



## ERA Task Force: programme, results and their implementation

*RISC / COM workshop  
Brussels, 06.04.2011*

*The Joint Sector Group for the ERA Task Force*

## Where do we come from? The Joint Sector approach for a European problem

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- The following 3 initiatives started on EU level since September 2009:

1. EU Rail Safety Conference



2. ERA Task Force « Freight Wagon Maintenance »



- The Sector was asked to provide expertise and to work out solutions/proposals

3. **Joint Sector Group: CER, ERFA, UIP, UIRR, UNIFE**



- The task: find a common European solution for a European problem

## Who exactly was/is acting together in the Task Force?

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- **ERA and several National Safety Authorities**

- ERA
- NSAs: Austria, Belgium, France, Germany, Italy, Latvia, Netherlands, Sweden, UK



- **The Joint Sector Group: all EU freight wagon stakeholders & wheelset manufacturers**

- CER: SNCF, SNCB, DB, Trenitalia, SBB, ÖBB/RCA, ZSSK, MAV/RCH, SLO, RENFE, PKP, DB UK, CFL, ....
- ERFA: AAE, IGTL (Poland), ASSTRA (Italy), VDV (Germany), ...
- UIP: VPI Germany (VTG, GATX, ...), ASSOFERR, VPI Austria, VAP (Switzerland), all other national associations, ....
- UNIFE Lucchini, Valdunes, Rafil (wheelset manufacturer)
- UIRR



- **Sector and NSAs worked jointly together in the Task Force to find European solutions**



## The Joint Sector Programme worked out in the ERA Task Force was fully adopted in Viareggio in December 2009



- **European Action Programme:**

- A **Visual Inspection** of the European wheelset/axle population (according to EVIC)
- A more in-depth **investigation of samples** of wheelsets from defined operating areas
- A European-wide implementation of **systematic traceability of wheelset maintenance**
- **European Common Criteria for Maintenance (ECCM)**

# The 1st element of the European Action Programme: EVIC inspections – harmonised European Criteria

EUROPEAN VISUAL INSPECTION CATALOGUE (EVIC) FOR FREIGHT WAGON AXLES

V 2.11

example

32 Mechanical damage – smooth edged circumferential grooves		Painted axles
Salient information:		
	Characterised by smooth transitions in the edges (GCU Annex 9, 1.6.2). Pitting that arises during operation (caused e.g. by brake lever connectors dragging) involves damaged anti-corrosion coating	
Decision:		
	Check on the wagon why this damage could have occurred and repair accordingly	
	Remove from service	Case B
	if there is damage to the base material > 1mm: (acc. GCU)	Case A
	mark 1 at “X” column in EVIC logging	X

## Pictorial representation:



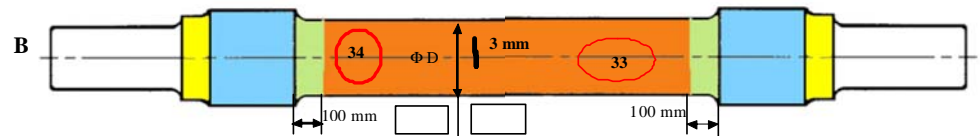
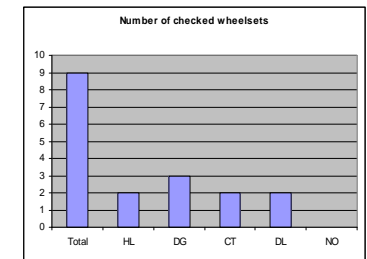


# The 2nd element of the European Action Programme: Sampling and analysis programme of wheelsets from defined operating areas

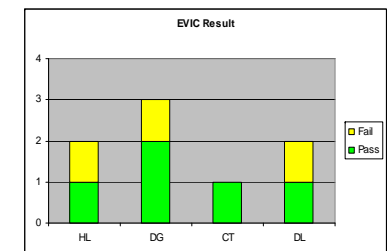
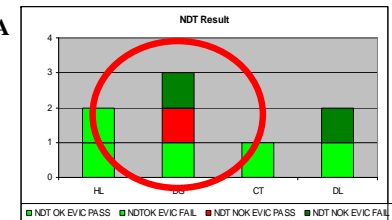


- Programme started Mai/June 2010
- 24.000 axles
- 4 risk domains
- Critical for success
- Will clarify EVIC and risk domain assumptions

Workshop	Rkk Domain	Wheelset type	Wheelset number	Date	Wheel dismantled	Bearing ring dismantled			
TERGNIER	DG	9052	12345	24 / 02 / 2010	Yes / No	Yes / No			
Previous axle maintenance with NDT									
Date	Level	NDT System	Workshop						
15 / 01 / 2001	COP			MT	Rennes				
EVIC APPLICATION									
Zone	B journal	B abutment	B wheel seat	B transition radius (100 mm)	Shaft	A transition radius (100 mm)	A wheel seat	A abutment	A journal
EVIC defect category					33,34				
Roughness or UIC surface categories									



<b>NDT before treatment</b>									
Zone	B journal	B abutment	B wheel seat	B transition radius (100 mm length)	Shaft	A transition radius (100 mm length)	A wheel seat	A abutment	A journal
NDT System									
MT	No	No	No	No	Yes	No	No	No	No
Man UT									
Auto UT									
Eddy Current									
Defect in EVIC zone		Yes / No		Yes / No	Yes / No	Yes / No		Yes / No	
<b>Treatment</b>									
Grinding the shaft central part 0,5 mm depth.									
<b>NDT after treatment</b>									
MT man									
UT auto									
Axle scrapped					Yes / No				



# The 3rd element of the European Action Programme: European-wide systematic traceability of wheelset maintenance data

- Implementation of the European Wheelset Traceability (EWT) in the Sector from 08/2010 onwards
- Self obligation (as for EVIC)
- Later integration in EN 15 313
- ANSF has withdrawn national measures if EWT application is granted (not for UIC type A axle RID wagons)**

No	timeframe	Designation	Remark
Wheelset in general			
1	a	Wheelset number	if applicable (if the keeper has changed) Data has to be stored from the last wheel change on  Remark: Current keeper of the wheelset is the keeper of the wagon (see number 38)
2	a	Wheelset design type or alternative designation	
3	a	Previous keeper(s) (ECM)	
4	a	Certificate number and notified body from EC-declaration of conformity (TSI compliant wheelsets)  Homologation number and authorising or certifying body (other wheelsets)	if available
5	a	Maximum authorised axle load (of the entire wheelset)	for wheelsets from service: if available
6	a	assembler of wheels (manufacturer if first assembly)	
7	a	Date of first assembly of wheels (month/ year)	for wheelsets from service: if available
8	a	Date when wheelset is taken out of keepers' fleet (scrapped, selling, etc.)	
Wheelset axle			
9	a	Wheelset axle serial number	if available
10	a	Wheelset axle design type or alternative designation	
11	a	Certificate number and notified body from EC-declaration of conformity (TSI compliant axles)  Homologation number and authorising or certifying body (other axles)	
12	b	Manufacturer	for wheelsets from service: if available
13	b	Manufacturing date (month/ year)	for wheelsets from service: if available
14	b	Number of cast iron	for wheelsets from service: if available
15	b	grade of steel (state of heat treatment)	for wheelsets from service: if available
16	a	Maximum permissible axle load (regarding the axle)	for wheelsets from service: if available  The manufacturing standard is directly related to the manufacturing date; (UIC; EN)
17	b	Manufacturing standard of the axle	
Wheels			
18	a	Design type or alternative designation	Yes/ No
19	a	Tyred wheels	
20	a	Certificate number and notified body from EC-declaration of conformity (TSI compliant wheels)  Homologation number and authorising or certifying body (other wheels)	
21	b	Manufacturer	for wheelsets from service: if available
22	b	Manufacturing date (month/ year)	for wheelsets from service: if available
23	b	grade of steel (state of heat treatment)	for wheelsets from service: if available
24	b	Number of cast iron	for wheelsets from service: if available
25	a	Maximum authorised axle load (regarding the wheel)	

excerpt

# The integrating element: European Common Criteria for Maintenance

**V1.0**

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**European Common Criteria for Maintenance (ECCM)  
of freight wagon axles**

to be applied **in wheelset axle maintenance**

*Joint Sector Group for ERA Task Force on wagon/axle maintenance  
Lille  
22<sup>nd</sup> June 2010*



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**Axle surface status  
after overhaul  
(in medium and heavy  
maintenance)**

**Traceability**

.....

**All to be integrated in  
EN 15 313**

**which NDT  
and where?**

**Maintenance rules for high  
performance operation**



## The Sector's target model for the implementation of joint European results



- Sector works after urgent events (as Task Force results) need time to become EU standards
- In GCU and/or similar: no full Sector regulation possible for the moment
  - no 100% coverage, no immediate effort
  - no executability by all NSAs (depending on MS legal framework, except in UK legal model?)
- **Sector's target (interim) model:**
  1. joint "freight platform" **immediate/urgent safety** measures (e. g. after incidents), agreed on European level by ERA, NSAs, Sector
  2. submitted to RISC/EC for decision to reach "immediate" binding status in all EU MS
  3. optionally: time limit/expiration date (pressure on final solution)
  4. obliges all Sector participants to execution, **no unilateral NSA actions**
  5. to be amended or withdrawn after fully worked out Sector rules (EN)
  6. legal base to be discussed (ECM requirement?)

## The Sector's target model for the implementation of joint European results



- Proposed target model as **interim solution** until
  - “full” Sector self regulation has taken place
  - executability of voluntary Sector rules by NSAs (?) is clarified in **all** MS
- Reflection about direct ERA decision in the future (=> discussion in “future role of the ERA”)

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**Thank you for your attention!**

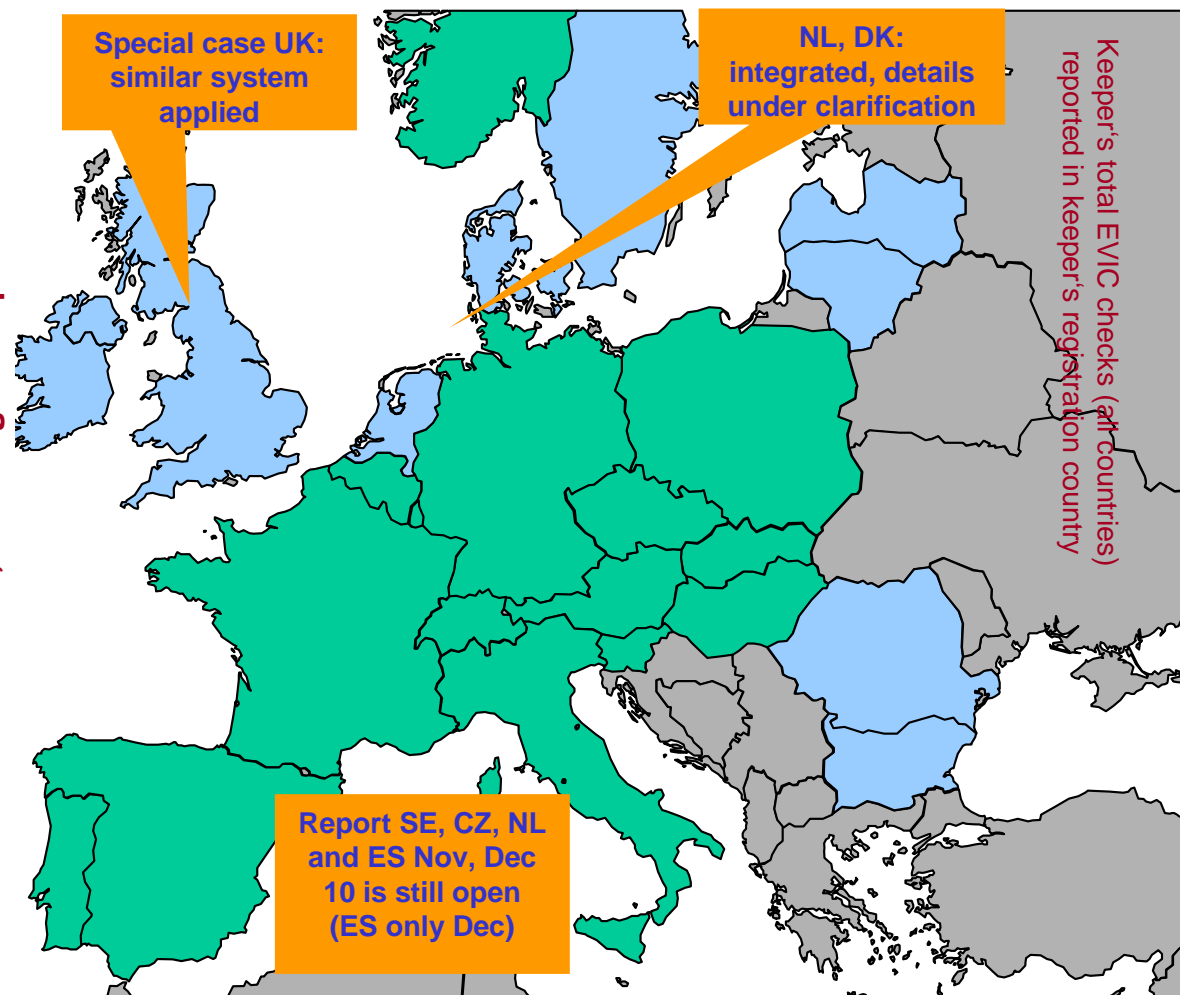
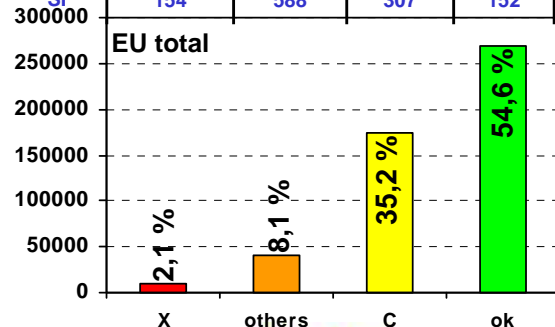


# Status of the EVIC Visual Inspections total as per December 2010

data as per 03/11

	Wagons checked	Axles Total	Others	„ok“	„X“	„C“
EU total *	126.973	493.924	39.988	269.709	10.217	174.010
AT	3.514	13.714	4.812	5.522	559	2.821
BE	2.350	9.051	0	8.951	80	20
CH	9.167	32.125	3.256	15.482	542	12.845
CZ	61	244	0	244	0	0
DE	82.968	329.233	25.900	164.368	7.935	131.030
ES	223	689	0	294	199	196
FR	11.600	34.101	5.095	34.308	304	3.394
HU	1.562	6.037	14	4.613	9	1.401
LU	421	1.624	12	567	3	1.042
IT	3.939	15.110	396	7.317	357	7.040
PL	5.364	20.859	110	17.872	159	2.718
PT	200	501	2	0	0	499
SE	211	843	61	522	52	208
SK	5.239	20.205	23	9.497	7	10.678
SI	154	588	307	152	11	118

\* 15 countries, 117 wagon keepers



X: Remove from service without delay

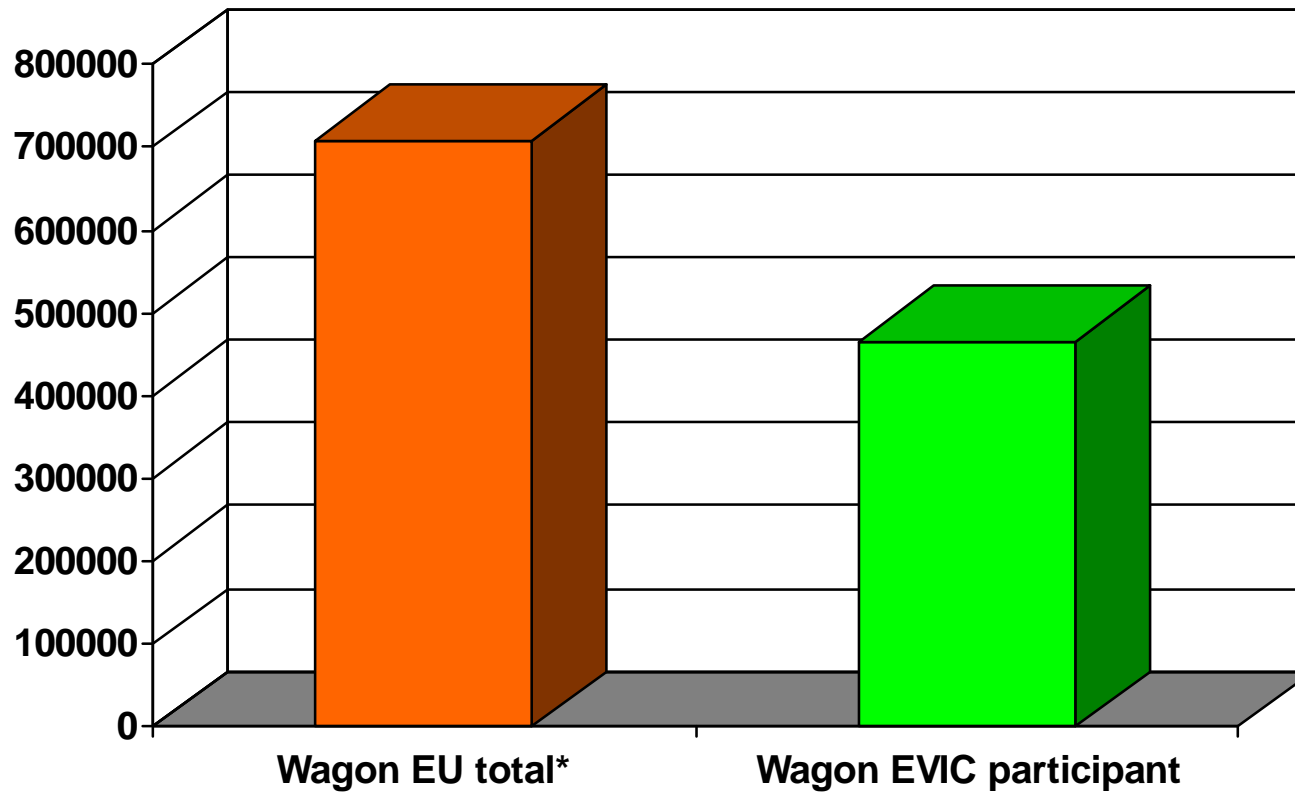
others: sorted out for other reasons, e.g. reprofiling

C: Leave in service until the next EVIC check

ok: no defects, leave in service

## Coverage of EU freight wagon keeper's fleet by EVIC checks

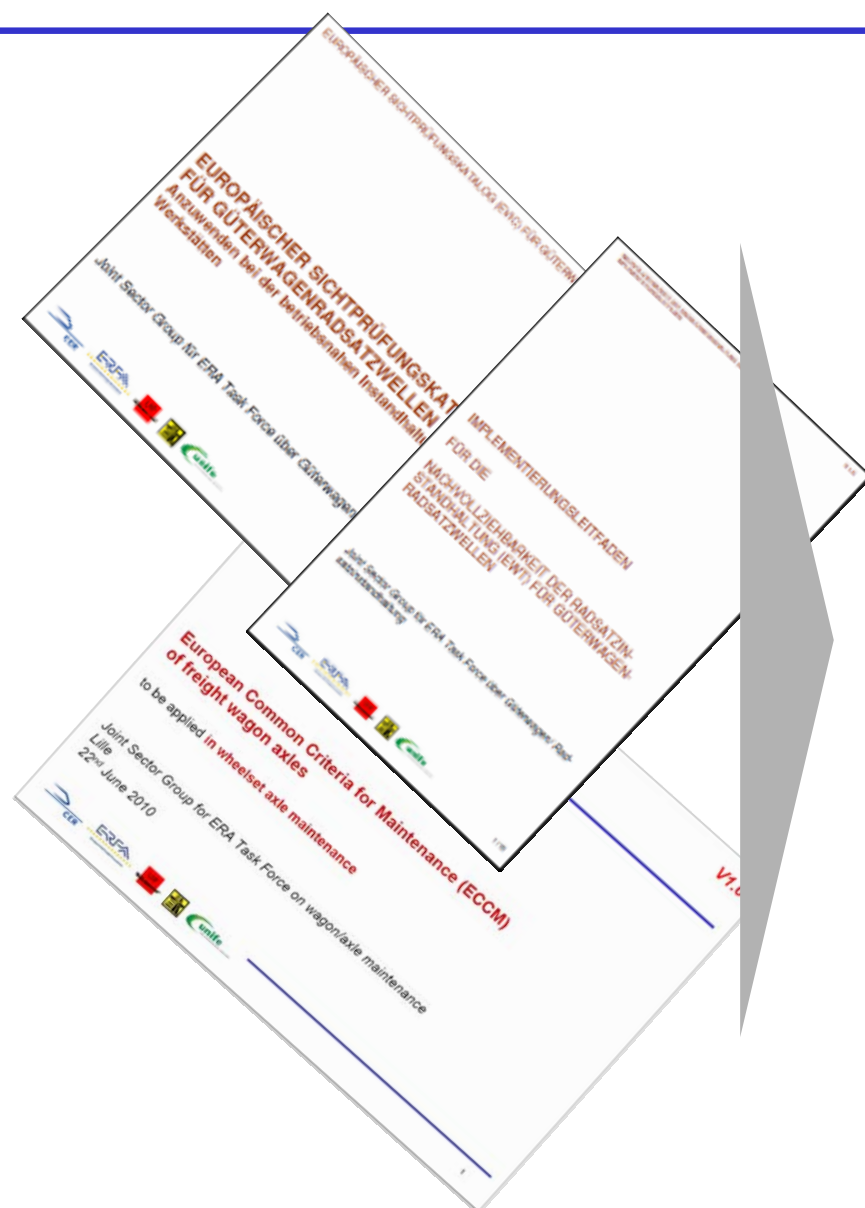
data as per 03/11



- 117 wagon keepers
- as per December 2010
- share from GCU signatories



# Amendment of EN 15313 (axle maintenance) and EN 13103 (axle design) in CEN WG: finalisation not before 2012



## Requirement for a Standard

<b>Requesting Body:</b> ERA on behalf of the Railway Sector	<b>Document Identification Number:</b> N°: IU-RFS-035 Rev: 0 Date: 14/10/2010
<b>Sub-system:</b> Rolling stock	<b>Title of TSI:</b> CR RST: Freight wagons.
<b>Other reference (interoperability constituent,...):</b> Wheelset, axle	

<b>Standards Body:</b> CEN	<b>Mandate Number:</b>
<b>WI Number:</b>	<b>WG Number:</b>

**Proposed Title:** In-service wheelset operation requirements - In-service and off-vehicle wheelset maintenance

### Scope of Standard:

The purpose of this revision of EN 15313:2010 and EN13103:2009 A1:2010 is to introduce the appropriate results of the task force "Freight wagon maintenance" created after the Viareggio accident of June 2009.

In order to increase the safety of the operation of Freight wagons and to have common examination criteria, a document for European Common Criteria for Maintenance (ECCM) has been agreed within representatives of the Railway sector, whose implementation has already started for several Keeper and Railway Undertakings in Europe.

In order to manage the quality of the wheelset freight wagon maintenance, a traceability system for in-service wheelsets has been agreed.

The parts of these results relevant for an EN have to be introduced into EN 15313:2010 and EN 13103:2009A1:2010 if necessary in specific clauses related to Freight wagons.

The revised standard will support Applicants, RUs and ECMs in specifying maintenance rules. This standard will be of voluntary use, with the purpose of justifying maintenance rules.

Note: This standard will not be used for conformity assessment against TSI. Therefore, ERA will not formally check and validate its content.

**TSI Details** (for information only: no conformity assessment required)