

OTIF



**ORGANISATION INTERGOUVERNEMENTALE POUR
LES TRANSPORTS INTERNATIONAUX FERROVIAIRES**

**ZWISCHENSTAATLICHE ORGANISATION FÜR DEN
INTERNATIONALEN EISENBAHNVERKEHR**

**INTERGOVERNMENTAL ORGANISATION FOR INTER-
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(Geneva, 17 - 27 September 2013)

Item 6 of the agenda: Reports of informal working groups

**Report of the 12th session of the working group on telematics
(Bordeaux, 3 – 5 June 2014)**

Transmitted by the OTIF secretariat

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1. At the invitation of France, the 12th session of the working group on telematics was held in Bordeaux from 3 to 5 June 2014. The meeting was chaired by Mr Claude Pfauvadel (France).
2. The following States took part in the discussions at this session: France, Germany, Netherlands, Spain, Sweden and the United Kingdom. The European Railway Agency (ERA), the Intergovernmental Organisation for International Carriage by Rail (OTIF), the International Federation of Freight Forwarders Associations (FIATA), the International Union of Railways (UIC) and the Association of the European Rail Industry (UNIFE) also took part in the meeting (see Annex II).
3. The chairman opened the meeting with a summary of the results achieved by the working group. He pointed out that at its last meeting (Tegernsee, 3 and 4 June 2013), the working group had decided on a system architecture for the exchange of electronic transport information between the parties involved and government agencies. The RID/ADR/ADN Joint Meeting had also adopted this system architecture. The information should be exchanged via a central information management service (TP1). This central body should ensure that only authorised agencies have access to the data the carriers have entered in the data banks of trusted parties TP2 and only when necessary. In so doing, it should be ensured that this does not involve higher investment costs for undertakings or government institutions insofar as existing IT equipment (hardware and software) can continue to be used without needing to be adapted (see also report of the 11th session of the working group in informal document INF.3 of the RID/ADR/ADN Joint Meeting, Geneva, 17 to 27 September 2013).

Other considerations in terms of the new system architecture

4. The working group took the following decisions at this session:
 - It would be preferable for the central information management service (management centre) to be operated by European institutions.
 - It must be defined which government bodies may take part in the exchange of information, and to what extent.
 - The management centre should be responsible for the registration, updating and tracking of enquiries and for managing the electronic certificates of registered stakeholders.
 - The various national systems for organising the control authorities, police and emergency services should not be affected. All that has to be ascertained is how specific data enquiries are to be carried out by the government bodies.
 - For each dangerous goods consignment, a message must be sent to the management centre saying that a transport unit carrying dangerous goods is en route and specifying how the allocated data set stored with a TP2 body can be reached if it is required.
 - The technical system on which the flow of information and interface is based and all the processes in connection with the operation of the management centre, including the certification of implementations of the service, must be laid down by adapting the legal provisions and by supplementing standards. As there are already numerous relevant standards and IT solutions, a binding selection has to be made. If necessary, new technical standards will also have to be developed. To achieve this, the European Commission should mandate the European Committee for Standardization (CEN).
 - It should be possible to integrate existing IT applications, or those that are currently being developed (e.g. TAF TSI, eCall, RIS) into the system architecture.

- The dangerous goods telematics system should be openly designed in order to enable future developments and further country-specific applications.
5. The working group decided to send the EU Dangerous Goods Regulatory Committee a letter setting out the above decisions and considerations. This Committee met in Brussels on 6 June 2014. In particular, the European Commission was asked in the letter to ensure that the management centre is operated by a European body and to mandate CEN to develop the necessary technical standards. The letter is attached to this report as Annex I.

Overlaps with other projects

eCall

6. The working group agreed that current considerations in connection with the eCall project and its anticipated introduction for goods vehicles in terms of storing a small part of the dangerous goods specific data in the vehicle and to transmit them using eCall were no longer useful. These considerably reduced data could not be a substitute for the transport document and would not provide enough information for the emergency services.
7. In view of the new system and the fact that the eCall minimum data set already provides for the exact coordinates of the site of an accident and clear identification of the vehicle, it would be sufficient if eCall were simply to transmit an additional message that dangerous goods are being carried. This would make it possible to inform the competent authorities immediately and provide instant access to the data set with the dangerous goods information.

TAF TSI

8. Mr Gutiérrez (ERA) gave a presentation (see Annex III) in which he informed participants of the results of the revision of the Technical Specifications for Interoperability "telematic applications for freight transport" (TAF TSI). He pointed out that the TAF TSI prescribed a standard format for the electronic exchange of data between railway undertakings and infrastructure managers.
9. Among other things, the text of the TAF TSI stipulates that the data set with the dangerous goods specific information must be "locally stored and administrated", i.e. with the railway undertakings that are carrying out the transport operation. As the infrastructure manager only has access to certain information according to the current provisions of RID (1.4.3.6), in the event of an incident the emergency services currently have to get in touch with both the infrastructure manager and with the railway undertaking concerned in order to obtain all the information necessary to take action.
10. The representative of Germany drew attention to the fact that one way of resolving this problem might be to amend the text of RID 1.4.3.6 to say that the infrastructure manager has access to all the information relevant to the emergency services at all times during the transport operation. This way, in the event of an incident the emergency services could obtain all the necessary dangerous goods specific data from the infrastructure manager. As the TAF TSI only requires railway infrastructure managers to ensure the exchange of data between themselves and with rail transport undertakings, this would mean that the TAF TSI would have to enable the railway infrastructure manager to forward data to the authorities and emergency services. Subject to this, in rail transport the infrastructure manager could also take on the role of the management centre (TP1).
11. The working group agreed that there would have to be more coordination discussions to assess any overlaps between the system architecture proposed by the working group and the TAF TSI.

GeoTransMD Project

12. Based on the presentation in Annex IV, Mr Pfauvadel and Mr Méchin (French Ministry of Transport) informed the meeting of the results of the French GeoTransMD project started at the beginning of June 2013. The project takes up the system architecture adopted by the working group and tests individual elements in practice.
13. The project modelled two scenarios for public authorities to request data. In the first variant (proxy model), the management centre (TP1) would be the only access point for the control authorities or emergency services. Each enquiry would have to pass via the management centre, which, following verification of the authorisation, would either issue the electronic transport document or indicate a URL link to the transport document deposited with the TP2.
14. The second variant (redirect model) would enable the public authorities to obtain the necessary data not just from the management centre, but also to contact the TP2 bodies directly to request the documents. In this case, the TP2 body would have to make an enquiry to the management centre before issuing the documents requested in order to check the authorisation.
15. Both scenarios would also be feasible if there were several TP1 bodies. It would only have to be ensured that these bodies are able to exchange information between themselves and that a TP2 body or a public authority is registered with the TP1 body of the country of origin. During the transport operation, each transport unit should only be registered with one TP2 body.
16. The working group agreed that the data request should only pass via the management centre (TP2) and was unanimously in favour of the proxy model.
17. With regard to the question of whether a certain level of specification concerning the availability of data at the TP1 and TP2 bodies should be set, the working group did not think this was necessary at the moment. According to the current provisions, the carrier only has to ensure that the transport documents are available.
18. The working group pointed out that for field trials of the proposed system architecture and interfaces, other national or international pilot projects should also be carried out. The results of these pilot projects should be systematically collated and assessed so that they can be fed into the specification of the system architecture.

TACOT Project

19. Mr Campagne (FDC) gave a presentation (see Annex V) informing participants of the results of the TACOT project (**T**rusted multi **a**pplication receiver **f**or **t**rucks). The aim of this project was to broaden the functionality of the digital tachograph by adding satellite navigation on the basis of EGNOS.
20. The working group was of the view that this project brought with it useful improvements in terms of positioning, but like the SCUTUM project, only had limited value for the further work of the working group, as it did not have any consequences for the system architecture.

HITS Projects

21. The working group noted the Swedish project reproduced in Annex VI. The aim of this project is to ensure compliance with the regulations on a voluntary basis by creating a commercial platform for the exchange of transport information. It should also be possible to use transport data for statistical purposes, for example to determine the quantities of dangerous goods carried on certain routes.

DOGIES and GEOFENCING MD Projects

22. The representative of UNIFE gave the working group a presentation on the Czech projects DOGIES, EDMOND and MONET (see Annex VII). The working group ascertained that the DOGIES project had a lot of similarities to the French GEOFENCING MD project, which was also presented (alert when a dangerous goods vehicle enters a defined area) (see Annex VIII) and was aimed at the same positive results in relation to compatibility with the system architecture that has been adopted.

HECATE Project

23. The working group noted the Spanish project to improve the real time monitoring of dangerous goods (see Annex IX).
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Fundamental ideas and information concerning the use of telematics for the land transport of dangerous goods

Proposal:

The Working Group of the RID/ADR/ADN Joint Meeting is seeking a clear indication of the support of the European Commission, in accordance with the EU ITS strategy as laid down in the ITS Action Plan and ITS Directive 2010/42, to working together to deliver an interoperable system of transport telematics for the safe and secure transport of dangerous goods by land. In particular, a clear commitment by the European Commission to mandate CEN to develop necessary technical standards and to act as the host for the central component for managing information flows envisaged by the Joint Meeting Working Group project is being sought.

The current situation:

- For the transport of dangerous goods, an extensive exchange of information is also necessary. This exchange is either performed by providing such information on the containments (markings, codes, danger labels) or by accompanying paper documents (in particular transport document with detailed information about the good carried).
- For all those involved in the carriage (consignor, carrier, consignee, filler, loader, unloader and others) this information is necessary but also for the inspection authorities and emergency services.
- Today, an increasing number of companies are already using electronic procedures for the exchange of information among the parties involved and for the handling of individual processes such as inspection, filling and administrative procedures in a chemical plant, refinery or filling station.
- Since there are no uniform standards for the electronic exchange of information between the parties involved and government agencies, the electronic handling is frequently interrupted at the factory gates and the data are destroyed.
- Moreover, electronic systems are being used extensively which enable the carriers to manage their fleet. But such systems also only benefit the individual company since the systems are normally not interlinked with those of public authorities.

The aim:

- In a first step, a binding regulation in the international set of regulations for the carriage of dangerous goods by road (ADR), by rail (RID) and by inland navigation (ADN) is to make it possible to generally use electronic information concerning the carriage instead of carrying a transport document in paper form on board.
- The permanent availability of this electronic transport information in connection with the technical means of positioning and the electronic transmission of these data would enable a more targeted and quicker electronic alerting of public agencies (fire brigade, police) in a second step.

- Once established, other applications may be added later in a demand-oriented way, for example with regard to safety and security requirements (geofencing) or the use of special infrastructure such as tunnels.

The way:

- On the basis of the architecture adopted by the ADR/RID/ADN Joint Meeting, a central component for managing information flows is to be established, preferably hosted by European services, which provides the necessary administrative data, thus ensuring the flow of information between the carriers and the government agencies.
- To ensure an exchange of information, a supplement to the set of regulations (ADR/RID/ADN) and the CEN standards is to define the technical system on which the flow of information is based. Although numerous standards already contain elements concerning the technology it is necessary to lay down a definite electronic format in a standard and this requires, in our opinion, to give a relevant mandate to the CEN.

The assumptions and definitions in the architecture:

- The adopted architecture is to ensure that neither the companies nor the government agencies have to make extensive investments in new hardware. The continued use of current IT facilities with certain modifications to the software is intended.
- The different national systems to control policing and to organize the rescue services as well as the necessary means for the transmission of the necessary data (by phone, fax, SMS, e-mail etc.) are to remain unchanged. It is only to be set forth how a request for the data needed in the individual case can be made by the government agencies.
- The provision of the specific data for each individual carriage is to remain with the companies or with the commissioned third party service providers. The companies are to be given the possibility of using an electronic transport document, thus also offering them an economic incentive to participate in the new system.
- As regards general IT solutions which are already existing for a specific transport mode or are being developed, such as TAF-TSI, ECall or RIS (River Information System), it should be possible for these to interact with the architecture without any difficulty.
- The telematics system for the transport of dangerous goods is to permit further applications which are of importance in the individual countries. Thus, telematics applications such as the tracking of vehicles or consignments with explosives or similar sensitive goods might be useful in countries with a high risk of terrorist activities.

The specific design of the interface to information management:

- It is necessary in the case of accidents, other incidents, inspections and other occurrences where data must be exchanged that this exchange can be performed without delay.
- For this purpose, the information must be stored in the system via a physical interface (management centre) – which should preferably be operated by European services – setting forth which government agencies are allowed to participate in this exchange and to what extent (definition of roles). Moreover, this centre will also be responsible for the management of electronic certificates of the registered stakeholders which enable the safe handling of the transactions provided by the system. Furthermore, the registration, up-dating and tracking of the enquiries must be organized by government agencies.

- The companies must also determine who may participate in this exchange and under what conditions. In addition, the management centre must in each individual case be informed that a transport unit carrying dangerous goods is en route and how to retrieve the pertaining dataset. This means in practice that before starting a carriage the relevant identification of the road vehicle (e.g. nationality and registration number of the tractor vehicle), wagon number in rail transport or vessel identification number in inland navigation must be deposited together with a clear service access point for the retrieval of the dataset.
- All processes in connection with the operation of the management centre must be laid down by legal provisions and supplementing standards. Although numerous standards or regulations are already existing which contain elements for the transport of dangerous goods and other IT solutions, a binding selection has to be made; for this purpose, the EU should issue a standardization mandate. Apart from standards relating to the technical design of the interface this also concerns standards for the certification of implementations of the service. (Note: At the request of the European Commission the necessary thematic specifications may be elaborated).

The importance of other projects:

- Within the framework of the introduction of the ECall for HGV it might be possible with this ECall to transmit information on the carriage of dangerous goods and clear identification of the vehicle for the retrieval of the dataset with the dangerous goods data; this would make it possible to immediately pass on information in the case of accidents, indicating the precise accident site and giving access to all relevant data without delay. Current considerations to only store a small part of the relevant data on the vehicle and to directly transmit them with the ECall are not useful since these strongly reduced data are neither of use for the emergency services nor are they capable of substituting the dangerous goods transport document, but they would involve considerable additional cost and work for the companies as regards data maintenance.
- The SCUTUM project is of only limited value since it does not include conclusions for a realistic architecture. It does, however, take investigations with regard to positioning into account. Other projects like TACOT also provide appropriate positions.
- Many other projects have addressed elements of the transport of dangerous goods but do not take into account the problem of an architecture such as that defined by the Telematic WG.
- The current French project, GeoTransMD, takes up the agreed architecture and tests individual elements. Thus, it can be seen as the verification of the approach and can lead to technological solutions. It can be considered as the further monitoring of the dialogue with the EU for the setting up of a management centre.
- Talks are held to coordinate the further development of the RIS project (inland navigation) in order to take account of the planned architecture in this course.
- Talks should continue in order to assess the interactions with TAF-TSI regulation and electronic consignment note (eRail freight) in rail transport.
- For field trials of the proposed architecture and of the interfaces it might be useful to continue the implementation of national or international pilot projects (similar to the French project, GeoTransMD) which should be monitored by a coordination project at European level (ideally, by the Telematics Working Group of the Joint Meeting including appropriate EU representation). There, the findings of the pilot projects should be collected and evaluated systematically and the results thus obtained should be included in the specification. This should be done simultaneously with the dialogue for the organization of a EU management centre.

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