



Economic and Social Council

Distr.: General
26 July 2022

Original: English

Economic Commission for Europe

Inland Transport Committee

Working Party on Road Transport

Group of Experts on the Operationalization of eCMR

Second session

Geneva, 4-6 October 2022

Item 3 of the provisional agenda

Programme of work

Analysis of the provisions of Article 5 to the eCMR protocol

Submitted by the Secretariat and experts of the Group

This document provides a first attempt to summarize the requirements / processes that the CMR Convention and the eCMR protocol and especially its article 5 stipulate and impose for the operationalization of eCMR for consideration by the experts at their second session on 4-6 October 2022.

I. Mandate

1. At its 116th session in October 2021, the Working Party on Road Transport (SC.1) decided to establish a formal group of experts on the operationalization of the eCMR procedure for 2 years (2022 and 2023) to discuss and if possible agree on the requirements of article 5 of the Additional Protocol to CMR including the objective/scope, the high level architecture, and the conceptual specifications for a future environment that would support the conclusion and exchange of electronic consignment notes in accordance with the provisions of CMR and its Additional Protocol. Such work should also include an impact assessment of possible implementation scenarios of a future eCMR environment (ECE/TRANS/SC.1/416 paragraph 20). At its eight-fourth session in February 2022, the Inland Transport Committee endorsed the Group of Experts' terms of reference (ECE/TRANS/316 paragraphs 28 and 33). This was approved by the Executive Committee of UNECE (EXCOM) in May 2022 (ECE/EX/2022/L.11 paragraph 3).
2. During the first session of the group the experts requested the secretariat to prepare a document which would provide a first analysis of the provisions of article 5 of the eCMR protocol. Some experts provided their input to the secretariat in order to include it in this analysis.

II. Historical review

3. Professor Jacques Putzeys from UNIDROIT was the main drafter of the eCMR protocol in the framework of the Working party on road transport SC.1. This work started in 2000 and finished in 2008 when the protocol was submitted for signing and ratification by the governments. Professor Jacques Putzeys introduced for first time article 5 in the draft text of the protocol in 2006¹.
4. He provided the following explanation for the introduction of the new article 5 (footnote 13): New provision proposed to offer a minimum framework for agreements between the parties. The text is based on article 6 of the UNCITRAL "Draft convention on the carriage of goods [wholly or partly] [by sea]". The draft convention on the carriage of goods wholly or partly by sea on which the professor was working on that period was called afterwards "the Rotterdam rules" which was submitted for signing and ratification by the governments in 2008. However, it has not come into force yet.
5. Only one small change took place from that initial text that was suggested by the professor and the final text of the protocol. This change was at the first sentence of the article. The article was initially starting with the sentence "...the parties making use of the consignment note referred to in this Protocol shall agree...". The final text based on which the eCMR protocol came into force mentions: "...The parties interested in the performance of the contract of carriage shall agree...".
6. The proposed text was the article 6 of the draft Rotterdam rules of 2005 with the title "Procedures for use of negotiable electronic transport records"². The final text of the convention that it was proposed for signature and ratification by the governments included it as article 9³.
7. There is a substantive difference between the two articles. The Rotterdam rules text starts by saying "The use of a negotiable electronic transport record shall be subject to procedures that provide for". The eCMR protocol refers to "parties" with a small "p" that are interested in the performance of the contract of carriage. Neither the Rotterdam rules nor the eCMR protocol provide a description regarding the word "parties" under article 1 definitions.

¹ ECE/TRANS/SC.1/2005/1/Rev.1 / <https://unece.org/DAM/trans/doc/2005/sc1/ECE-TRANS-SC1-2005-01r1e.pdf>

² <https://documents-dds-ny.un.org/doc/UNDOC/LTD/V05/870/82/PDF/V0587082.pdf?OpenElement>

³ <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/rotterdam-rules-e.pdf>

8. It should be noted that the Vienna Convention on the Law of Treaties of 1969⁴ under article 2, use of terms, stipulates that:

(a) “contracting State” means a State which has consented to be bound by the treaty, whether or not the treaty has entered into force;

(b) “party” means a State which has consented to be bound by the treaty and for which the treaty is in force.

9. Furthermore, the eCMR protocol specifically refers to the parties interested in the performance of the contract of carriage. Then under article 1, definitions, provides the following description for the “Electronic consignment note”: “...means a consignment note issued by electronic communication by the carrier, the sender or any other party interested in the performance of a contract of carriage to which the Convention applies...”. Meaning not only the carrier and the sender.

10. Finally, it should be noted that:

(a) In maritime transport there are 6 main global maritime container carriers that move almost the 80% of the containerized cargo. Furthermore, maritime transport has to do with ports and along the itinerary of one container ship, on average, 3-4 ports are visited. Therefore, including such an article in the draft Rotterdam rules made sense because if we consider as parties only the carriers and the shippers then we could understand that the carriers could easily meet, discuss and agree on these provisions. This was actually the case in 2019 where those carriers established the Digital Container Shipping Association (DCSA) with the main objective to establish IT standards that would enable interoperability of technology solutions across the industry.

(b) In road transport the operational challenges are completely different. The carriers are thousands and the borders that the trucks are crossing are hundreds. Even if there is agreement that the word “parties” refers only to the consignor and the carrier – if we follow the Rotterdam rules then most probably it is the case – then we should acknowledge that it would be impossible for those thousands of large, medium, small and very small road carriers from different geographical regions to meet and agree on common procedures and standards.

(c) This is maybe the reason why since 2008 the eCMR protocol is not yet operational and maybe this is one of the reasons behind why the Rotterdam rules are not yet into force. However, it has to be acknowledged that this is where the real value of the group of experts decided by the inland transport committee lies on. To finally make the eCMR protocol operational in all regions by having these procedures, stakeholders and system(s) specified.

III. Analysis of provisions of Article 5

11. The following table provides a first attempt to summarize the requirements / processes that the CMR Convention and the eCMR protocol and especially its article 5 stipulate and impose for the operationalization of eCMR for consideration by the experts

4 https://legal.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
<p>Art. 5 Making out of the consignment note</p>	<p>Article 2 Subject to the provisions of this Protocol, the consignment note referred to in the Convention, as well as any demand, declaration, instruction, request, reservation or other communication relating to the performance of a contract of carriage to which the Convention applies, may be made out by electronic communication .</p> <p>Article 3 Authentication of the electronic consignment note</p>	<p>„1. The consignment note shall be made out in three original copies signed by the sender and by the carrier. These signatures may be printed or replaced by the stamps of the sender and the carrier if the law of the country in which the consignment note has been made out so permits. The first copy shall be handed to the sender, the second shall accompany the goods and the third shall be retained by the carrier.</p> <p>2. When the goods which are to be carried have to be loaded in different vehicles, or are of different kinds or are divided into different lots, the sender or the carrier shall have the right to require a separate consignment note to be made out for each vehicle used, or for each kind or lot of goods.“</p>	<p>The consignment note is issued in three original copies in accordance with Art. 5 CMR.</p> <p>In several passages, the CMR refers to the first and second copies. Depending on the circumstances, originals must be presented or entries made. The e-CMR protocol only uses the term “electronic consignment note” without specifying how it corresponds to the “three copies” approach. The electronic consignment note must also fulfil the functions of all three copies and the procedures to be agreed upon by the parties need to address how this takes place. In the following, the references in the CMR to a specific copy are briefly described:</p> <p>- For a subsequent disposal, the carrier must always produce the first copy of the consignment note (Art. 12 Para. 5 a CMR).</p> <p>- In the event that the carrier carries out an instruction without having requested the production of the first copy of the consignment note, he is liable to the person entitled for the damage resulting therefrom (Art. 12 para. 7 sentence 1 CMR).</p> <p>- However, the production shall not be necessary if the consignee refuses the goods (Art. 15 para. 1 CMR).</p> <p>- Subsequent instructions may no longer be given by the sender as soon as the</p>	<p><u>Demand</u> Who initiates the electronic consignment note/ demand (consignor / carrier / both)? Who should have access to the system(s) and who should be authenticated? What about the successive / sub-contracting carriers?</p> <p><u>Declaration</u> How the system(s) develops / produces the electronic consignment note, the data sets that are being included based on the convention (mandatory / optional); What the output should be? A QR code, a pdf file, electronic messages, others)?</p> <p><u>Instruction</u> How and when the consignor can provide several instructions to the carrier(s)? Do they have the possibility to change/ amend their instructions to the carrier / successive / subcontracting carriers during the trip? How the carriers will be informed?</p> <p><u>Request</u> The same questions as above apply for the different requests.</p> <p><u>Reservation</u> The same questions as above apply for the different reservations that any of the partners can make. For instance, the consignee, the receiver of the goods.</p> <ul style="list-style-type: none"> • Will the consignee / receiver have access to the system? • Will the system authenticate

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
			<p>second copy of the consignment note has been handed over to the consignee, or the latter has asserted his right to have the consignment note handed over in accordance with Art. 13 para. 1 CMR (Art. 12 para. 2 CMR).</p> <p>- The person taking over the goods from the previous carrier shall enter his name and address and any reservations on the second copy of the consignment note (Art. 35 para. 1).</p>	<p>him/her to ensure that he/she is the one that should receive the goods?</p> <ul style="list-style-type: none"> • This also applies for the proof of delivery. The Carrier also can make reservations on the declarations provided by the consignor / sender regarding for instance the number of packages etc. It is important to know that according to the Convention (Article 8), the sender is not bound by the reservations unless he has expressly agreed to them. <p><u>other communication relating to the performance of a contract of carriage</u></p> <p>The same applies for any other communications regarding the performance of the contract among the 3 stakeholders + successive / sub-contracting carriers. It should be noted that Successive carriers are parties to the same and unique contract of carriage. Subcontracted carriers are not parties to the same contract of carriage. There are consequently several contracts: a contract of carriage between the principal and the contracted carrier and a contract of sub carriage between the contracted carrier and the sub-contracted carrier. Possibly, a new consignment note must be drawn up for each sub-contracted carrier, in which the subcontracting carrier is entered as the sender. The sub-contracted carrier is liable</p>

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
Art. 6 Contents of the consignment note	Article 3 particulars contained in the electronic consignment note shall be accessible to any party entitled thereto	1. The consignment note shall contain the following particulars: (a) The date of the consignment note and the place at which it is made out; (b) The name and address of the sender; (c) The name and address of the carrier; (d) The place and the date of taking over of the goods and the place designated for delivery; (e) The name and address of the consignee; (f) The description in common use of the	The electronic consignment note must also be able to reproduce these mandatory and optional contents while respecting the integrity and authenticity of the consignment note.	<p>only to the initial carrier, whilst the latter is liable to the sender and the consignee for acts and omissions on the part of other parties he may use for the transport operation (including the sub-contracted carriers). These processes should be reflected in the electronic consignment note in order to ensure application of the Convention.</p> <p><u>Authentication</u> The authentication is one of the most important issues in the digital applications equally important with the integrity of the data. The protocol refers to electronic signatures but also to other means. Experience from the digitalization of other UN Conventions (eTIR) saw that the lack of harmonization / international agreement on electronic signatures prevented its use as a commonly agreed method accepted by all contracting parties. A commonly agreed and feasible way must be identified for eCMR system.</p> <p>Access to the data from all stakeholders and storage for a certain amount of time is a prerequisite for an efficient electronic system. The group should decide who should be the stakeholders of the future system. The todays practice proves that on the top of the three main users of the contract meaning the consignor, carrier and the consignee, the courts, customs, police, banks, and insurance require to have access to the data and for sue will require that the storage of data is kept by a</p>

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
	<p>Article 4 The procedure used to issue the electronic consignment note shall ensure the integrity of the particulars contained therein from the time when it was first generated in its final form</p>	<p>nature of the goods and the method of packing, and, in the case of dangerous goods, their generally recognized description; (g) The number of packages and their special marks and numbers; (h) The gross weight of the goods or their quantity otherwise expressed; (i) Charges relating to the carriage (carriage charges, supplementary charges, customs duties and other charges incurred from the making of the contract to the time of delivery); (j) The requisite instructions for Customs and other formalities; (k) A statement that the carriage is subject, notwithstanding any clause to the contrary, to the provisions of this Convention.</p> <p>2. Where applicable, the consignment note shall also contain the following particulars: (a) A statement that transshipment is not allowed; (b) The charges which the sender undertakes to pay; (c) The amount of "cash on delivery" charges; (d) A declaration of the value of the goods and the amount representing special interest in delivery; (e) The sender's instructions to the carrier regarding insurance of the goods; (f) The agreed time limit within which the carriage is to be carried out; (g) A list of the documents handed to the carrier.</p>		<p>trustful partner.</p> <p>Regarding the requirement of article 4 on the integrity of the particulars. This is relevant to point above on the declaration, meaning how the electronic consignment note is being generated and strictly connected with the process to amend the consignment note. How the system ensures the integrity of data and the inalterability of the message? How the system creates trust to all stakeholders involved?</p>

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
Art. 8 Control obligations	Article 4 The particulars contained in the electronic consignment note may be supplemented or amended in the cases authorized by the Convention (The procedure used for supplementing or amending the electronic consignment note shall make it possible to detect as such any supplement or amendment to the electronic consignment note and shall preserve the particulars	<p>3. The parties may enter in the consignment note any other particulars which they may deem useful.</p> <p>1. On taking over the goods, the carrier shall check: (a) The accuracy of the statements in the consignment note as to the number of packages and their marks and numbers [...]</p> <p>2. Where the carrier has no reasonable means of checking the accuracy of the statements referred to in paragraph 1 (a) of this article, he shall enter his reservations in the consignment note together with the grounds on which they are based. He shall likewise specify the grounds for any reservations which he makes with regard to the apparent condition of the goods and their packaging. Such reservations shall not bind the sender unless he <u>has expressly agreed to be bound</u> by them in the consignment note.</p> <p>3. The sender shall be entitled to require the carrier to check the gross weight of the goods or their quantity otherwise expressed. He may also require the contents of the packages to be checked. The carrier shall be entitled to claim the cost of such checking. The result of the checks shall be entered in the consignment note.</p>	In addition to the contents stipulated in Art. 6 CMR, the electronic consignment note must also allow the carrier to enter reservations and the result of an inspection of the external condition of the goods and their packaging. The procedures need to address how this can happen.	Following the previous point, who has the right to change/ amend the electronic consignment note, when and how ? How all other stakeholders will be informed about these changes? Do their confirmation / agreement is needed in order to do so? If yes, how is this going to be achieved while en route? How and where all this amendments history regarding the eCMR will be recorded and stored ensuring their integrity and access by interesting stakeholders (courts, customs)? If for instance customs are involved, if a change happens en route on the consignment note and agreed by the carrier and the consignor based on a process that has to be identified, how the customs rest of the custom en route and destination will be informed about this valid change? Who should inform them – system, stakeholder – and how?

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
	originally contained therein)			
Art. 9 Evidentiary value of the consignment note	Article 5 The manner in which the party entitled to the rights arising out of the electronic consignment note is able to demonstrate that entitlement;	1. The consignment note shall be prima facie evidence of the making of the contract of carriage, the conditions of the contract and the receipt of the goods by the carrier. 2. If the consignment note contains no specific reservations by the carrier, it shall be presumed, unless the contrary is proved, that the goods and their packaging appeared to be in good condition when the carrier took them over and that the number of packages, their marks and numbers corresponded with the statements in the consignment note.	The equal evidentiary value of the electronic consignment note is explicitly mentioned in Article 2 (2) of the e-CMR protocol. An e-CMR environment must allow to produce an individual electronic consignment notes before a court and the procedures should address this aspect.	CMR convention is about the consignment note but maybe most importantly is about the liability connected and its limitations. How the system ensures that the party entitled to the rights arising out of the electronic consignment note is able to demonstrate that entitlement?
Art. 11 Supporting documents	Article 5 The procedures for the possible replacement of the electronic consignment note by a consignment note issued by different means Article 6 Documents supplementing the electronic consignment	1. For the purposes of the Customs or other formalities which have to be completed before delivery of the goods, the sender shall attach the necessary documents to the consignment note or place them at the disposal of the carrier and shall furnish him with all the information which he requires.[...]	For an electronic consignment note, Article 6 (2) of the e-CMR protocol provides how supporting documents can be supplied. This provision also requires an agreement of the parties as to how a link between the electronic consignment notes and the supporting documents is ensured.	This point refers either to the fallback procedure if for instance there is no electricity / internet and therefore the electronic consignment note cannot be checked and /or to different options existing in one system for producing the electronic consignment note (pairs of messages based on events, QR codes etc). In general, in the digital world and while travelling by truck internationally different options should exist to ensure continuity since technological interruptions might happen. The fallback procedure should be very carefully designed to avoid, if possible, having again documents printed in parallel with the electronic consignment notes. Regarding article 11 of the Convention. CMR Consignment note is being accompanied by several other documents

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	note include a receipt for the goods and all information necessary for identifying the shipment and for access to the electronic consignment note			based on the geographical region etc. It should be recognized that having the CMR consignment note electronic and then all other accompanying documents in paper eliminates the advantages of the electronic solution on CMR especially those that have to do with time reduction, paperless environment, covid 19 free operations etc. On the other hand, it would be difficult if not impossible to have all documents required in an electronic format. It would facilitate though if the future eCMR system(s) has the ability to attach documents (for instance pdf) therefore the sender can always scan and attach the accompanying documents. This solution of course will oblige for instance the customs to receive the CMR data electronically but to check papers for the other documents.
Art. 12 Disposal of the goods		<p>1. The sender has the right to dispose of the goods, in particular by asking the carrier to stop the goods in transit, to change the place at which delivery is to take place or to deliver the goods to a consignee other than the consignee indicated in the consignment note.</p> <p>2. This right shall cease to exist when the second copy of the consignment note is handed to the consignee or when the consignee exercises his right under article 13, paragraph 1; from that time onwards the carrier shall obey the orders of the consignee.</p> <p>3. The consignee shall, however, have the right of disposal from the time when the consignment note is drawn up, if the</p>	According to Art. 12 CMR, the sender must produce the first copy of the consignment note in order to dispose of the goods before arrival. In particular, the carrier must be able to recognize that it is the original of the sender's copy. The electronic consignment note must also enable the sender to make subsequent dispositions by presenting the electronic "original". On the other hand, no disposal may take place once the second copy of the consignment note has been handed over to the consignee. This also requires an electronic mechanism and the procedures need to address this important aspect.	

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		<p>sender makes an entry to that effect in the consignment note. [...]</p> <p>5. The exercise of the right of disposal shall be subject to the following conditions:</p> <p>(a) That the sender or, in the case referred to in paragraph 3 of this article, the consignee who wishes to exercise the right produces the first copy of the consignment note on which the new instructions to the carrier have been entered and indemnifies the carrier against all expenses, loss and damage involved in carrying out such instructions;</p> <p>(b) That the carrying out of such instructions is possible at the time when the instructions reach the person who is to carry them out and does not either interfere with the normal working of the carriers' undertaking or prejudice the senders or consignees of other consignments;</p> <p>(c) That the instructions do not result in a division of the consignment. [...]</p> <p>7. A carrier who has not carried out the instructions given under the conditions provided for in this article or who has carried them out without requiring the first copy of the consignment note to be produced, shall be liable to the person entitled to make a claim for any loss or damage caused thereby</p>		
Art. 13 Rights and duties of the recipient	Article 5 The way in which confirmation is	1. After arrival of the goods at the place designated for delivery, the consignee shall be entitled to require the carrier to deliver to him, against a receipt, the	It must be possible to deliver the “second copy” of the electronic consignment note from the carrier to the consignee. The procedures need to specify how this takes	The electronic proof of delivery is not an easy task. It is not about the technology. It is about: a. The authentication of the recipient and his/her access to the

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
	given that delivery to the consignee has been effected;	second copy of the consignment note and the goods. [...]	place.	<p>system(s).</p> <p>b. the recipient proving the receipt of the goods or he/she proving that he/she did not receive the goods</p> <p>c. the recipient proving that the goods were partially received</p> <p>d. the recipient proving that the goods received were damaged and to make a reservation</p> <p>e. the recipient proving that he/she received the goods with damages in the packaging without knowing if the goods were damaged so that she/he had to make a reservation</p> <p>f. the recipient proving that he/she received the goods but without the carrier having followed the instructions / requests creating financial losses – or other problems making again a reservation etc.</p> <p>For instance, if the proof of delivery is being performed through a device (such as mobile phone carried by a driver with an application of the eCMR system(s)), it has to be ensured that the driver will not have access to this data / be able to change these reservations and these data / reservations will be automatically uploaded in the eCMR system(s) ensuring integrity of data, storage of data and automatic dissemination of the information to all stakeholders.</p>
Art. 15 Obstacles to		1. Where circumstances prevent delivery of the goods after their arrival at the place	In case the consignee refuses to accept the goods, the sender must be able to give	

Reference CMR	Reference eCMR	Content	Remarks from experts of Germany	Remarks from the secretariat
delivery		designated for delivery, the carrier shall ask the sender for his instructions. If the consignee refuses the goods the sender shall be entitled to dispose of them without being obliged to produce the first copy of the consignment note . [...]	instructions without showing the original. This means that any subsequent instruction requires the presentation of the original consignment note, unless the consignee refuses the goods. An e-CMR environment must address both situations (first copy required/not required) and the procedures need to specify how the refusal of the goods can be indicated.	
Art. 22 Dangerous goods		1. When the sender hands goods of a dangerous nature to the carrier , he shall inform the carrier of the exact nature of the danger and indicate if necessary, precautions to be taken. If this information has not been entered in the consignment note , the burden of proving, by some other means, that the carrier knew the exact nature of the danger constituted by the carriage of the said goods shall rest upon the sender or the consignee. [...]	The e-CMR environment must provide the possibility to enter the details mentioned in the consignment note. It should also draw the attention of the carrier to dangers as well as to the precautionary measures to be taken in this connection.	
Art. 24 Value declaration		The sender may, against payment of a surcharge to be agreed upon, declare in the consignment note a value for the goods exceeding the limit laid down in article 23, paragraph 3, and in that case the amount of the declared value shall be substituted for that limit.	In the electronic consignment note, against payment of a surcharge, it must be possible to indicate a value of the goods exceeding the maximum amount specified in Article 23, paragraph 3 (8.33 Special Drawing Rights per kilogram of gross weight short). The procedures need to specify how the value can be entered.	
Art. 26 Special interests		1. The sender may, against payment of a surcharge to be agreed upon, fix the amount of a special interest in delivery in the case of loss or damage or of the agreed time-limit being exceeded, by entering such amount in the consignment note . [...]	In the electronic consignment note, against payment of a surcharge, there must be a possibility to specify the amount of a special interest in the delivery. The procedures need to specify how the special interest can be entered.	
Art. 30		1. If the consignee takes delivery of the	The consignment note also serves as a	

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Legal reservations		goods without duly checking their condition with the carrier or without sending him reservations giving a general indication of the loss or damage, not later than the time of delivery in the case of apparent loss or damage and within seven days of delivery, Sundays and public holidays excepted, in the case of loss or damage which is not apparent, the fact of this taking delivery shall be prima facie evidence that he has received the goods in the condition described in the consignment note . In the case of loss or damage which is not apparent the reservations referred to shall be made in writing. [...]	proof document regarding the external condition (cf. Art. 9 CMR regarding the handover of the consignor to the carrier). For electronic consignment notes, see Article 2 (2) of the e-CMR protocol.	
Art. 35 Cargo control, evidential value of the consignment note		1. A carrier accepting the goods from a previous carrier shall give the latter a dated and signed receipt. He shall enter his name and address on the second copy of the consignment note . Where applicable, he shall enter on the second copy of the consignment note and on the receipt reservations of the kind provided for in article 8, paragraph 2. 2. The provisions of article 9 shall apply to the relations between successive carriers.	In the electronic consignment note, it must be possible for successive carriers to enter their personal data and reservations in the second copy. The procedures must specify how this happens. The procedures should also address how the “dated and signed receipt” can be communicated electronically.	
	Operational issues that the electronic environment imposes			<u>Hosting 24/7/365</u> International transport should be further facilitated through the eCMR system. Therefore, access to the system(s) by all stakeholders 24 hours per day, 7 days per week and 365 days per year. Ideally, nobody should have access to the data including the State where the servers are maintained.

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				<p><u>Security / Storage of data / Access to the data</u> Integrity of data creates trust. Security, secured access and ensuring of inalterability of messages / data are in the heart of such a trustful system. The existing of mirroring servers even in different geographic locations following all international standards set for protection of data and personal data should be ensured and warranted.</p> <p><u>Maintenance / Upgrading / Improvements to the system (s) / Decisions</u> An electronic tool such eCMR requires continues improvements either on services provided, on operations agreed that require new upgrades of the system(s) etc. A mechanism should be set first to discuss and agree those new upgrades. Then another mechanism should be agreed that monitors the implementation of those agreed upgrades by the different system(s) providers.</p> <p>When new technology for instance further facilitates the already decided operational processes then a mechanism should exist that these operational processes agreed are being discussed and revised. In addition functional and technical specifications of a future system should be created and agreed at the level of working party on road transport SC.1. These specifications should have different versions based on improvements discussed and approved in the framework of the working party.</p>