

Combined Transport:

UIRR – DESTINY project

Workshop 'Combined Transport'

Stockholm 05.02.2014

Content

- Presentation of the UIRR
- Overall presentation of the project DESTINY
- The EN 13044 standard and DESTINY

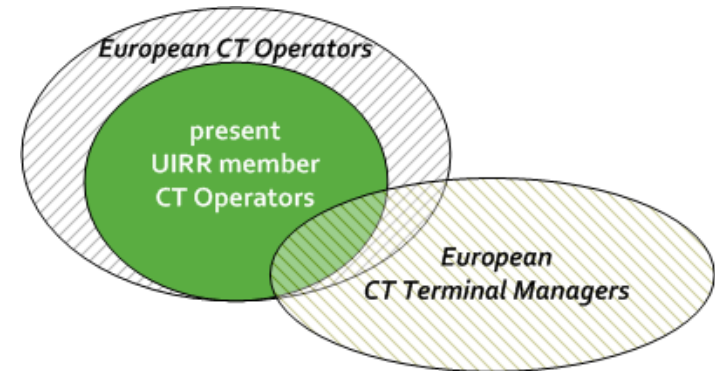
UIRR

The voice of Road-Rail Combined Transport in Europe



UIRR in a nutshell

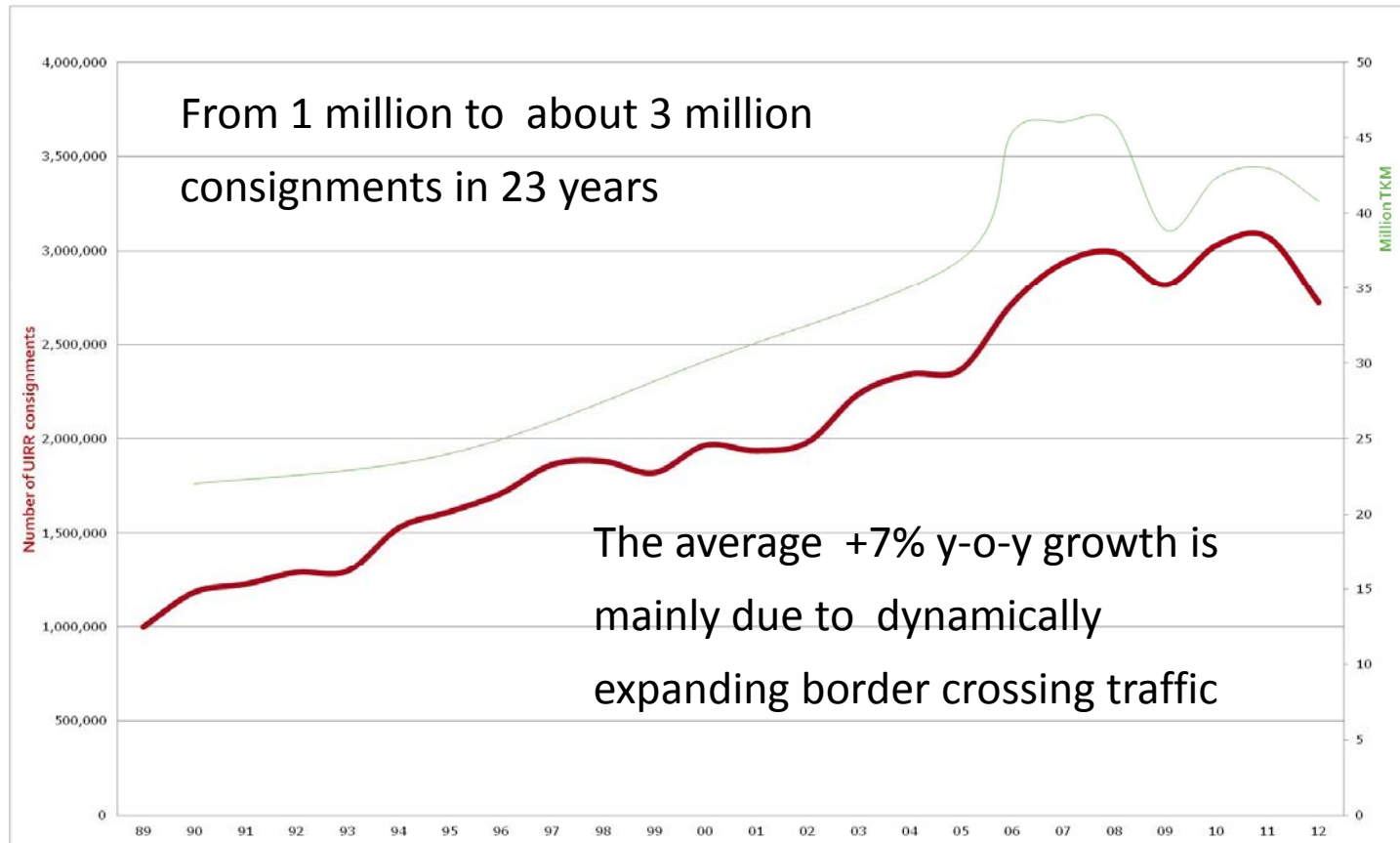
- **Members:** CT-Operators and Terminal-Operators
(CT-train and Terminal Operators constitute the link between road and rail)
- **Shared interest of all members:** shifting of longer distance transports from pure road-haulage to include sustainable modes (primarily rail)
- **Method of operation:** continuous presence and monitoring of developments, internal committee work, written and personal interventions, events etc.
- **UIRR-members handled in 2012**
about 50% of European road-rail
Combined Transport
- **UIRR was founded in 1970;**
Liaison Office in Brussels since 1988



Missions of UIRR

- **Promotion of road-rail Combined Transport**
 - Provision of information and statistics to decision-makers
 - Publishing of position papers
 - Organisation of events, delivery of speeches and presentations
- **Supporting the daily operation of European Combined Transport**
 - IT tools
 - Tracking & tracing (CESAR)
 - ILU-Code
- **Development of CT**
 - Best practice exchange
 - European Railway Agency (TSIs)
 - UIC Leaflet working groups
 - CEN working groups
 - FP7 and Marco Polo financed R&D projects

Development of European CT 1989-2012



One UIRR - consignment is equal to one truck capacity on the road (2.0 TEU).

Project DESTINY

Standards into daily best practice

Outline of the project

- **Standardisation**

- great way to enhance the efficiency by a commonly agreed, homogeneous best practice.
- particularly true in intermodal transport which involves numerous actors.

- **Standards can only deliver their beneficial effects if they are applied and eventually become a part of daily best practice.**

- **DESTINY proposes to facilitate the deployment of existing standards related to:**

- EN13044 (identification and codification of intermodal loading units)
- Safety (Cargo Securing)
- Dangerous Goods

The consortium

- **Coordination**

UIRR scrI (Belgium)



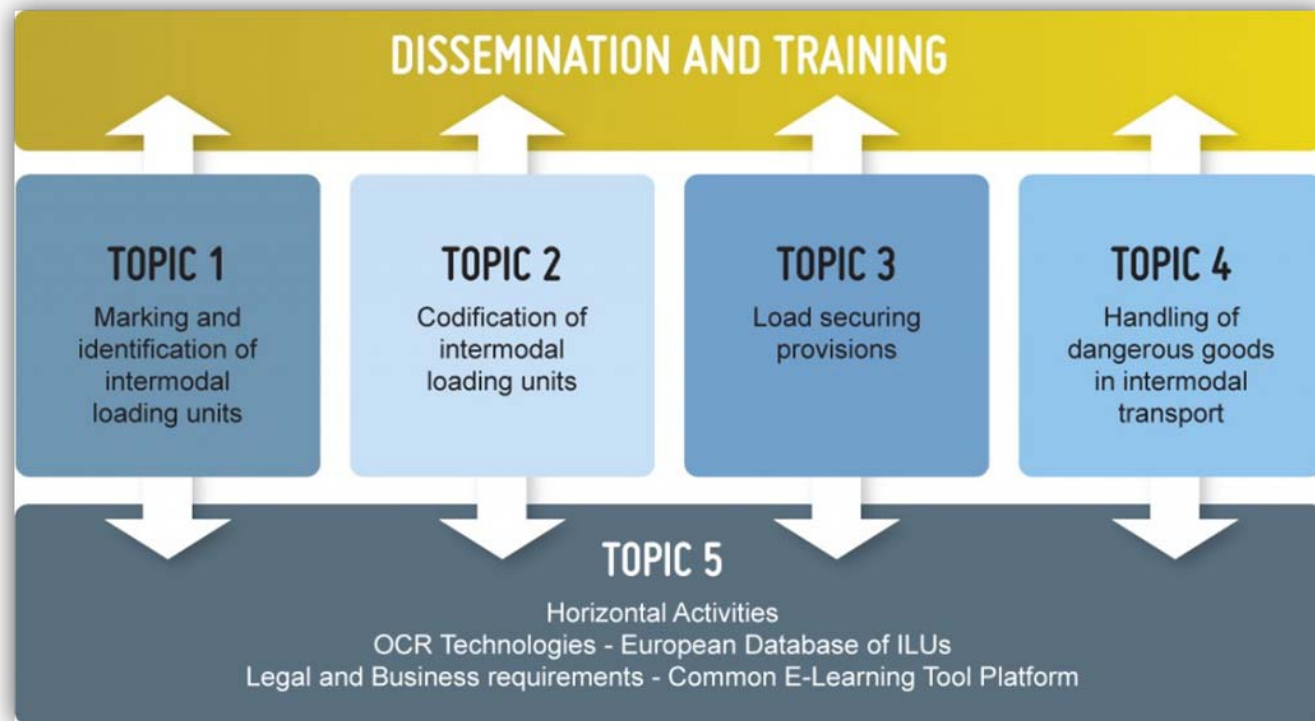
- **Action partners**

SGKV (main consultant)
Hupac Intermodal BVBA (CT operator)
KombiConsult (consultant specialised in CT)
Kombiverkehr (CT operator)
Mari Term (specialised in cargo securing)
Novatrans (CT operator)
Terminali Italia (Terminal Operator)

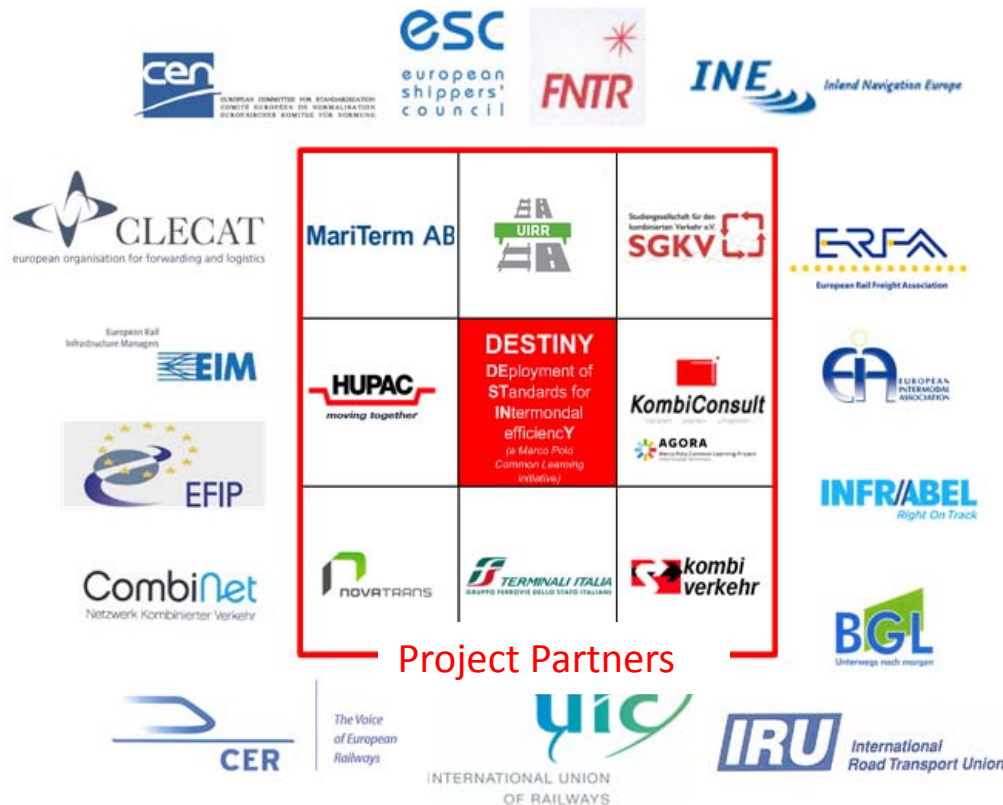
- **Project duration**

24 months (Start: 1st September 2012)

Topic structure



Unique dissemination network



15 Associations
officially support
DESTINY

TOPICS 1&2

Identification of loading units
Codification of loading units



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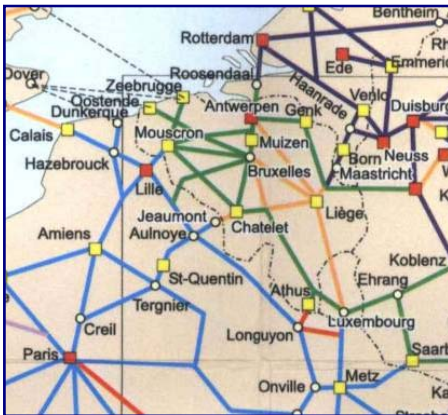
Content

- Identification and codification in Combined Transport: current situation
- EN 13044: new elements
- DESTINY: related EN 13044 activities
- Role of the actors in the deployment of the EN 13044
- Q&A sessions

Identification and codification in Road-Rail CT: main elements

Codification in Combined Transport - Principles

- Combined Transport with loading units, or road vehicles on railway wagons, exceeds the G1 UIC loading gauge (it ideally requires the larger GC gauge), hence railway lines must be codified to determine the accurate gauge for CT.
- Alongside the codification regime for railway lines, a system of codification of loading units and wagons has been established to enable a smooth flow of CT trains



Codification of lines



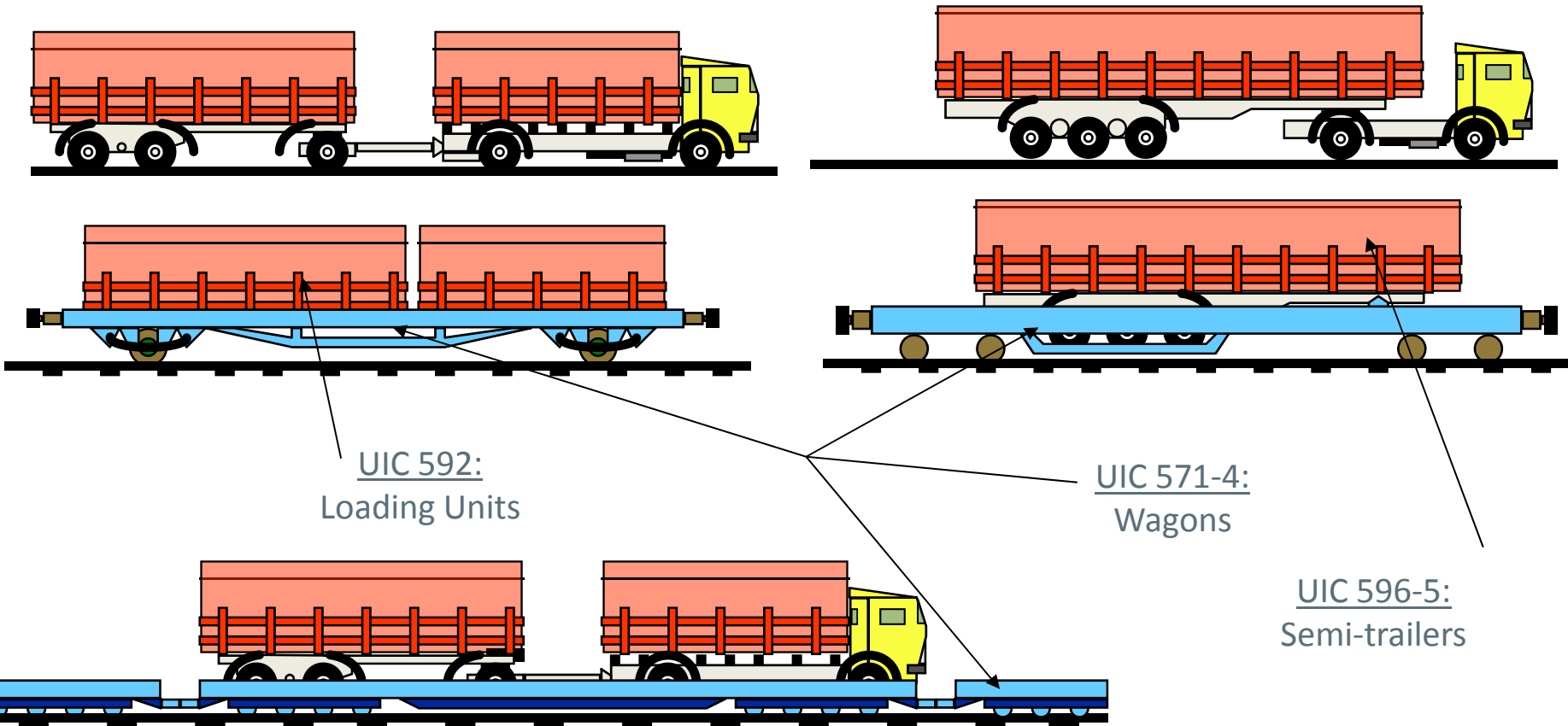
Codification of loading units



Codification of wagons

The three pillars defined in UIC leaflets

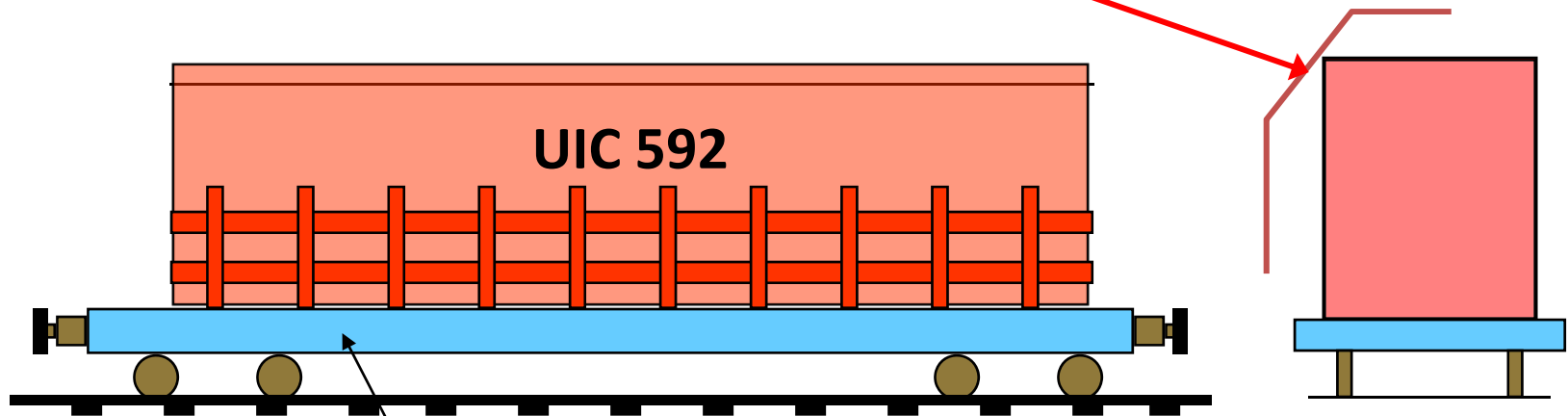
UIC 596-6: the codification system (wagons, loading units and lines)



UIC leaflets related to Combined Transport

Codification of the ILUs according to UIC 596-6

Result = Determination of profile



Reference Wagon (in 596-6)

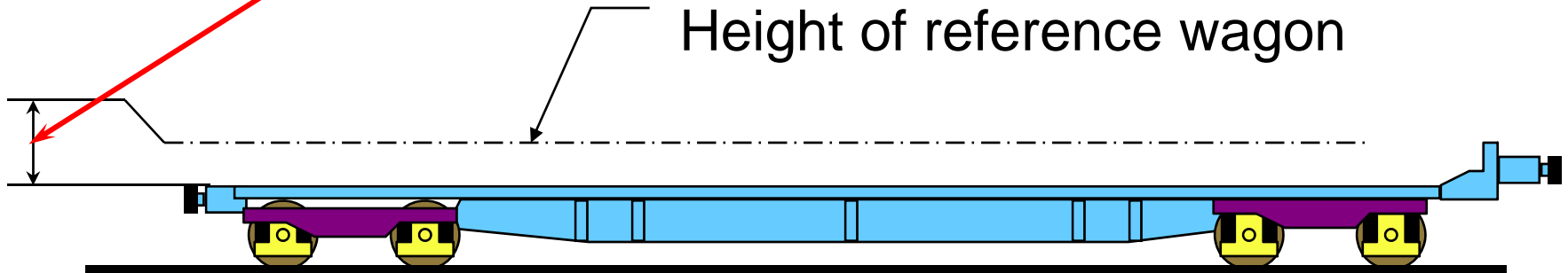
UIC leaflets related to Combined Transport

Codification of the wagons according to UIC 596-6

Corrective factor (favourable or not)
(depending on the actual parameters of the wagons)
(given by the NSA)

Result = Corrective factor

Height of reference wagon

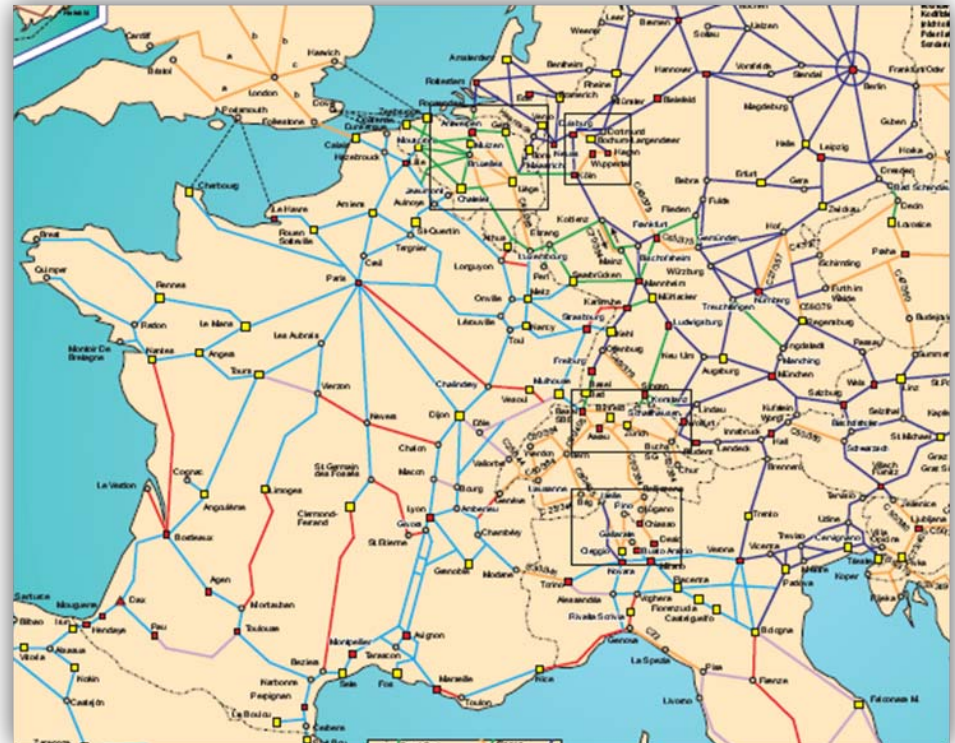


Wagon according to UIC 571-4

UIC leaflets related to Combined Transport

Codification of lines according to UIC 596-6

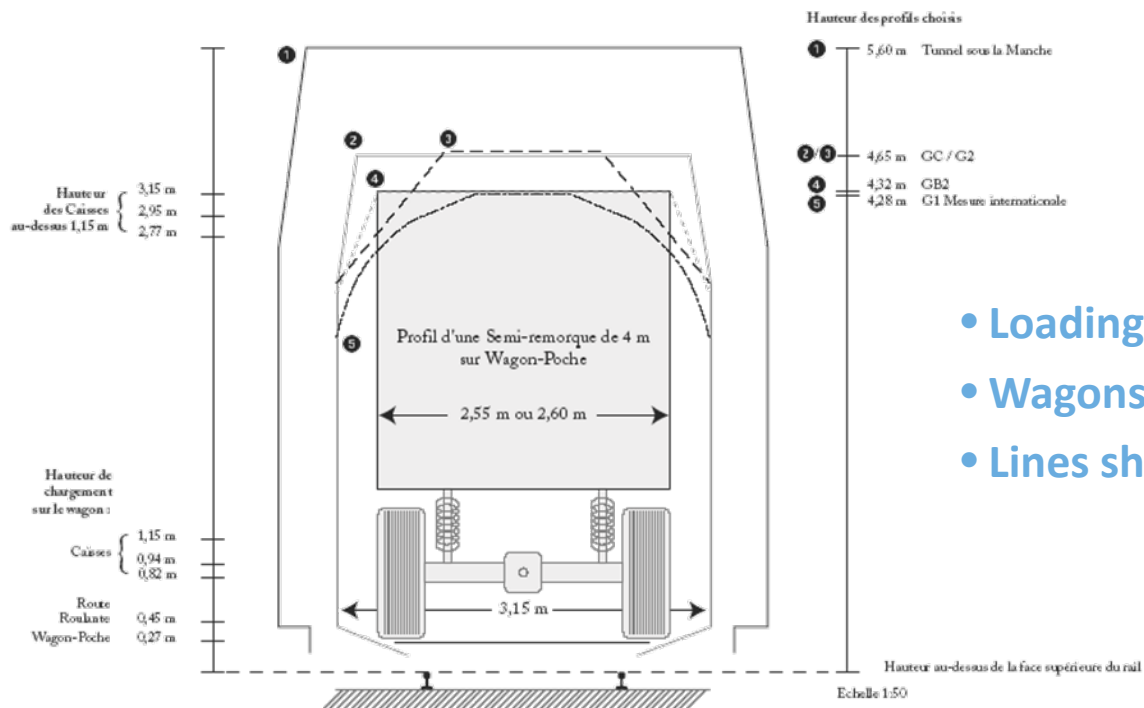
Under the responsibility of the
Infrastructure Managers



<http://www.uirr.com/en/media-centre/leaflet-and-studies/mediacentre/66-map-of-the-railway-lines-in-ct-version-2011.html>

UIC leaflets related to Combined Transport

Combined transport is only possible if “Line + Wagon ≥ ILU”



- Loading units shall be codified
- Wagons shall be codified
- Lines shall be codified

EN 13044: new elements

Identification and marking of intermodal loading units 25 years from the first draft to final application!

- 1994** First discussions for a new marking scheme (Eurocode)
 - 1996** Proposal of BIC for code distribution free of charge
 - 1998** European standard EN 13044 with AEI (Automatic Equipment Identification)
 - 1999** Agreement BIC – UIRR under the auspices of the European Commission (BIC guarantees low registration and renewal fees)
-
- 2005** New discussions in CEN and between main actors
 - 2010** CEN vote on a revised Standard EN 13044
Decision of UIC and UIRR for application
 - 2011** UIRR begins to register ILU-Codes (low registration and renewal fees)
 - 2012** DESTINY project to support an information campaign
 - 2014** End of 1st transition period, ILU-Code quasi-mandatory
 - 2019** End of 2nd transition period, new codification plate mandatory

Current system – UIC leaflet 596-6

Codification plate for swap bodies (similar exists for semi-trailers)

TECHNICAL
INFORMATION



IDENTIFICATION

Nationality n° of CT
Company

Code N° of road-
haulage firm within
national CT company

Loading unit n°

'New system' – Overall objective of EN 13044 (CEN TC 119)

Simplification of the procedure:

a clear separation of

the owner/loading units identification and of the
technical characteristics of the loading unit

➔ adoption of the standard EN 13044 (3 parts)

The European Standard EN 13044

With the revision in 2010 the standard was split in three parts:

Part 1 Markings for identification (ILU-Code)

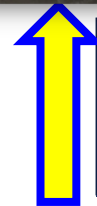
Part 2 Markings for swap-bodies related to rail operations (codification plate)

Part 3 Markings of semi-trailers related to rail operations (codification plate)

Identification of owners/loading units: different systems



BIC-Code for containers
worldwide recognised
with check-digit



Road plate
for semi-
trailers

Codification plate
for swap-bodies
lower part: owner-
id not very visible



Internal
fleet
number



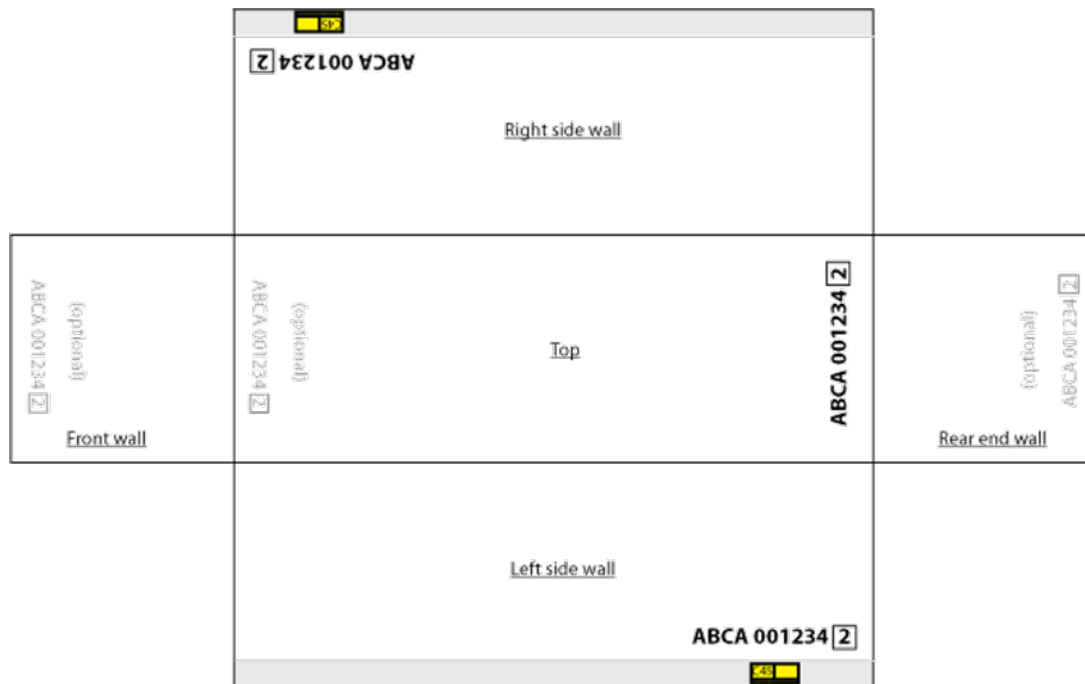
EN 13044 Part 1: ILU-Code (compatible with BIC-Code)



Owner key:
4th character of Owner key:

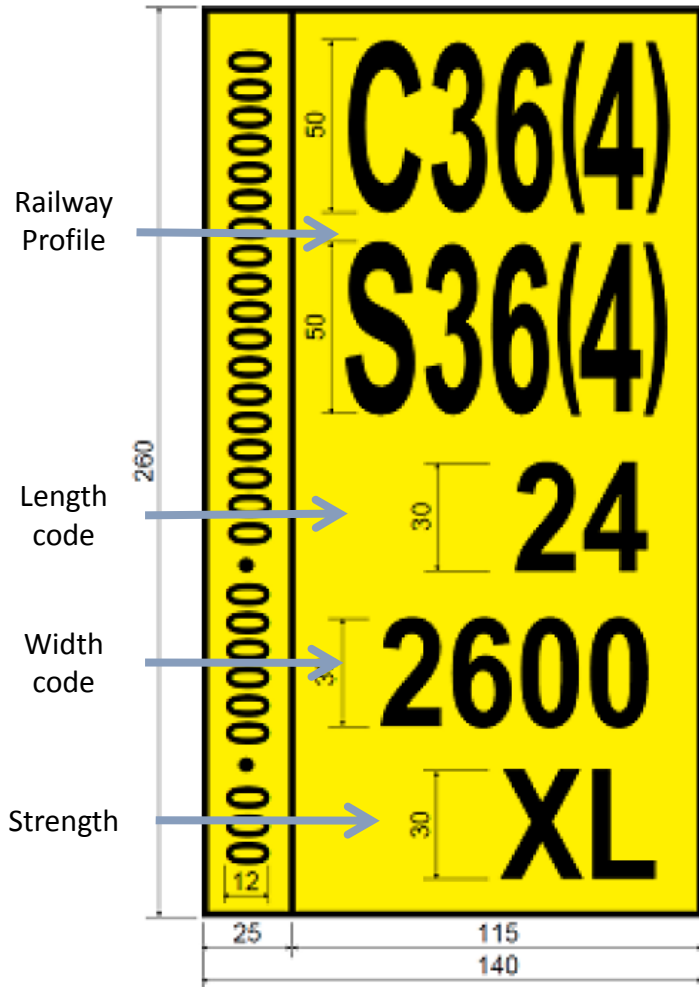
Allocation by UIRR
“A, B, D, E, K”

EN 13044 Part 1: ILU-Code - Position

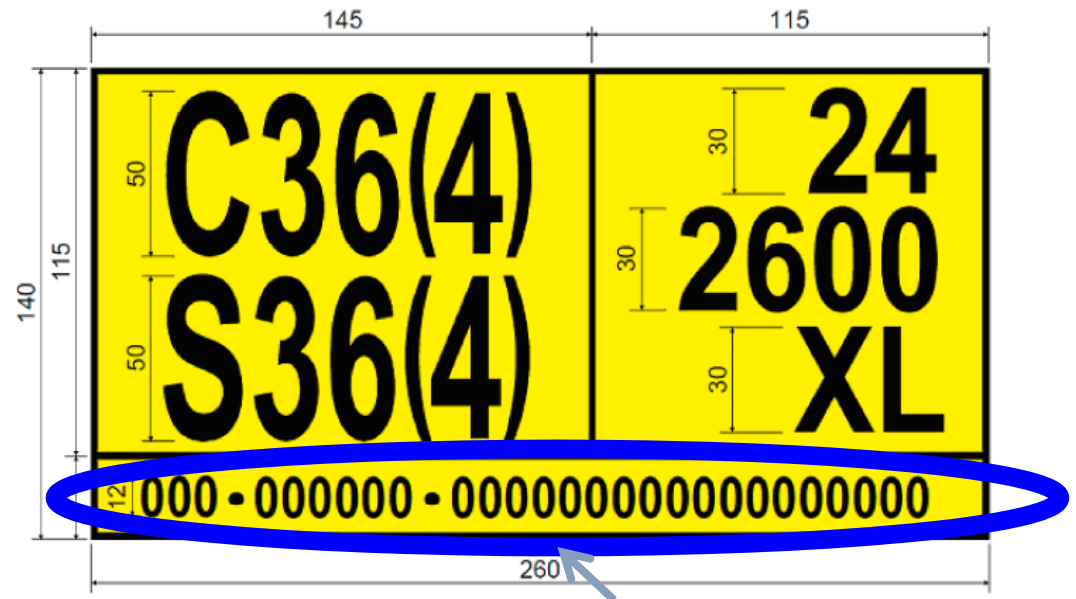


- At least both side walls and one on the roof (3 ILU-Codes)
- Recommended option: 6 ILU-Codes (like ISO 6346)
- Not be less than 100 mm high and of proportionate height and width.
- Horizontal (vertical is possible)

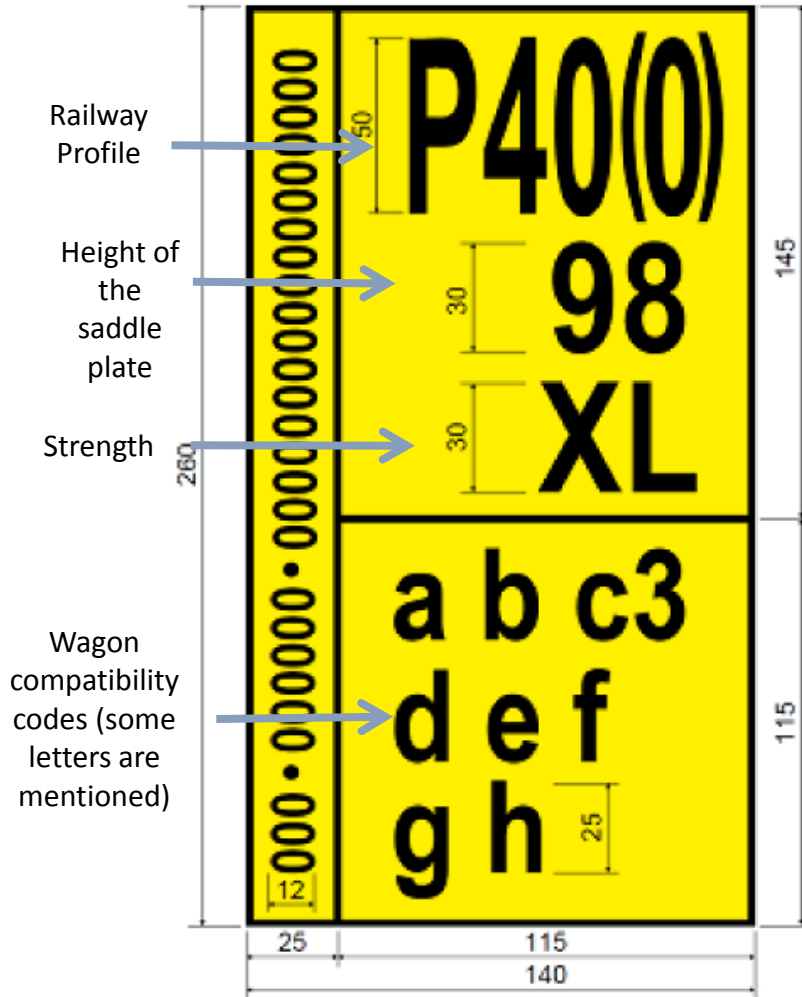
Advantages of harmonised owner/ILU identification	for			
	Haulier	CT-OP	RU	Customs
ILU-Code compatible with BIC-Code				
Easy tracking and tracing of ILUs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Logistic companies number ILUs according to their own criteria (the six digits of the ILU-Code)	<input checked="" type="checkbox"/>			
Savings: Check digit detects 95% of type errors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
No time consuming search for „lost“ ILUs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Suitable for OCR (Optical Character Recognition)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Simplified access to CT, ILUs codified by manufacturer	<input checked="" type="checkbox"/>			
All ILUs suitable for Combined Transport		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
When selling/purchasing ILUs, no new codification	<input checked="" type="checkbox"/>			
Higher standard in the field of safety and security	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>



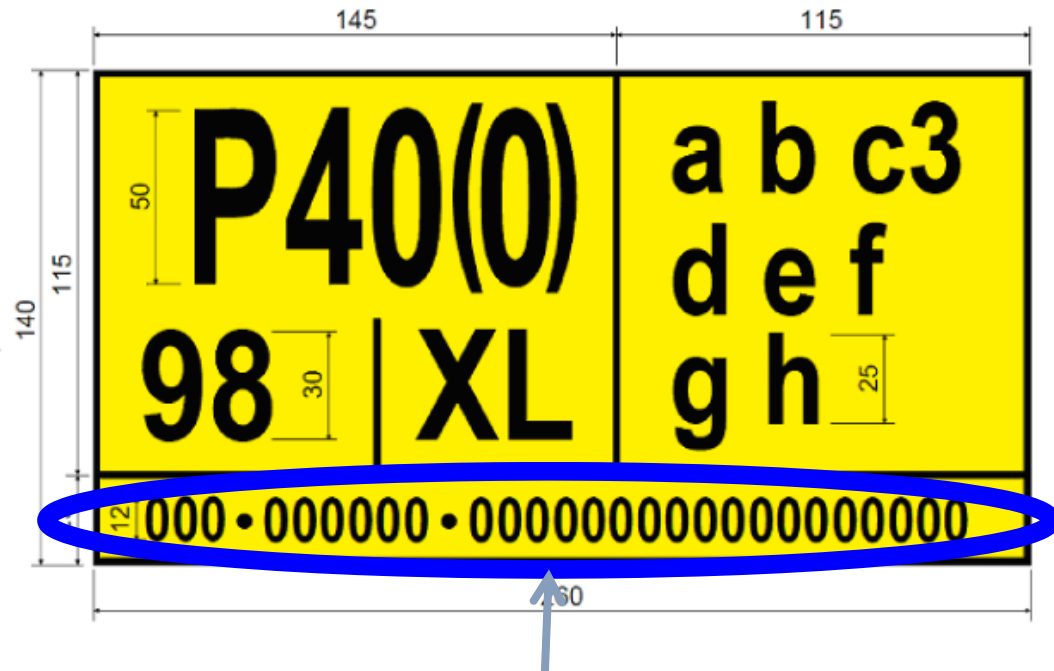
EN 13044 – Part 2: new operational markings for swap-bodies



Certification Part
(reference, not anymore for identification)



EN 13044 – Part 3:
new operational markings for semi-trailers



Certification Part
 (reference, not anymore for identification)

For the first time the revision of the standard is accompanied by a deployment plan

UIC railway undertakings and UIRR operators have decided:

- From July 2011, UIRR will start issuing the ILU-Codes, new codification plates shall be used.
- After a three-year transition period, from July 2014, only loading units equipped with a BIC- or an ILU-Code will be accepted at terminals.
- After an eight-year transition period, from July 2019, every loading unit will have to be fitted with the new codification plate.

EN 13044 related DESTINY activities

TOPICS 1&2 – Objectives and Milestones

• Objectives

- marking of the ILUs by the owners of intermodal loading units till 01.07.2014
- implementation of the new EN13044 standard by all codifying entities in a harmonised way

Activities & Milestones

- Best practice reports (5 countries) (Sept 2012 – August 2013)
- Elaboration of dissemination and training materials
- Dissemination and training sessions

Best practice report : conclusions (1)

about 100 companies

CONCLUSION 1

No country-specific issue related to the implementation of the EN 13044

But lack of exchange between stakeholders

CONCLUSION 2

The entities in charge of the certification have not yet implemented the EN 13044 in a harmonised way.

common messages are required

CONCLUSION 3

The manufacturers of loading units are the key actors in the execution of the EN 13044.

But receiving contradictory messages

CONCLUSION 4

As one of the main beneficiary of EN 13044, the terminal operators are totally engaged in the implementation process

e.g. DUSS in Germany already adapted its network statement in April 2013 and installed OCR-technologies to easily identify the loading units.

Best practice report : conclusions (2)

about 100 companies

CONCLUSION 5

RUs, responsible for the checks at the departure of the train, have not completely applied the EN 13044.

UIC member companies: waiting for the official publication of the UIC leaflets

RUs, GCU signatories: expect clarifications in the appendix 1 of annex 9 – do not feel ‘concern’

CONCLUSION 6

The intermodal operators are directly in contact with the owners/users of intermodal loading units and are thus essential for disseminating and training on EN 13044.

UIRR companies = active dissemination campaigns (of all?)

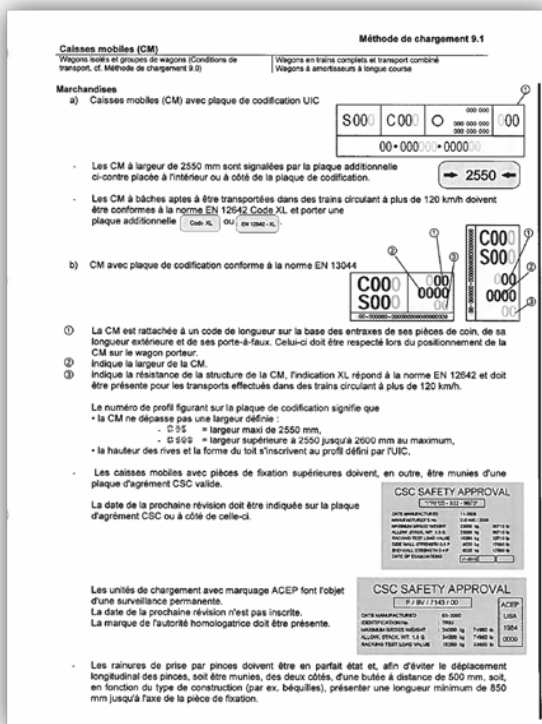
Non UIRR companies= do not feel really concern

CONCLUSION 7

The owners of intermodal loading units are the actors directly affected by the implementation of EN 13044 and are confronted with various issues:

- no clear communication from the ‘other’ => no reaction
- contradictory messages => not confident at all
- operational problems with physical markings of the units (definition of the processes, find the right product e.g. for tarpaulins)

EN 13044: 'policy' context – UIC 'world'



ILU-Code and codification plates inserted in the UIC Loading Guidelines (Section part 9.1 to 9.4) and in the new version of the UIC leaflets related to CT

UIC members must accept the new codification plates and the ILU without restriction

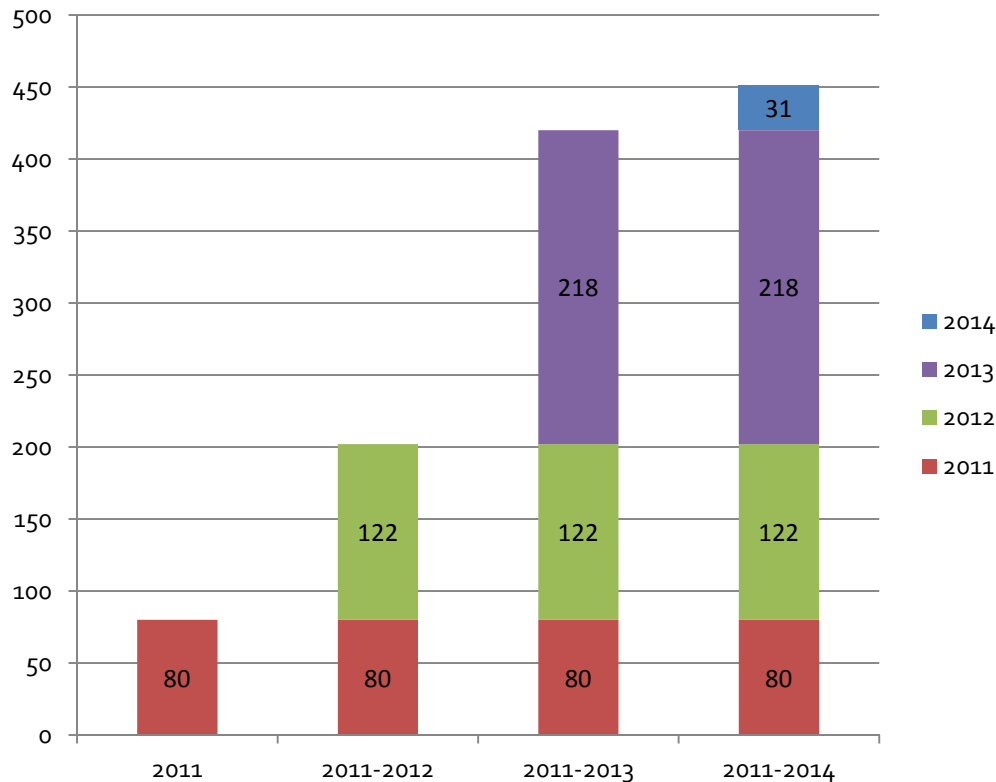
EN 13044: ‘policy’ context – GCU contract (wagon exchange – railway inspections)

Marking, coding for intermodal transport	7.8			
	7.8.1	Valid coding missing or illegible	Detach wagon	5
	7.8.2	Wagon code to indicate permissible load units missing	Detach wagon	5
Load unit	7.8.3	No CSC safety plate	Detach wagon	4

Controls of markings and codification – inserted in the GCU contract
 (code 7 of appendix 1 of annex 9)

All RUs (GCU signatories - 99% of the market) should check if codification plates are valid or not.

Monitoring of the implementation of EN 13044 part 1 (ILU-Code)



ILU-Code Public Register on www.ilu-code.eu

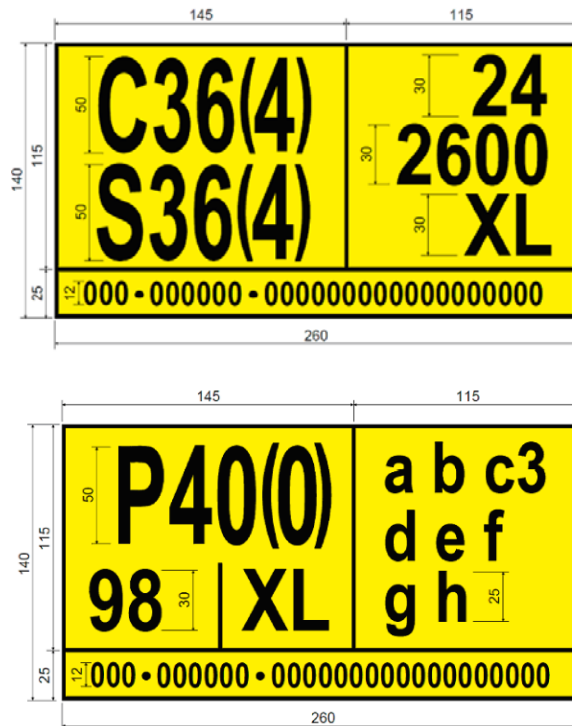
- 451 registered owner-keys (4 letters)
 - 18% in 2011
 - 27% in 2012
 - 48% in 2013
 - 7% in 2014

- ?? really marked
 - UIRR support = stickers service (difficulties with flexible support)

- follow-up of the activities of other actors is required

ILU-Code Register ≠ database on loading units

Monitoring of the implementation of EN 13044 part 2&3 (ILU-Code)



New loading units

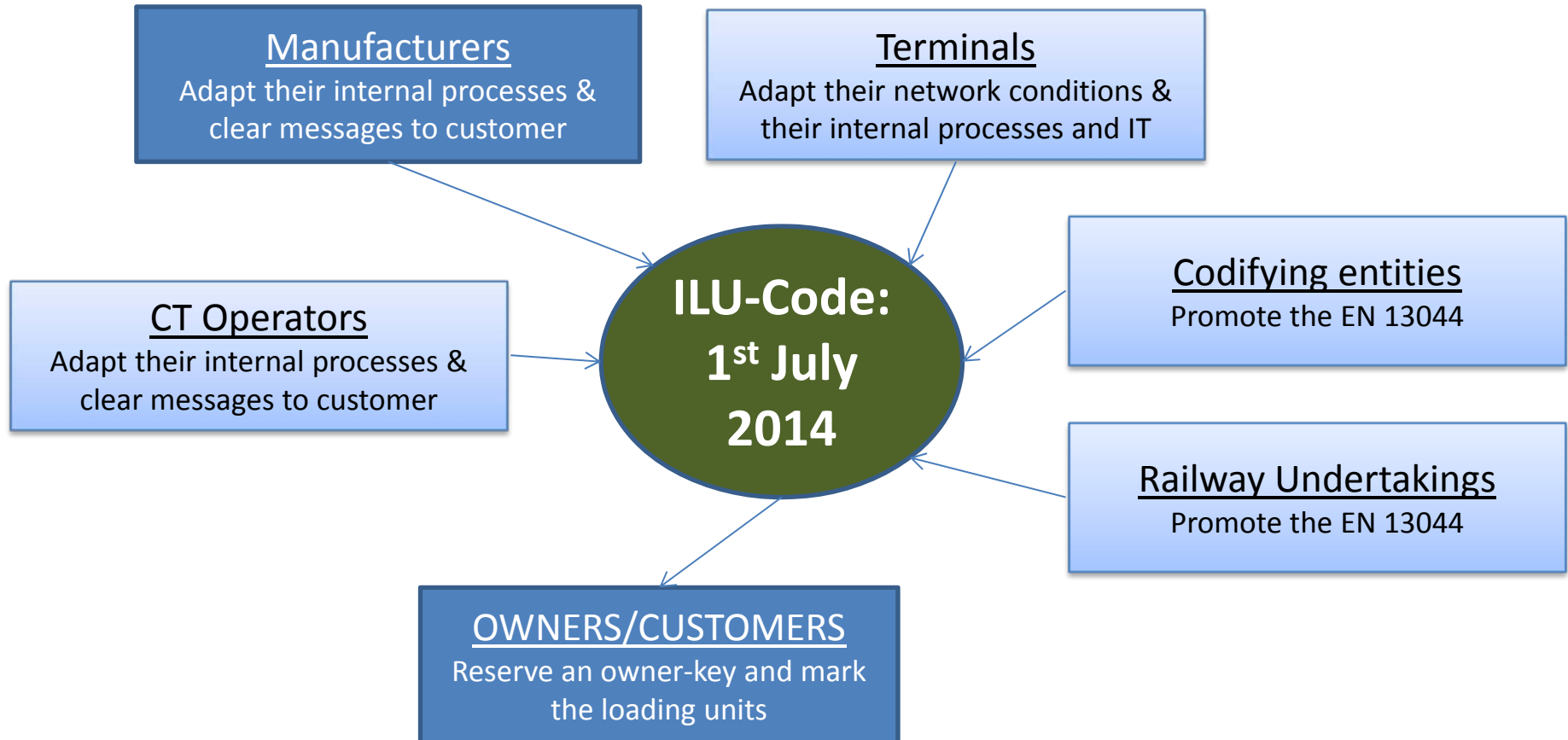
- assumption: yes (how many ?)
- BUT input of the manufacturers is needed (both systems are used due to the position of some codifying entities)

Retrofitting of the old fleet

- Deadline of 1st July 2019 is strongly disputed
- Rule: for each requested replacement (in case of new ownership, damaged or lost codification plates => EN 13044) (written in the UIC leaflet).
- UIRR support: codification plate services

Role of the actors in the EN 13044 deployment

Action plan: intensification is needed at each level



EN 13044-1: role of the owner – step 1

I. Reserve at least one Owner-Key (4 letters)
on www.ilu-code.eu

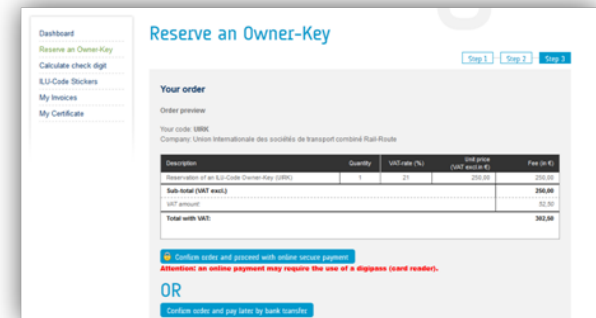
Owner-Key	Registration number	Check digit
ABC A	001234	2



- Pre registration of the company
- Client access



Confirmation of the registration
within one working day



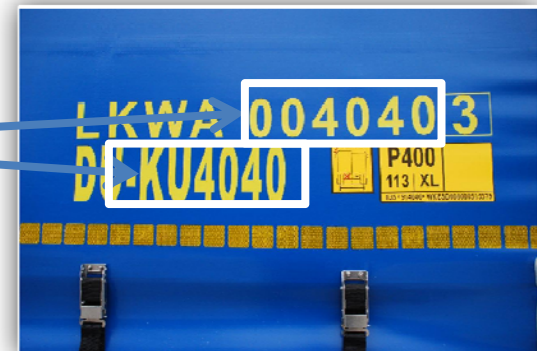
Reservation of an Owner-Key –
confirmed with receipt of payment
(credit card or wire transfer)

EN 13044-1: role of the owner – step 2

II. Choose a unique registration number per loading unit

- Free choice of the customer
- Nothing to declare to the ILU-Code register or the entities in charge of the codification)
- Incremental number: from 000001...
- Internal rules
 - Insert ‘internal fleet number’
 - All swap-bodies starting with ‘01’
 - All trailers starting with ‘02’
 -

Owner-Key	Registration number	Check digit
ABC A	001234	2



EN 13044-1: role of the owner – step 3

III. Calculate the check digit

- Own tool
- On-line tools
- Support of UIRR for a large fleet

Owner-Key	Registration number	Check digit
ABC A	001234	2

Calculate the check digit

The methodology for calculating the check digit for each loading unit is described in the annex A of the standard EN 13044-1. Our code generator automatically calculates the check digit after encoding the owner-key and the registration number.

Owner-key (letter only) Registration number (digit only) Check Digit

Public part: one by one

Calculate check digit

Calculation of a series of ILU-Codes (max. of 500 simultaneously)

If you have to identify a large number of loading units with your owner-key, you can use this tool to automatically calculate the check digit related to each ILU-Code.

Please follow the below-mentioned steps:

1. Insert the number of loading units that you need to identify with your ILU-Code.
2. Insert your owner-key followed by the registration number of the first loading unit of the series.
3. ILU-Codes will be automatically displayed on the same page. In addition, you can also download/export your ILU-codes to an Excel file by clicking on the bottom-page button.

Remark: After you have marked your loading units with the ILU-Code, you may send digital pictures to: administration@ilu-code.eu. Some of them may be published on the website as examples.

Loading unit(s)

Owner-key (letter only) Registration number (digit only)

Client access: tool for series (up to 500)

EN 13044-1: role of the owner – step 4

IV. Mark the loading units

Owner-Key	Registration number	Check digit
ABC A	001234	2

- Specific products per kind of loading unit: rigid and flexible
- All newly purchased intermodal units should be produced with an ILU-Code (or BIC) by the manufacturer
- For the retrofitting of the ‘old’ fleet:
 - Marking by the manufacturers
 - Marking by the customers (maintenance)

} ILU-Code sticker service by the UIRR



EN 13044-2 & EN 13044-3

Role of the manufacturer: 'codification' service package to the customer

- **No change in the codification process – only codification plates are new BUT manufacturers should be the initiator of the railway certification**
 - Direct contact with the entities in charge of the codification (customers are not interested in this process anymore)
 - All necessary documentation should be prepared by the manufacturer (cf. details in UIC leaflet 592 for the certification of a prototype and of a series)
 - Only competent authorities are allowed to codify: currently no manufacturers in Europe

- **All (intermodal) loading units should be produced for intermodal transportation (with the adequate codifications plates e.g. EN 13044)**

EN 13044 part 1 – ILU-Code

What will happen AFTER the deadline of 1st July 2014?

Definition of a transitional period with a bonus-malus system

(plan will be released in March 2014 and send to the customers)

Conclusions

- **EN 13044 introduces a new standardised identifier for the owner/loading unit and new codification plates.**
- **EN 13044 is accompanied by a strong implementation plan (UIC/UIRR) supported by various other actors in particular the terminal operators.**
- **Newly purchased units shall be directly EN 13044 compliant:**
 - With ILU-Code
 - With new codification plates (for swap bodies and semi-trailers)
- **The manufacturers should support the customers in the retrofitting of the old fleet in particular with the marking of the loading units with an ILU-Code.**
- **Manufacturers/Customers are not allowed to codify themselves – only competent authorities are**
- **EN 13044 related costs for new units are (nearly) the same for the manufacturer:**
 - Certification process is the same
 - Plates are different but same size and colors
 - Marking the loading units with an ILU-Code shall not cause significant additional costs

Q&A sessions

All participants



Thank you for your attention



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