



INTEROPERABILITY UNIT	
ECVVR APPLICATION GUIDE	
Reference in ERA :	ERA/GUI/01-2010/INT
Version in ERA :	4.00
Date :	10 July 2012

Document prepared by	European Railway Agency Rue Marc Lefrancq, 120 BP 20392 F-59307 Valenciennes Cedex France
Document type :	Guide
Document status :	Public

0. DOCUMENT INFORMATION

0.1. Amendment Record

Table 1: Status of the Document.

Version Date	Author(s)	Section Number	Modification Description
Version 1.03 28 Apr 2010	ERA IU	All	First issue
Version 2.00 30 Jun 2011	ERA IU	All	Closing of open points. Amendments taking into account Decision 2011/107/EU (NVR Decision update)
Version 3.00 08 July 2012	ERA IU	2.3; 5.4; 5.5 6.6.1; 6.9.2; 6.18; 7.4 table2; table 10	Text improved and added as outcome of ECVVR workshop meetings
Version 4.00 10 July	ERA IU	4; 5; 7.3.1	Paragraphs removed, as these concerned the transitional period that is considered to be over. Issue for publication, translations into EU languages

0.2. Table of Contents

0. DOCUMENT INFORMATION	2
0.1. Amendment Record.....	2
0.2. Table of Contents	3
0.3. List of Tables	5
1. INTRODUCTION	6
1.1. Scope and Field of Application	6
1.2. Outside the Scope	6
1.3. Target Audience.....	6
1.4. Reference Documents.....	7
1.5. Definitions, Terminology and Abbreviations.....	7
2. OVERVIEW OF ECVVR.....	11
2.1. Configuration of the ECVVR	11
2.2. Actors	11
2.3. Users and Access Rights.....	12
3. VEHICLES TO BE REGISTERED IN THE NVR	14
3.1. Scope.....	14
3.2. Machines (OTMs, Rail-road machines, etc.)	14
3.3. Domestic Traffic and International Traffic	15
3.4. Registration of Existing Vehicles	15
3.5. Vehicles from 3rd countries.....	15
4. MULTIPLE AND SINGLE REGISTRATION OF AUTHORISATIONS DURING TRANSITIONAL PERIOD	17
5. DEADLINES.....	18
6. DATA TO BE RECORDED IN ECVVR.....	19
6.1. European Vehicle Number (item No 1).....	19
6.1.1. Data to Be Registered.....	19
6.1.2. Change of the EVN	19
6.1.3. Registration of Trainsets or Articulated Vehicles	20

6.2. Member State and NSA (item No 2)	20
6.3. Manufacturing Year (item No 3)	20
6.4. EC Reference (item No 4)	20
6.5. Reference to the ERATV (item No 5)	21
6.6. Restrictions (item No 6)	21
6.6.1. Registration of Vehicles with GSM-R but without ETCS	21
6.6.2. Registration of Vehicles with a Signalling System not Covered by the CCS TSIs	21
6.6.3. Non Coded Restrictions	22
6.7. Owner (item No 7)	22
6.8. Vehicle Keeper Marking – VKM (item No 8)	22
6.9. Withdrawal (item No 10)	22
6.10. Entity in Charge of Maintenance (item No 9)	23
6.11. Member State(s) where the Vehicle Is Authorised (item No 11)	23
6.12. Authorisation Number (item No 12)	24
6.13. Date of the Authorisation (for placing in service) (item No 13.1)	24
6.14. Authorisation (for placing in service) Valid until (item No 13.2)	24
6.15. General Remark for Registration of Existing Vehicles	25
6.16. Application Form for Registration of a Vehicle(s)	25
6.17. Multilingual Form – Annex to the Authorisation for Placing in Service	25
7. CASE STUDIES	27
7.1. Introduction. Who Can Apply for Registration of a Vehicle	27
7.2. First Registration of a Vehicle in a MS	28
7.3. Registration of an Additional Authorisation Granted in Another MS	28
7.4. Modification of Data	29
7.4.1. Modification of Data Related to Keeper, Owner or ECM of a Registered Vehicle	29
7.4.2. Change of Owner or ECM of a Registered Vehicle	29
7.4.3. Change of the Keeper of a Registered Vehicle	30
7.4.4. Split/ Merger of Two or More Organisations	30
7.5. Modification of Data of a Vehicle after an Upgrade or Renewal	30
7.6. Withdrawal of a Registration	32
7.7. Communication between a Registration Holder and a RE from another MS	32

8. AVAILABILITY OF THE ECVVR 33

0.3. List of Tables

Table 1: Status of the Document.....	1
Table 2: Table of Reference Documents.	7
Table 3: Table of Terms.	7
Table 4: Table of Abbreviations.	9
Table 5: Roles and responsibilities in ECVVR.	12
Table 6: Steps in a first registration of a vehicle.	28
Table 7: Steps in an additional registration of a vehicle.	Error! Bookmark not defined.
Table 8: Steps in an additional registration of a vehicle.	29
Table 9: Steps in a modification of data related owner or ECM.	30
Table 10: Steps in a modification of data after an upgrade with no new EVN.	31
Table 11: Steps in a modification of data after an upgrade with a new EVN.	31
Table 12: Steps in a withdrawal of a registration.	32

1. INTRODUCTION

1.1. Scope and Field of Application

- 1.1.1. This guide provides information on the application of Commission Decision 2007/756/EC adopting a common specification for the national vehicle register provided for under Articles 14(4) and (5) of Directives 96/48/EC and 2001/16/EC¹. That decision as updated by Decision 2011/107/EU will be referred to in the present document as the "NVR Decision".
- 1.1.2. This guide does not contain any legally binding advice. It may serve as a clarification tool without however dictating in any way compulsory procedures to be followed, and without establishing any legally binding practice. The guide provides explanations on the provisions contained in the NVR Decision and should be helpful from a daily practical perspective and to facilitate setting up of practical tools for exchange of information among the different actors (see 2.2) involved in the registration of vehicles.
- 1.1.3. The guide should be read and used only in conjunction with the NVR Decision in order to facilitate its application, but it does not substitute for it.
- 1.1.4. The guide has been prepared by the European Railway Agency (ERA) with the support of national safety authorities (NSA) and registration entities (RE). It represents a developed collection of ideas and information gathered by the Agency during internal meetings and meetings with the NSAs and REs. When necessary, ERA will review and update the guide to reflect the practice and possible return of experience of the application of the NVR Decision. As it is not possible to give a timetable for this revision process at the time of writing, the reader should refer to the ERA website for information about the latest available edition of the guide.

1.2. Outside the Scope

- 1.2.1. A registration of a vehicle (which is dealt with in Chapter VIII of the Interoperability Directive) should not be mixed up with an authorisation for placing in service of a vehicle (which is dealt with in Chapter V of the Interoperability Directive). The latter is not within the scope of this guide.
- 1.2.2. This Guide does not explain how to use the IT applications that support the ECVVR as this is already covered by the User Manuals.

1.3. Target Audience

- 1.3.1. This guide is addressed to all the actors concerned by the NVR and ECVVR and particularly to the registration holders and REs.

(1) Directives 96/48/EC and 2001/16/EC have been recast and repealed by Directive 2008/57/EC. Articles 14(4) and (5) of Directives 96/48/EC and 2001/16/EC, respectively, have been replaced by Article 33 of Directive 2008/57/EC. In addition, Decision 2007/756/EC has been amended by Decision 2011/107/EU (referred to as the NVR Decision update).

1.4. Reference Documents

Table 2: Table of Reference Documents.

{Ref. N°}	Title	Reference	Issue date
{Ref. 1}	Railway Safety Directive 2004/49/EC and amended by 2008/57/EC and 2008/110/EC	2004/49/EC	29 04. 2004
{Ref. 2}	TSI operation and traffic management, Annex P: Vehicle identification – Application guide.	IU-OPE_AxP-application guide	12.05.2009
{Ref. 3}	Interoperability Directive 2008/57/EC amended by 2009/131/EC	2008/57/EC	L 191, 18.7.2008
{Ref. 4}	Commission Decision 2007/756/EC (NVR Decision) Amended by Decision 2011/107/EU (NVR Decision update)	2007/756/EC 2011/107/EU	L 305, 23.11.2007 L 43 17.02.2011
{Ref. 5}	System of register of OTIF – Rolling Stock National Vehicle Registers (NVR) A 94-20/1.2009 of 12.02.2009	A 94-20/1.2009	12.02.2009
{Ref. 6}	Rules for registration of a vehicle marking code (VKM)	ERA: IU-VKM-061128 OTIF: A94-06/3.2006	01.04.2009
{Ref. 7}	Technical specification of interoperability relating to the subsystem Traffic Operation and Management of the trans-European conventional rail system (CR OPE TSI) Latest amendment by Decision 2009/107/EC	2006/920/EC	11.08.2006
{Ref. 8}	Commission Regulation (EU) No 445/2011 of 10 May 2011 on a system of certification of entities in charge of maintenance for freight wagons and amending Regulation (EC) No 653/2007	445/2011	10.05.2011

1.5. Definitions, Terminology and Abbreviations

1.5.1. This section lists specific terms and abbreviations that are used frequently in the present document. [x] refers to the reference No of the document in section 1.4 where the term is defined.

Table 3: Table of Terms.

Term	Definition
Agency	the European Railway Agency (ERA)
Applicant	Entity which applies for registration of a vehicle or changing of the registered data.
Vehicle	A railway vehicle that runs on its own wheels on railway lines with or without traction. A vehicle is composed of one or more structural and functional subsystems or parts of such subsystems. [3], Article 2(c).

Table 3: Table of Terms.

Term	Definition
Upgrading of a subsystem	Any major modification work on a subsystem or part subsystem which improves the overall performance of the subsystem. [3] Article 2(m) A vehicle is considered to be upgraded when at least one of the subsystems it is composed of is upgraded.
Registration entity	National body responsible for the keeping and updating of the National Vehicle Register and designated by a Member State pursuant to Article 4 of the NVR Decision. (List of REs and their contact details are published on the ERA website)
Registration holder	Entity responsible for immediately declaring any modification to the data entered in the national vehicle register, the destruction of a vehicle or its decision to no longer register a vehicle, to the authority [Registration entity] of any Member State where the vehicle has been authorised as set out in Article 33(3) of Directive 2008/57/EC) See 2.2.5 of this guide.
Renewal of a subsystem	Any major substitution work on a subsystem or part subsystem which does not change the overall performance of the subsystem [3] Article 2(m) A vehicle is considered to be renewed when at least one of the subsystems it is composed of is renewed and no subsystem is upgraded.
National Safety Authority (NSA)	Safety Authority as defined in Article 3 (g) of Directive 2004/49/EC [3] Article 2(v)
Infrastructure manager (IM)	Any body or undertaking that is responsible in particular for establishing and maintaining railway infrastructure, or a part thereof, as defined in Article 3 of Directive 91/440/EEC, which may also include the management of infrastructure control and safety systems. The functions of the infrastructure manager on a network or part of a network may be allocated to different bodies or undertakings [1] Article 3(b)
Railway undertaking (RU)	Railway undertaking is railway undertaking as defined in Directive 2001/14/EC, and any other public or private undertaking, the activity of which is to provide transport of goods and/or passengers by rail on the basis that the undertaking must ensure traction; this also includes undertakings which provide traction only.[1] Article 3(c)
Keeper	Keeper is the person or entity that, being the owner of a vehicle or having the right to use it, exploits the vehicle as a means of transport and is registered as such in the NVR. [3], Article 2(s).
Subsystem	The result of the division of the rail system, as shown in Annex II of [3]. These subsystems, for which essential requirements must be laid down, are structural and functional [3] Article 2(e).
Technical Specification for Interoperability (TSI)	Specification adopted in accordance with the [Interoperability] Directive by which each subsystem or part subsystem is covered in order to meet the essential requirements and ensure the interoperability of the rail system [3]. Article 2(i)

Table 3: Table of Terms.

Term	Definition
Manufacturing year	The year in which the vehicle leaves the factory
Entity in charge of maintenance (ECM)	Entity in charge of maintenance of a vehicle, and registered as such in the national vehicle register. [1] Article 3(t) Responsibilities of an ECM are defined in Article 14(a) of Directive 2004/49/EC, amended by Directives 2008/57/EC and 2008/110/EC

Table 4: Table of Abbreviations.

Abbreviation	Meaning
APIS	Authorisation for placing in service
CR	Conventional rail system
CCS	Control command and signalling
EU	European Union
ECVVR	European Centralised Virtual Vehicle Register – composed of two parts: VVR, which is the central search engine in ERA, NVRs, which are local national vehicle registers
ERA	European Railway Agency
ERATV	European Register of Authorised Types of Vehicles
ERTMS	European Rail Traffic Management System
ECM	Entity in charge of maintenance
ETCS	European train control system (part of ERTMS)
EVN	European vehicle number
GSM-R	Global system for mobile communications – railways (part of ERTMS)
IM	Infrastructure Manager
MS	Member State of the European Union or European Economic Area
NSA	National Safety Authority
NVR	National Vehicle Register
OPE	Operation and traffic management

Table 4: Table of Abbreviations.

Abbreviation	Meaning
OTIF	Intergovernmental Organisation for International Carriage by Rail
OTM	On track machine
RIV	Regulation for the reciprocal use of wagons in international traffic
RIC	Regulation for the reciprocal use of cars and vans in international traffic
RE	Registration Entity
RU	Railway Undertaking
sNVR	Standard National Vehicle Register (part of the EC VVR IT system)
TE	Translation Engine (part of the ECVVR IT system)
TSI	Technical specifications for interoperability
VVR	Virtual vehicle register – central search engine used for data retrieval from different NVRs (part of the ECVVR IT system)

2. OVERVIEW OF ECVVR

2.1. Configuration of the ECVVR

- 2.1.1. As stated in the NVR Decision each Member State shall have a computer based NVR. All NVRs shall be connected to the VVR by 31 Dec 2011 (Art 4 of Decision 2011/107/EU). The VVR allows users to search data on vehicles registered in any NVR. The sNVR and the TE include some tools for exchange of data between NVRs (export and import files).
- 2.1.2. VVR is not a separate database duplicating already existing information but a search engine which gives an access to the data that are actually registered in the NVRs. The data that can be retrieved through the VVR are limited to the data specified in Annex to the NVR Decision. Data in the fields added by the MSs in their NVR to those specified in the NVR Decision cannot be retrieved via VVR.
- 2.1.3. VVR shows only the data of the NVRs that are connected and on-line at the moment when the search is made. The NVRs should be on-line as a minimum during normal office working hours. See details in Chapter 8.
- 2.1.4. If an NVR is off-line because of technical failures for longer than 24 hours other REs and ERA should be informed.

2.2. Actors

- 2.2.1. The actors in the process of managing the registration of a vehicle are the RE and the applicant, who once the vehicle has been registered becomes the registration holder in the sense of Article 33(3) of the Interoperability Directive.
- 2.2.2. The actors in the process of updating the data of a registered vehicle without a change of the registration holder are the RE and the registration holder.
- 2.2.3. The actors in the process of updating the data of a registered vehicle with a change of the registration holder are the RE, the registration holder and the new registration holder.
- 2.2.4. The applicant for a registration should be the entity which once the vehicle is registered becomes the registration holder (usually keeper of the vehicle subject of the registration). The keeper may be (but not necessarily is) a RU or an IM. However, if an organisation that happens to be an RU or an IM is applying for a registration of a vehicle, it does not apply as an RU or IM but as a vehicle keeper.
- 2.2.5. A RE should only accept request for data modification from the registration holder (who, unless otherwise specified in the registration documents, is the keeper) or an NSA for the data related to the authorisation for placing in service.

- 2.2.6. The roles and responsibilities in keeping the ECVVR operational and for the accuracy of the data in it are as follows:

Table 5: Roles and responsibilities in ECVVR.

Actor	Roles and responsibilities
RE	<p>Keeping and maintaining the NVR and establishing connection with VVR (Decision 2011/107/EU Art 4)</p> <p>Granting EVN (NVR Decision Annex 3.2.2)</p> <p>Registering vehicles in its NVR (NVR Decision Annex 3.2.1)</p> <p>Updating the data (including withdrawals) of the vehicles registered in its NVR upon a notification from the registration holder (NVR Decision Annex 3.2.3 and Art 33(3) [3])</p> <p>Granting access rights to its NVR and to ECVVR</p> <p>Cooperating and exchanging data with other REs (NVR Decision Art 4)</p> <p>Taking reasonable steps to ensure the accuracy of the data (NVR Decision Annex 3.2.2)</p>
Applicant / registration holder	<p>Submitting the information for registration and immediately for updates (including withdrawals) (Art 33(3) of Directive 2008/57/EC) to the RE maintaining NVR in the MS where the vehicle has been granted its first authorisation for placing in service and is registered.</p> <p>During a transitional period, in the cases of a multiple registration, the registration holder has to inform the RE of all the MS where the vehicle is registered (see details in Section 4)</p>
ERA	<p>Publication of the specification of sNVR, TE and VVR (NVR Decision Annex 2.2)</p> <p>Hosting and maintaining the VVR (NVR Decision Annex 2.2)</p> <p>Update of reference tables jointly used by the NVRs</p>
NSA	<p>Supervising that vehicles are duly registered in the NVR and that safety-related information contained therein, is accurate and kept up-to-date (Art 16 (2g) of Safety Directive 2004/49/EC)</p>

2.3. Users and Access Rights

- 2.3.1. Request for user accounts shall be addressed to RE.
- 2.3.2. ERA does not participate in granting and maintaining user rights.
- 2.3.3. It is up to each RE to grant /maintain access rights to:
- (a) its own NVR and
 - (b) (via the ECVVR) to the NVRs of all other MSs
- 2.3.4. The REs should give access rights in accordance with section 3.3 of the NVR Decision.

- 2.3.5. Once an RE has given access rights to a user, this user can retrieve information from the NVR via the access rights to the ECVVR granted by the RE.

3. VEHICLES TO BE REGISTERED IN THE NVR

3.1. Scope

3.1.1. NVR Decision was adopted under Directives 96/48/EC and 2001/16/EC, scope of which was limited to the trans-European network (TEN) and vehicles likely to travel on it. However, as these two directives have been recast and repealed by the new Interoperability Directive, according to its Article 33, the scope of the NVR Decision should be considered to be the same as the one of the new Interoperability Directive, which is the European Union rail system.

3.1.2. This means that all the vehicles (both new and existing) not excluded from the scope of transposition of the Interoperability Directive by the Member States in accordance with its Article 1(3) have to be registered.

3.1.3. It should be kept in mind that the definition of a vehicle says “*runs ... on railway lines*”. In the Interoperability Directive there is no definition of what a railway line is. It can be considered that

- if a vehicle runs from one station to another using the public network, it should be considered that it does run on railway lines,
- if a vehicle is used only in an area excluded from the application of the Directive according to Article 1 (3), it should be considered that it does not run on railway lines.

Generally speaking, in every particular case it has to be analysed if the vehicle falls under the scope of Directive 2008/57/EC (taking into account its national transposition); and if this is the case it should be registered in the NVR.

3.1.4. Regarding vehicles from third countries operated on the European Union rail network see section 3.5.

3.2. Machines (OTMs, Rail-road machines, etc.)

3.2.1. Interoperability Directive (Article 2(c)) defines a “*vehicle*” as “*a railway vehicle that runs on its own wheels on railway lines, with or without traction...*”

3.2.2. This means that an OTM or any other kind of machine that runs on the lines that are in operation, should be considered as a “vehicle” according to the definition given in the Interoperability Directive. In this case it has to be registered in the NVR and has to be given an EVN according to the NVR Decision and Annex P of Operation TSI (particularly Annex P11 Codes for the Technical Characteristics of the Special Vehicles).

3.2.3. If such a machine does not run on its own wheels on any line in operation, it should not be considered as a vehicle in the sense of the Interoperability Directive. In this case no registration in the NVR and no assignation of EVN are necessary. This is the case of machines that work on lines that are temporarily closed for operation (such lines should not be considered as a railway line but as a work site) and go from one working site to the other by road or on a flat wagon.

3.3. Domestic Traffic and International Traffic

- 3.3.1. The NVR Decision makes distinction (Section 4.1.1 of the Annex) between vehicles used in international and domestic traffic. The word “*traffic*” is not necessarily linked with passengers or goods. Vehicles which run (operate) in service in more than one Member State should be considered as “vehicles used in international traffic”. A special vehicle that is used in more than one state should be considered as a vehicle used in international traffic, although it carries neither passengers nor goods.
- 3.3.2. A vehicle may be authorised in more than one Member State, but if it does not actually run in more than one Member State, it can be considered as a vehicle used in domestic traffic in the sense of Section 4.1.1 of the Annex to the NVR Decision.

3.4. Registration of Existing Vehicles

- 3.4.1. Registration of existing vehicles must have been finished by Nov 2010.
- 3.4.2. Taking over of the registrations from the former registration entities by the RE designated by the MS should have been done regardless the nationality of the keeper of the vehicle.
- 3.4.3. It is recommended to check with the keepers if the vehicles are still existing and registered in another NVR. The keeper shall provide the RE with information about multiple registrations so that the RE can arrange the deletion of any multiple registrations. At the end of this process each vehicle will be registered only once.
- 3.4.4. Situations where a vehicle has been accidentally registered in more than one NVR or registered more than once in an NVR should be avoided.
- 3.4.5. According to the NVR Decision the REs had to inform Agency, former RE and the keeper when the process of registration of existing vehicles had been completed.
- 3.4.6. Keepers (registration holders) shall be notified by the RE of the status of the registration procedure of their vehicles. Keepers shall recheck the data in order to avoid mistakes in registration and, if necessary, communicate to the RE any errors and corrections that have to be made.

3.5. Vehicles from 3rd countries

- 3.5.1. For the vehicles from third countries operated on the European Union rail network, data referred to in Article 33(5) of the Interoperability Directive must be retrievable through the NVR of the EU MS where the first authorisation for placing in service within the EU has been granted. This may be done in different ways.
- 3.5.2. Third countries that are OTIF members may use the sNVR software and connection to VVR on voluntary basis. OTIF adopted a specification (A 94-20/1.2009 of 12.02.2009) on the basis of the NVR Decision.
- 3.5.3. A vehicle placed in service for the first time in an OTIF country which has its NVR connected to the VVR should be registered in this NVR.

- 3.5.4. All vehicles registered in NVRs (EU or non-EU) connected to the VVR should be considered to be in the system of ECVVR and their relevant data should be considered as retrievable through it.

4. SINGLE REGISTRATION

- 4.1. Every vehicle must be registered in only one NVR, that is, normally in the NVR of the MS where the vehicle has been granted its first authorisation for placing in service.
- 4.2. Additional authorisations shall be registered only in the NVR of the MS where the vehicle is registered.
- 4.3. The information on every vehicle is available via the ECVVR.
- 4.4. ERA keeps on its extranet the updated information on the state of play of the connection of the NVRs to the VVR.

5. DEADLINES

- 5.1. According to Section 4.3 of the original Annex to the NVR Decision² registration of existing vehicles must have been completed by:
- 09 November 2009 for vehicles used for international traffic
 - 09 November 2010 for vehicles used for domestic traffic
- 5.2. In the case of existing vehicles used in international traffic without 12-digit identification (Section 4.1.1(b) of the Annex to the NVR Decision):
- a 12-digit number must have been allocated in the NVR at the vehicle registration (i.e. by 09 November 2009 at the latest).
 - this 12-digit number must be physically applied to (painted on) the vehicle itself within a 6-year period. This 6-year period should be counted from the date of allocation of the EVN in the NVR.
- 5.3. In the case of existing vehicles used in domestic traffic without a 12-digit identification (Section 4.1.1(b) of the Annex to the NVR Decision):
- a 12-digit number must have been allocated in the NVR at the vehicle registration (i.e. by 09 November 2010 at the latest).
- 5.4. Member States must have adapted their national vehicle registers to include information on authorisations for placing in service granted in other Member States (items 2, 6, 12 and 13 specified in the Annex of NVR Decision) by 31 December 2011 (article 3 (1) of the amendment of the NVR Decision)
- 5.5. The ECM business number must have been identified in the NVRs for the vehicles registered before entry in force of the NVR Decision update by 31 December 2011 (Article 3(2) of the amendment of the NVR Decision).
- 5.6. All NVRs should have been connected to the VVR, so that the ECVVR is established, by 31 December 2011 (Article 4 of the amendment of the NVR Decision). However, because of technical problems it was not possible to establish this connection before August 2012.

(2) As at the moment of adoption of the amendment of the NVR Decision, the transition period (during which the existing vehicles must have been registered) was already over, the amended annex of the NVR Decision does not contain this section.

6. DATA TO BE RECORDED IN ECVVR

6.1. European Vehicle Number (item No 1)

6.1.1. Data to Be Registered

6.1.1.1. The structure of the 12-digit number must be as defined in annex P of CR TSI OPE (except for the first registration of existing vehicles that already bear a 12-digit-number; these vehicles should be registered with their existing number). For existing vehicles without 12-digit-number Annex P has to be applied.

6.1.1.2. For vehicles placed in service for the first time in Estonia, Latvia or Lithuania and intended to be used outside the EU on the 1520 mm rail network, their 8-digit number may be registered instead of the EVN (Article 5 of the NVR Decision).

6.1.2. Change of the EVN

6.1.2.1. The starting point for any analysis of whether the EVN may or may not be changed should be Article 32(4) of Interoperability Directive, which says that *"A vehicle shall be assigned an EVN only once, unless otherwise specified in the TSI on operation and traffic management"*.

6.1.2.2. Change of the vehicle's technical characteristics reflected in the EVN.

If, after an upgrading, the old EVN of the vehicle (which should reflect the technical characteristics of the vehicle before upgrading) is contradicting the actual new technical characteristics of the vehicle (this includes the meaning of the digits 5-11 when these are defined by the MS according to OPE TSI Annex P), the EVN following the new authorisation for placing in service of the upgraded vehicle must be changed. In this case, the steps should be as follows:

- the subsystems of the upgraded vehicle go through the verification procedure,
- the upgraded vehicle is authorised to be placed in service by the NSA,
- in accordance with the Operation TSI (Annex P) the upgraded vehicle is given a new EVN by the RE,
- the old registration is withdrawn (code 20, according to Appendix 3 of the Annex to the NVR Decision),
- the upgraded vehicle is registered with its new EVN indicating the old number in field 1.2 (Section 1 of the Annex to the NVR Decision).

6.1.2.3. However, if a vehicle has been renewed or upgraded and granted a new authorisation for placing in service, but its old EVN is still valid according to TSI OPE, the EVN must not be changed.

6.1.2.4. The EVN allocated by the first MS should be always accepted by subsequent MSs, even in the cases where these subsequent MSs define the meaning of digits 5-11 in a different way.

6.1.2.5. Transfer of registration / change of EVN – transition period

According to the amended TSI OPE [7] - if a vehicle has a valid authorisation for placing in service (vehicle has not been modified) and the vehicle is rented for more than 6 months to another keeper or sold, the applicant may request a transfer of registration and subsequently of a new EVN. The receiving NSA decides about the acceptance of the former authorisation. This possibility is granted until the 31 December 2013.

6.1.3. Registration of Trainsets or Articulated Vehicles

6.1.3.1. A trainset or articulated vehicle may be registered with an individual EVN for each vehicle or with one single EVN for the entire trainset. A RE should always register trainsets in the same way.

6.1.3.2. Registering vehicles separately allows better traceability of vehicles (e.g. after a reconfiguration of a trainset), simplifies interfaces to other registers. For example it is in line with the approach taken for developing the specifications for measuring of traction energy for billing purposes. The fact that a vehicle is authorised as part of a trainset or as a part of an articulated rake of wagons should be indicated in the authorisation for placing in service.

6.2. Member State and NSA (item No 2)

6.2.1. For existing vehicles considered to be authorised according to Article 21(12) it is the MS where the vehicle is registered and the NSA of this MS.

6.3. Manufacturing Year (item No 3)

6.3.1. In case of uncertainties for existing vehicles, estimations should be made. A new frame means a new vehicle, therefore a new manufacturing year.

6.3.2. For renewed or upgraded vehicles the original manufacturing year should be kept.

6.4. EC Reference (item No 4)

6.4.1. Data as indicated on EC Declaration for the rolling stock subsystem should be registered. For item 4.2 the ID number of the EC Declaration should be indicated.

If the organisation that established the EC Declaration moves (the address changes), no changes in the NVR are necessary (the NVR indicates information at the moment of establishing the EC Declaration).

6.5. Reference to the ERATV (item No 5)

6.5.1. The former Interoperability Directives used to require the MSs to set up a register of rolling stock. This requirement has been replaced by the requirement to the Agency to set up a European register of authorised types of vehicles (ERATV). Therefore after Directives 96/48/EC and 2001/16/EC have been repealed, the MSs have no longer the obligation to maintain registers of rolling stock.

6.5.2. When the ERATV has been set up, reference to the ERATV allowing finding data concerning technical parameters of the vehicle type should be introduced for the types registered in ERATV. Until ERATV is set up this field may be left empty.

In some countries there are references to existing registers. These references should be allowed to be kept.

6.6. Restrictions (item No 6)

6.6.1. Restriction or technical characteristics?

6.6.1.1. Restrictions should not be mixed up with the technical characteristics of a vehicle. The technical characteristics of the vehicle (which certainly have impact on the compatibility with the network) are recorded in the technical file and should not be indicated as restrictions.

6.6.2. Registration of Vehicles with GSM-R but without ETCS

6.6.2.1. For a vehicle equipped with GSM-R but without ETCS (i.e. only part of the ERTMS) and a class B signalling system the restrictions should be coded as follows:

- 2.4 (Category=2, Type=4) and
- 2.5.1XX (Category=2, Type=5, Signalling system=1 and “XX” for the class B signalling system).

6.6.2.2. According to the restriction coding there is no distinction between vehicles equipped with both ETCS and GSM-R and vehicles equipped with GSM-R only. This distinction can be indicated in the non-coded restrictions field, for example with a text “no ETCS on board”.

6.6.3. Registration of Vehicles with a Signalling System not Covered by the CCS TSIs

6.6.3.1. Appendix 1 of the Annex of the NVR Decision makes reference to the numerical coding of Class B systems listed in Annex B of the CCS TSI.

6.6.3.2. For example for a vehicle equipped with signalling system “ZUB 123” and radio system “UIC Radio Chapter 1-4+6” restrictions should be coded as follows:

- 2.5.123 (Category=2, Type=5, Signalling system=1 and “ZUB 123”=23) and

- 2.5.202 (Category=2, Type=5, Radio system=2 and “UIC Radio Chapter 1-4+6”=02).
- 6.6.3.3. The list of Class B systems does not provide an exhaustive inventory of signalling and radio system that exist today in the European Union rail system. There are vehicles equipped with other CCS systems (not listed in Annex B of the CCS TSI). In this case, the restriction may be recorded in the field for non-coded restrictions.

6.6.4. Non Coded Restrictions

- 6.6.4.1. On that field only these restrictions should be indicated which have not been coded and added to the reference list. Field length is 1024 characters.
- 6.6.4.2. In order to facilitate the management of the registration of non coded restrictions in the EU multilingual environment, these non coded restrictions should be “pre-coded” according the procedure described in Technical Document of the Agency ERA/TD/2011-09/INT.

6.7. Owner (item No 7)

- 6.7.1. The NVR is not a property register. Indication of the owner is included mainly for enabling the RE or the NSA to contact him if need be.
- 6.7.2. The owner as such does not play any particular role from the point of view of vehicle registration nor its operation. Taking this into account the indication of the owner should not be considered as a critical issue and its absence should not be an impediment to the registration of the vehicle.

6.8. Vehicle Keeper Marking – VKM (item No 8)

- 6.8.1. If available, VKM as provided for in Annex P.1 of CR TSI OPE and contained in the common ERA/OTIF list of VKM published on the ERA website should be recorded. Taking into account the diversity of special characters in EU languages and for facilitating searches through VVR, the unique code of VKM should be indicated, as explained in “Rules for registration of a vehicle keeper marking code” (e.g. OBB for Österreichische Bundesbahnen).
- 6.8.2. For further information about VKM refer to Annex P 1 of TSI OPE [7] and “Rules for registration of a vehicle keeper marking code” [6].

6.9. Withdrawal (item No 10)

- 6.9.1. For a vehicle whose registration is valid this field should indicate “00” “None”.
- 6.9.2. Withdrawal mode “10” “Registration suspended. No reason specified” should be used in situations when because of a certain reason the vehicle *“may not operate on the European railway network under the recorded registration”*, but this situation may be

corrected in the future. For example, this mode may be used *“if on the date of de-registration of the currently registered keeper no new keeper has accepted the keeper status”* (section 3.2.3 of the Annex of the NVR Decision) or *“if on the date of de-registration of the former entity in charge of maintenance any new entity has not acknowledged its acceptance of entity in charge of maintenance status”* (Article 5 of the Annex of Regulation (EU) No 445/2011 on ECM Certification).

6.9.3. In the cases of a change of the EVN after an upgrade (see also section 6.1.2), the withdrawal code should be “20” “Registration transferred”. It should be noticed that in this case the vehicle still exists and may be used on the network.

6.9.4. In the cases of suspended or transferred registration (withdrawal modes “10”, “11” and “20”) the data should stay in the register and available online.

6.10. Entity in Charge of Maintenance (item No 9)

6.10.1. The organisation that has to be indicated in this field is the "Entity in charge of maintenance" as defined in Article 14(a) of Safety Directive (2004/49/EC as amended by 2008/110/EC). This entity has to be assigned to a vehicle *“before it is placed in service or used on the network”*.

6.10.2. Safety Directive does not specify who designates the ECM. It cannot be directly assumed that the role of ECM is by default assigned to that or that organisation.

6.10.3. Keeper (registration holder) should provide the information on the ECM (including its registered business number) and according to Article 33(3) of the Interoperability Directive “immediately declare any modification”. This includes information on the ECMs for the existing vehicles.

6.10.4. For new vehicles the ECM has to be indicated on the application form.

6.11. Member State(s) where the Vehicle Is Authorised (item No 11)

6.11.1. Difference between the “registration” and “authorisation” of a vehicle should be kept in mind here. Vehicle may be authorised in several MS but registered in only one NVR.

6.11.2. This field should indicate the MSs where the vehicle has been granted an authorisation for placing in service, not the MS where the vehicle does not need an authorisation for placing in service. For example:

- vehicles of the HS Thalys trains that run from Paris to Brussels have been granted authorisations for placing in service in FR and BE, therefore the FR NVR where they are registered should show in field 11 FR and BE;
- vehicles authorised in DE do not need an additional authorisation for placing in service in AT (AT decided so in accordance with Articles 23 and 25 of the Interoperability Directive), they may be operated in AT but there is no Austrian authorisation for placing in service, therefore the DE NVR where they are registered should not show AT in field 11;



- wagons in conformity with clause 7.6.5 of WAG TSI do not need any additional authorisation for placing in service; their first authorisation for placing in service is valid in all EU MS), therefore field 11 should not show any MS in addition to the one where the authorisation has been granted, but it should indicate that the wagon is in conformity with clause 7.6.5 of WAG TSI (TEN marked);
- existing RIV and RIC vehicles *“should be indicated as such”*, i.e. field 11 should show “RIV” or “RIC” respectively (this information is indicated by the RE of the MS where the vehicle is registered) without indication of any MS.

(In the sNVR the list of MSs in field 11 is generated automatically on the basis of recorded authorisations).

6.11.3. This field should indicate the MSs where the vehicle has been granted an authorisation for placing in service, regardless the geographical scope for which this authorisation is valid or other restrictions. E.g.:

- if a vehicle has been granted an authorisation for placing in service in a MS, but this authorisation is restricted for border stations (the vehicle may run till the border stations but not beyond), field 11 should indicate the country code of this MS and field 6 should indicate the corresponding restriction;
- if a vehicle does not need an authorisation for placing in service in a MS for operating till the border stations (i.e. the MS has decided so in accordance with Article 23 or 25), field 11 should not indicate the country code of this MS.

6.12. Authorisation Number (item No 12)

- 6.12.1. This is the European Identification number (EIN) of the authorisation for placing in service of the vehicle. NSA assigns the document a number when issues it.
- 6.12.2. This should be the applicable (latest) authorisation for placing service. For example, after an authorisation following a renewal or upgrading the new authorisation number has to be registered.
- 6.12.3. Format of the EIN is given in the Appendix 2 of the Annex of the NVR Decision.

6.13. Date of the Authorisation (for placing in service) (item No 13.1)

- 6.13.1. This is the date of the authorisation for placing in service indicated in field 12.

6.14. Authorisation (for placing in service) Valid until (item No 13.2)

- 6.14.1. Last date when the authorisation is valid should be indicated in this field (if validation period is restricted). This could happen in some cases (e.g. HS vehicles or prototypes) where the authorisation might be valid for a given period.

6.15. General Remark for Registration of Existing Vehicles

- 6.15.1. If any obligatory data are missing for the existing vehicles they should be required from the keepers (registration holders). Uncertain information (e.g. based on assumptions) should not be recorded in the register except the manufacturing year which may be estimated.

6.16. Application Form for Registration of a Vehicle(s)

- 6.16.1. Paper or electronic application forms based on Decision 2007/756/EC Appendix 4 should be used.
- 6.16.2. In order to facilitate filling in the application forms intended for REs of different MSs, these forms should not change the structure and the logic of the form provided for in Decision 2007/756/EC Appendix 4.
- 6.16.3. In the cases where additional fields have been added to the NVR, these fields should be clearly separately identified in the application form.
- 6.16.4. For registration, update of information or withdrawal of several vehicles an annex with a list of vehicles indicating their number and, if applicable, the previous number and other data that change from one vehicle to the other may be used.

6.17. Multilingual Form – Annex to the Authorisation for Placing in Service

- 6.17.1. Multilingual form in all official EU languages includes the fields for the information on the additional authorisation for placing in service to be recorded in the NVR. The form was prepared with the help of ECVVR workshop members by ERA.
- 6.17.2. The form should be annexed to the authorisation for placing in service documents. The multilingual form facilitates the communication of the information on additional authorisations granted in different MS. This information has to be communicated by the vehicle keeper (registration holder) to the RE maintaining the NVR in the MS where the vehicle has got its 1st authorisation for placing in service and is registered.
- 6.17.3. The form consists of
- one page in one of the languages of the MS of the NSA that granted the additional authorisation for placing in service and
 - translation into all other EU official languages overleaf.

6.18. Data to be transferred from one NVR to another in order to be in accordance with the NVR Decision update [4]

- 6.18.1. Information about the authorisations shall be transferred to the NVR, where the vehicle has registered its first authorisation for placing in service.

6.18.2. Following information shall be exchanged between RE:

EVN (European Vehicle Number),
MEMBER_STATE (MS country code where the authorisation for placing in service is issued),
MEMBER_NSA (Name of the NSA, that issued the authorisation for placing in service),
EIN (European Identification Number),
AUTHORISATION_DATE (Date when the authorisation for placing in service was issued),
EXPIRATION_DATE (Date when the authorisation for placing in service to be expire),
CODEDRESTRICTIONS (Codes of restrictions),
NONCODEDRESTRICTIONS (text of non-coded restrictions),
SUSPENDED (If the authorisation for placing in service is suspended or not)

6.18.3. Registration holder should be informed about the data transfer before the process and the end of the process.

7. CASE STUDIES

7.1. Introduction. Who Can Apply for Registration of a Vehicle

7.1.1. As a general comment, the nationality of a keeper (applicant and registration holder) has nothing to do with where the vehicle is registered. There is no link between these two subjects.

7.1.2. Example:

- A keeper from MS A wants to place in service a vehicle in MS B. NSA of MS B grants the “first authorisation for the placing in service” (Art 22 or 24 of 2008/57/EC) and the vehicle is registered by the RE of MS B in the NVR. Third and fourth digits of the EVN are those corresponding to the MS B. The keeper from MS A is registered in the NVR of the MS B with all his contact details.
- After that this keeper transfers the vehicle to a keeper from MS C.
- The vehicle continues to be registered in the NVR of the MS B with the same EVN; the only change is the information about the keeper.

7.1.3. Then, if the keeper (whatever his nationality is) intends to operate the vehicle in MS D he has to apply for “additional authorisation for placing in service” (Art 23 or 25 of 2008/57/EC). NSA of MS D grants this authorisation and

if the NVRs involved are not yet connected to the VVR (this is only possible during the transition period till 31 December 2011):

- (a) If the vehicle has a driving cab (is neither a freight wagon nor a passenger car): the vehicle should be registered (only items 1; 2; 6; 11; 12; 13 as stated in section 3.2.5 of the Annex to the NVR Decision) by the RE of the MS D in the NVR with the same EVN; in the NVR of MS D it should be indicated that the vehicle is also authorised in the MS B and in the NVR of the MS B it should be indicated that the vehicle is also authorised in the MS D,
- (b) If the vehicle has no driving cab (is a freight wagon or a passenger car): the vehicle should not be registered in the NVR of MS D;
- (c) in the NVR of MS B it should be indicated that the vehicle is also authorised in the MS D.

The keeper (registration holder) should receive from the NSA of the MS D the multilingual annex to the authorisation for placing in service and transmit to the RE of the MS B.

if the NVRs involved are connected to the VVR:

The vehicle should not be registered in the NVR of MS D; in the NVR of the MS B it should be indicated that the vehicle is also authorised in MS D.

The keeper (registration holder) should receive from the NSA of the MS D the multilingual annex to the authorisation for placing in service and transmit it to the RE of the MS B.

Registration holder is responsible for updates of all information registered or to be registered. See Art 33 (2) of 2008/57/EC

Apart from the legal obligations a close cooperation between REs and NSAs in order to simplify administrative procedures is recommended.

7.2. First Registration of a Vehicle in a MS

7.2.1. "First registration" means the vehicle is registered in an NVR for the first time.

7.2.2. When a vehicle has been granted a first authorisation for placing in service in the meaning of Art 22 or 24 of the Interoperability Directive it should be registered in the NVR of the MS that has granted this first authorisation.

Table 6: Steps in a first registration of a vehicle.

Step	Responsible actor
1. Application for an authorisation for placing in service (Art 22 or 24 of the Interoperability Directive)	Applicant for APIS
2. Authorisation for placing in service (Art 22 or 24 of the Interoperability Directive)	NSA
3. Application for registration	Applicant for the registration
4. Assignment of the EVN (section 3.2.2 of the Annex to the NVR Decision)	RE
5. Introduction of data into the NVR	RE

Steps 1 and 3 as well as steps 2 and 4 may be combined, take place in parallel or in other sequence, depending on the MS's internal procedures (NSA + RE).

7.3. Registration of an Additional Authorisation Granted in Another MS

7.3.1. When a vehicle has been granted an additional authorisation for placing in service in the meaning of Art 23 or 25 of the Interoperability Directive, the additional authorisation of this vehicle should be registered in the NVR of the MS that granted its first authorisation (according to Article 3.1 and Section 3.2.5 of the Annex of the NVR Decision). It means all information about the vehicle and its authorisations is kept in one register through the whole lifecycle of the vehicle.

Table 7: Steps in an additional registration of a vehicle.

Step	Responsible actor
1. Application for an additional authorisation for placing in service (Art 23 or 25 of Interoperability Directive)	Applicant for APIS
2. Additional authorisation for placing in service (Art 23 or 25 of Interoperability Directive) and issue of the multilingual form to the applicant.	NSA of the MS of additional authorisation
3. Application for registration of additional authorisation in the MS of the vehicle first authorisation (EVN filled in by the applicant), presenting multilingual annex of the additional authorisation.	Registration holder
4. Introduction of data into NVR in the MS of vehicle first authorisation (items 2, 6, 12 and 13) and update of field 11.	RE of the MS of vehicle first authorisation

7.4. Modification of Data

7.4.1. Modification of Data Related to Keeper, Owner or ECM of a Registered Vehicle

7.4.1.1. This section applies to the modification of data recorded in fields 7, 8, 9. For example, change in the address, change in the name of organisation, etc., but without a transfer of the vehicle from one keeper or owner or ECM to another.

7.4.1.2. These data are recorded in only one NVR (In the MS where the vehicle has got its first authorisation). RE should change them following a request from the registration holder. There is no need to communicate these changes to other REs (applicable also during the transition period).

7.4.1.3. In the cases where the IT system uses reference data, if address of an ECM changes it is changed in the system even for the keepers who did not asked for a change.

7.4.2. Change of Owner or ECM of a Registered Vehicle

7.4.2.1. This section applies to the data recorded in fields 7 or 9. For example, if a vehicle is transferred from one owner or ECM to another without changing the keeper.

7.4.2.2. For any vehicle these data are recorded in only one NVR. RE should change these data following a request from the Registration holder (applicable also during the transition period).

7.4.2.3. There is no need to communicate these changes to other REs.

Table 8: Steps in a modification of data related owner or ECM.

Step	Responsible actor
1. Application (EVN filled in by the applicant) to be submitted to RE where the vehicle is registered with these data	Registration holder
2. Update of data according to the application in the NVR	RE of the MS of vehicle first authorisation

7.4.3. Change of the Keeper of a Registered Vehicle

7.4.3.1. If the keeper changes the procedure as set out in 3.2.3 of the Annex to The NVR Decision [4] must be applied.

7.4.4. Split/ Merger of Two or More Organisations

7.4.4.1. If new companies are created or existing ones are modified (by e.g. split or merging of companies), then the registration holder must inform the REs regarding any necessary changes to the data in the respective NVRs as described in Section 7.4.2.

7.5. Modification of Data of a Vehicle after an Upgrade or Renewal

7.5.1. In a case of an upgrade or renewal that requires a new authorisation for placing in service the original registration is no longer valid and should be indicated as suspended (code 10).

7.5.2. The following process slightly differs depending on whether the EVN has to be changed or not. When as result of an upgrade or renewal the technical characteristics of a vehicle have changed in such a way that the original EVN does not correspond (according to Annex P of OPE TSI) to the new technical characteristics of the vehicle, the vehicle should be given a new EVN. In this case the upgraded or renewed vehicle may need to go through the authorisation process in all the MS where the vehicle is intended to be placed in service (according to Chapter V (Articles 21 – 27) of the Interoperability Directive). This may include national codification rules established by the MS in conformity to TSI OPE Annex P.8. In all other cases the EVN should not be changed.

7.5.3. In case of a non-amended EVN the process for update of data has to be applied.

Table 9: Steps in a modification of data after an upgrade with no new EVN.

Step	Responsible actor
1. (New) First authorisation for placing in service (Art 22 or 24) after upgrading or renewal	NSA
2. Decision that assignation of new EVN is not required	RE
3. Application for modification of data in the register indicating data related to the new authorisation for placing in service EVN has to be indicated in the application (field 1.1)	Registration holder
4. Update of data related to authorisation into NVR and change of the withdrawal code back to "00".	RE

Table 10: Steps in a modification of data after an upgrade with a new EVN.

Step	Responsible actor
1. (New) First authorisation for placing in service (Art 22 or 24) after upgrading or renewal	NSA
2. Decision that Assignation of a new EVN is required	RE
3. Application for withdrawal (code 20) of former registration (EVN filled in by the applicant) to be submitted to RE where vehicle (or its authorisation) is registered	Registration holder
4. RE s confirm withdrawal of former EVN	RE
5. Registration of new EVN in NVR with indication of former EVN indicating data related to the new authorisation for placing in service	RE
6. RE notifies applicant about the new EVN	RE

7.5.4. The above-indicated process is only applicable if the new authorisation is sought in the same MS where the vehicle was first authorised before upgrading.

7.5.5. For new additional authorisations steps described in table 7 or 8 must be followed.

7.6. Withdrawal of a Registration

- 7.6.1. Withdrawals will be coded according to Appendix 3 of the NVR Decision. A vehicle with registration suspended or withdrawn may not operate on the European railway network under the recorded registration.

Table 11: Steps in a withdrawal of a registration.

Step	Responsible actor
1. Application (EVN filled in by the registration holder) to be submitted to the RE where vehicle is registered	Registration holder
2. Withdrawal indicating the code according to Appendix 3 of NVR Decision	RE/REs

7.7. Communication between a Registration Holder and a RE from another MS

- 7.7.1. In principle, vehicles will be registered for their lifetime in the NVR of the MS where they were granted the first authorisation for placing in service, regardless of possible transfers of the vehicle from one keeper to another across the European Union territory. This may lead to practical difficulties (e.g. language) in the communication between Registration Holders and Registration Entities from different MSs.

In order to facilitate exchange of information between registration holders and REs from different MS following approaches have been developed:

- Multilingual form for registration of additional authorisations
- Pre-codification of restrictions

8. AVAILABILITY OF THE ECVVR

Most of the NVRs are foreseen to be up and running and connected to the VVR 7 days a week 24 hours a day. Some NVRs may be accessible during different working hours as well accessibility might be complicated during different public holidays.

Updates and modifications are done during normal business hours.

NVRs may be disconnected from VVR for maintenance work. VVR may be unavailable because of maintenance of the system out of working hours.

If some of NVRs are not connected to the VVR, the user will be notified after search request from which country data cannot be retrieved as the NVR is not connected.