



## ECN - Status of project

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Ralf Gutbrod, Raildata

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Malmö, 24.11.2011

In March 2008, 20 of the greatest railway freight operators , such as DB Schenker, SNCF, Trenitalia and others, decided to develop and implement the ECN (Electronic Consignment Note), in order to send transport documents via EDI instead of using accompanying consignment notes.

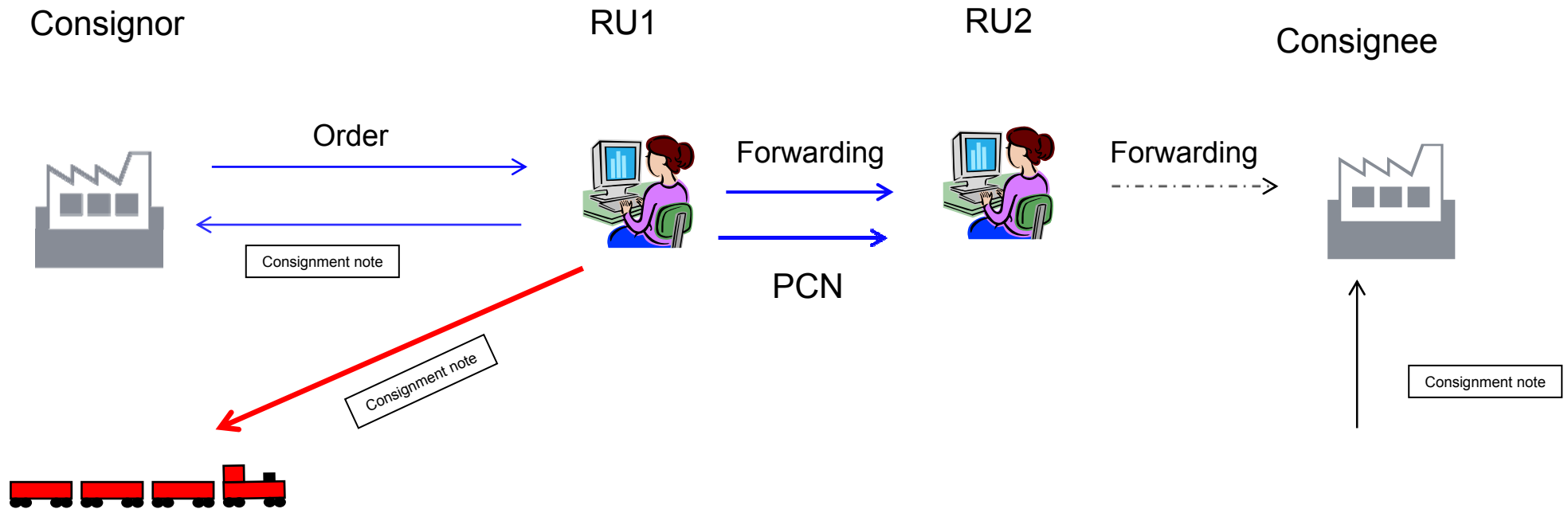
A project group under monitoring of the CIT and the UIC elaborated the technical specifications until the beginning of 2009. In March 2009 the full specifications were provided, including a fully operational message flow model and a message scheme in xml, developed by RAILDATA

ECN/PCN consists of two basic ways of message processing:

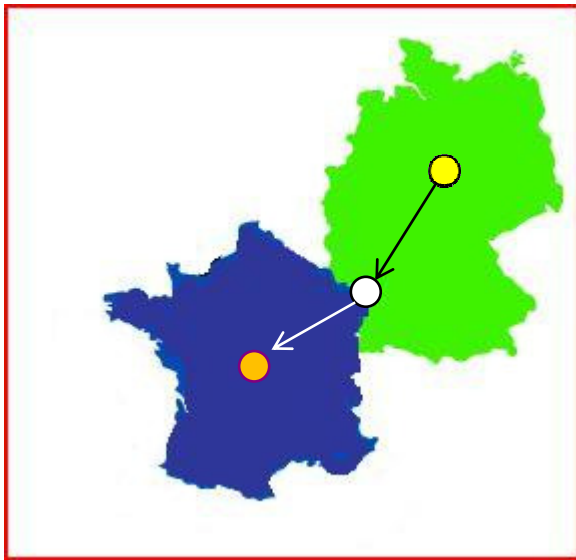
1) PCN

The PCN flow and process is designed for transports, that still require a paper consignment note or a accompanying transport document.

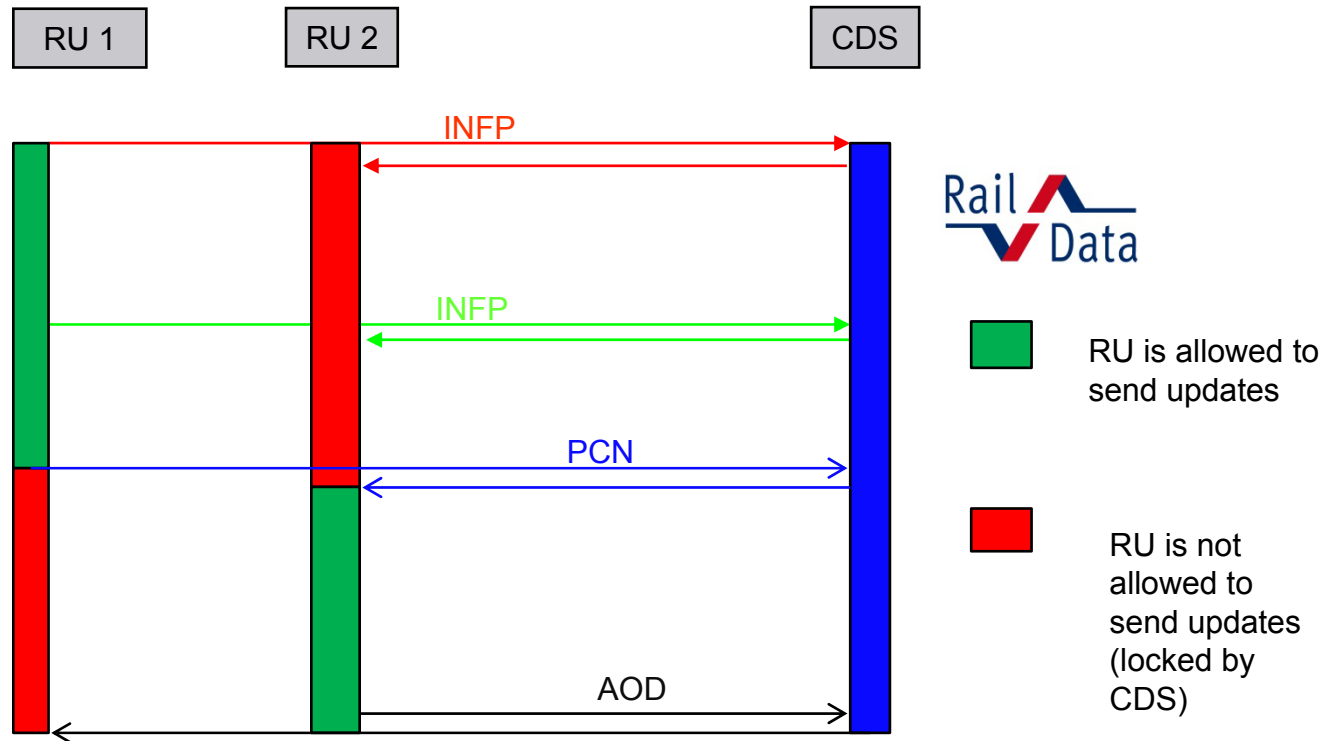
### Basic flow of data (PCN)



INFP and PCN contain **all** consignment note data; consignment note accompanies transport



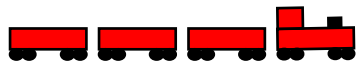
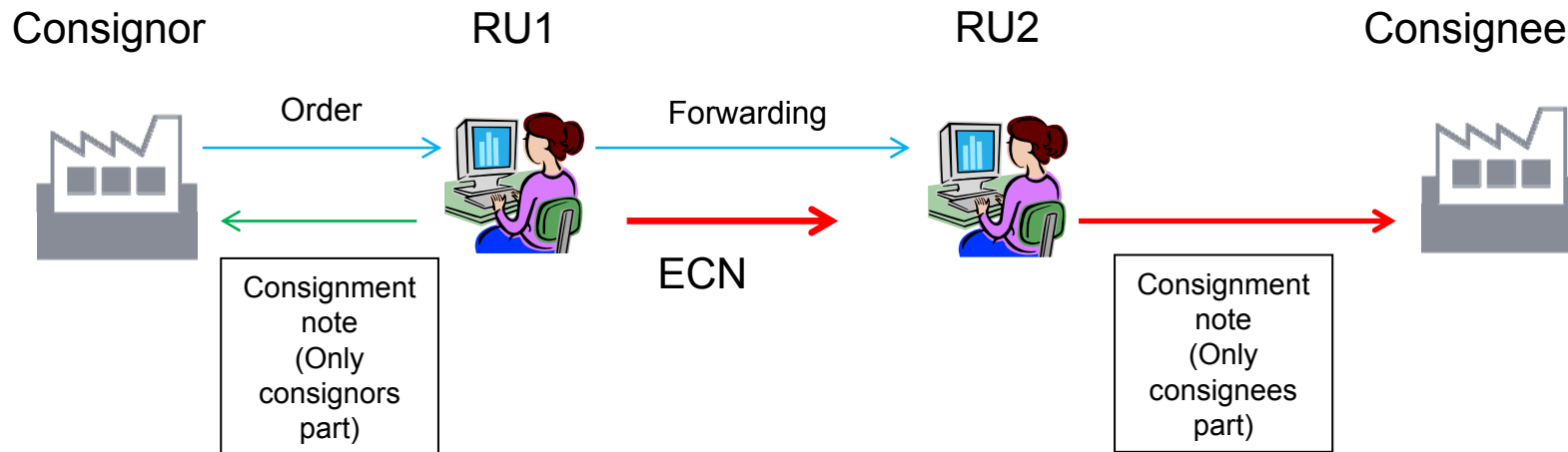
- Printout of consignment note
- Handover
- Consignment arrives



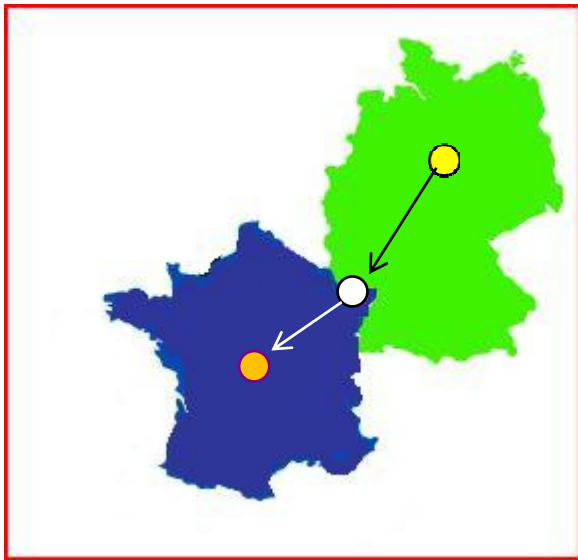
## 2) ECN

By using the ECN flow, RUs are able to skip the accompanying paper consignment note and spare the handling of the paper during the transport

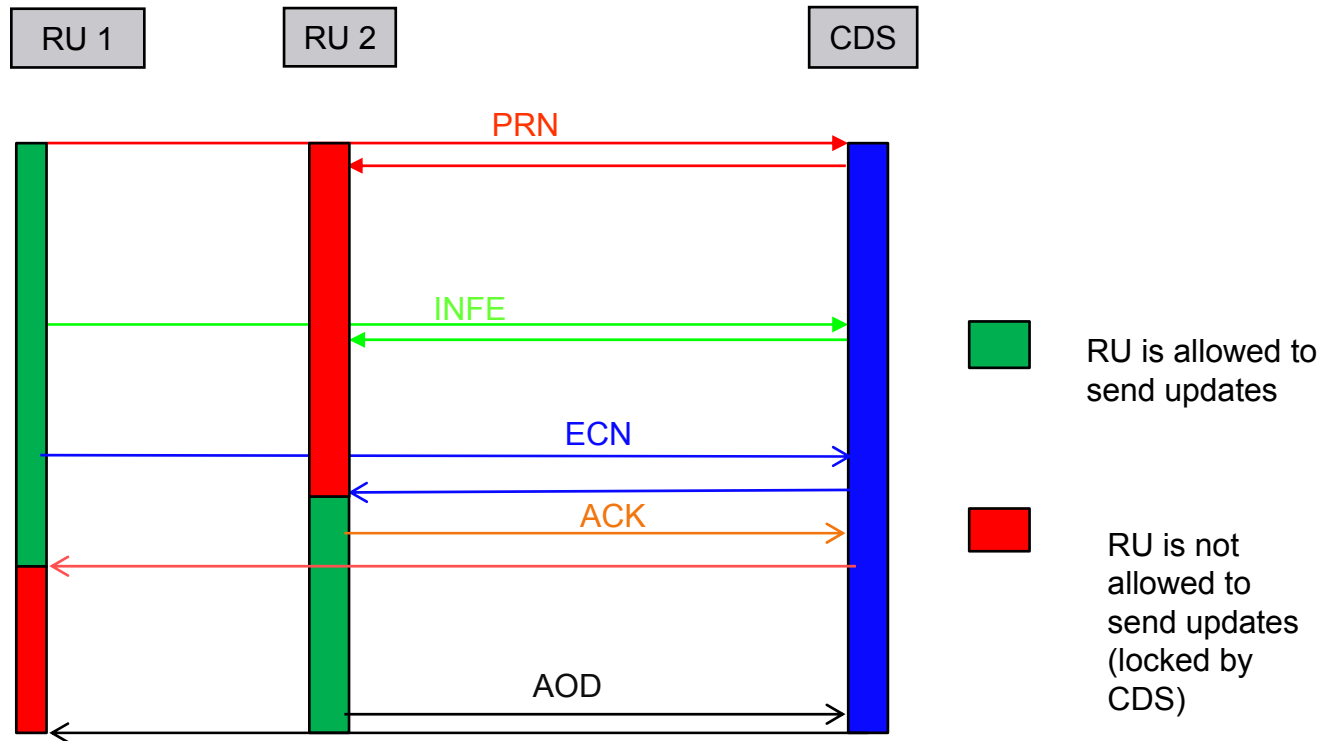
### Flow currently covered by erailfreight process (ECN)



PRN, INFE, ACK, NACK, ECN and AOD contain **all** consignment note data; consignment note does not accompany transport



- Printout of first part of consignment note (Consignors part)
- Handover
- Consignment arrives, printout for the consignee is generated

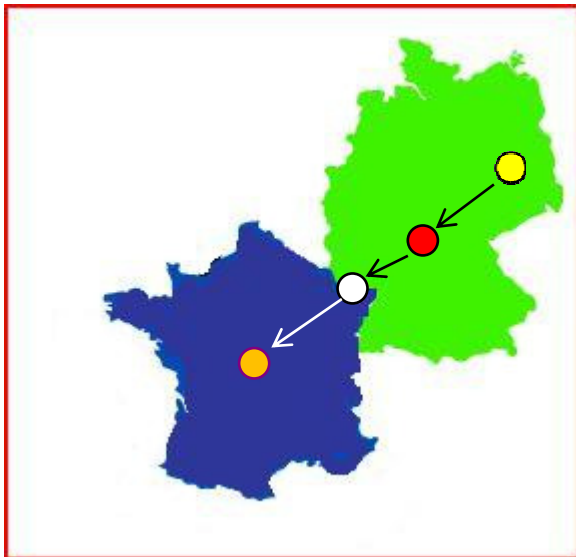




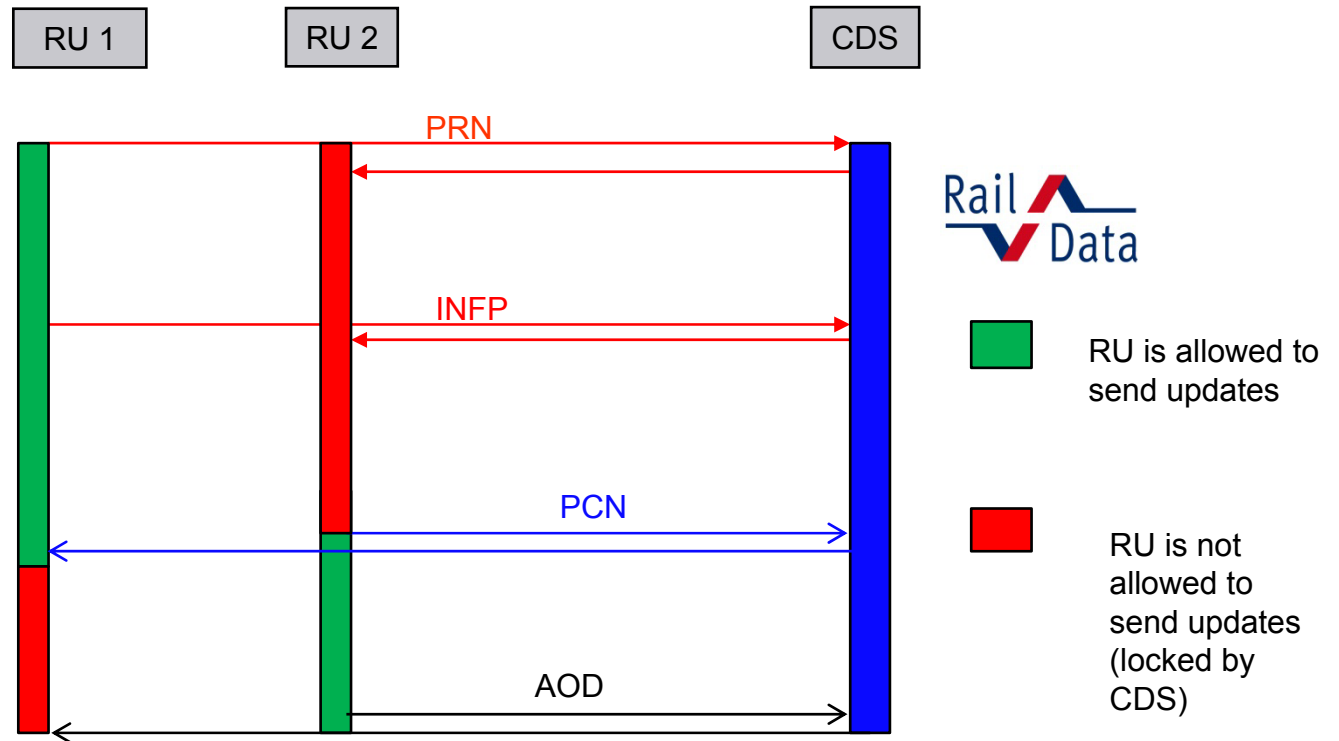
### The mixed procedure

If necessary, it may be switched from ECN to PCN. If a printout of the consignment note is done during the transport, the process changes from ECN to PCN, but **never** the other way round. This enables transports to begin in ECN-scenario and to change to PCN-scenario

PRN, INFP, PCN and AOD contain **all** consignment note data; at the beginning of transport, consignment note does not accompany transport; after printout it does



- Printout of first part of consignment note (Consignors part)
- Printout of all other parts due to various reasons
- Handover
- Consignment arrives





message scheme



## The message

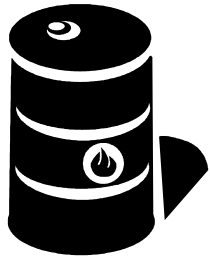
The current version is the ECN-xml 1.31, based on xml-version 1.0, encoding =„ISO-8859-1“.

The ECN xml-message contains all consignment note data according to the Appendix 7a GTM-CIT and the Appendix 5a GLW-CUV CIM as well as additional information to be used between railways. It may be used for conventional and intermodal traffic.



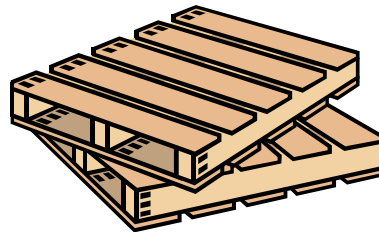
To guarantee interoperability, sensitive information is protected by either the use of codes or the implementation of enumerations,

such as



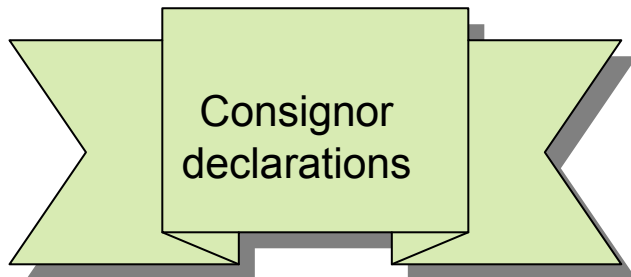
Nature of packing according to the UN/ECE  
–recommendation No. 21

**NatureOfPacking**  
type: xs:string  
min/maxLen 1 2



Loading tackles according to  
the UN/EDIFACT 8053 list

**Type**  
type xs:string

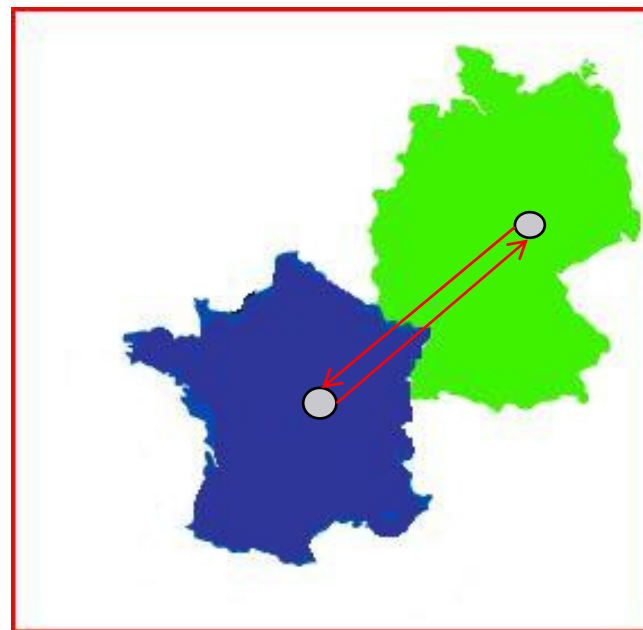


**Code**  
type xs:token

**Since November, the 2. of 2011 all conventional transports (wagon-load) between DB and SNCF are based on the erailfreight scenario.**

**Common transports run paperless (ECN)**

**Transports under special conditions like dangerous goods, customs surveillance etc. are still accompanied by a paper consignment note (PCN)**



Imprimé le : 14/11/2011 à 10:34  
N° DC: 3245499/247263  
Id Message: 7101100078959  
Numéro LVE: 0000893103 Version: 2

**CIM Consignment Note**  **Lettre de voiture CIM**  **CUV Consignment Note**  **Lettre wagon CUV**

**AM ATL ET LOR, FLORANGE**  
17 AVENUE DES TILLEULS  
F-57190 57 - FLORANGE  
FR47444718563  
PREYMES BO, BREMEN  
ANTON-TUCHER-STR. 1  
D-28308 BREMEN ALLEMA  
0049 421437310  
0049 421437319

**80137646** **2008**

**PREYMES BO, BREMEN**  
Bremen - Gars **BREMEN HEMLINGEN** Country: **Allemagne**

**1 901452** **3187 477 6698 4**

**1: FORBACH FRE**

**BOBINE DE TOLE A FROID France(FR), Allemagne(DE) Infos : 7515803-7515978-**

**7 2 1 0 3 0** **49471 Kg** **Tare: 21800**

**8 7 1 9 1 0 1 5 0 0 7** **7 2 1 0 3 0**  
**8 0 1 3 7 6 4 6** **EUR 4 9 5 0 0**  
**9 0 1 4 5 2**

**87 EBANGE 19101-5**  
**2187 20081**

**FRET SNCF 34 rue du Commandant Mouchotte F 75014 Paris**

**e-LV par EDI 07/11/2011 10h**

15.11.2011 15:00:43 9031

**Frachtbrief CIM**  **Kopie** **Wagenbrief CUV**

**Absender (Name, Anschrift)**  
AM ATL ET LOR, FLORANGE  
17 AVENUE DES TILLEULS  
F-57190 57 - FLORANGE  
0049 421437310  
0049 421437319

**Empfänger (Name, Anschrift, Land)**  
PREYMES BO, BREMEN  
ANTON-TUCHER-STR. 1  
D-28308 BREMEN ALLEMA  
0049 421437310  
0049 421437319

**Erklärungen des Absenders** **Absender-Referenz**  
0076331 8007633115 78959 430

**Belagen**  
100393651

**Abfahrtsort** **Abfahrtsort** **Abfahrtsort**  
PREYMES BO, BREMEN 80 13764-G  
SOLLAC 87 191015 EBANGE  
OR EBANGE France

**Wagen-Nr.** **Strecke** **durch**  
1 3187 477 6698-4  
1 FORBACH FRE 901452  
Allemagne Land

**Zählung der Kosten** **Vermerke für den Empfänger**  
 Franko Fracht  
 Incoterms

**Bezeichnung des Gutes** **Aussergewöhnliche Sendung** **RID** **NIM Code** **Masse** **Wert des Gutes**  
1 WAGEN   721030 49471,0  
BOBINE DE TOLE A FROID  
7515803-7515978- -

**Interesse an der Lieferung** **Nachnahme**  
49471,0

**Strecke** **Frankaturcode** **Letztweg**  
87 07 721030 10  
80 00 00 721030 49500,0  
9014523

**Zollbehandlung** **Frankaturrechnung** **Nachnahmebegleichen Nr.** **Tatbestandsaufnahme Nr.** **Lieferfristverlängerung**

**Erklärungen des Beförderers** **Andere Beförderer** **Strecke** **Eigenschaft**  
BBA: 01 2180 DB Schenker Rail Deutschland AG 87 19300-3 - 80 13764-6 FORBACH - BREMEN-HEMLINGEN 1

**Verpflichteter Beförderer** **Ankunftsdatum** **Bereitschaft** **Sendungsidentifikation** **Land** **Bahnhof**  
SNCF 21872187 2011-11-15 87 19101-5

**Unterstützt AETR - 80 2011 1107 395 9031** **Empfangsbescheinigung** **Unternehmen** **Versand Nr.**  
e-LV par EDI 07/11/2011 10h 2187 20081-6

**Ort und Datum der Ausstellung e-LV par EDI**  
2011-11-07

More railways currently using and developing PCN/ECN (including common forwarding with ECN-xml ):





**In the beginning of 2011, the next version of the ECN-message, ECN-xml 1.4, was approved.**

**Previously it will be implemented until the end of 2011, a converter will assure, that both versions may run on the CDS and may be used by participating railways in parallel.**

**Further developments of the current message will take care about changing legal requirements**

**In 2012, a printing module will be implemented in the CDS**

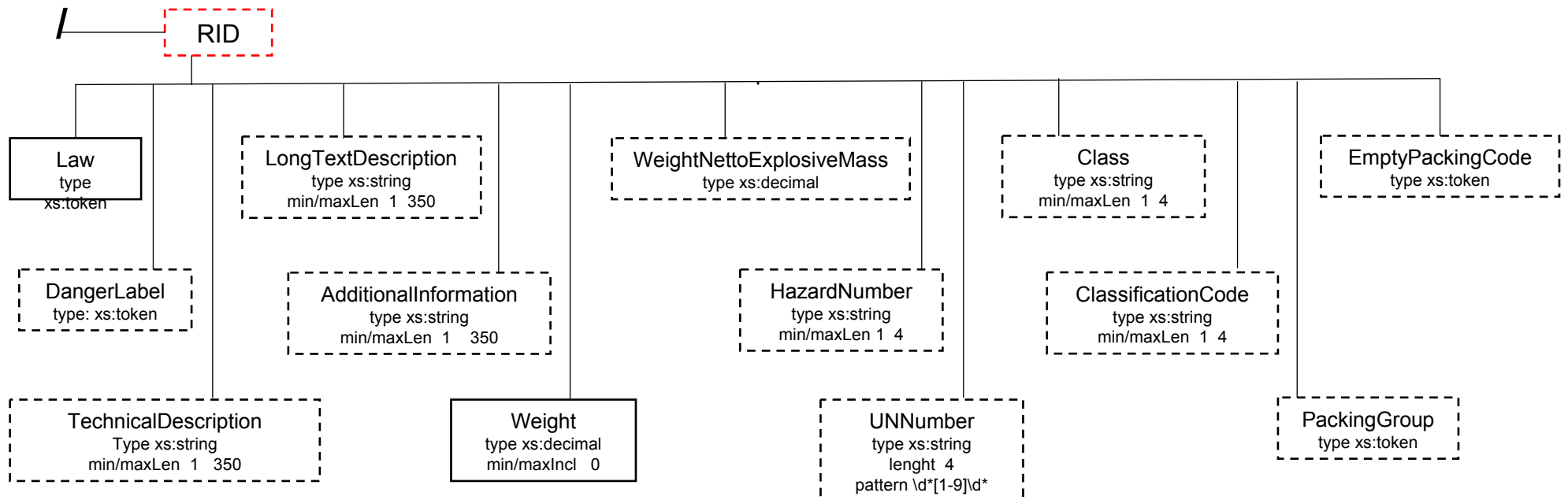
**This will assure, that every participating railway will be able to generate print-outs, the parts for consignor and consignee as well as the parts foreseen to be printed out in the mixed procedure**



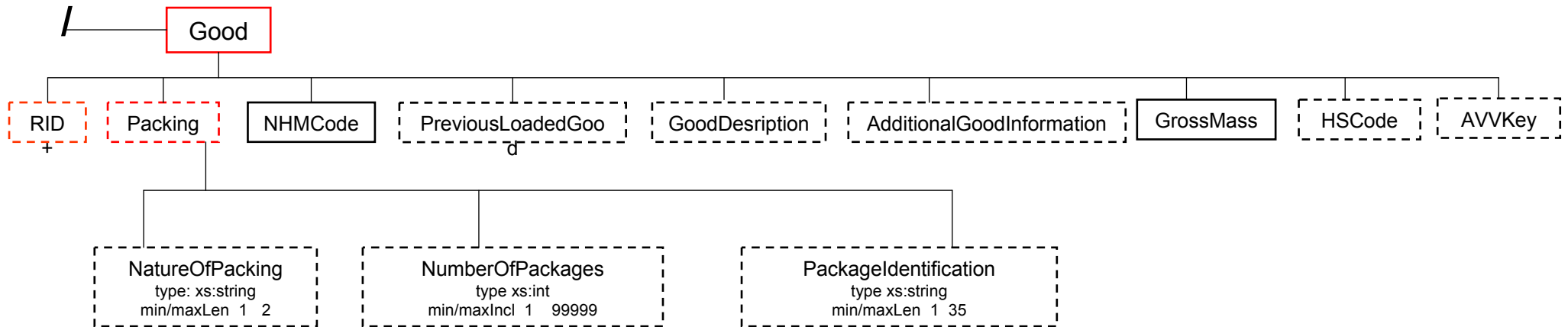
**Additional implication as the use of ECN for RID-transports is basically already possible and only has to be approved by national authorities!**

The ECN-xml message is capable to carry all information required for the transportation of dangerous goods according to the description in RID 5.4

The complex datatype „RID“ is included in the complex datatype „Good“ which is repeatable 999 times per loading unit. Most information as described in RID 5.4 is transmitted in here



To keep the structure suitable for any kind of transport, some elements described in RID 5.4 are transmitted in other segments of the message, for example name and address of consignor and consignee or the information about packing



Imprimé le : 15/11/2011 à 14:48  
 N° DC: 325693  
 Id Message: 000000000000057376800000010 Numéro LVE: 0000901282 Version: 2

**1** CIM Consignment Note  
**2** Lettre de voiture CIM  
**3** CUV Consignment Note  
**4** Lettre wagon CUV

**1** 2388270  
**2** 2388270-00  
**3** 2388270  
**4** 573768/010

**5** 57028 ST AVOLD Cedex  
**6** FR70428891113  
**7** BASF SE  
**8** ZFAID GEB D 108/CARL BOSCH STR.  
**9** 67056 LUDWIGSHAFEN

**10** 8 0 1 9 0 7 9 3  
**11** 1 1 1 4 0 0  
**12** 21527

**13** Ludwigshafen  
**14** Germany  
**15** 1 9 2 1 0 8 2

**16** Details liste wagons dans relevé wagons joint  
**17** 5 wagons  
**18** C P T  
**19** Pays : 80 Gare : 190793

**20** 239050 Kg  
**21** 8 0 1 9 0 7 9 3

**22** 8 7 1 9 3 4 0 9  
**23** 0 0 7 2 9 0 1 2 2  
**24** 8 0 1 9 0 7 9 3  
**25** 2 3 0 1 0 0  
**26** 9 2 1 0 8 2

**27** 4 3  
**28** 8 0 1 9 0 7 9 3

**29** 14/11/2011 21h12  
**30** 01 - 2187 - D 87 193409 - F 87 476 - IT  
**31** 02 - 2180 - D 80 80 476 - F 80 190793 - IT

**32** 87 Creutzwald 19340-9  
**33** 2187  
**34** 27788

**35** ST AVOLD Cedex  
**36** 14/11/2011 13h

15.11.2011 15:02:13 5430

**1** Frachtbrief CIM  **2** Kopie Wagenbrief CUV

**3** Absender (Name, Anschrift)  
**4** TOTAL PETROCHEMICALS FRANCE  
**5** 2388270  
**6** 238827000

**7** Erklärungen des Absenders  
**8** Absender Referenz  
**9** 573768/010

**10** BP 90290  
**11** F 57008 ST AVOLD Cedex  
**12** Yvan Schenker Rail Deutschland AG  
**13** 7870428891113  
**14** +33 3 87 93 85 56  
**15** E-Mail

**16** Empfänger (Name, Anschrift, Land)  
**17** BASF SE  
**18** 6015  
**19** Belegan

**20** ZFA/ID GEB D 108/CARL BOSCH STR.  
**21** F LUDWIGSHAFEN  
**22** E-Mail

**23** Abfahrtsort  
**24** Ludwigshafen  
**25** 80 19079-3  
**26** Übernahme  
**27** Monat Tag Stunde  
**28** 11 14 00  
**29** FR 21527

**30** Bahnhof LUDWIGSHAFEN (RH) BASF  
**31** Germany Land  
**32** Wagen Nr.  
**33** 921082  
**34** siehe Wagenliste  
**35** Strecke  
**36** durch

**37** Kommerzielle Bedingungen  
**38** 1  
**39** 921082

**40** Vermerke für den Empfänger  
**41** Zahlung der Kosten einschließlich  
**42** Franko Fracht  
**43** Incoterms

**44** Bezeichnung des Gutes  
**45** 5 WAGEN  
**46** siehe Wagenliste  
**47** Ausseregwöhnliche Sendung ja   
**48** RID ja   
**49** NIM Code  
**50** Masse  
**51** 239050,0  
**52** Wert des Gutes  
**53** Versicherung  
**54** Interesse an der Lieferung  
**55** Versicherung  
**56** Nachnahme  
**57** Versicherung  
**58** Zusätzliche Vermerke  
**59** weitere Angaben siehe  
**60** Wagenliste  
**61** Überprüfung  
**62** durch

**63** 87 193409  
**64** 07 290122  
**65** 80 190793  
**66** EUR 239100,0  
**67** 921082  
**68** 43  
**69** 87 76  
**70** 921082  
**71** 87 193409  
**72** 80 190793  
**73** 87 193409  
**74** 80 190793  
**75** 87 193409  
**76** 80 190793

**77** Erklärungen des Beförderers  
**78** BBA: 01  
**79** Übernahme: 2011-11-14 21  
**80** Andere Beförderer  
**81** Name, Anschrift  
**82** 2180 Schenker Rail Deutschland AG  
**83** 87 19300-3 - 80 19079-3  
**84** FORBACH - LUDWIGSHAFEN (RH) BASF  
**85** Eigenschaft  
**86** 1

**87** Verfrachter/Beförderer  
**88** 2187  
**89** SNCF  
**90** Ankunftsdatum  
**91** 2187  
**92** SNCF  
**93** Bereitgestellt  
**94** Monat Tag Stunde  
**95** 11 14 00  
**96** Sendungs-identifikation  
**97** Land  
**98** 87  
**99** Bahnhof  
**100** 19340-9  
**101** Unternehmen  
**102** Versand Nr.  
**103** 2187  
**104** 27788-9  
**105** Unterschrift  
**106** 80 2011 1115 395 5430  
**107** ST AVOLD Cedex  
**108** 14/11/2011 13h  
**109** Datum, Unterschrift  
**110** 2011-11-14

1 Train Zug 11/14 00h		2 de am del		3 de von de Creutzwald		4 a nach a Ludwigshafen		5 Entrées Leistungswerte 2) Einträge		6 Etiquette de contrôle Kontroll-Etikette 2 1 8 7 2 7 7 8 8		7 Date d'expédition Versanddatum Data di spedizione 1 1 1 1 4		8 Train à côté de la gare expeditrice Zugnummer des Versandamtes Banco a côté della stazione mittente S.N.C.F. 11/ 14 à 2 1 h Creutzwald 193499		9 Page Seite Pagina 1	
10 Expéditeur Absender Mittente TOTAL PETROCHEMICALS FRANCE				11 Destinataire Empfänger Destinatario BASF SE				12 A déballer à Zu verpacken in 2) Da verpacken in 18 NM				13 Train, aller-fret-train Fretzug, Rollwagense 3) Train, alle-fre, treno					
14 No 15 Wagon Wagen Carrò		16 17 Désignation de la marchandise Beschreibung des Gutes Designazione della merce		18 NM		19 Masse chgt Masse Lad.		20 Tare (kg) Tara (kg)		21 Brut (kg) Brutto (kg)		22 Partic. 1 Besonderh.					
23 Code UIC		24 Long. x larg. x haut. Länge x Breite x Höhe Lunghezza x larg. x alt.		25 Marque et vis. Zusatz und Nr. Marche e numero		26 No bulletin de remise Übergabeprotokoll Nr. No bollettino di consegna		27 Masse march Masse Merk.		28 Tare (kg) Tara (kg)		29 Brut (kg) Brutto (kg)					
1		3380 781 4053-4		PROPYLENE Wagon chargé de 48000 Kg de : 23, UN 1077 PROPYLENE, 2.1		X		48000		35100		83100					
				PROPYLENE France(FR), Germany(DE) Infos: PROPYLENE				290122									
2		3380 781 4341-3		PROPYLENE Wagon chargé de 48000 Kg de : 23, UN 1077 PROPYLENE, 2.1		X		48000		35500		83500					
				PROPYLENE France(FR), Germany(DE) Infos: PROPYLENE				290122									
3		3380 781 4352-0		PROPYLENE Wagon chargé de 47050 Kg de : 23, UN 1077 PROPYLENE, 2.1		X		47050		35650		82700					
				PROPYLENE France(FR), Germany(DE) Infos: PROPYLENE				290122									
4		3380 781 8780-8		PROPYLENE Wagon chargé de 47950 Kg de : 23, UN 1077 PROPYLENE, 2.1		X		47950		35150		83100					
				PROPYLENE France(FR), Germany(DE) Infos: PROPYLENE				290122									
5		3387 781 3711-1		PROPYLENE Wagon chargé de 48050 Kg de : 23, UN 1077 PROPYLENE, 2.1		X		48050		35550		83600					
				PROPYLENE France(FR), Germany(DE) Infos: PROPYLENE				290122									
				<b>MASSES TOTALES :</b>				<b>239050</b>		<b>176950</b>		<b>416000</b>					

Expéditeur et date  
Absender und Datum  
Emittente e data

1) inscription selon règlement des réseaux  
Antragen gemäss Reglement der Netze  
Indicazione secondo regol. e ferrovie

2) No remplir que pour les trains en trafic international  
Nur ausfüllen bei grenzüberschreitendem Verkehr  
Riempre solo per treni con traffico internazionale

3) No remplir que pour les trains combinés avec montage plus fin  
Nur ausfüllen bei gemischtem Verkehr mit feinerem Aufbau  
Riempre solo per treni combinati con montaggio più fine

8539.6.1.2136 - 12/96 6.016.3720

Seite 1/1 15.11.2011 15:02:13 5430

Kopie		<b>Wagenliste (WLW)</b>		Sendungsidentifikation		Land		Bahnhof											
				87		19340-9													
				Unternehmen		Versand Nr.													
				2187		27788-9													
Zug		am		Datum		2011-11-14													
Absender TOTAL PETROCHEMICALS FRANCE		Empfänger BASF SE		Abgangsbahnhof CREUTZWALD		Ankunftsabnhof LUDWIGSHAFEN (RH) BASF													
Leistungswerte 87 76		Zurbehandlung		Vertraglicher Beförderer / Entstellung 2187 SNCF 80 2011 1115 395 5430 ST AVOLD Cedex		2011-11-14													
Nr.		Wagen		5		Achsen ler		Bezeichnung des Gutes NHM		RID		Masse Ladung		Tara (Wg)		Brutto (Wg)		Besonderheiten	
1		3380 781 4053-4		4		4		23, UN 1077, PROPEN, 2.1, PROPYLENE GEFZET: 2.1, 13 NHM: 290122; 48000,0 kg Betriebl. Sonderbeh.: 02		X		48000,0		34660,0		82660,0			
2		3380 781 4341-3		4		4		23, UN 1077, PROPEN, 2.1, PROPYLENE GEFZET: 2.1, 13 NHM: 290122; 48000,0 kg Betriebl. Sonderbeh.: 02		X		48000,0		34930,0		82930,0			
3		3380 781 4352-0		4		4		23, UN 1077, PROPEN, 2.1, PROPYLENE GEFZET: 2.1, 13 NHM: 290122; 47050,0 kg Betriebl. Sonderbeh.: 02		X		47050,0		34360,0		81410,0			
4		3380 781 8780-8		4		4		23, UN 1077, PROPEN, 2.1, PROPYLENE GEFZET: 2.1, 13 NHM: 290122; 47950,0 kg Betriebl. Sonderbeh.: 02		X		47950,0		34550,0		82500,0			
5		3387 781 3711-1		4		4		23, UN 1077, PROPEN, 2.1, PROPYLENE GEFZET: 2.1, 13 NHM: 290122; 48050,0 kg Betriebl. Sonderbeh.: 02		X		48050,0		34940,0		82990,0			

**Thank you for your attention !**