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Programme of work

Proposed concepts and processes of the future eCMR system

Proposed Concepts / Processes of the future eCMR system based on Group's discussions

Submitted by the Secretariat

This document contains the Proposed Concepts / Processes of the future eCMR system based on Group's discussions to be discussed and adopted by the Group of Experts at its third meeting on 9 to 11 November 2022.

<i>Explanation / Reference</i> CMR	<i>Explanation / Reference</i> eCMR	<i>Proposed Concepts</i>	<i>Proposed processes</i>
Article 4 CMR. The absence, irregularity or loss of the consignment note shall not affect the existence or the validity of the consignment note which shall remain subject to the provisions of this convention	Remark: There is no provision in the eCMR protocol that defines the fallback procedure. The fallback procedure is of paramount importance for the operations of the future eCMR system when for some reasons the system does not work as designed. The fallback procedure in order to be recognized and followed by all contracting parties should be a legally bind procedure included in the protocol. The secretariat suggests the preparation of a provision for the fallback procedure to be included in the protocol.	Fallback procedure In an electronic environment it is difficult to speak about the loss or absence of the consignment note since there is always the possibility to access the document / data online, in the initial platform where it was generated.	Fallback procedure. For the purposes of a fallback procedure (interruption of internet, several other technological disruptions etc) the moment the contract is concluded online then an electronic not changeable document will be produced (PDF, jpeg etc) that will be sent automatically to the emails of the parties to the consignment note (Consignor, Carrier and if agreed, the Consignee). This document should have “an electronic stamp” of the platform generated indicating the platform, the date and the place that was generated. Possibly the format of this “electronic stamp” should be included in the technical specifications of the system in order to ensure harmonization and therefore recognition by all contracting parties.
Art. 5 Making out of the consignment note	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 consignment note to which the Convention applies, may be made out by electronic communication.	Users of the electronic consignment note that have the right to create and amend the data including provision of comments. Consignor – Sender: The Consignor is one of the stakeholders that can initiate an eCMR contract. This gives the right to the consignors to have access to eCMRs data that involve them independently of the IT provider (meaning independently of technology, geography, business culture etc) where this data has been generated / restored and will have access to all services related to the eCMR contracts that they are involved.	Users of the electronic consignment note that have the right to create and amend the data including provision of comments. Consignor – Sender: Processes where the Consignor - sender has the right to amend and / or read the data or provide comments. a. providing advanced eCMR data b. advanced amendment data to the eCMR c. concluding online the contract, d. comments / instructions either in the beginning or en route, e. right to dispose of the goods etc.

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<p>Article 4 Conditions for the establishment of the electronic consignment note</p>	<p>1. The electronic consignment note shall contain the same particulars as the consignment note referred to in the Convention.</p> <p>2. 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. There is integrity when the particulars have remained complete and unaltered, apart from any addition or change which arises in the normal course of communication, storage and display.</p> <p>3. The particulars contained in the electronic consignment note may be supplemented or amended in the cases authorized by the Convention.</p> <p>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</p>	<p>Carrier (road transport company / freight forwarder / Sub Contractors / Successive Carriers):</p> <p>The Convention refers only to Carriers. It is understandable though that the user of the future eCMR system recognized as carrier could be anyone that coordinates and delivers road transport services therefore uses the CMR Convention today.</p> <p>In that sense the freight forwarders and the sub-contractors should have the role of the Carrier in the future system defining though always their identity which implies different liability processes. The role of subcontractor for instance in modern Logistics / intermodal transport should be considered. In that sense, subcontractors can be also the sender in some cases and therefore they could also have the role of the consignee / carrier in a future eCMR system.</p> <p>The Carrier is one of the stakeholders responsible for initiating an eCMR contract. This gives the right to the carrier to have access to eCMRs data that involve them independently of the IT provider (meaning independently of technology, geography, business culture etc) where this data has been generated / restored and will have access (reading / amend) to all services related to the eCMR contracts that they are involved.</p>	<p>The Consignors should make sure that they authenticate themselves based on the rules/ procedures agreed for the implementation of the eCMR, acknowledging all the rights and obligations arising from such authentication. Also the consignors should make sure to use an IT Provider that has been recognized and validated by its public authorities.</p> <p>Carrier (road transport company / freight forwarder / Sub Contractors / Successive Carriers):</p> <p>The future system should be able to define under carrier the different types of carriers and let the users choose their identity between:</p> <ul style="list-style-type: none"> • Carrier • Freight Forwarder • Sub-Contractor • Successive Carrier <p>Also, the future system should permit to the users to be able to change roles between carriers and consignees if required.</p> <p>Processes where the Carrier has the right to amend and / or read the data or provide comments.</p> <ol style="list-style-type: none"> a. providing advanced eCMR data b. advanced amendment data to the eCMR c. concluding online the contract, d. comments / instructions either in the beginning or en route, e. right to dispose of the goods etc. <p>The carriers should make sure that authenticate themselves based on the rules/ procedures agreed for the implementation of the eCMR, acknowledging all the rights and obligations arise from such authentication. Also, the carrier should make sure that</p>

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preserve the particulars originally contained therein.	Consignee – Receiver	<p>The consignee as receiver of the goods, based on the convention has certain rights and obligations.</p> <p>The consignees while an eCMR contract is concluded indicating them as consignee / receiver, they should be notified (email address / mobile phone) if agreed between Consignor and Carrier.</p>	<p>uses an IT Provider that has been recognized and validated by its public authorities.</p> <p>Subcontracted carriers:</p> <p>Subcontracted carriers are not parties to the same consignment note. There are consequently several contracts: a consignment note 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 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).</p> <p>Successive Carriers</p> <p>Under Carrier maybe the stakeholder successive carrier should be created. It should be noted that Successive carriers are parties to the same and unique consignment note.</p> <p>Consignee – Receiver</p> <p>Consignees should have reading access to the data independently of the IT provider (meaning independently of technology, geography, business culture etc). This “reading access to the data right” will be become an “amend the data” right when the consignee becomes responsible for handling the goods (article 12, 13 14 of the CMR convention). Then the consignee will have the right to provide data in the eCMR relevant to:</p>

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	<p>Users of the electronic consignment note that have the right to read the data upon request and provide comments.</p> <p>Validation body</p> <p>A national body (bodies) should be officially nominated by the governments with the following obligations / tasks:</p> <ul style="list-style-type: none"> • Provide the technical specifications as agreed on the level of ITC/SC.1 to be used for the development of platforms that generate eCMRs; • Validate the electronic solutions developed by the private IT companies based on those technical specifications (independently of the technology used) and provide the official list of IT companies recognized to be used for the generation of eCMRs in its territory. • If no other solution found, could play the role of backup / safe storage of all records generated by the different IT providers in its territory for future use by courts (of the same or different countries) and in 		<p>a. the exercise of the right of disposal (new consignee has been identified etc)</p> <p>b. loss of the goods or goods did not arrive after the expiry of the period provided (article 19).</p> <p>The consignees should make sure that they authenticate themselves based on the rules/ procedures agreed for the implementation of the eCMR, acknowledging all the rights and obligations arise from such authentication. Also, the consignee should make sure that they use an IT Provider that has been recognized and validated by its public authorities.</p> <p>Users of the electronic consignment note that have the right to read the data upon request and provide comments.</p> <p>Validation body</p> <p>The validation body even though it is not part of the operations of the future eCMR system plays a role which is of paramount importance: creates trust in the system and the mutual recognition required for the international system to be sustainable and operational without disruptions.</p>

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		<p>cases of bankruptcy of IT providers or technological disruptions etc; It should be noted that the time of safe storage of data differs among the countries. A harmonized approach should be followed here for instance all safe storage of eCMR data national bodies should keep the data for ten years.</p> <ul style="list-style-type: none"> • Monitoring the use of eCMR services in its territory and report cases on disruptions / monopolistic or oligopolistic practices etc which are again the eCMR principles of operations. • Temporary/permanently withdraw validation to generate eCMR from IT companies when such practices as mentioned above have been observed while informing all stakeholders of the system for such temporary / permanently withdraw of validation. <p>Such national body with its tasks will create trust in the system and the mutual recognition required in order for such international electronic system to function without interruptions. Each Government should decide which body / organization should be nominated. In that sense could be the chambers, the national road transport association, a new body etc. The government though should have the obligation to officially announce this body including its tasks and obligations. It shall be noted that this body should not be the body that authenticates the users (consignor, carrier consignee) which is a different function.</p> <p>The company providing the IT solution/s:</p> <p>The company providing the IT solution/s could start advertising and selling eCMR services only when is validated by the relevant national body. The company should decide if and how much will charge its users and what kind of technology will use based on free market principles. The company's solutions should ensure all requirements foreseen</p>	<p>The company providing the IT solution/s:</p> <p>The IT provider should not have reading / amending access to the CMR data being generated by the system they have developed when this system is publicly available. If the system has been developed by the transport company itself for their own business, then they should have access to data based on the rules apply for the carriers. The IT provider should not</p>

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	<p>regarding cybersecurity, inalterability of messages, storage of data and access to data etc. Large transportation companies may wish to develop such applications internally, meaning in their own IT Systems. This option should also exist. In that case these systems should be validated by the national body.</p> <p>Customs Authorities</p> <p>Customs Authorities are recognized as one of the stakeholders of the future eCMR system. Customs authorities for reasons that are different in several geographical regions are using / checking the CMR consignment notes.</p> <p>It has to be noted that among others the comments of customs are also connected with issues relevant to liability of the carriers (article 17 para 4) such as lack of or defective condition of packing in the case of goods which by their nature are liable to wastage or to be damaged when not packed, the nature of certain kinds of goods which particularly exposes them to total or partial loss or to damage, especially through breakage, rust, decay, desiccation, leakage, normal wastage or the action of moth or vermin etc. In that sense, it is of the parties to the contract interest (consignor, carrier, consignee) the customs to provide comments whenever they observe anything about the truck or the cargo or any other operational issue.</p>		<p>permit to sell or exchange the data being generated in their platform for profiting or any other reasons including competition etc.</p> <p><u>Remark:</u> As mentioned monopolistic / oligopolistic practices should be avoided in order to protect the data and therefore system's integrity. However, in a free-market environment where a company can be merged with another from a neighboring country or acquire another company from a neighboring country or just establish branches everywhere, the secretariat is not sure how such practices can be avoided. The Group should suggest a proposal here.</p> <p>Customs Authorities</p> <p>The customs authorities should have “on demand reading access” to eCMRs meaning that when a truck arrives at their borders or inland stations should be able to “read the data” if required so or the right to “provide comments” to a specific electronic place in the electronic CMR accessible only by customs independently of the IT provider (meaning independently of technology, geography, business culture etc). This electronic space (field) will be created and only the customs will have the right to use it and provide comments. The comments cannot not be deleted. The comments should be readable by everyone (listed on time basis).</p> <p>The customs authorities will have the “right of reading access or to amend any other eCMR data” connected to trucks arriving at, transiting or departing from their territories.</p> <p>If there is an investigation, then the “access to the data right” falls under the Courts access rights. However,</p>

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<p>Art. 5 CMR Making out of the consignment note in an electronic environment</p>	<p>Article 4 Conditions for the establishment of the electronic consignment note</p> <ol style="list-style-type: none"> 1. The electronic consignment note shall contain the same particulars as the consignment note referred to in the Convention. 2. The procedure used to issue the electronic consignment note shall ensure the integrity of the particulars contained therein 	<p>The issue of integrity of the particulars is strictly connected with the trust to the system. The future eCMR system should first of all keep a strict – not changeable – sequence of events based on the days and time that these events took place. In parallel, when an event takes place a backup of this data (regular backup at least once per day) should be sent from the private IT provider to the national organization (if such an option will be selected by the countries). This will serve several purposes:</p> <ul style="list-style-type: none"> • If requested, comparison of data; • Back up in case of technological failure of the IT provider 	<p>in case of violation they should have the right to request storage of the data and therefore they should have the ability to retain the data.</p> <p>Police / Courts</p> <p>The two cases are bit different though. The traffic police in all regions stops and checks the trucks mainly looking at their consignment notes. These daily checks are taking place also for different reasons. However, it means that the police officers should be equipped with a mobile phone / application that could read the electronic data presented by the carrier – possibly in the format of a QR code – and check its originality with the platform generated the data.</p> <p>On the other hand, the requirements of courts are different. Request could be made directly to company that generated the data or – if agreed – only to the national body the safe stores the data for a harmonized period of time prior to a trial.</p>
		<p>Police / Courts</p> <p>Courts and police should also have “reading access data” rights upon request / on demand based on a case that they are investigating independently of the IT provider (meaning independently of technology, geography, business culture etc).</p>	

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<p>from the time when it was first generated in its final form. There is integrity when the particulars have remained complete and unaltered, apart from any addition or change which arises in the normal course of communication, storage and display.</p> <p>3. The particulars contained in the electronic consignment note may be supplemented or amended in the cases authorized by the Convention.</p> <p>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 originally contained therein.</p>	<ul style="list-style-type: none"> • Back up in case of bankruptcy of the IT provider • Fallback procedure 	<p>2. Submission of data: The submission of the new electronic consignment note would be possible to be performed by using several IT providers including a company’s own software. Main data could be kept by the systems in order to ease the completing of the forms. Interoperability / interconnection of the systems should be ensured.</p> <p>3. Authentication: All users should be authenticated before using the system by different means of authentication agreed by the users / parties at international level (ITC/SC.1) (non-exhaustive list) :</p> <ul style="list-style-type: none"> a) National authentication system (electronic signatures etc) b) Third party provider c) International user’s database <p>4. Issue of the electronic consignment note when first generated in its final form: The consignor or the carrier – depending on who initiated the electronic consignment note should issue the electronic consignment note online by following a very simple but concrete process called “issue of the electronic consignment note”; Issue of the electronic consignment note: When the carrier/consignor will press the button “issue of the electronic consignment note” then a notification should be sent to the consignor/carrier which they have to open and approve (link to click).</p> <p>5. The Carrier should keep their right to issue the consignment note online after having loaded the goods on their truck and making their observations / reservations.</p> <p>6. Since authentication is taking place at the logging in in the system there is no need for any electronic signatures or other electronic ways to finalize the contract</p>	

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Article 5 CMR para 1. The consignment note is issued in three original copies in accordance with Art. 5 CMR.	The e-CMR protocol only uses the term “electronic consignment note” without specifying how it corresponds to the “three copies” approach.	The future eCMR system will not accommodate the function of three original copies but it will include all their functions.	online. 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 electronic environment no three “electronic” copies will be foreseen.
Article 5 CMR para 2		Creating Several consignment notes The sender or the carrier do have the right to require a separate consignment note when the goods have to be loaded in different vehicles or are of different kinds or are divided into different lots.	The platform should provide the possibility to both the sender and the carrier while creating a consignment note online to create as many as they wish based on the above criteria foreseen in the CMR Convention
	Article 3 Authentication of the Electronic consignment note	<u>Remark:</u> The provision in the eCMR protocol that defines the authentication of the electronic consignment note refers to electronic signatures without really defining them. In para 2 of Article 3 also mentions that the electronic consignment note may also be authenticated by any other electronic authentication method permitted by the law of the country in which the electronic consignment note has been made out. This practically means that the users cannot use platforms outside they country where they are operating and are being authenticated. Also, it is well known that at the moment there is no international convention into force that harmonizes the electronic signatures or that introduces a harmonized way to authenticate users of electronic solutions. The authentication process though is of paramount importance for the operations of the future eCMR system and it is strictly connected with the creation of a trustful system mutually recognized by all contracting parties and users. The authentication procedure in order to be recognized and followed by all contracting parties should be a legally bind procedure included in the protocol. The	New provision proposed to amend the eCMR protocol regarding authentication. 1. The stakeholders that are issuing an electronic consignment note shall be authenticated based on their National Law (country where they are leaving or country where the platform is being operated from?). 2. Contracting Parties bound by eCMR additional protocol shall accept the authentication of the consignment note to the consignment note parties. 3. The competent authorities shall publish a list of authentication mechanisms that may be used for authentication. Contracting Parties bound by eCMR additional protocol shall accept the electronic consignment note generated by a validated IT platform and contractual parties authenticated

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		secretariat suggests the new provisions in the processes column to be included in the protocol.	by the competent authorities of the country of departure and of the country in which an amendment to the consignment note data is requested via a validated IT platform as the legal equivalent to an accepted paper CMR consignment note.
Article 6 CMR Particulars of the consignment note.		Particulars of the consignment note: The Convention foresees eleven mandatory particulars for the consignment note and seven additional ones to be filled in where applicable or requested. However, the convention foresees that the parties may enter in the consignment note any other particulars which they may deem useful.	Therefore, the electronic consignment note should give the opportunity to the parties to include all these eighteen particulars and to include anything else they wish. It should be included the online statement that the carriage is subject to the provisions of the CMR Convention. The platform should indicate to the sender that the sender shall be responsible for all expenses, loss and damage sustained by the carrier by reason of the inaccuracy or inadequacy of specific particulars (1 (b), (d), (e), (f), (g), (h) and (j) and all additional particulars) s specified by the convention. The future eCMR system should also include the appropriate data fields in order to include information / data about the value of the goods exceeding the maximum amount specified in Article 23 par 3 of the convention, the amount of a special interest in the delivery or to draw the attention of the carrier about the dangerous nature of the goods and the special precautions or precautionary measures that should be undertaken.
Art. 22 Dangerous goods			
Art. 24 Value declaration			
Art. 26 Special interests			
Article 8 CMR 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		The sender can request the carrier to check the gross weight of the goods, or their quantity or the contents of the packages. The Carrier should be able to enter in the electronic consignment note the results of these checks meaning Carrier observations on gross weight / content of packages / quantity upon request of the sender.	

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<p>and their marks and numbers, and (6) The apparent condition of the goods and their packaging. 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 has expressly agreed to be bound by them in the consignment note. 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</p>			

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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.			
Art. 9 Evidentiary value of the consignment note	<p>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.</p> <p>Article 2 Scope and effect of the electronic consignment note Para 2: An electronic consignment note that complies with the provisions of this Protocol shall be considered to be equivalent to the consignment note referred to in the Convention and shall therefore have the same evidentiary value and produce the same effects as that consignment note.</p>	It is strictly connected with the mutual recognition of authentication among all Contracting parties, the trust that the system generates as well as the acceptance of the electronic consignment note as the legal equivalent to an accepted paper CMR consignment note.	
Article 11 of CMR	Article 6 Documents supplementing the electronic consignment note include a receipt for the goods and all information necessary for identifying the shipment	Accompanying documents It was observed by the Group that the purpose is not to introduce electronic administrative procedures and it does not entitle the persons involved in an administrative procedure to use electronic documents. It is not clear what the requirements and procedures relating to the link involve.	The CMR Convention foresees the attachment of the necessary documents to the consignment note for the purposes of the Customs or other formalities. It should be foreseen that the future eCMR applications should provide the possibility to at least attach the accompanying documents to the electronic consignment note documents as pdf, Jpeg or any other format convenient at the time. If the possibility to interconnect with other systems that

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	and for access to the electronic consignment note		generate accompanying documents exists, then such interconnection should be allowed, and the data of those documents could be also sent through electronic messages.
Art. 12 Disposal of the goods		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 needed to address this important aspect.	<p>The consignee's rights to data are transformed from "reading access to the data right" to "enter comments right" when the consignee becomes responsible for the handling of the goods. That moment, the consignor's rights to data are transformed from "amend the data" right to "reading access to the data" right. Based on the convention and the paper world this happens when the consignee receives the second copy of the consignment note. In the electronic world it is suggested to take place:</p> <ul style="list-style-type: none"> • When there are concrete instructions provided in the electronic consignment note by the consignor when the consignee can exercise the right of disposal of the goods. • When the consignor decides to do so (article 12, para 3) when entry exists in the consignment note, the future eCMR system should accommodate such a function. • When the consignee is requesting for this, and the consignor approves it, the future eCMR system should accommodate such a function. • When the carrier delivers the goods to the consignee, the future eCMR system should accommodate such a function.
Art. 13 Rights and duties of the recipient	Article 5 The way in which confirmation is given that delivery to the consignee has been effected;	It should be noted that the CMR Convention does not make reference to any proof of delivery while there are several provisions regarding the rights and obligations of the consignee.	The consignee should be authenticated and included in the electronic consignment note from the time the contract is concluded online. The email address and the mobile phone of the consignee should be included in the consignment note for receiving notifications when certain events regarding the specific consignment note are taking place.
Art. 15 Obstacles to delivery		In the electronic world two new terms should be introduced in order to accommodate all functions that the CMR	<ul style="list-style-type: none"> • Proof of delivery: technology could assist and provide a two folded verification of the already

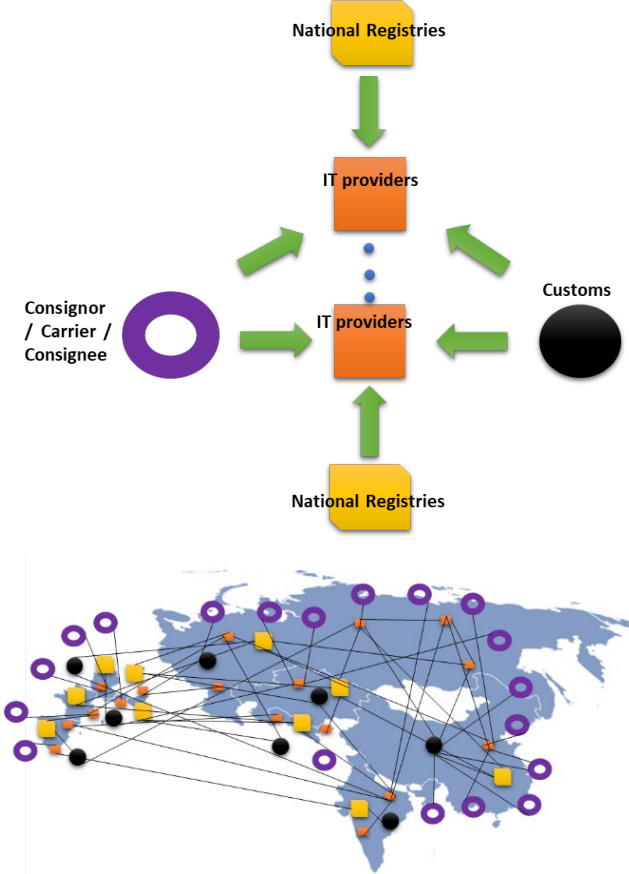
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	<p>Convention stipulates for the consignee: the proof of delivery and the proof of acceptance of delivery.</p> <p>It should be also noted that the CMR Convention (Article 1, scope of application, para 4) does not apply to carriage performed under the terms of any international postal convention (UPU Convention). Therefore, practically, all the electronic packages being transported by courier / postal companies are not using the CMR Convention in order to do so. However, this does not mean that the consignee cannot be a household, on the contrary. But, the cases where the consignee is a household comparing to those that they are trading companies are just so few that the design of the future system should not include any special case for them.</p> <p>It should be also noted that for the above-mentioned reasons any proof of delivery and proof of acceptance procedure should be designed with a way that really covers the rights and obligations of the consignee and the carrier. In that sense signing on a glass (mobile device) is not an acceptable solution as evidence for the proof of delivery.</p>		<p>authenticated consignee. For instance, the time the consignment note is concluded online the consignee receives in their mobile phone / email address a unique code. This code will be asked by the carrier when delivers the goods for the consignee to insert in the system in order to deliver the goods to them. This will be also the time where the consignee gets the right of disposal of the goods, replacing like that the receipt of the second copy of the consignment note. This action would trigger notifications to all stakeholders that the goods have arrived at their destination.</p> <ul style="list-style-type: none"> • Proof of acceptance of delivery: the next step should be the proof of acceptance of delivery. The consignee based on the convention has the right to check the goods and accept them or not – with relevant consequences – or even to declare a new consignee. Therefore, the consignee should enter in the system and either accept the delivery online finalizing [updating?] the consignment note or making reservations / remarks / comments (uploading also photos / videos that justify those reservations). The carrier in that moment will have the opportunity to read those comments without being able to delete them but to be able to provide replies if needed. • Even if they have refused the goods, the consignee may nevertheless require delivery as long as the carrier has not received instructions to the contrary from the sender (article 15, para 2). The future system should accommodate such an event. • Article 30 and in the case of loss or damage which is not apparent the reservations referred to

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			<p>shall be made in writing. The future system should accommodate such an event.</p> <ul style="list-style-type: none"> • Obstacles to delivery which the system should accommodate by creating the relevant sequence of events / communication: <ul style="list-style-type: none"> • In case the consignee refuses to accept the goods, the sender must be able to give instructions to the carrier as to where to deliver the goods. The future eCMR system should give the possibility to not accept the goods. Then the sender should be able to access the data and provide comments to the carrier on where to deliver the goods. • The sender or the consignee who wishes to exercise the right of disposal 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; • 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. • That the instructions do not result in a division of the consignment; • Events such as delay in delivery (article 19) or loss of the goods (article 20) should be created in the system;

<i>Explanation / Reference</i> CMR	<i>Explanation / Reference</i> eCMR	<i>Proposed Concepts</i>	<i>Proposed processes</i>
<p>Art. 35</p> <p>Cargo control, evidential value of the consignment note</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 second copy of the</p>		<p>1. A carrier accepting the goods from a previous carrier shall give the latter a dated and signed receipt. They shall enter their name and address on the second copy of the consignment note. Where applicable, they 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.</p> <p>2. The provisions of article 9 shall apply to the relations between successive carriers.</p>	<p>Successive Carrier is a role foreseen for the future eCMR system. This is a new event that has to be created where the principal carrier declares a successive carrier having all other parties to the consignment note informed (receiving notifications). A process should be defined for declaring the successive carrier for the specific consignment note. If carriage governed by a single consignment note is performed by successive road carriers, each of them shall be responsible for the performance of the whole operation, the second carrier and each succeeding carrier becoming a party to the consignment note, under the terms of the consignment note, by reason of their acceptance of the goods and the consignment note.</p> <p>Article 34 of the CMR Convention refers to the liability of successive carriers. The precondition for this is acceptance of the goods and the consignment note by the second carrier and each succeeding carrier. The challenge for the electronic world is how to “hand over” the electronic consignment note to the succeeding carrier. This presupposes that the first road carrier (freight forwarder?) no longer has possession of the consignment note and that the second road carrier acquires possession thereof. How will this transmission of possession take place electronically? A specific process should be designed while describing the functional specifications that reflects this event. It is not about the technology. It is about ensuring liabilities of the successive carriers. Furthermore, based on article 35 of the CMR Convention, a carrier accepting the goods from a previous carrier shall give the latter a dated and signed receipt. What will be the case in the electronic world? Most probably an electronic receipt should be generated by the system to be delivered from one carrier to the other. Again, a specific process has to be</p>

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<p>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>Art. 6(1) Additional obligations of the carrier when using electronic consignment notes.</p> <p>The Carrier shall hand over to the sender, at the latter's request, a receipt for the goods and all information necessary for identifying the shipment and for access to the electronic consignment note to which the protocol refers.</p>	<p>This specific provision was literally copy pasted from Montreal Convention of 1999 which establishes airline liability in the case of death or injury to passengers, as well as in cases of delay, damage or loss of baggage and cargo. It unifies all of the different international treaty regimes covering airline liability that had developed haphazardly since 1929. Secretariat will try to see if there is any info on the reason for including art 6(1) in the Explanatory memorandum of eCMR.</p> <p>Article 4 para 2 of Montreal Convention mentions:</p> <p>Any other means which preserves a record of the carriage to be performed may be substituted for the delivery of an air waybill. If such other means are used, the carrier shall, if so requested by the consignor, deliver to the consignor a cargo receipt permitting identification of the consignment and</p>	<p>designed to address this event and specific technical specifications should be described.</p> <p>Possible explanation why article 6 was included in the text of the protocol.</p> <p>In document TRANS/SC.1/2002/1 page 3 which was submitted by UNIDROIT (February 2002) mentions about the specific paragraph: "this paragraph is taken from article 4.2. of the Montreal Convention. Article 4 provides that: any other means which preserves a record of the carriage to be performed may be substituted for the delivery of an air waybill" but in order to avoid electronic "imperialism" , it requires the carrier to issue a paper receipt when the cargo is handed over". Also in the same document a questionnaire was listed where the last question was referring to this specific provision asking the Governments if they agree with its inclusion in the protocol.</p> <p>In the draft of 2003, there were article 7 with the title right</p>

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	<p>access to the information contained in the record preserved by such other means.</p> <p>In the carriage of air cargo involving countries that have not ratified the Montreal Convention but continue to be subject to the Warsaw Convention 1929 (WC29) and Hague Protocol 1955 (HP55) regimes, physical paper records are required in order for the carrier to rely on the liability limits set out in the Convention. This means that paper documents of carriage such as the air waybill must accompany the shipment throughout its journey. On the other hand, Montreal Convention permits the use of electronic air waybills (e-AWBs) and other documents of carriage, without impacting the carrier's ability to rely on the liability limits set out in the Convention. So, secretariat's opinion is that Montreal Convention includes this clause in cases where an electronic airway bill is used while involving countries that have not ratified the Convention and are still subject to Warsaw convention or Hague protocol.</p> <p>The secretariat is of the opinion that this provision is one of the reasons that the eCMR protocol needs a revision and certain amendments in order to become straight forward and to provide certain descriptions whenever needed or required concerning the future eCMR system. It seems that this provision does not have practical implementation in the road transport world or in a future eCMR system.</p>	<p>of disposal. The article was mentioning: (1) where an electronic consignment note is issued, the sender's right of disposal of the goods shall cease to exist as soon as the carrier transfers the access key to the consignee in accordance with article 5. It also includes the following remark: "As the electronic consignment note is not issued in more than one copy, the requirement to produce the first copy does not apply. By allocating a key which enables only the person having the right of disposal to enter instructions on the consignment note and it is ensured that it is only the person having the right of disposal that is entitled to enter an instruction on the consignment note".</p>	
	<p>High Level Architecture:</p> <p>Based on the above-mentioned analysis / description of stakeholders and roles so far, the following high-level architecture of the future eCMR system is being formed. Hundreds of thousands of Consignors and Consignees should be somehow connected with hundreds of private IT Companies, that they should be interconnected independently of the technology that they are using with each</p>	<p>High Level Architecture:</p> <p>The processes that this first very draft high-level architecture implies are:</p> <ul style="list-style-type: none"> • A national body should validate the IT solutions provided in its territory and announce the list of validated solutions to other contracting parties and the market, 	

Explanation / Reference CMR	Explanation / Reference eCMR	Proposed Concepts	Proposed processes
	<p>other ensuring that the system will operate independently of the IT provider used, which IT providers have to be validated and evaluated on a regular basis by the National Registration organizations of the Contracting Parties (1,2 or how many per country?). On the other hand, the Customs Authorities of the Contracting Parties in order to have on demand access to the information of the eCMR, they have to have access (to be interconnected) to the hundreds of IT providers.</p>	 <p>The diagram illustrates the proposed concepts for the eCMR system. It shows a central flow from National Registries to IT providers, which then connect to Consignor/Carrier/Consignee and Customs. A world map below shows a network of interconnected nodes representing IT providers across different countries.</p>	<ul style="list-style-type: none"> • The national authentication mechanisms to be followed should be announced to all contracting parties. Any user of the system (consignor, carrier, consignee) should be authenticated by using these national authentication mechanisms. • The IT solutions should ensure that they permit only authenticated users in their systems. • The Carriers and the Consignors of a country should be able to use the IT solutions validated in their country (private or publicly available). • The IT providers should make sure that the data is safely stored at the national body that validates or any other solution that the Government has decided to follow as long as this solution has been formally communicated to all contracting parties. • The IT solutions should be able to include / accept as users of their IT solutions consignees, freight forwarders, sub-contractor and successive carriers that are operating abroad and have been authenticated by other national authentication systems / mechanisms. • The different IT solutions from different countries and regions should be interconnected / interoperable. Practically this means that if we have one hundred (theoretical number) of IT providers in one year of operations for the eCMR system then four thousand nine hundred fifty (4,950) interconnections are required in order to ensure that all IT solutions are interconnected. This practically is a quite big investment from the part of the IT providers. • Furthermore, customs have the right to request to read the data of the specific CMR arriving at their

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borders etc. These trucks can come from everywhere and could have used any IT solution validated in their country. Practically it means, if today we have 58 contracting parties to the CMR Convention and eventually if a solution is found for the operationalization of eCMR then all of them will ratify the protocol, that 58 Customs authorities will have – if permitted mainly due to security reasons – to interconnect with at least 100 IT solutions (theoretical number). This means that each Customs authority should perform eventually 100 interconnection projects if the wish to have reading access to data meaning 5,800 interconnections for all customs authorities of all contracting parties.

- The same conditions eventually will apply for the traffic police and the courts.
- A question exists about the consignees since the consignees normally are the ones using IT solutions abroad. The number of course of those connections will differ depending on the number of trade partners they do have, the number of carriers / freight forwarders that they are using etc. Also, these connections are not so time consuming as it would be for the customs for instance.
- Today, based on rough calculations, there are more than 600 million CMR consignment notes issued per year. This is a very big market and possibly the number of the 100 IT providers / solutions that we are referring to in our scenario is most probably pessimistic.
- It should be also noted that United Nations is taking the effort to ensure proper and sustainable

	<i>Explanation / Reference</i> <i>CMR</i>				<i>Explanation / Reference</i> <i>eCMR</i>				<i>Proposed Concepts</i>				<i>Proposed processes</i>											
	Reading data	Enter data	Comments	Notification	Reading data	Enter data	Comments	Notification	Reading data	Enter data	Comments	Notification	Reading data	Enter data	Comments	Notification	Reading data	Enter data	Comments	Notification	Reading data	Enter data	Comments	Notification
<i>Events</i>	Users of the electronic consignment note that have the right to create and amend the data including provision of comments												Users of the electronic consignment note that have the right to read the data upon request and provide comments											
	<i>Consignor</i>				<i>Carrier</i>				<i>Consignee</i>				<i>Customs</i>				<i>IT provider</i>				<i>Other authorities (courts, police etc)</i>			
Particulars of the consignment note	x	✓	✓	x	x	✓	✓	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Conclude of electronic consignment note	x	✓	✓	✓	x	✓	✓	✓	✓	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	x
Taking over the goods by the carrier	x	✓	✓	x	x	✓	✓	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Rights and duties of the recipient	✓	x	x	✓	x	x	✓	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x	x	✓

operationalization of the eCMR in order to further promote the convention in other regions (Africa, Latin America) attracting new contracting parties and facilitating road transport in other regions too. This practically means that the number of users / stakeholders will dramatically increase the years to come.

Proof of acceptance of delivery	x	x	x	✓	x	x	x	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x	x
Disposal of the goods by the consignor	x	x	✓	x	x	✓	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
New consignee declared by the consignee	x	x	x	✓	x	x	x	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x	x
Arrival at borders	x	x	x	✓	x	x	x	✓	x	x	x	✓	✓	x	✓	✓	x	x	x	x	x	x	x	x	x
Arrival at inland customs station	x	x	x	✓	x	x	x	x	✓	x	x	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x
Exiting border	x	x	x	✓	x	x	x	x	✓	x	x	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x
Declaring subcontracting carriers	x	x	x	✓	x	✓	✓	✓	x	x	x	✓	x	x	x	x	x	x	x	x	x	x	x	x	x
Legal reservations upon receipt of the goods	x	x	x	✓	x	x	✓	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x	x
Obstacles to delivery	x	x	x	✓	x	x	✓	✓	x	x	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x	x
Request of data by Authorities	x	x	x	✓	x	x	x	✓	x	x	x	✓	x	x	x	x	x	x	x	x	✓	x	x	✓	