments. There was a lengthy discussion on what to do about standards that could not be included in the notification texts for the 2019 editions of RID, ADR and ADN because they had not been published on time. This meeting said goodbye to Mr Helmut Rein, the long-serving deputy chairman of the Joint Meeting.

Tanks

Inspections and tests of battery-wagons/battery-vehicles and MEGCs

In relation to the periodicity of inspections and tests for battery-wagons/battery-vehicles and MEGCs whose elements consist of tanks, RID/ADR Chapter 6.8 refers to the periodicity of inspections and tests for tanks for refrigerated liquefied gases. However, these may not be carried in battery-wagons/battery-vehicles and MEGCs.

The Joint Meeting decided to include here a reference to the general periods for the periodic and intermediate inspections and tests.

Presentation of a product to mitigate liquid surge

It was explained in a presentation that the kinetic energy present in a liquid in a moving tank has to be absorbed while the tank-vehicle is slowing down. During deceleration, the liquid tends to keep on moving until hitting the front (wall) of the tank or compartment, thus creating a pulse and waves running front to back and vice-versa, until the internal friction in the substances has absorbed the kinetic energy.

Reducing the capacity of the tank sections and the volume of the filled substance limits the development of a pulse, and surge plates help to absorb the kinetic energy of the substance while decelerating.

Research has led to the development

of a system with a pressurised bag with a gas on top of the liquid inside the tank, preventing the movement of the substance while the kinetic energy is absorbed by the vehicle brakes as an alternative to limitations in capacity of the tank sections and volume of the filled substances. Elimination of the pulse improves vehicle stability, thus lowering the risk of the tank-vehicle overturning.

Following the presentation, participants at the working group on tanks addressed various issues concerning, in particular, cleaning, filling degree, permeability and chemical resistance of the material, lifetime of the material, fire conditions, pressure release and inspections.

The working group on tanks confirmed that this new, innovative technology had the potential to improve safety during transport and could be used in areas other than the transport of dangerous goods. In addition to the possibility of improving safety, the system might also have economic and environmental advantages. It was felt that the particular issues pertaining to the carriage of dangerous goods should be considered in more detail.

Standards

References to standards

At its meeting in March 2018, the Joint Meeting had adopted references to various standards in the 2019 editions of RID and ADR, but these standards had not been published on time

for 1 June 2018 and could not therefore be included in the list of notified amendments to enter into force on 1 January 2019.

It was noted that because of the complex procedures at both European Union level and within the individual Member States, separate notification of these standards would cause difficulties. The Joint Meeting therefore agreed only to include these standards in the 2021 edition of RID/ADR, but to prescribe their mandatory application after a one year transitional period, rather than after the usual two year transitional period.

However, the Joint Meeting recognised that in the case of EN standard 12972, the scientific and technical progress achieved between the 2007 edition (the version currently referenced in RID/ADR) and the 2018 edition justified application of the 2018 edition as soon as possible. In particular, the 2018 edition of this standard contained up-to-date procedures for the hydraulic pressure test and leakproofness test, as well as detailed information on the non-destructive tests to be performed on the weld seams of tanks.

Although RID/ADR 6.8.2.7 allows the competent authority to approve the application of a standard that has been adopted for reference in a future edition of RID/ADR, it was feared that not all competent authorities work in the same way and this could lead to major problems among users.

As the 2007 edition of EN stand-

ard 12972 no longer complies with the provisions of RID/ADR, the Joint Meeting decided to include guidelines on the UNECE and OTIF websites requesting the competent authorities to allow EN standard 12972:2018 to be applied as soon as possible.

Other proposals

Making the accident report

1.8.5.1 stipulates that if a serious accident or incident takes place during loading, filling, carriage or unloading of dangerous goods, an accident report must be made to the competent authority. For unloaders, the consignee is responsible for providing this accident report, although in Chapter 1.4, the unloader is referred to with his own obligations. Historically, this is explained by the fact that the provisions of 1.8.5 date back to a time when the unloader was not yet defined as a participant and his obligations were mainly assigned to the consignee.

The Joint Meeting decided that in addition to the consignee, the unloader would also be named in 1.8.5.1 as the participant responsible for submitting an accident report.

Hazard identification number 836

At its last meeting, the Joint Meeting had already examined a proposal from Spain to introduce a new hazard identification number 836. The aim of the proposal was to mark transport units carrying substances whose main hazard is corrosiveness, with subsidiary hazards of flammability and toxicity (see Bulletin 2/2018, p. 16).

In the initial discussion, it was acknowledged that the main problem was that, as the number of digits in the hazard identification number was limited to three, it was not possible to provide all the information, because in some cases, the digit for the main hazard already took up two spaces in order to indicate a greater hazard.

However, it was noted that this problem did not arise for UN number 2683 for which this new hazard identification number was proposed, because up to now, only the two digit hazard identification number 86 had been assigned to this substance and the digit “3” to indicate flammability could simply be added.

In the end, the Joint Meeting decided to include hazard identification number “836” and the sequence of the various digits was determined in accordance with the sequence of the main hazard in Chapter 2.1. Hazard identification number 836 indicates a corrosive or slightly corrosive substance with subsidiary hazards flammable (flashpoint between 23°C and 60°C inclusive) and toxic.

Mixed loading prohibitions for packages for which no danger labels are prescribed

7.5.2 sets out mixed loading prohibitions for packages with different danger labels. Using a matrix, it is easy to ascertain which combinations of danger labels are permitted. However, 7.5.2 is silent with regard to packages containing dangerous goods that do not have any danger labels. This is currently the case for UN numbers 2211 (EXPANDABLE POLYMERIC BEADS) and 3314 (PLASTICS MOULDING COMPOUND). While there are no safety concerns with regard to the mixed loading of these substances with goods of classes 2 to 9, mixed loading with goods of Class 1 should be prohibited because with UN numbers 2211 and 3314 there is a risk of an explosive atmosphere developing.

The Joint Meeting decided not to deal with this special case in 7.5.2, but in a special provision that will be assigned to both these UN numbers.

References to repealed directives in RID/ADR

For the design, construction and the initial testing and inspection of pres-

sure receptacles, 6.2.4.1 contains references to applicable standards. However, the first three references are to annexes to directives from 1984, although the underlying directives have since been repealed.

Firstly, the representative of the Russian Federation criticised the fact that European directives constituted legal acts, rather than standards, and secondly, that the directives referred to were no longer in force.

The Joint Meeting endorsed what it had said at the March meeting in 2018 with regard to the necessity of maintaining the references to the annexes to directives 84/525/EEC, 84/526/EEC and 84/527/EEC in RID/ADR 6.2.4. Although the directives had been repealed, there was still a considerable demand for cylinders designed and built in accordance with the technical specifications contained in the annexes to the directives.

The Joint Meeting agreed that as long as a reference to the annexes existed in RID/ADR, they were applicable in the legal framework of RID/ADR. In order to avoid misinterpretations, it was decided to set out this interpretation in a Note.

The Joint Meeting also requested the European Committee for Standardization (CEN) to develop a standard based on the annexes to the aforementioned directives.

References to competent authority in RID/ADR

In RID/ADR, competent authority is defined as the authority or authorities or any other body or bodies designated as such in each State and in each specific case in accordance with domestic law. In RID/ADR, the role of the competent authorities is precisely described. Among other things, its tasks include:

- imposing restrictions on carriage and allowing derogations,

- issuing approvals or authorisations,
- determining classifications and conditions of carriage,
- carrying out tests and inspections,
- issuing certificates.

Various parts of RID/ADR also explain which country's competent authority is being referred to, e.g. competent authority of the country of origin, of the countries concerned in the transport operation, of manufacture, of use.

Although RID/ADR only apply to the international carriage of dangerous goods and are only mandatory for the RID Contracting States and ADR Contracting Parties, there are cases where competent authorities of a non Contracting State are referred to. For example, this is necessary in connection with the approval of all types of packagings or portable tanks used globally in intermodal transport.

It was noted that in some places, RID/ADR required clarification in order to avoid differing interpretations. It should also be decided what was meant, for example, by country of transit, use, origin and destination.

It was agreed that an informal working group would meet in the course of this biennium to examine the document prepared by the Secretariat, which lists all the places in the regulations where the term "competent authority" is used and contains proposals for amendments.

Accident involving molten aluminium

Aluminium carried in the molten state is assigned to UN number 3257 (Elevated temperature liquid, n.o.s.). For carriage, special provision VC 3 applies, which stipulates that carriage is permitted in specially equipped wagons/vehicles or large containers in accordance with standards specified by the competent authority of the country of origin.

There had already been several accidents in which molten aluminium had leaked. As molten metals are also carried internationally, it would be useful to include binding international requirements for such transport in RID/ADR and, if necessary, to prescribe appropriate retrofitting, rather than the requirements of the competent authority of the country of origin.

The Contracting States were asked to send the representative of Germany information on the conditions specified in their countries and on accidents involving aluminium and other substances carried under this UN number. The representative of Germa-

ny offered to draft a proposal on the basis of this information.

Improvement of the accident report

At the last Joint Meeting, France had proposed to set up an informal working group to improve the accident report in 1.8.5 (see Bulletin 2/2018, p. 16-17).

The Joint Meeting agreed the terms of reference for this working group. It should first be made clear what the purpose of providing information on accidents was and to what end the information provided may be used. Clarification was also needed on which participants are responsible for transmitting the report and any additional information. As before, anonymity was key, as the accident report is not to be used for criminal or liability proceedings.

Another important point was to investigate which information is necessary in order to learn lessons from individual occurrences or repeated occurrences, and which information might be necessary for a risk assessment.





Mr Helmut Rein, the RID/ADR/ADN Joint Meeting's long-standing deputy chairman



Left to right - the new deputy chair of the RID/ADR/ADN Joint Meeting, Mrs Silvia García Wolfrum and the chairman, Mr Claude Pfauvadel.

Tribute to Mr Helmut Rein

Mr Helmut Rein, head of the dangerous goods division in the German Ministry of Transport, was the deputy chairman of the Joint Meeting since 1996. He had already informed delegates at the previous Joint Meeting that he would shortly be retiring and so would be attending the Joint Meeting for the last time in September 2018. The Joint Meeting paid tribute to his commendable work and his commitment to the safe carriage of dangerous goods, which had been evident as a result of his very active participation in the discussions, the submission of numerous proposals and the organisation of many informal working groups. The Joint Meeting wished him a long and happy retirement.

On a proposal from Austria, Mrs Silvia García Wolfrum (Spain) was elected as the new deputy chair.

Next session

The next Joint Meeting will be held in Bern from 18 to 22 March 2019.

Jochen Conrad

CALENDAR OF OTIF'S MEETINGS IN 2019

DATE	EVENT	ORG	LOCATION
15 - 18 January	GCC/EU	DGMOVE, ERA	Muscat - Oman
5 - 6 February	37 th session of the standing working group WG TECH		Berne - Switzerland
6 - 8 February	The preparatory meeting of the Joint Coordinating Group of Experts (JCGE)		Berne - Switzerland
27 February	General Assembly		Berne - Switzerland
28 February	Administrative Committee		Berne - Switzerland
18 - 22 March	RID/ADR/ADN Joint Meeting	UNECE	Berne - Switzerland
26 March	Working group of legal experts		Berne - Switzerland
27 March	Ad hoc Committee on Cooperation		Berne - Switzerland
24 - 26 April	Ad hoc Working Group on the Harmonization of RID/ADR/ADN with the UN Recommendations on the Transport of Dangerous Goods	UNECE	Geneva - Switzerland

EVENTS WITH OTIF PARTICIPATION IN 2019

DATE	EVENT	ORG	LOCATION
24 January	ITF-OECD		Paris - France
29 - 31 January	Railway Interoperability and Safety Committee (RISC)	European Commission	Brussels - Belgium
4 - 8 February	Working Party on Customs Questions affecting Transport (WP.30)	UNECE	Geneva - Switzerland
11 - 15 February	Working Group on Annex 2 to SMGS "Provisions for the Carriage of Dangerous Goods"	OSJD	Warsaw - Poland
17 - 19 February	35 th Storck Symposium 2019	Verlag ecomed Storck	Hamburg - Germany
19 - 21 February	Inland transport Committee	UNECE	Geneva - Switzerland
20 - 22 February	7 th Railway Summit		Paris - France
12 - 13 March	UIC Group of Experts on the Carriage of Dangerous Goods	UIC	Elsinore - Denmark
21 March	CIM Committee	CIT	Berne - Switzerland
2 April	Group of Experts towards Unified Railway Law (GEURL)	UNECE	Geneva - Switzerland
9 - 11 April	Railway Interoperability and Safety Committee (RISC)	European Commission	Brussels - Belgium

Dear readers

If you would like to subscribe to OTIF's publication, the Bulletin of International Carriage by Rail, please send an e-mail to the following address: media@otif.org

You can also read the Bulletin on OTIF's website (www.otif.org) under the tab headed "Media".

Thank you for your continued interest.

The Bulletin editor

Gryphenhübeliweg 30 CH - 3006 Berne

Tél. : + 41 (0)31 359 10 10 | Fax : + 41 (0)31 359 10 11 | info@otif.org | www.otif.org