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ACCOMPANYING REPORT 013REC1005/ACR TO THE RECOMMENDATION OF THE EUROPEAN UNION AGENCY FOR RAILWAYS

on

European Vehicle Register (EVR)

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1. Executive summary

Note *This report has been prepared by the Interoperability Unit of the Agency. It has been discussed with the EVR WP. Formal comments received from the WP members will be included in an Annex.*

Legal base Article 47(5) of [L1] Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2017 on the interoperability of the rail system within the European Union, Articles 19 and 37 of [L2] Regulation (EU) 2016/796 and [D1] Agency's Single Programming Document 2017 – Activity 4.14.

Objective of the task The objective of the project is to draft the technical and functional specifications of the European Vehicle Register (EVR), as described in Article 47(5) of [L1] Directive (EU) 2016/797 with the aim to:

- reduce administrative burdens and undue costs for Member States and stakeholders,
- provide a harmonised interface to all users for the registration of vehicles and data management

Output of the task The project output is an Agency Recommendation on the technical and functional specifications for the European Vehicle Register (EVR).

Assessment of the architectural scenarios for the EVR A list of possible architectural scenarios have been defined.

In the qualitative analysis the scenarios have been assessed in their capacity to support the EVR requirements (to provide a harmonised interface for the registration of vehicles and data management, to reduce administrative burden and avoid undue costs, to facilitate the possible reuse of the existing IT tools and to enable the compatibility with Member State specific functions while providing a high level of system flexibility).

The quantitative analysis includes in particular: (1) cost impact for the Agency distinguishing between one-off costs and recurring costs per annum; (2) cost impact for the registration entities / NSAs distinguishing between one-off costs and recurring costs (per annum); (3) potential time savings for

registration entities per annum (in monetary terms). Overall, the quantitative analysis suggest that Scenario 1 is in fact having a higher Net Present Value (NPV) than Scenario 1quater given the stronger possibility for reduced administrative burden / costs along with lower implementation costs. However, both Scenario 1 and 1quater have positive NPV values. One benefit driver that has not been possible to monetize is the advantages represented by EVR system flexibility. This element clearly would have increased the overall benefits of Scenario 1quater compared to Scenario 1.

Drawing on both the qualitative and quantitative assessment Scenario **1quater** would be the preferred option as the result of scoring the highest in effectiveness and obtaining the highest possible score in terms of efficiency. Scenario 1quater is followed very close by Scenario 1.

Overall, Scenario 1quater resulted the best option.

2. Introduction

In June 2016 the technical pillar of the Fourth Railway Package entered into force:

- [L1] DIRECTIVE (EU) 2016/797 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the interoperability of the rail system within the European Union.
- [L2] REGULATION (EU) 2016/796 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004.
- [L3] DIRECTIVE (EU) 2016/798 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 May 2016 on railway safety.

Article 47 of DIRECTIVE (EU) 2016/797 requires the European Commission to adopt by means of implementing acts the technical and functional specifications for the European Vehicle Register on the basis of a recommendation of the Agency.

This report accompanies the Agency Recommendation on the technical and functional specifications for the European Vehicle Register, which are intended to replace the current NVR Decision (Decision 2007/756/EC amended by Decision 2011/107/EU and Decision 2012/757/EU).

3. Working method

3.1. Workgroup

For drawing up the Recommendation, the Agency established a Working Party in accordance with Articles 19 and 37 of [L2] Regulation (EU) 2016/796 (Agency Regulation).

The following Representative Bodies participated in the working party: CER, EIM, ERFA, UIP, and UNIFE.

The following NSAs appointed representatives for the working party: Austria, Belgium, Bulgaria, Croatia, Denmark, Finland, France, Germany, Italy, Ireland, Lithuania, Luxembourg, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, and the United Kingdom.

Considering the accession of the European Union to the COTIF in 2011 and in order to cooperate on the vehicle-related registers which are equivalent in OTIF law and EU law, OTIF representative participated in the working party as observer in accordance with Article 5 and 8 of the [D3] “Administrative Arrangements between OTIF, Agency and DG-Move”.

The table below indicates all the WP meetings that were held during the EVR project.

Table 1: Calendar of meetings

Meeting	Duration	Date
WP kick-off meeting	1 day	15/02/2017
WP 2nd meeting	1 day	21/03/2017
WP 3rd meeting	1 day	25/04/2017
WP 4th meeting	1 day	30/05/2017
WP 5th meeting	2 days	03/07/2017 04/07/2017
WP 6th meeting	1 day	07/09/2017
WP 7th meeting	2 days	14/11/2017 15/11/2017

3.2. Methodology

The paragraph describes the main steps taken by the working group to achieve the expected final output, i.e. the draft EVR specifications:

1. Analyse the legal requirements and identify the objectives of EVR.
2. Identify and analyse the aspects of the current situation that need to be amended in order to achieve such objectives.
3. Identify the key aspects overarching the EVR solution. Define the functional and non-functional requirements of the EVR system.
4. Describe and analyse the architectural scenarios for the EVR.
5. Perform a qualitative and quantitative assessment of the scenarios. Identify the best architectural scenario.
6. Draft the technical and functional specifications of EVR.

4. Legal analysis

The sections below provide the analysis of the provision on:

- the registration of vehicles in [L1] DIRECTIVE (EU) 2016/797;
- the assigning of the European vehicle number and the registration in the EVR of the entities in charge of maintenance of vehicles in [L3] [L1]DIRECTIVE (EU) 2016/798;

- the setup and maintenance of the European vehicle register in [L2] REGULATION (EU) 2016/796;
- (national) vehicle registers in COTIF.

4.1.1. Provisions in [L1] DIRECTIVE (EU) 2016/797

Whereas 57 provides that “To ensure traceability of vehicles and their history, the references of the vehicle authorisations for placing on the market should be recorded together with other vehicle data”; therefore, the EVR should record the references of the vehicle authorisations.

According to Article 22:

- “Before a vehicle is used for the first time, and after the authorisation to be placed on the market in accordance with Article 21 is granted, it shall be registered in a vehicle register as referred to in Article 47”.
- The vehicle is registered “at the request of the keeper”.
- The vehicle is registered in the vehicle register of one Member State covered by the area of use of the vehicle.

According to Article 23(1), railway undertakings before using a vehicle in the area of use specified in its authorisation for placing on the market “shall check that the vehicle has been authorised for placing on the market in accordance with Article 21 and is duly registered”.

Article 46(1) specifies that “upon registration in accordance with Article 22, each vehicle shall be assigned a European vehicle number (EVN) by the competent authority in the Member State of registration” and that “Each vehicle shall be marked with an assigned EVN”.

Article 46(3) provides that “Each vehicle shall be assigned an EVN only once, unless otherwise specified in the measures referred to in Article 47(2), in accordance with the relevant TSI”.

Article 47(5) requires:

- An ERA recommendation on the technical and functional specifications of the EVR.
- A cost-benefit analysis.
- An implementing act to be issued by 16 June 2018.
- EVR to be operational by 16 June 2021.

In addition, Article 47(5) introduces the European Vehicle Register and indicates the following requirements:

- It should reduce administrative burdens and undue costs for Member States and stakeholders.

- It should incorporate the national vehicle registers (“with a view to creating a common tool, while, at the same time, allowing for the maintenance of additional functions relevant to Member States’ specific needs” - Whereas (56)).
- It should provide a harmonised interface to all users for the registration of vehicles and data management.
- It shall be developed taking into consideration the IT applications and registers already set up by the Agency and the Member States, such as the European Centralised Virtual Vehicle Register connected to the national vehicle registers.

Article 47(7) requires that for vehicles coming from third countries, the information on keeper, ECM and restrictions is available via a vehicle register or in an equivalent way (“*in an easily readable format*”).

4.1.2. Provisions in [L3] DIRECTIVE (EU) 2016/798

Article 14(1) indicates that “*each vehicle... shall have an entity in charge of maintenance assigned to it and this entity shall be registered in the vehicle register...*”.

Article 16 (2.e) provides that “*... the national safety authority shall be entrusted with... the following ensuring that a vehicle number has been assigned...*”

4.1.3. Provisions in [L2] REGULATION (EU) 2016/796

Article 37(1) assigns to the Agency the tasks of setting up and maintaining, if relevant in cooperation with the competent national actors, the European Vehicle Register (EVR)

In addition, Article 37(2) provides that the Agency shall act as the system authority for all registers and databases:

- developing and maintaining specifications of the registers;
- coordinating developments in the Member States in relation to the registers;
- providing guidance on the registers to relevant stakeholders;
- addressing recommendations to the Commission regarding improvements to the specifications of existing registers and
- any need to set up new registers or databases.

Finally, Article 37(3) indicates that “*The Agency shall make the following documents and registers publicly available...(h) the vehicle registers referred to in Article 47 of Directive (EU) 2016/797, including via the links to relevant national registers*”.

4.1.4. Relevant provisions in COTIF

There are also binding provisions in ATMF (Appendix G of COTIF) which concern vehicle registers. In particular, Article 13 paragraphs 1, 4, 5 and 6:

- “§ 1 A national vehicle register (NVR) shall be set up according to the specifications adopted by CTE in the form of an electronic data bank containing information concerning the railway vehicles in respect of which a C§ 1 A national vehicle register (NVR) shall be set up according to the specifications adopted by CTE in the form of an electronic data bank containing information concerning the railway vehicles in respect of which a Certificate of Operation has been issued. The register shall also include railway vehicles admitted according to Article 19; it may contain railway vehicles admitted for national traffic only.[...].
- § 4 The Committee of Technical Experts is competent to decide on modifications to or the merging or withdrawal of the registers and databases referred to in this Article. The Committee of Technical Experts shall establish the functional and technical architecture of the registers specified in this Article and may also specify the data to be contained, when and how the data shall be provided, what the access rights will be and other administrative and organisational provisions, including which database structure should be applied. In all cases, change of keeper, change of ECM, withdrawals from service, official immobilisations, suspensions and withdrawals of certificates, declarations or other evidence and modifications to a vehicle which derogate from the admitted type of construction shall be notified by the registration holder to the entity keeping the register without delay.
- § 5 When applying this Article, the Committee of Technical Experts shall consider registers set up by Contracting States and regional organisations in such a way so as to reduce undue burden on the involved parties such as regional organisations, Contracting States, competent authorities and industry. In order also to minimise the cost for the Organisation and obtain coherent register systems, all parties involved shall coordinate with the Organisation their plans and the development of registers which are within the scope of these Uniform Rules.
- § 6 The data registered in the data bank according to § 1 shall be considered as prima facie evidence of the technical admission of a railway vehicle.”

The following 16 non-EU Member States apply the ATMF: Albania, Armenia, Algeria, Bosnia and Herzegovina, Switzerland, Liechtenstein, Iran, Morocco, Monaco, Montenegro, FYR Macedonia, Norway, Serbia, Tunisia, Turkey and Ukraine.

Non-EU OTIF Member States, by applying Article 13 ATMF, have the obligation to implement their NVR.

As all EU MSs with a rail network are also OTIF MSs and the EU acceded to COTIF as a regional organisation, the legal provisions of COTIF are also relevant in the context of EVR developments.

The future EVR should therefore also be able to connect with the NVRs of non-EU MSs (e.g. through one common data search and consultation function), so that all NVRs and the EVR continue to be accessible for all users from internet based entry point(s).

5. AS-IS Analysis

The WP analysed the aspects of the current situation that need to be amended in order to achieve the EVR objectives and identified possible solutions (see Annex 4: Survey on NVR problems).

The main problems are:

- The absence of harmonisation of the registration application, e.g. because of different supporting documents requested by the different Registration Entities and difficulties to apply for the registration of list of vehicles.
- A too complex registration process because roles and responsibilities are not sufficiently clear or well described and because of the lack of common approach on electronic transmission of data (applications for registrations/update), documents and notifications.
- complex access to data because no single account to access data on registered vehicles is defined.
- suboptimal data quality is considered an issue, mainly because of a limited or no use of common reference data and a manual handling (re-typing) of data (e.g. from paper forms into electronic form into the registers).
- High maintenance costs because of different vehicle registers with consequent high fees
- Partial support to stakeholders business use cases.

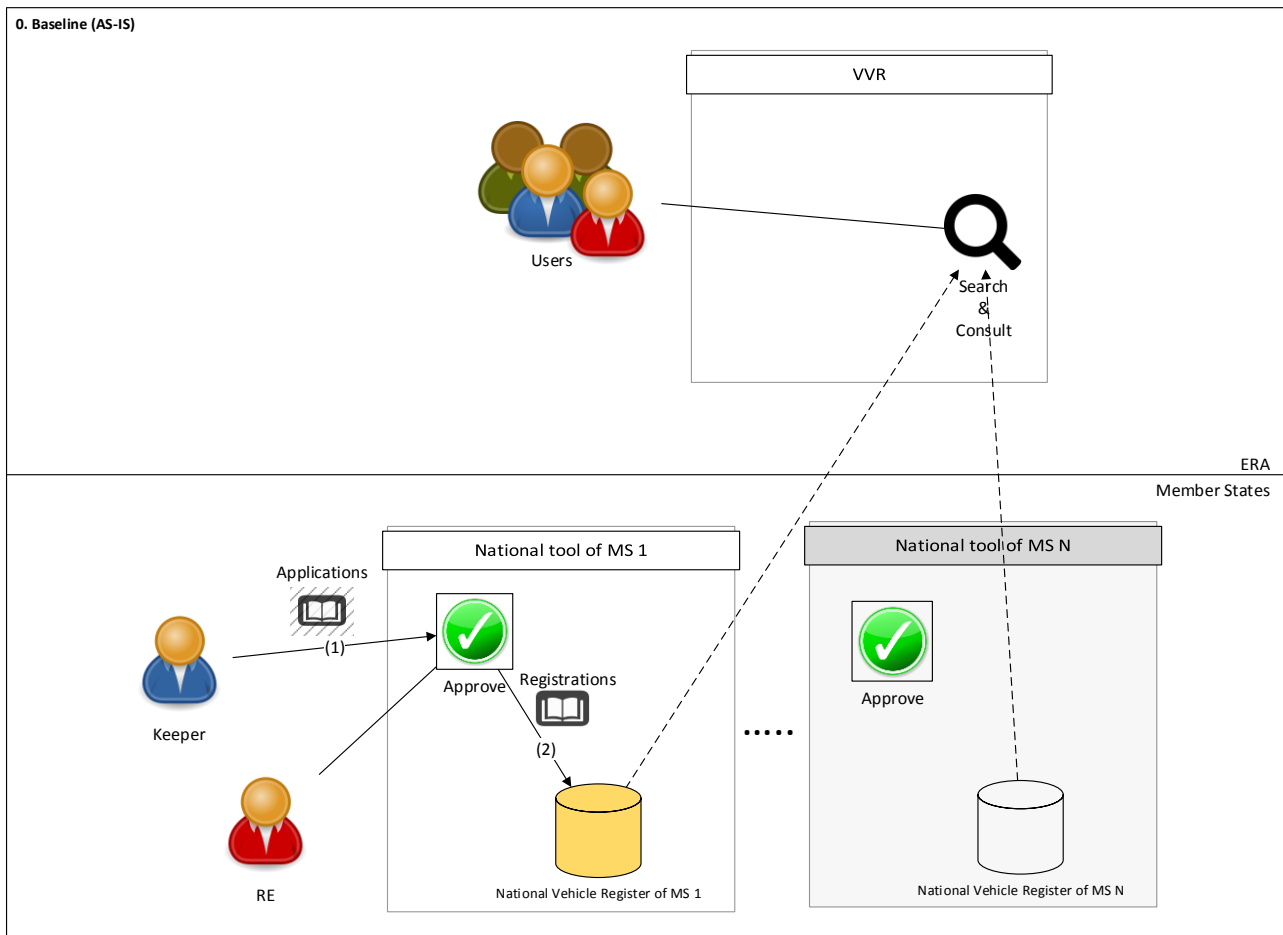
To tackle these problems, some measures were reviewed by the WP Members and included in the EVR requirements (see Annex 5: EVR Requirements).

6. Architectural scenarios for the EVR

6.1. Scenario 0. Baseline (decentralised application, approval and data)

6.1.1. Diagram

Figure 1: Scenario 0



6.1.2. Description

In the baseline scenario, a vehicle is registered in a National Vehicle Register (NVR) at the request of the Keeper.

Applications for registration are usually submitted in paper format to the concerned Registration Entity.

Applications are processed by the registration entity and data is stored in the NVR.

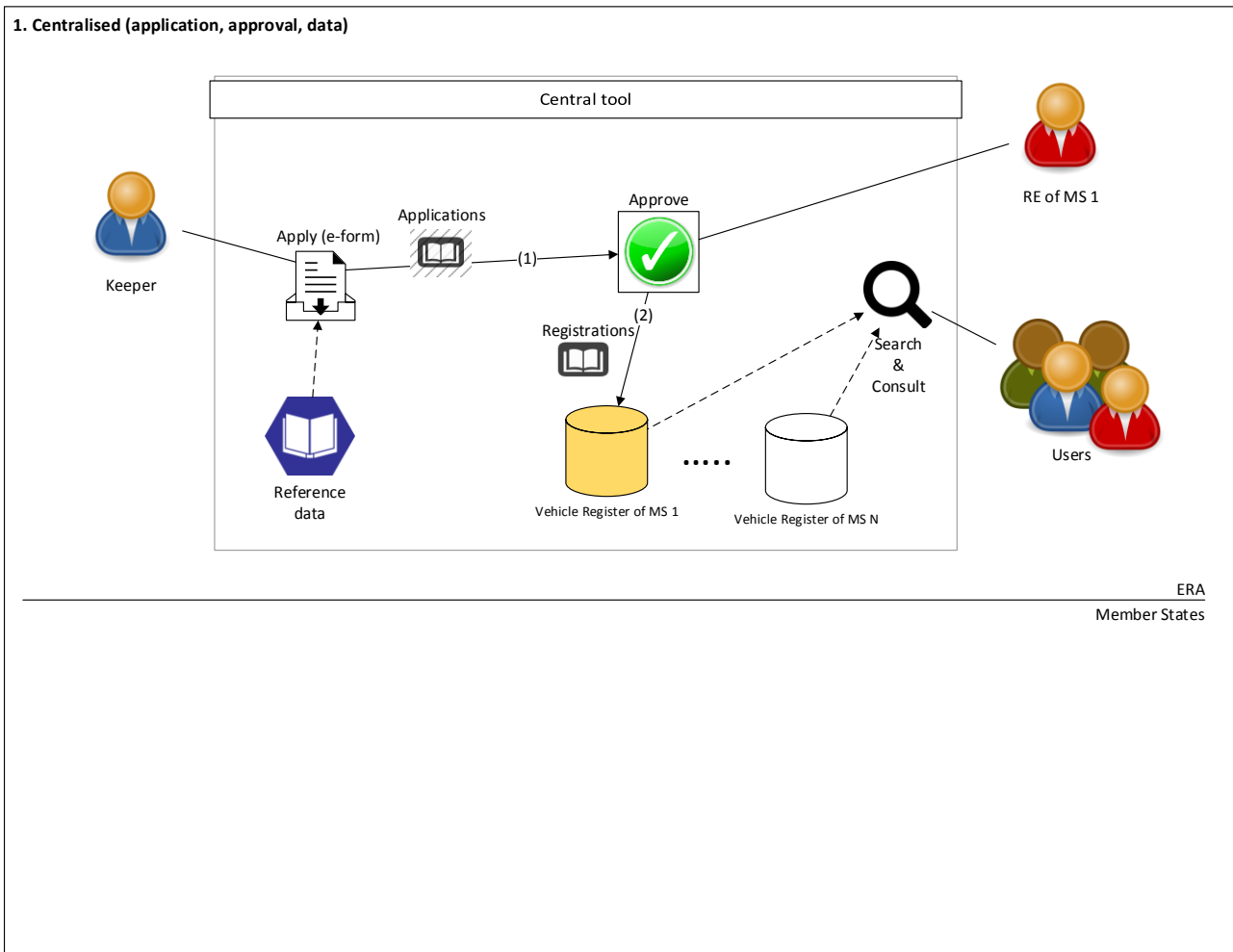
The NVRs are connected to central search engine Virtual Vehicle Register (VVR) in the Agency.

Users can search and consult data in all NVRs via VVR.

6.2. Scenario 1. Centralised (centralised application, approval, data)

6.2.1. Diagram

Figure 2: Scenario 1



6.2.2. Description

In this scenario, a vehicle is registered in the European Vehicle Register (EVR) at the request of the Keeper.

All EVR components are centralised.

Applications for registration are submitted by means of an electronic web-based form.

Common reference data is available.

Applications are processed by the registration entity in the central tool and data is stored centrally.

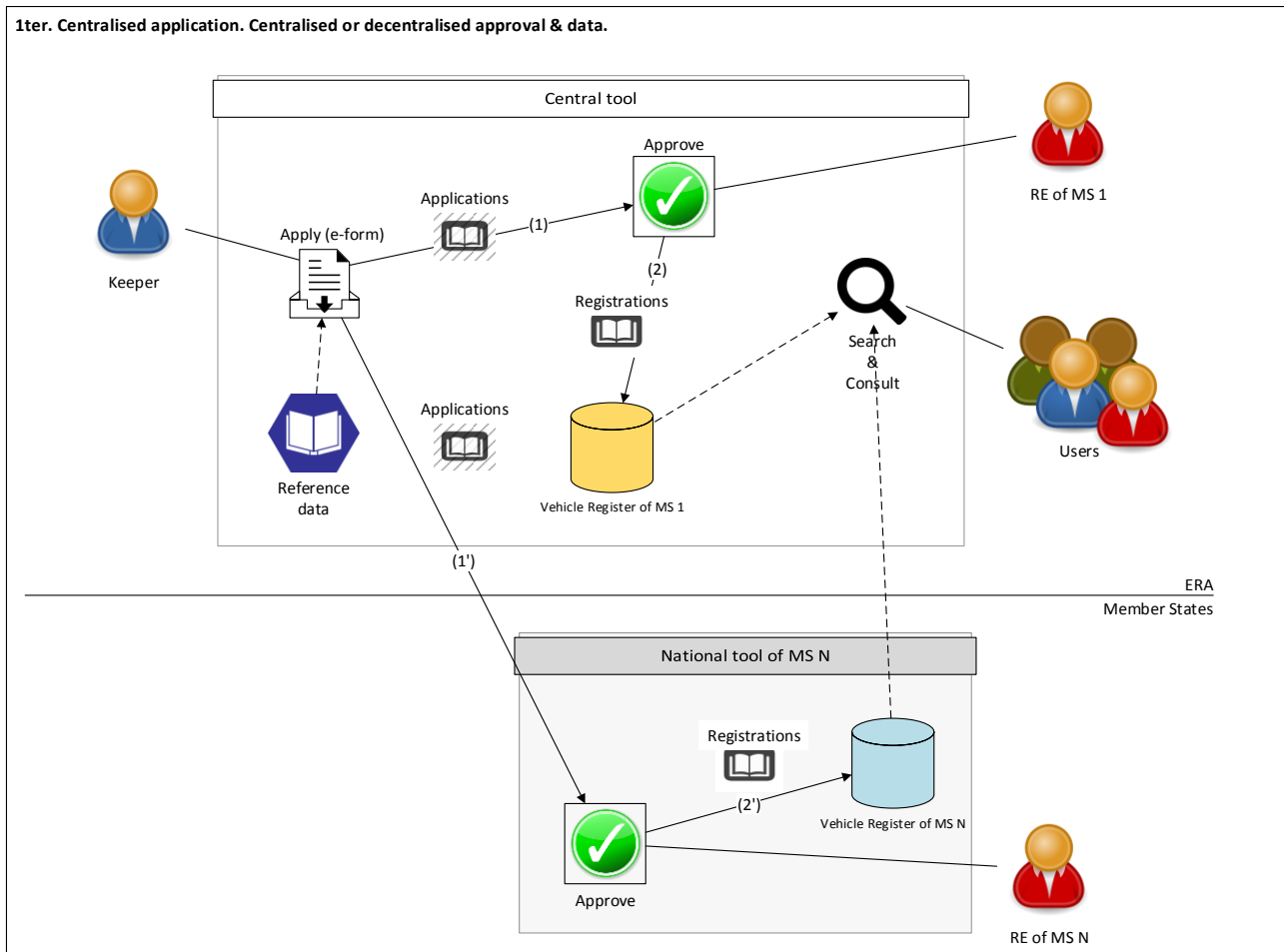
Users can search and consult data via the EVR interface.

REs are able to download data from EVR to their national tools.

6.3. Scenario 1ter. Centralised application (centralised or decentralised approval and data)

6.3.1. Diagram

Figure 3: Scenario 1ter



6.3.2. Description

In this scenario, a vehicle is registered in the European Vehicle Register (EVR) at the request of the Keeper.

EVR is made of centralised and decentralised components.

Applications for registration are submitted by means of a centralised electronic web-based form.

Common reference data is available.

Applications are processed by the registration entity in the central tool (and data is stored centrally) or in decentralised components (where also data is stored) connected to the central tool.

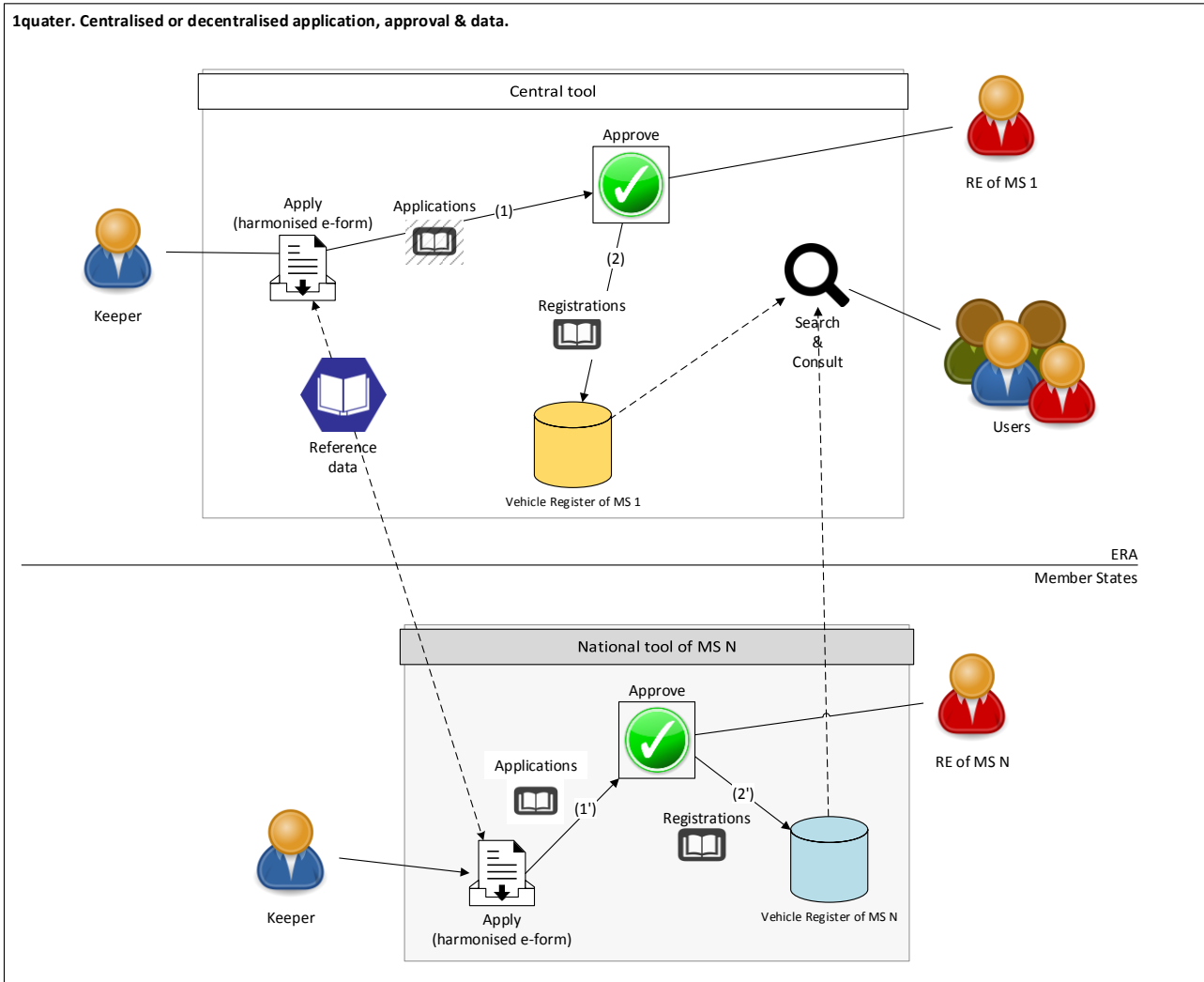
Users can search and consult data via the central tool.

REs are able to download data from EVR to their national tools.

6.4. Scenario 1quarter. Centralised or decentralised (application, approval and data)

6.4.1. Diagram

Figure 4: Scenario 1quarter



6.4.2. Description

In this scenario, a vehicle is registered in the European Vehicle Register (EVR) at the request of the Keeper.

EVR is made of centralised and decentralised components.

Applications for registration are submitted by means of a centralised or decentralised electronic web-based form.

Common reference data is available.

Applications are processed by the registration entity in the centralised tool (and data is stored centrally) or in decentralised components (where also data is stored) connected to the centralised tool.

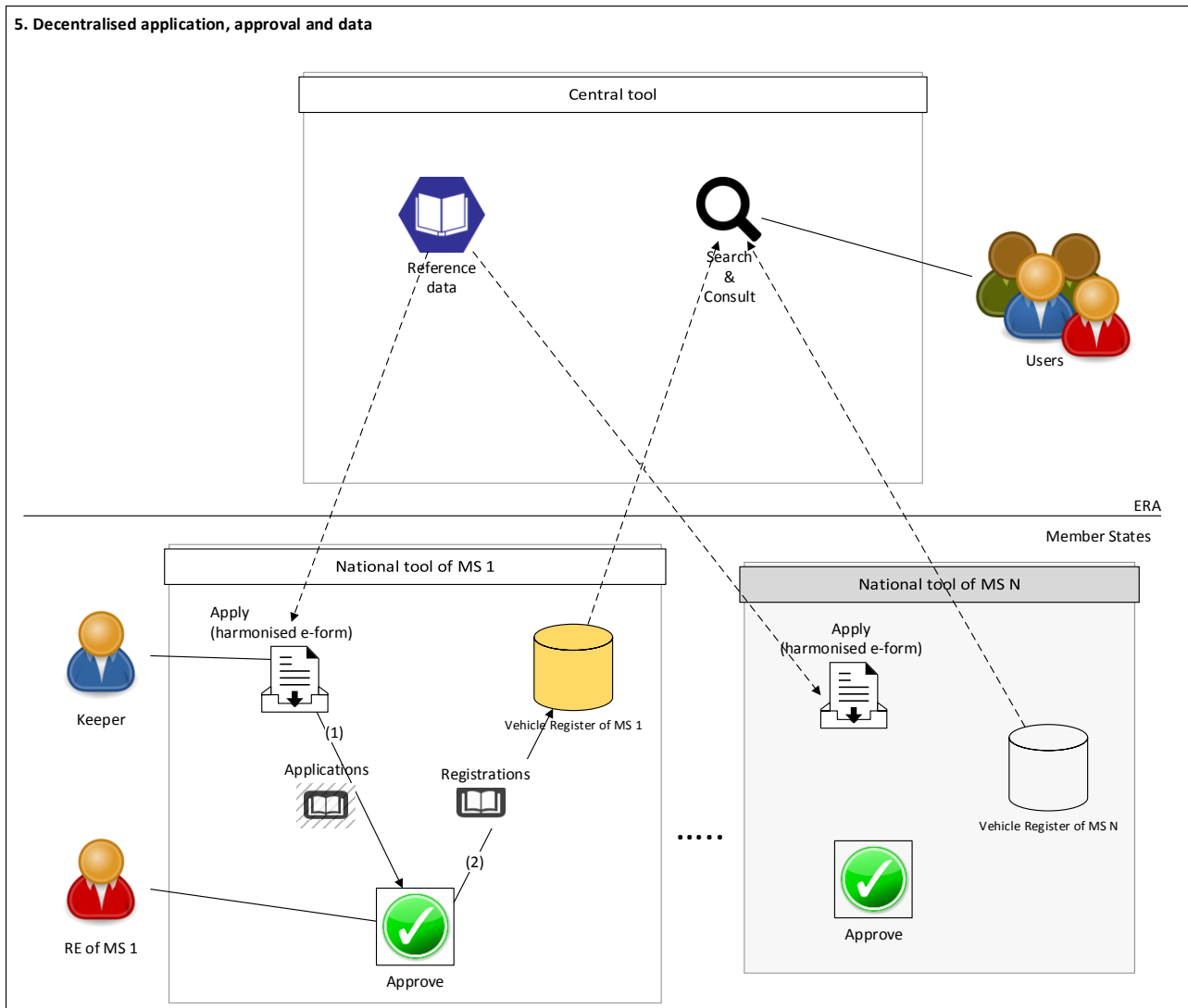
Users can search and consult data via the central tool.

REs are able to download data from EVR to their national tools.

6.5. Scenario 5. Decentralised (application, approval and data)

6.5.1. Diagram

Figure 5: Scenario 5



6.5.2. Description

In this scenario, a vehicle is registered in the European Vehicle Register (EVR) at the request of the Keeper. EVR is made of centralised and decentralised components.

Applications for registration are submitted by means of a decentralised electronic web-based form.

Common reference data is available.

Applications are processed by the registration entity in decentralised components (where also data is stored) connected to the centralised tool.

Users can search and consult data via the central tool.

6.6. Comparison of scenarios

6.6.1. Qualitative assessment

Scenarios are qualitatively assessed in their capacity to support the following objectives:

- To provide a harmonised interface for the registration of vehicles and data management.
- To reduce administrative burden and avoid undue costs.
- To facilitate the possible reuse of the existing IT tools.
- To enable the compatibility with Member State specific functions.

The overall best scoring option is **1**, which appears as the most efficient IT solution but scores low on aspects related to the reuse of existing tools and compatibility with Member States specific needs.

The second best scoring option is **1quater** which presents the following advantages:

- It allows Member States to keep their current tools, provided that a harmonised interface component is developed and deployed.
- It allows Member State to generate savings by moving their registers to the central tool.
- The central tool may be largely realised reusing existing tools: sNVRs (enhanced with the e-form) and VVR hosted in ERA.
- It improves the applicant experience by providing a central portal (directory of links) redirecting to the relevant harmonised e-form.
- The system has the capability to evolve towards a fully centralised EVR (option 1).
- The option does not exclude the possibility of future realization of a single point for the submission of applications (option 1ter).
- It provides a reliable solution where all stages of the registration process are realized within the same IT environment (one responsible entity), without complex interfaces for the transfer of data between different processing systems.

Therefore, **1quater** can be seen as the solution that better balances cost efficiency and tailoring to Member States' specific needs.

The results of the qualitative analysis will need to be verified by the quantitative assessment in the framework of the cost-benefit analysis.

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7. Description of the proposed solution for EVR

7.1. Content

The EVR will contain the information on:

- vehicle identification: assigned EVN and previous vehicle number (if applicable);
- the registering Member State;
- the status of registration;
- the references to the authorisations granted to the vehicle, including status of the authorisation, area of use, conditions of use and other restrictions;
- the manufacturing information (manufacturing year, manufacturing serial number, series, references to the vehicle type the vehicle is in conformity with);
- the identification of the keeper, owner, ECM;
- the reference to the EC Declarations of verifications and its issuing bodies.

7.2. EVR parameters and format of data

Parameter number	Parameter name	Description	Format	Compulsory
1	Vehicle Identification			
1.1	European Vehicle Number	European Vehicle Number. Numeric identification code as defined in Appendix 6.	See Appendix 6 ⁽¹⁾	Compulsory
1.2	Previous vehicle number	Previous number (if applicable, for renumbered vehicle)		Compulsory (when applicable)
2	Member State of Registration			
2.1	Member State of registration	Member State where the vehicle has been registered	2-letter code (*)	Compulsory
3	Member States where the vehicle is authorised			

3.1	Resulting area of use	Field automatically filled in by the system based on the values of parameter 11.4.	Text	Field automatically filled in by the system based on the values of parameter 11.4.
4				
4.1	Additional conditions applicable to the vehicle	Identification of applicable bilateral or multilateral agreements such as RIV, RIC, TEN, TEN-CW, TEN-GE, ...	Text	Compulsory (when applicable)
5	Manufacturing			
5.1	Manufacturing year	Year in which the vehicle left the factory	YYYY	Compulsory
5.2	Manufacturing serial number	Manufacturing serial number as marked on the vehicle frame.	Text	Optional
5.3	ERATV Reference	Identification in ERATV of the authorised ⁽²⁾ vehicle type (or version or variant) the vehicle is in conformity with.	Alphanumeric code(s)	Compulsory (when available)
5.4	Series	Identification of the series the vehicle is part of.	Text	Compulsory (when applicable)
6	References to EC Declarations of verification ⁽³⁾			
6.1	Date of EC declaration	Date of EC declaration of verification	Date (YYYYMMDD)	Compulsory (when available)
6.2	EC declaration reference	Reference to the EC declaration of verification	For existing vehicles: text. For new vehicles: alphanumeric code based on EIN, see Appendix 2	Compulsory (when available)
6.3	EC Declaration of verification issuing body (the applicant)			
6.3.1	Organisation name		Text	Compulsory (when available)

6.3.2	Registered business number		Text	Compulsory (when available)
6.3.3	Address	Address of organisation, street and number	Text	Compulsory (when available)
6.3.4	Town		Text	Compulsory (when available)
6.3.5	Country code		2-letter code (*)	Compulsory (when available)
6.3.6	Post code		Alphanumeric code	Compulsory (when available)
6.3.7	E-mail address		E-mail	Compulsory (when available)
6.3.8	Organisation Code		Alphanumeric code	Compulsory (when available)
7	Owner	Identification of the owner of the vehicle		
7.1	Organisation Name		Text	Compulsory
7.2	Registered business number		Text	Compulsory
7.3	Address		Text	Compulsory
7.4	Town		Text	Compulsory
7.5	Country code		2-letter code (*)	Compulsory
7.6	Post code		Alphanumeric code	Compulsory
7.7	E-mail address		E-mail	Compulsory
7.8	Organisation Code		Alphanumeric code	Compulsory
8	Keeper	Identification of the keeper of the vehicle		
8.1	Organisation name		Text	Compulsory
8.2	Registered business number		Text	Compulsory
8.3	Address		Text	Compulsory
8.4	Town		Text	Compulsory
8.5	Country code		2-letter code (*)	Compulsory
8.6	Post code		Alphanumeric code	Compulsory
8.7	E-mail address		E-mail	Compulsory

8.8	Organisation Code		Alphanumeric code	Compulsory
8.9	VKM		Alphanumeric code	Compulsory
9	Entity in charge of maintenance	Reference to the entity in charge of maintenance		
9.1	Organisation name		Text	Compulsory
9.2	Registered business number		Text	Compulsory
9.3	Address		Text	Compulsory
9.4	Town		Text	Compulsory
9.5	Country code		2-letter code (*)	Compulsory
9.6	Post code		Alphanumeric code	Compulsory
9.7	E-mail address		E-mail	Compulsory
9.8	Organisation Code		Alphanumeric code	Compulsory
10	Registration status			
10.1	Registration status (see Appendix 3)		2-digit code	Compulsory
10.2	Registration status date	Date of the status of the registration	Date (YYYYMMDD)	Compulsory
10.3	Registration status reason.		Text	Compulsory (when applicable)
11	Authorisations ⁽⁴⁾ for placing on the market ⁽⁵⁾			
11.1	Name of authorising entity	Entity (NSA or the Agency) that authorised the placing on the market	Text	Compulsory
11.2	Member State of authorising entity	Member State of authorising entity	2-letter code (*)	Compulsory
11.3	EIN	Harmonised authorisation number for placing in service, generated by authorising entity	Authorisation number. For new vehicles: alphanumeric code based on EIN, see Appendix 2.	Compulsory

11.4	Area of use	As stated in the issued vehicle authorisation.	Text	Compulsory
11.5	Date of authorisation		Date (YYYYMMDD)	Compulsory
11.6	Authorisation valid until (if specified)		Date (YYYYMMDD)	Compulsory (when applicable)
11.7	Date of suspension of authorisation		Date (YYYYMMDD)	Compulsory (when applicable)
11.8	Date of revocation of authorisation		Date (YYYYMMDD)	Compulsory (when applicable)
11.9	Conditions for use of the vehicle and other restrictions on how the vehicle may be used			
11.9.1	Coded restrictions	Conditions for use and restrictions on how the vehicle may be used	List of codes (see Appendix 1).	Compulsory (when applicable)
11.9.2	Non-coded restrictions	Conditions for use and restrictions on how the vehicle may be used	Text	Compulsory (when applicable)

(¹) Rolling stock placed in service for the first time in Estonia, Latvia or Lithuania and intended to be used outside the European Union as part of common 1 520 mm rail system wagons fleet shall be registered in both the EVR and the Information Database of the Council of Railway Transport of the Commonwealth of Independent States. In this case, the 8-digit numbering system may be applied instead of the numbering system specified in Appendix 6.

(²) For vehicle types authorised in accordance with Article 26 of Directive 2008/57/EC and Article 24 of Directive (EU) 2016/797.

(³) It should be possible to specify the references to the EC Declaration of verification of the rolling stock subsystem and the CCS subsystem

(⁴) It should be possible to specify the data for all authorisations granted to the vehicle.

(⁵) Authorisation for placing on the market delivered in accordance with Chapter V of Directive (EU) 2016/797 or authorisation for placing in service delivered in accordance with Chapter V of Directive 2008/57/EC or in accordance with the authorisation regimes existing before transposition of Directive 2008/57/EC.

(*) The codes are those officially published and updated on the European website in the *Interinstitutional style guide*. In case of the multinational safety authority Channel Tunnel Intergovernmental Commission, the country code CT shall be used. In case of the Agency, the country code EU shall be used.

7.3. Functional and technical architecture

The EVR register will be implemented by means of centralised and decentralised functions:

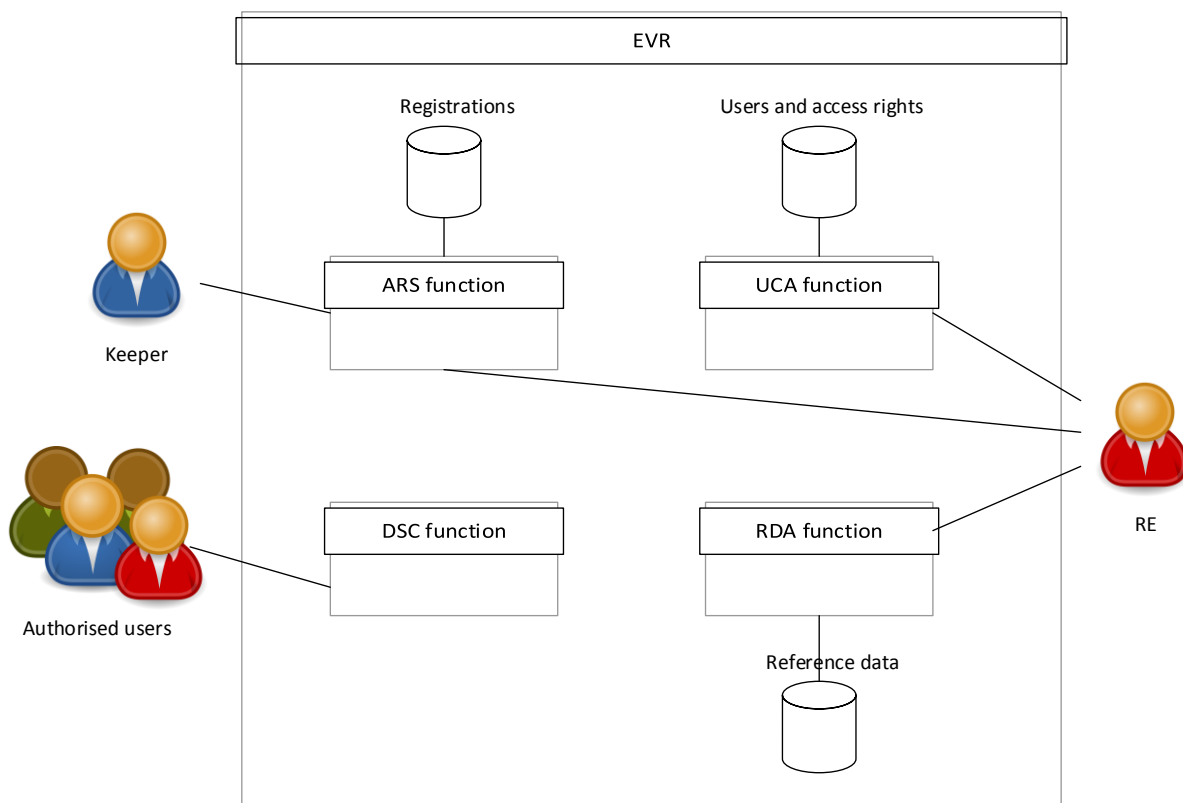
- The data search and consultation function (DSC function).

- The user creation and administration function (UCA function).
- The reference data administration function (RDA function).
- The application, registration and data storage functions (ARS functions) of each Member State.

The functions DSC, UCA and RDA are centralised. The function ARS may be centralised or decentralised.

See Figure 6: EVR architecture.

Figure 6: EVR architecture



7.3.1. EVR functions

The EVR functions are described below.

- **Data search and consultation function (DSC function)**

The data search and consultation function is implemented via a centralised web-based tool setup by the Agency. The function enables authorised users to search and consult data in the EVR.

- **User creation and administration function (UCA function).**

The user creation and administration function (UCA function) is implemented via a centralised web-based tool setup by the Agency. The function enables persons and organisations to request access to EVR data and the competent RE or the Agency to create users and manage access rights.

- **The reference data administration function (RDA function).**

The RDA function is implemented via a centralised web-based tool setup by the Agency. The function enables REs and the Agency to manage the common reference data.

- **The application, registration and data storage functions (ARS functions) of each Member State.**

The ARS function enables applicants to submit applications for registration or update to the selected RE via a web-based tool and the RE to register the data. The set of registrations for a given Member State is also referred to as the vehicle register of such Member State.

The Member State may use the centralised ARS function made available by the Agency or may implement the ARS function autonomously. In the latter case, the Member States shall ensure the communication between the decentralised ARS function and the centralized functions.

7.4. EVR operating mode

7.4.1. Use of EVR

The EVR may be used for purposes such as:

- check if a vehicle is duly registered and the status of the registration;
- retrieving information on the authorisations for placing on the market of a vehicle, including its authorising entity, its area of use, its conditions for use and other restrictions;
- retrieving the reference to the authorised vehicle type to which a vehicle conforms to;
- identifying the keeper, the owner and the entity in charge of maintenance of a vehicle.

7.4.2. Registration cases

The registration cases available in EVR will be:

- *New vehicle registration:* a new vehicle is registered in EVR. All mandatory parameters are provided within the registration.
- *Update of an existing vehicle registration:* an already existing vehicle registration is updated with the provided updated parameters' values.
- *Change of keeper of a vehicle:* the currently registered keeper submits all the organisation's data of the new keeper of a vehicle registration. The new keeper accepts its nomination and it is registered as keeper for the given vehicle registration.

- *Change of ECM of a vehicle*: the organisation's data of a new ECM are recorded on a given vehicle registration once the new ECM acknowledges.
- *Change of owner of a vehicle*: the organisation's data of a new owner are recorded on a vehicle registration.
- *Suspension or reactivation of vehicle registration*: a vehicle registration is suspended or reactivated.
- *Withdrawal of vehicle registration*: a vehicle registration is withdrawn.
- *Update of organisation data*: the data of an organisation is updated on a vehicle registration.
- *Change of EVN following technical modifications of the vehicle*: a new registration is created to reflect the new interoperability capability or technical characteristics of a given vehicle while the previously existing registration of this vehicle is withdrawn.
- *Change of EVN and of registering Member State of a vehicle*: the vehicle registration is moved to a new registering Member State and the EVN is changed accordingly.
- *Automatic notification of changes*: changes to data in registrations will generate automatic e-mail notifications to the relevant actors.
- *Historical records*: all changes and data in EVR are retained for 10 years, while EVNs are not reused for 100 years.

7.4.3. Management of users

Any person or organisation can request access to the EVR. An account to access EVR will be assigned if they are entitled under the following access rights:

Entity	Read rights	Update rights
RE of Member State 'XX'	All data	All data in vehicle register of MS 'XX'
NSA/ACA	All data	None
Agency and OTIF SG	All data	None
Keeper	All data on vehicles of which it is keeper.	None
Fleet manager	Vehicles for which they have been appointed manager by the keeper	None

Entity	Read rights	Update rights
ECM	All data, except Owner's references, of vehicles for which it is ECM.	None
Owner	All data on vehicles of which it is owner.	None
RU	All data, except Owner's references, based on one or more vehicle numbers.	None
IM	All data, except Owner's references, based on one or more vehicle numbers.	None
IB and RB	All data on vehicles being checked or audited	None
EC declaration of verification issuing body (the applicant)	All data on vehicles of which it is EC declaration of verification issuing body (the applicant), except Owner's references	None
Other legitimate user recognised by NSA or the Agency ⁽¹⁾	To be defined as appropriate, duration possibly limited, except Owner's references	None

¹ The Agency shall, in cooperation with the NSAs, define the procedure for recognising legitimate users.

Users or organisation will only have access to the data they are entitled to as defined in the columns "read right" and "update rights".

Keepers in the role of applicants for registration will be granted with an EVR user account for the submission of applications for registration.

Authentication of users will be by means of username and password. Due to the special privileges of keepers in the role of applicants for registration and REs, their authentication will require the level substantial as defined in Annex 2.2.1 of Regulation (EU) 2015/1502.

7.4.4. Reference data

The EVR will make use of reference data.

The common reference data will include:

- Lists of codes (e.g. country codes, authorising entity name, additional conditions applicable to the vehicle).

- Restrictions codes.
- Organisations reference data.

7.4.5. *One Stop Shop (OSS) – EVR information exchange*

Automatic information exchange between OSS and EVR is not planned for the first release of the OSS in June 2019. However the Agency's mid/long term vision includes this integration.

In practice, there will be a change request for the OSS to allow extracting the complete file information about an issued vehicle authorisation from the OSS. However, it cannot be yet said when this change request will be implemented, if approved. During the implementation of EVR, it will review the status of this OSS change request in order to react accordingly to implement the import of the OSS extracted file.

7.5. Migration steps

The entity previously responsible for vehicle registration shall make all information available to the RE of the country where it is located.

Existing vehicles shall be registered only by the Member State where they were firstly authorised for placing in service according to Articles 21 to 26 of Directive 2008/57/EC or, in case of registrations transferred to the NVR of another Member State, by such Member State.

The sNVRs, TE and VVR systems developed by the Agency according to Decision 2007/756/EC shall be discontinued as of 16 June 2021 and will be no longer supported after the EVR is operational.

7.6. EVR Guidelines

The EVR Guidelines will include, among others, the following:

- Description in detail of functional and technical specifications from an IT perspective, with flowcharts illustrating the different registrations cases.
- Description of the interactions between the different EVR functions.
- The modalities and the procedure for the creation and the allocation of an EVR user account as well as its format.
- Description of the modalities of multiple registration of vehicles (list of vehicles).

Annex 1: Definitions and abbreviations○ **Definitions***Table 1: Table of definitions*

<i>Definition</i>	<i>Description</i>
Agency	The European Union Agency for Railways (ERA)
Application for registration	The request submitted by the applicant (the Keeper) for the registration of a vehicle according to Article 22 of Directive (EU) 2016/797.
Application for modification	The request submitted by the applicant (the Keeper) for the modification of a registration of a vehicle.
Authorisation	Vehicle authorisation for placing on the market, according to Article 21 of Directive (EU) 2016/797
Registration	The process of entering, following Article 22 of Directive (EU) 2016/797, in a vehicle register as referred to in Article 47 the required information on a vehicle authorised to be placed on the market. The term also designates the data recorded for the vehicle in the register.

○ **Abbreviations***Table 2: Table of abbreviations*

<i>Abbreviation</i>	<i>Description</i>
ATMF	Technical Admission of Railway Material used in International Traffic
CBA	Cost Benefit Analysis
COTIF	Convention concerning International Carriage by Rail
EC	European Commission
ECM	Entity In Charge of Maintenance
ECMCR	Register of ECM Certificates
ERADIS	European Railway Agency Database of Interoperability and Safety
ERATV	European Register of Authorised Types of Vehicles
EVR	European Vehicle Register as referred to in Article 47 or Directive (EU) 2016/797
EU	European Union
IM	Infrastructure Manager
NSA	National Safety Authority
NVR	National Vehicle Register as referred to in Article 33 of Directive 2008/57/EC

<i>Abbreviation</i>	<i>Description</i>
OSS	One Stop Shop
OTIF	Intergovernmental Organisation for International Carriage by Rail
RB	Representative Body
RE	Registration Entity, i.e. the body responsible for keeping and updating the vehicle register as designated by each Member State in accordance with Article 47(1)(b) of Directive (EU) 2016/797.
RINF	Register of Infrastructure
RISC	Railway Interoperability and Safety Committee
RSRD	Rolling Stock Reference Database
RU	Railway Undertaking
RVRR	Rationalisation of Vehicle-Related Registers
ToR	Terms of Reference
TSI	Technical Specification for Interoperability
VKM	Vehicle Keeper Marking
VKMR	Vehicle Keeper Marking Register
VR	Vehicle Register as referred to in Article 47 or Directive (EU) 2016/797
WP	Working Party

Annex 2: Reference documents

Table 2: Table of reference documents

<i>[N°]</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[D1]	Agency Programming document 2017	Decision 143/2016 of the Executive Board	
[D2]	Agency Recommendation on the specification of the National Vehicle Register and the adoption of the system of organization codes in TAF and TAP TSIs (RVRR Recommendation).	ERA-REC-102-2016	
[D3]	Administrative Arrangements between OTIF, ERA and DG-Move	24/10/2013	

<i>[N°]</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[D4]	Agency proposal for the Commission Implementing Act on practical arrangements for the vehicle authorisation process referred to in Article 21(9) of Directive (EU) 2016/797		

Annex 3: Reference legislation

Table 3: Table of reference legislation

<i>[N°]</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[L1]	Directive (EU) 2016/797 of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union.	OJ L 138, 26.5.2016, p. 44.	N.A.
[L2]	Regulation (EU) 2016/796 of the European Parliament and of the Council of 11 May 2016 on the European Union Agency for Railways and repealing Regulation (EC) No 881/2004.	OJ L 138, 26.5.2016, p. 1.	N.A.
[L3]	Directive (EU) 2016/798 of the European Parliament and of the Council of 11 May 2016 on railway safety.	OJ L 138, 26.5.2016, p.102.	N.A.

[N°]	Title	Reference	Version
[L4]	Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (Interoperability Directive)	OJ L 191, 18.7.2008	As last amended by Directive 2009/131/EC (OJ L 273, 17.10.2009) Directive 2011/18/EU (OJ L 57, 2.3.2011) Directive 2013/9/EU (OJ L 68, 12.3.2013). Repealed by DIRECTIVE (EU) 2016/797 with effect from 16 June 2020.
[L5]	Directive 2004/49/EC on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (Railway Safety Directive)	OJ L 164, 30.4.2004	As last amended by Directive 2009/149/EC (OJ L 313, 28.11.2009). Repealed by DIRECTIVE (EU) 2016/798 with effect from 16 June 2020.

<i>[N°]</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[L6]	Decision 2007/756/EC (NVR Decision)	OJ L 305, 23.11.2007	As last amended by Commission Decision 2011/107/EU of 10 February 2011 (OJ L 43, 17.2.2011) Decision 2012/757/EU of 14 November 2012 (OJ L 345, 15.12.2012)
[L7]	Decision 2011/665/EU (ERATV Decision)	OJ L 264, 8.10.2011	-
[L8]	Regulation (EU) 445/2011 (ECM Regulation)	OJ L 122, 11.05.2011	-
[L9]	Decision 2012/757/EU (OPE TSI)	OJ L 345, 15.12.2012	Commission Decision 2013/710/EU: of 2 December 2013 (OJ L 323, 4.12.2013)
[L10]	Commission Regulation (EC) No 62/2006 (TAF TSI)	OJ L 13, 18.1.2006	Commission Regulation (EU) No 328/2012 of 17 April 2012 (OJ L 106, 18.4.2012), Commission Regulation (EU) No 280/2013 of 22 March 2013 (OJ L 84, 23.3.2013)
[L11]	Commission Regulation (EU) No 454/2011 (TAP TSI)	OJ L 123, 12.5.2011	

<i>[N°]</i>	<i>Title</i>	<i>Reference</i>	<i>Version</i>
[L12]	Commission Decision 2010/713/EU on modules for the procedures for assessment of conformity, suitability for use and EC verification to be used in the technical specifications for interoperability adopted under Directive 2008/57/EC of the European Parliament and of the Council	OJ L 319, 4.12.2010	
[L13]	Commission Regulation (EU) No 201/2011 of 1 March 2011 on the model of declaration of conformity to an authorised type of railway vehicle	OJ L 57, 2.3.2011	

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Annex 4: Survey on NVR problems

Data in the table bellows summarized the answers by 14 WP Members on the survey on the problems of the current NVR specification and/or implementation and on the possible countermeasures to address/mitigate the problems.

Ratings for each question were to be chosen in a scale between 1 and 5.

Table 4: Average rating (scale 1 to 5) of problems

Specific problem	How big is it? How does it negatively affect your work?	Requirements
1. PROBLEM: Not harmonised registration application		
1.1 No common layout of registration form. No multilingual registration form.	2.79	The EVR should provide for a common multilingual interface for data submission and for the communication between applicant (Keeper) and RE
1.2 Too many fields to be provided by the applicant for registration	2.64	The EVR should clearly identify and define the mandatory fields for registration.
1.3 Different supporting documents are requested by the different Registration Entities	4.00	The EVR should clearly identify and describe the supporting documents that can be requested (if any).
1.4 Difficult to apply for the registration of list of vehicles	3.86	The EVR should provide for the registration of lists of vehicles.

Specific problem	How big is it? How does it negatively affect your work?	Requirements
2. PROBLEM: Registration process is too complex		
2.1 No common tool for the registration of vehicles.	3.57	EVR should provide a common tool (one-stop-shop) for the registration.
2.2 No clear deadlines are set for the registration	3.14	EVR should set the deadlines for the registration process
2.3 The registration process is not described clearly	3.57	EVR should describe clearly the registration workflow
2.5 Roles and responsibilities are not sufficiently clear or sufficiently well described	4.00	EVR should define and describe clearly roles and responsibilities
2.6 No common approach on electronic transmission of data (applications for registrations/update), documents, notifications	3.79	EVR should define and describe a common approach and tool for the electronic transmission of applications, documents, notifications, including harmonised templates
3. PROBLEM: Complex access to data		
3.1 No single account to access data on registered vehicles	3.92	EVR should enable users to access data with a single account.
3.2 No harmonised multilingual interface for searching data on registered vehicles	3.15	EVR should provide an harmonised interface for data search and consultation
3.3 Data on registered vehicles is not permanently available or there is no assurance that it remains permanently available	3.62	EVR should ensure high system and data availability
4. PROBLEM: Suboptimal data quality		
4.1 Limited or no use of common reference data	4.36	EVR should make use of common reference data.
4.2 Insufficient data validation	4.21	EVR should enforce data validation
4.3 Manual handling (re-typing) of data (e.g. from paper forms into the registers)	4.36	EVR should prevent as much as possible the re-typing of data
5. PROBLEM: Not harmonised schema of fees		

Specific problem	How big is it? How does it negatively affect your work?	Requirements
5.1 Different ICT costs for keeping the vehicle registers factoring into the national fees	3.18	EVR should aim at reducing ICT costs for the vehicle registers
6. PROBLEM: Insufficient support to business use cases		
6.1 Use cases relevant for stakeholders are not sufficiently supported	3.50	EVR should support use cases relevant for stakeholders

Table 5: Average rating (scale 1 to 5) of possible countermeasures

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
1.1.1 Harmonised multilingual paper-based form (or PDF file) for registration	3.64	2.55	2.00	1.00	3.29
1.1.2 Harmonised web-based multilingual form for registration implemented in each vehicle register	3.82	3.18	3.00	1.00	3.64
1.1.3 Centralised (in the Agency) multilingual web-based form for registration	4.09	3.45	5.00	1.00	4.29
1.2.1 No custom fields are allowed on the registration form	2.00	1.55	3.67	1.00	2.36
1.2.2 Custom fields are allowed on the form but cannot be mandatory for the registration.	2.91	2.73	3.50	4.00	3.00

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
1.2.3 Custom fields are allowed on the form and can be mandatory for the registration.	2.64	2.82	1.67	5.00	2.43
1.2.4 The following fields are obsolete and should be therefore not requested: {enter here your text}	3.00	3.00	4.33	1.00	3.80
1.3.1 No supporting documents are to be annexed to the form	2.36	1.73	3.67	1.00	2.64
1.3.2 Supporting documents mandatory for the registration are allowed only if included in a pre-defined common list (for all REs) of documents	3.27	3.18	4.00	2.00	3.43
1.3.3 Supporting documents mandatory for the registration are allowed and decided by each RE. (Each RE should publish the specific list)	2.45	2.82	1.00	5.00	2.14
1.4.1 A procedure for the registration of list of vehicles is defined	3.73	3.64	4.33	5.00	3.86
1.4.2 Registration form to enable the keeper to apply for the registration of list of vehicles	3.64	3.45	3.33	5.00	3.57
1.4.3 Tools to enable the keeper to apply for the registration of list of vehicles	4.18	4.18	5.00	5.00	4.36
2.1.1 Contact points of REs available in a list published on the Agency website	3.82	3.55	5.00	5.00	4.07
2.1.2 Standard format for the messages between keeper and RE	3.45	3.18	4.67	3.00	3.71

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
2.1.3 Applications for registration submitted by the Keeper via a centralised tool in the Agency	3.45	3.36	5.00	3.00	3.79
2.1.4 Requests for EVN reservation submitted by the Keeper via a centralised tool in the Agency	3.45	3.55	3.67	4.00	3.50
2.1.5 Messages are exchanged between Keeper and RE via a centralised tool in the Agency	3.00	2.73	5.00	5.00	3.43
2.2.1 No deadlines needed	1.73	1.91	2.67	2.00	1.93
2.2.2 Deadline for the RE to complete the registration	3.36	2.82	4.33	2.00	3.57
2.2.3 Deadline for Keepers to reply to REs requests for correction/clarification	3.36	3.36	4.00	4.00	3.50
2.3.1 High level process description only to allow some flexibility in the implementation by the tools	3.27	3.27	1.67	5.00	2.93
2.3.2 Some important registration cases (e.g. the change of keeper) described in sufficient detail to enable an harmonised and homogeneous implementation by the tools	3.64	3.64	2.33	5.00	3.36
2.3.3 All known registration cases (first registration, update, change of keeper, etc.) described in sufficient details to enable a harmonised and homogeneous implementation by the tools.	4.18	4.09	5.00	5.00	4.36
2.5.1 Define and describe roles and responsibilities of the main actors: Keeper and RE.	4.00	4.00	3.67	1.00	3.93

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
2.5.2 Define and describe roles and responsibilities of other actors/users: ECM, Owner, NSA, etc.	4.18	4.18	3.67	1.00	4.07
2.6.1 Standard format for the notifications (and/or confirmation of registration documents) dispatched by REs are defined.	3.91	3.91	3.33	3.00	3.79
2.6.2 Notifications dispatched by the vehicle registers according to common rules and templates	3.55	3.55	4.00	4.00	3.64
2.6.3 Notifications dispatched by a centralised tool in the Agency	3.27	2.91	5.00	4.00	3.64
2.6.4 Electronic signature of documents (supporting documents and confirmation of registration documents)	3.45	3.64	3.00	1.00	3.36
3.1.1 A single user account can be used for all vehicle registers	4.00	3.70	4.33	1.00	4.08
3.1.2 The single user account is requested to the RE via the respective contact point.	3.00	3.00	2.33	1.00	2.86
3.1.3 Requests for the single account are submitted via a centralised tool in the Agency and delivered to the competent RE	3.91	3.91	5.00	1.00	4.14
3.2.1 Web-based multilingual harmonised search form implemented by all tools	3.64	3.64	3.33	2.00	3.57
3.2.2 Data consultation via a centralised web-based multilingual tool in the Agency	4.00	3.64	3.33	2.00	3.86

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
3.3.1 Data consultation via a centralised web-based multilingual tool in the Agency	3.55	3.27	4.50	3.00	3.69
3.3.2 Data consultation via a centralised web-based multilingual tool in the Agency	3.91	3.82	1.50	4.00	3.54
3.3.3 If case of decentralised registers, a common performance requirement for (system and) data availability is set for the vehicle registers.	3.09	2.64	3.00	1.00	3.08
3.3.4 If case of decentralised registers, more performing connectivity (e.g. virtual private network)	1.89	2.22	2.50	1.00	2.00
4.1.1 Common reference data to be setup in the Agency. Tools to use the common reference data.	4.45	4.36	5.00	5.00	4.57
4.1.2 Reference data should be created for the following data objects (e.g. organisations, VKM, country codes, etc): {enter here your text}	4.36	4.09	5.00	5.00	4.50
4.2.1 Detailed format of data.	4.45	4.45	4.67	4.00	4.50
4.2.2 Defined responsibilities for data validation.	4.91	4.91	4.67	4.00	4.86
4.2.3 Defined harmonised data validation steps (requirements).	4.18	4.18	4.67	4.00	4.29
4.3.1 Data is entered only once (by the Keeper).	4.00	4.00	5.00	-	4.15
4.3.2 Integration with other Agency tools providing master data (e.g. OSS for authorisation data, the VKM for VKM codes, the organisation reference file for organisation data)	4.18	4.09	5.00	5.00	4.36

Possible measures contributing to deliver the requirement	NSAs		Representative Bodies		NSAs + RBs
	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?	How much this supports MSs specific needs?	How much this is relevant for the objective of harmonisation?
4.3.3 Electronic submission of registration data (first registration and any update)	4.36	4.27	5.00	5.00	4.50
4.3.4 Organisations associated to registrations (e.g. ECMs) are allowed to submit modifications to their contact data	3.60	3.50	3.00	1.00	3.46
5.1.1 Reuse of existing software (sNVR, VVR, NVT-TE, custom TE, custom NVRs)	3.88	4.00	2.00	2.00	4.00
5.1.2 Reduction of subsystems (sNVR, VVR, NVT-TE, custom TE, custom NVRs). Example: removal of TEs and use of sNVRs as data buffer	3.29	3.71	3.50	2.00	3.33
5.1.3 Revoked support to older versions of the subsystems.	2.13	2.25	3.50	2.00	2.40
5.1.4 Centralisation of interface functions (in one-stop-shop)	2.75	2.50	5.00	5.00	3.20
5.1.5 Centralised register	3.38	2.88	5.00	5.00	3.50
5.1.6 Simplification of tools: separate core functionalities and nice-to-have functionalities; strict focus on core functionalities.	3.67	3.33	2.50	2.00	3.45
5.1.7 Use of open source software (e.g. MySQL).	2.57	2.57	-	-	2.57
6.1.1 Clarify describe the scope and purpose of EVR	3.90	3.40	5.00	5.00	4.15
6.1.2 List and describe the business use cases to be supported for each category of user	3.80	3.40	4.67	4.00	4.00

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Annex 5: EVR Requirements

Shall is used to express a (mandatory) requirements, whose implementation is subject to verification.

Should is used to express a recommendation (non-mandatory).

For the definitions of *application* and *registration*, please see Annex 1: Definitions and abbreviations (Definitions).

○ Functional requirements

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base
Register vehicle	After the authorisation, the vehicle (or list of vehicles) is registered in a vehicle register at the request of the Keeper. An EVN is assigned to	Keeper, RE	BRF#1	General requirements on the registration of vehicles	The Keeper shall be able to request the registration of a vehicle or a list of vehicles with a single application. The RE shall be able to register the data (i.e. to validate the application for registration and register the vehicle), to return the application to the applicant with a request for correction/clarification,	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
	the vehicle (or to each vehicle in the list). ¹				to reject the application and provide a justification for the refusal. The application for registration shall contain for each vehicle all the mandatory fields. The use of the Standard Form For Registration is mandatory. In case of first registration, the RE will assign an EVN to the vehicle. In case an EVN was reserved for the vehicle beforehand, such reserved EVN shall be specified in the form.		

¹ Examples in the different authorisation cases:

- a. First authorization: all data is entered, an EVN is assigned. (→ UC Register vehicle)
- b. Renewed type authorization: authorisation data is updated. (→ UC Modify/Correct registration data)
- c. Extended area of use: the area of use is updated (→ UC Modify/Correct registration data)
- d. New authorization: the authorisation data is updated. (→ UC Modify/Correct registration data) A new EVN may be assigned if technical characteristics do not correspond anymore to EVN. (→ UC Register vehicle)
- e. Subsequent authorization: all data is entered, an EVN is assigned. (→ UC Register vehicle)

Other cases:

- f. Modification of authorisation: the authorisation data is updated. (→ UC Modify/Correct registration data) A new EVN may be assigned if technical characteristics do not correspond anymore to EVN. (→ UC Register vehicle)
- g. Registration of vehicles authorised for the first time in a third country (Article 48(7) of IOD): Keeper, ECM, Restrictions are entered; an EVN is assigned or a different coding system may be accepted in case of "vehicles operated or meant to be operated from or to third countries the track gauge of which is different from that of the main rail network within the Union" (Article 46(4) of IOD). (→ UC Register vehicle)

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
Register vehicle	Ditto	RE	BRF#2	Mass registration/update	The RE shall be able to register a list of vehicles or update data for a list of vehicles, i.e. functionalities for the mass registration/update shall be available.	M	
Register vehicle	Ditto	Keeper, RE	BRF#3	Deadlines for RE	<p>The RE shall register the data within 20 working days from the receipt of a complete application file. (RVRR Conclusion)</p> <p>(The system availability shall be compatible with the above deadlines).</p> <p>The RE shall within 20 working days from the Keeper's request, either register the data or to return the application to the applicant with a request for correction/clarification.</p>	M	
Register vehicle	Ditto	Keeper	BRF#4	Deadlines for Keeper	<p>The Keeper shall submit immediately the modification to the registered data.</p> <p>In case of change of Keeper/ECM, the Keeper shall inform in due time the RE, so that the latter may update the vehicle register.</p>	M	<p>Article 47(6)² of Directive (EU) 2016/797.</p> <p>Article 5(8)³ of Regulation (EU) No 445/2011.</p>

² Article 47(6) of Directive (EU) 2016/797 “The keeper shall immediately declare any modification to the data entered in the vehicle registers, the destruction of a vehicle or its decision to no longer register a vehicle, to the Member State where the vehicle has been registered”.

³ Article 5(8) of Regulation (EU) No 445/2011 “When there is a change of entity in charge of maintenance, the registration holder as indicated in Article 33(3) of Directive 2008/57/EC of the European Parliament and of the Council (1), shall inform in due time the registration entity, as defined in Article 4(1) of Commission Decision 2007/756/EC (2), so that the latter may update the national vehicle register.”

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
Register vehicle	Ditto	Keeper	BRF#5	Deadlines for Keeper	Deadlines for the keeper to answer to requests for correction/clarification during the process for the new registration or update of data for a registered vehicle of a vehicle may be set in national law.	O	
Register vehicle	Ditto	Keeper, RE	BRF#6	Data to be registered	The mandatory and optional fields are specified in the existing NVR Specifications as amended in the RVR Recommendation. Other fields (to be defined) might be added if needed to comply with Directive (EU) 2016/797 (e.g. the field "area of use").	M	Article 47(6) ⁴ of Directive (EU) 2016/797.
Register vehicle	Ditto	Keeper, RE	BRF#7	Harmonised interface - application for registration form	The Keeper submits data or any change to the registered data via an application for registration form to the RE. The application for registration form is electronic , i.e. it is: - web-based and can be accessed via the most commonly used web browsers; - accessible after the authentication of the applicant. The electronic form allows to:	M	

⁴ Article 47(6) of Directive (EU) 2016/797 “The keeper shall immediately declare any modification to the data entered in the vehicle registers, the destruction of a vehicle or its decision to no longer register a vehicle, to the Member State where the vehicle has been registered”.

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>a. input the data (including by selecting in reference lists if relevant):</p> <ul style="list-style-type: none"> - specify the registration case (*); - specify data for all mandatory and optional parameters for registration; - specify the concerned EVN or EVNs in case of registration or modification of data for a list of vehicles; - specify data for the custom fields (if defined by the concerned Member State); If custom fields are defined, they shall be grouped in a separate section at the bottom of the form. <p>b. attach supporting documents (if defined by the concerned Member State); for each attached document the type of document and the language shall be specified;</p> <p>c. submit the data to the RE.</p> <p>(*) Registration cases are:</p> <ul style="list-style-type: none"> - New registration - Update - Suspension (of registration) or reactivation - Withdrawal (of registration) - Update of organisation data - Change of EVN following technical modifications - Change of EVN and RE <p>The electronic form:</p> <ul style="list-style-type: none"> - is multilingual and the applicant can select any EU official language. 		

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>- performs the validation of the format of the data upon input and the consistency against the reference data.</p> <p>- allows the selection of values within the reference data.</p> <p>A paper version of the application for registration form shall be available for business continuity purposes; it shall fulfil the same requirement of the electronic version.</p>		
Register vehicle	Ditto	Keeper, RE	BRF#8	Custom fields in application for registration form	Member States may require custom fields to be provided in the registration application following provisions of national law; to that end the RE shall publish the list of such fields and their corresponding references to the provisions of the national law.	M	
Register vehicle	Ditto	Keeper, RE	BRF#9	Supporting documents	<p>Member States may require supporting documents to be electronically attached to the application for registration; to that end the RE shall publish the list of supporting document required in each registration case.</p> <p>A common list of supporting documents for each registration case should be progressively developed in order to ensure equal treatment of applicants requesting the registration of vehicles in different Member States.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
n.a.	n.a.	n.a.	BRF#10	Harmonised interface for registration of vehicles and data management - General requirements and functions	<p>The harmonised (user) interface is:</p> <ul style="list-style-type: none"> - web-based and can be accessed via the most commonly used web browsers; - multilingual and the user can select any EU official language. <p>The functions/components of the harmonised (user) interface are:</p> <ol style="list-style-type: none"> 1. An electronic application for registration form (see specific requirements): it supports the registration process by facilitating the input of data by the Keeper, the data validation and the submission of applications for registration (or modification) of a vehicle or a list of vehicles (including supporting documents (if any)) to the RE. 2. An electronic form for requesting the reservation of EVNs (see specific requirements): it supports the registration process by enabling the reservation of EVNs at earlier stages. 3. A dashboard for informing the Keeper of the progress of its applications (see specific requirements): it supports the registration process by providing an interface for the communication of the status of applications. 4. A portal for the management of the common reference data (see specific requirements): it 	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>supports the registration process by enabling the management of the common reference data.</p> <p>5. An electronic form for requesting user credentials: it supports the process for accessing the data by facilitating the request of user credentials.</p> <p>6. A portal for the search and consultation of data (see specific requirements): it supports the process for the search and consultation of data by enabling the search and consultation of EVR data via a single portal.</p>		
Administer EVN	The Registration Entity administers the EVN numbers for the corresponding Member State.	RE	BRF#11	Check of EVN status.	<p>The RE of a Member State shall be able to determine the status (*) of any EVN in such Member State.</p> <p>(*) The EVN statuses are:</p> <ul style="list-style-type: none"> - Available: EVN is not assigned, nor reserved, nor locked. - Assigned: EVN assigned to a registered vehicle - Reserved: EVN is reserved at the request of a keeper and may be used in a future registration - Locked: the EVN was associated to a withdrawn registration and it is locked for 100 years. 	M	
Administer EVN	Ditto	RE	BRF#12	Modification of EVN status.	The RE of a Member State shall be able to change the status of any EVN in such Member State in consequence of an application or a request for EVN reservation submitted by the Keeper.	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					Examples: Status “assigned” is the outcome of an application for registration. Status “reserved” is the outcome of a request for EVN reservation. Status “locked” is the outcome of an application for withdrawal.		
Check EVN availability	The Keeper checks if a given EVN is available.	Keeper	BRF#13	Check of EVN availability	The Keeper should be able to determine the availability status (Available/Not available) of any EVN in any Member State. (The information may be useful for the purpose of requesting the reservation of one or more EVNs).	⊖	-
n.a.	n.a.	n.a.	BRF#14	Web directory of links	The links to the websites of the Registration Entities and to the corresponding web-based harmonised interface shall be available on the Agency website.	M	
Send message	The Keeper sends a message to the RE concerning an ongoing application or a registered vehicle. The RE sends a message to the Keeper concerning an ongoing application or a registered vehicle.	Keeper, RE	BRF#15	Harmonised interface - communication between Keeper and RE	The Keeper should be able to send a message to the RE concerning an ongoing application or a registered vehicle. The RE should be able to send a message to the Keeper concerning an ongoing application or a registered vehicle. The harmonised interface should provide an electronic web-based tool for the exchange of	O	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					messages between Keeper and RE concerning an ongoing application or a registered vehicle.		
Send message	The RE sends a message to another RE concerning a registered vehicle.	RE	BRF#16	Harmonised interface - communication between REs	The RE should be able to send a message to another RE concerning a registered vehicle. The harmonised interface should provide an electronic web-based tool for the exchange of messages between REs concerning a registered vehicle.	O	NVR Decision, Annex 3.2.5(1) ⁵ . NVR Decision, Annex 3.2.2 ⁶ . NVR Decision 2007/756/EC, Whereas (5) ⁷
Send email notification of application status	The systems sends email notifications at any change of the status of the application.	Keeper, RE	BRF#17	Email notifications of application status	The system should send automatic email notification to the RE and the Keeper upon data submission and at each change of status of the application.	M	

⁵ NVR Decision 2007/756/EC, Annex, 3.2.5(1) “(...) This provision is applicable as long as the VVR and the links with all relevant NVRs are not fully operational and, during this period, the REs concerned will exchange information in order to ensure that data relating to the same vehicle are consistent.”.

⁶ NVR Decision 2007/756/EC, Annex, 3.2.2 “(...) The RE must take reasonable steps to ensure the accuracy of the data it enters in the NVR. To this end the RE can request information from other REs, in particular when the entity applying for registration in a Member State is not established in that Member State.”

⁷ NVR Decision 2007/756/EC, Whereas 5: “(...) The VVR should allow users to search all NVRs through a single portal and enable exchange of data between national NVRs”

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
Review status of applications	Ditto	Keeper, RE	BRF#18	Harmonised interface – applications’ dashboard	<p>The harmonised interface shall provide an electronic web-based dashboard where the Keeper and the RE can review the status (*) of ongoing and past applications at any moment.</p> <p>(*) The status of the application are: DRAFT: An application for registration or update has been initiated by the Keeper but not yet submitted to the RE for registration. All mandatory fields must be filled before the submission. Alternatively, a submitted application was returned by the RE to the Keeper with a request of correction/clarification. SUBMITTED: An application for registration or update has been submitted to the RE for registration. COMPLETED (FULFILLED, etc.): The application was registered by the RE. CANCELLED: An application for registration or update in status DRAFT has been cancelled by the Keeper. REJECTED: An application for registration or update in status SUBMITTED has been rejected by the RE and a justification for the refusal is provided.</p>	M	
Send notification of application status	n.a.	-	BRF#19	Notifications of application status via the dashboard	The system shall notify the Keeper via the dashboard of any change of status of the submitted applications.	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
Modify/Correct registration data	<p>The registration is modified for a vehicle or list of vehicles following the declaration by the Keeper of a change (or the reporting of an error) in any of the parameters.</p> <p>Use case is extended by the Use Cases: - Change of associated Keeper/ECM/Owner - Suspend/Reactivate authorisation - Revoke authorisation</p>	Keeper, RE	BRF#20	General requirements on the modification/correction of registered data	<p>The Keeper shall be able to request the update of the registered data for a vehicle or a list of vehicles with a single application.</p> <p>The RE shall be able to register the data (i.e. to validate the application for modification/correction and register the changes), to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>The application for update shall contain for each specified vehicle all the changed information.</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>Examples: - Modify/Correct authorisation data - Modify/Correct ERATV Reference</p>	M	
Modify/Correct data of associated organisation	The data of an organisation associated to a vehicle registration is modified after the request of the Keeper.	Keeper, RE	BRF#21	General requirements on the modification/correction of data of organisations associated to vehicle registrations.	<p>The Keeper shall be able to request the update of the registered data for one organisation or a list of organisations associated to its registrations with a single application.</p> <p>The application shall contain the new data and the list of affected EVNs.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>The organisations associated to a vehicle registration are: Keeper, ECM, Owner, EC Declaration of Verification Issuing Body.</p> <p>The RE shall be able to register the data (i.e. to validate the application for modification/correction and register the changes), to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>The application for update shall contain for each specified organisation all the changed information.</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>Following up the application, the RE shall ensure that the reference data is updated with the new data submitted by the keeper.</p> <p>If the organisation is associated to registrations of other keepers, the system shall notify such keepers of the change in the reference data.</p>		

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
Withdraw registration	<p>The registration is withdrawn after the request of the Keeper.</p> <p>The Use Cases related to the change of registration status are:</p> <ul style="list-style-type: none"> - Withdraw registration - Suspend/reactivate registration - Transfer registration to a new vehicle register - Change EVN 	Keeper, RE	BRF#22	Withdraw registration	<p>The Keeper shall be able to request the withdrawal of the registration of a vehicle or list of vehicles with a single application.</p> <p>A withdrawal reason shall be provided by the Keeper. (RVRR output).</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>The RE shall be able to register the data (i.e. to validate the application for withdrawal and register the changes), to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>In case of error, the Keeper shall be able to request the correction and the RE shall be able to undo a withdrawal.</p>	M	Article 47(6) ⁸ of Directive (EU) 2016/797.
Suspend/reactivate registration	The registration is suspended or reactivated after the request of the Keeper.	Keeper	BRF#23	Suspend/reactivate registration (Keeper)	<p>The Keeper shall be able to request the suspension of the registration of a vehicle or list of vehicles with a single application.</p> <p>The Keeper shall be able to request with a single application the reactivation of the registration of a</p>	M	

⁸ Article 47(6) of Directive (EU) 2016/797 “The keeper shall immediately declare any modification to the data entered in the vehicle registers, the destruction of a vehicle or its decision to no longer register a vehicle, to the Member State where the vehicle has been registered”.

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					vehicle or list of vehicles previously suspended at the request of the Keeper. A suspension reason shall be provided by the Keeper. (RVRR output).		
Suspend/reactivate registration	The registration is suspended or reactivated by decision of the RE.	RE	BRF#24	Suspend/reactivate registration (RE)	The RE shall be able to suspend the registration of a vehicle or list of vehicles by its own decision. The RE shall be able to reactivate the registration of a vehicle or list of vehicles previously suspended by decision of the RE. A suspension reason shall be provided by the RE.	M	
Suspend/reactivate registration	The registration is suspended or reactivated after the request of the NSA of the registering Member State.	NSA of the registering Member State	BRF#25	Suspend/reactivate registration (NSA of the registering Member State)	The NSA of the registering Member State shall be able to request the suspension of the registration of a vehicle or list of vehicles with a single application. The NSA of the registering Member State shall be able to request with a single application the reactivation of the registration of a vehicle or list of vehicles previously suspended at its own request. A suspension reason shall be provided by the NSA of the registering Member State. (RVRR output).	M	Article 16 (2e) ⁹ of Safety Directive (EU) 2016/798.

⁹ Article 16 (2e) Directive (EU) 2016/798: “The national safety authority shall be entrusted with at least the following tasks: (...) ensuring that a vehicle number has been assigned in accordance with Article 46 of Directive (EU) 2016/797, without prejudice to Article 47(4) of that Directive”

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
n.a.	n.a.	n.a.	BRF#26	Reference data	The common reference data shall include: - Lists of codes (e.g. country codes, authorising entity name, additional conditions applicable to the vehicle) - Restrictions codes - Organisation reference data (including VKM) (see specific requirements)	M	
n.a.	n.a.	n.a.	BRF#27	Reference data	The common reference data should include: - Relevant parameters of the Authorisation for placing on the market Such reference data should be made available via an interface to the One Stop Shop referred to in Article 12 of Regulation (EU) 2016/796.	O	Whereas 57 ¹⁰ in Directive (EU) 2016/797 Article 12 of Regulation (EU) 2016/796.
n.a.	n.a.	n.a.	BRF#28	Organisation reference data	For each organisation recorded in the reference data, at least the following information shall be available as reference data: - Organisation Code (assigned by ERA as described in the RVRP Recommendation); - Name of Organisation; - Registered Business Number; - Address of Organisation (*); - Email address.	M	

¹⁰ Whereas 57 in Directive (EU) 2016/797: “To ensure traceability of vehicles and their history, the references of the vehicle authorisations for placing on the market should be recorded together with other vehicle data”.

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>(*) Place where the organisation has its main place of business, i.e. place where it is incorporated under the national laws.</p> <p>It should be possible to record the information on contact persons. (optional)</p>		
Add organisation to Reference Data	<p>The Keeper requests the inclusion into the Reference Data of one organisation associated to its registrations or applications.</p> <p>The Organisation is included in the reference data.</p>	Keeper, ERA, RE	BRF#29	Submission of organisation data by the Keeper	<p>The Keeper shall be able to request the inclusion into the Reference Data of data of any organisation associated to (i.e. referenced in) its registrations or applications.</p> <p>The request shall be submitted via the dedicated portal and shall contain all the required data.</p> <p>The concerned organisation is notified by email of the request.</p> <p>As a result of the inclusion in the reference data, an Organisation Code is assigned by ERA to the organisation and the latter is notified by email.</p>	M	
Add organisation to Reference Data	One organisation requests the inclusion of its own data into the Reference Data.	Any organisation active in the railway domain, ERA, RE	BRF#30	Submission of organisation data by the organisation itself	<p>Any organisation shall be able to request the inclusion of its own data to the Reference Data.</p> <p>The request shall be submitted via the dedicated portal and shall contain all the required data.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
	The Organisation is included in the reference data.				<p>The concerned organisation is notified by email of the request.</p> <p>As a result of the inclusion in the reference data, an Organisation Code is assigned by ERA to the organisation and the latter is notified by email.</p>		
Modify/Correct data of one organisation in the Reference Data	<p>The Keeper requests the modification or correction of the data recorded in the Reference Data for one organisation associated to its registrations or applications.</p> <p>The organisation data is updated.</p>	Keeper, ERA, RE	BRF#31	Update of organisation data by the Keeper	<p>The Keeper shall be able to request the modification or correction of the data recorded in the Reference Data for any organisation associated to (i.e. referenced in) its registrations or applications.</p> <p>The request shall be submitted via the dedicated portal and shall specify the changed data.</p> <p>The concerned organisation is notified by email of the request.</p> <p>In case the organisation is referenced in registrations of another Keeper, the latter should be notified.</p> <p>As a result of the update, the concerned organisation is notified by email.</p>	M	
Modify/Correct data of one	Ditto	Any organisation, ERA, RE	BRF#32	Submission of organisation data by the organisation itself	Any organisation recorded in the reference data, shall be able to request the update of its own data recorded in the Reference Data.	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
organisation in the Reference Data					<p>The request shall be submitted via the dedicated portal and shall specify the changed data.</p> <p>The concerned organisation is notified by email of the request.</p> <p>As a result of the update, the concerned organisation is notified by email.</p> <p>In case the organisation is referenced in registrations, the corresponding Keepers should be notified.</p>		
Suspend/reactivate authorisation	<p>The Keeper submits the modification corresponding to a suspension or reactivation of the authorisation.</p> <p>The registration is updated accordingly.</p>	Keeper, RE	BRF#33	Specific requirements	<p>The Keeper shall be able to request the modification of the registered data concerning the suspension or reactivation of the authorisation for a vehicle or list of vehicles with a single application.</p> <p>In case of suspension, the request shall contain for each specified vehicle the date of suspension of the authorisation.</p> <p>In case of reactivation, the request shall contain for each specified vehicle (with a suspended authorisation) the date of reactivation of the authorisation.</p>	M	Article 47(6) ¹¹ of Directive (EU) 2016/797

¹¹ Article 47(6) of Directive (EU) 2016/797 “The keeper shall immediately declare any modification to the data entered in the vehicle registers, the destruction of a vehicle or its decision to no longer register a vehicle, to the Member State where the vehicle has been registered”.

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>Data validation check: The date of suspension/date of reactivation shall be earlier or equal to the current date.</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>The RE shall be able to register the data, to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>As a consequence of the change, email notifications are sent (see specific requirement "Email notifications of data changes").</p>		
Revoke authorisation	<p>The Keeper submits the modification corresponding to a revoke of the authorisation.</p> <p>The registration is updated accordingly.</p>	Keeper, RE	BRF#34	Specific requirements	<p>The Keeper shall be able to request the modification of the registered data concerning the revoke of the authorisation for a vehicle or list of vehicles with a single application.</p> <p>The request shall contains for each specified vehicle the date of revoke of the authorisation.</p>	M	Article 47(6) ¹² of Directive (EU) 2016/797

¹² Article 47(6) of Directive (EU) 2016/797 "The keeper shall immediately declare any modification to the data entered in the vehicle registers, the destruction of a vehicle or its decision to no longer register a vehicle, to the Member State where the vehicle has been registered".

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>Data validation check: the date of revoke shall be earlier or equal to the current date.</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>The RE shall be able to register the data, to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>As a consequence of the change, email notifications are sent (see specific requirement "Email notifications of data changes").</p>		<p>Article 26(4)¹³ of Directive (EU) 2016/797</p> <p>Article 26(7)¹⁴ of Directive (EU) 2016/797</p>
Change of associated Keeper/ECM/Owner	The Keeper submits the modification corresponding to a (planned) change of Keeper or ECM or Owner.	Keeper, RE	BRF#35	Change of associated Keeper/ECM/Owner	<p>The Keeper shall be able to request the modification of the registered data concerning the change of Keeper or ECM or Owner for a vehicle or a list of vehicles with a single application.</p> <p>The application for update shall contain for each specified vehicle all the changed information: the</p>	M	Article 5(8) ¹⁵ of Regulation (EU) No 445/2011.

¹³ Article 26(4) of Directive (EU) 2016/797 "In the cases referred to in paragraph 3, the Agency or the national safety authority which issued the authorisation, following a review of the effectiveness of any measures taken to address the serious safety risk, may decide to revoke or amend the authorisation when it is proven that an essential requirement was not met at the time of authorisation."

¹⁴ Article 26(7) of Directive (EU) 2016/797 "The decision of the Agency or the national safety authority to revoke the authorisation shall be reflected in the appropriate vehicle register, in accordance with Article 22 or, in the case of an authorisation of a vehicle type, in the European register of authorised vehicle types in accordance with Article 24(7)."

¹⁵ Article 5(8) of Regulation (EU) No 445/2011 "When there is a change of entity in charge of maintenance, the registration holder as indicated in Article 33(3) of Directive 2008/57/EC of the European Parliament and of the Council (1), shall inform in due time the registration entity, as defined in Article 4(1) of Commission Decision 2007/756/EC (2), so that the latter may update the national vehicle register."

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
	The registration is updated accordingly.				<p>references of the new Keeper or new ECM or new Owner and the date the change takes effect (date of deregistration of the old Keeper or ECM or Owner).</p> <p>Data validation check: such date should be greater or equal to the current date.</p> <p>The use of the Standard Form For Registration is mandatory.</p> <p>The RE shall be able to register the data, to return the application to the applicant with a request for correction/clarification, to reject the application and provide a justification for the refusal.</p> <p>In case of change of Keeper/ECM, the acknowledgement of the acceptance of the keeper status or ECM status by the new Keeper/new ECM is required before the change takes effect; if on such date (date of deregistration of the old Keeper or old ECM) the acknowledgement of acceptance is not yet provided, the registration is suspended.</p> <p>If acknowledgement of acceptance (not required in case of Owner) is provided, the RE shall be able to approve the change in advance of the date of deregistration: on the specified date of deregistration, the new Keeper/ECM/Owner is recorded in the registration and assumes the Keeper/ECM/Owner role.</p>		

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					The paper version of the Application Form shall include a section where the acceptance of the Keeper status or ECM status by the new Keeper/new ECM can be recorded before the submission of the application to the RE.		
Change of associated Keeper/ECM/Owner	Ditto	Keeper, RE	BRF#36	Electronic acknowledgement of the acceptance of Keeper/ECM status	<p>The system should optionally provide a function for the electronic acknowledgement of the acceptance of the keeper/ECM status by the new keeper/new ECM.</p> <p>Example in case of change of Keeper:</p> <ul style="list-style-type: none"> - the Keeper submits the modification corresponding to a change of Keeper on a specified deregistration date. - the new Keeper receives a request to acknowledge acceptance via email (including a link to acknowledge acceptance); - the new Keeper can provide acceptance by logging in the system and confirming the acceptance; - the system records the acknowledge of acceptance by the new Keeper; - the new Keeper and the old keeper receive an email notification to confirm the end of the acknowledgement process. 	O	
Send email notifications of	n.a.	-	BRF#37	Email notifications of data changes	The system shall send automatic email notifications of changes to the registration data or status to the concerned organisations in the modalities described in the RVRP Recommendation:	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
changes in the registered data					<i>"Following a change to one or more registration items, the IT system shall send to the keeper and to the NSAs of the Member States where the vehicle is authorised an automatic e-mail notification informing about the change."</i>		
n.a.	n.a.	-	BRF#38	History of applications and registrations	<p>The system shall keep the history of application data and status.</p> <p>The supporting documents attached to the application shall be seen as part of the application file and are stored accordingly.</p> <p>The system shall keep the history of the vehicle registration data and status: initial registration data and status and any subsequent modifications/corrections.</p>	M	
Search registration data	An authorised user performs a search in the vehicle register.	Any user	BRF#39	Harmonised interface - search of data in the vehicle registers	<p>Users shall be able to perform searches in the registered data via a single web-based portal and in particular to perform the following actions:</p> <ul style="list-style-type: none"> - filtering for one or more registration parameter. - selecting one or more search columns to display. - ordering by any registration parameter. <p>Users shall be able to search data in all vehicle registers with a single account; searches shall be in conformity with the user's access rights.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>The user shall be able to export the search results to file (e.g. pdf/excel/csv).</p> <p>The user should be able to save the search for later use (optional).</p> <p>Examples of search:</p> <ul style="list-style-type: none"> - Search registration data for a single vehicle (single EVN). - Search registration data for a list of vehicle (list of EVNs). - Search vehicles associated to a specified Keeper/ECM/Owner/EC Declaration of verification Issuing Body. - Search vehicles corresponding to a specified ERATV Reference/Series/Manufacturing Serial Number. - Search vehicles authorised in a specified Member State or list of Member States. - Search suspended/withdrawn registrations. - etc. 		
Consult registration data	An authorised user consults the data for a vehicle registration.	Any user	BRF#40	Harmonised interface - consultation of data in the vehicle registers	<p>Users shall be able to consult the registered data for a given vehicle via a single web-based portal.</p> <p>Access to data shall be in conformity with the user's access rights.</p> <p>The user shall be able to export the data to file (e.g. pdf/excel/csv).</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>Users shall be able to access all registered data in all vehicle registers with a single account and in conformity with their access rights.</p> <p>Examples:</p> <ul style="list-style-type: none"> - Consult registration status - Consult authorisation(s) status - Identify the Keeper or ECM or Owner - Consult restrictions - Identify the authorisation reference (EIN) 		
Consult registration data via web-services	An authorised user consults the data for a vehicle registration via web-services	Any user	BRF#41	Data consultation via web-services	<p>Users should be able to consult the registered data for a given EVN or a list* of EVNs via web-services.</p> <p>The maximum number of items in the list may be limited in order to not affect the performance of the system.</p>	M	
n.a.	n.a.	n.a.	BRF#42	Registration status and registration status code	<p>The registration may assume the following statuses:</p> <ul style="list-style-type: none"> - ACTIVE - SUSPENDED: the registration has been suspended by effect of an application for suspension. - TRANSFERRED: the registration has been transferred to another register by effect of an application for change of EVN or an application for transfer to another register. - WITHDRAWN: the registration has been withdrawn by effect of an application for withdrawal. 	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					For each registration status, several registration status codes can be used to provide more information as described in the RVR Recommendation: Registration status → registration status codes ACTIVE → 00 SUSPENDED → 10, 11, 12, 13, 14 TRANSFERRED → 20, 21, 22 WITHDRAWN → 30, 31, 32, 33, 34		
Create user	<p>A person request access to EVR to the competent RE.</p> <p>The RE creates a user for the requestor and assigns the appropriate access rights.</p> <p>In case of Other Legitimate Users, the Agency may create users.</p>	Any person, RE	BRF#43	General requirements on users	<p>Any person shall be able to request an EVR user to the competent RE.</p> <p>The competent RE is the RE of the Member State where the user's organisation has its main place of business, i.e. where the organisation is incorporated under national laws.</p> <p>The request shall be submitted via the dedicated portal and shall contain all the required information.</p> <p>The authorised categories of users and the respective access rights are those specified in the existing NVR Specifications as amended in the RVR Recommendation.</p> <p>The competent Registration Entity shall be able to create users and assign the appropriate access rights to them.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>Upon creation of the user, the respective organisation shall be added to the reference data; each user shall be associated to one and only one organisation recorded in the reference data.</p> <p>Users shall be able to access all registered data in the EVR with a single account and in conformity with their access rights; however, specific requirement may apply to users in their role of Applicants for registration.</p> <p>The users for the RE in the central EVR shall be created by the Agency.</p>		
Change of EVN	<p>The keeper requests the change of EVN for a registered vehicle.</p> <p>The change may be requested only when the assigned EVN does not reflect anymore the interoperability capability or technical characteristics due to technical modifications of the vehicle. Such technical modifications may require a new authorisation according to Articles</p>	Keeper, RE	BRF#44	Change of EVN following technical modifications	<p>The Keeper shall be able to request the change of EVN via a single application.</p> <p>The change may be requested only when the assigned EVN does not reflect anymore the interoperability capability or technical characteristics due to technical modifications of the vehicle. Such technical modifications may require a new authorisation according to Articles 21 and 24 of Directive (EU) 2016/797.</p> <p>The change is realized by the RE by means of a new registration (with assignment of a new EVN) and subsequent withdrawal of the old registration.</p>	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
	<p>21 and 24 of Directive (EU) 2016/797.</p> <p>The change is realized by means of a new registration (with assignment of a new EVN) and subsequent withdrawal of the old registration.</p>						
Transfer registration	<p>The keeper requests the transfer of registration to a different Member State in the area of use.</p> <p>The change is realized by means of a new registration in the new vehicle register (with assignment of a new EVN) and subsequent withdrawal of the old registration.</p>	Keeper, concerned REs	BRF#45	Transfer of registration to a different Member State in the area of use.	<p>The Keeper shall be able to request the transfer of registration to a different Member State in the area of use of the vehicle.</p> <p>The transfer is realized by means of a new registration (with assignment of a new EVN) by the new Member State and subsequent withdrawal of the old registration.</p> <p>The Keeper shall therefore apply for the new registration to the new RE and for the subsequent withdrawal of the old registration to the previous RE.</p>	M	
Transfer registration	-Ditto	Keeper, concerned REs	BRF#46	Transfer of registration to a different Member State in the area of use	The Keeper shall be able to request the transfer of registration to a new vehicle register in the area of use with a single application.	⊖	-

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
				with a single application			
Pre-reserve vehicle number	A vehicle number that will become the EVN once the vehicle is registered is pre-reserved for a vehicle after the request of the Keeper.	Keeper, RE	BRF#48	Pre-reserve vehicle number	<p>The Keeper shall be able to request the pre-reservation of a vehicle number or list of vehicle numbers that will become the EVN once the vehicle is registered to the competent RE.</p> <p>The request shall be submitted via the Electronic Reservation Request Form and shall contain all the required data.</p> <p>The RE shall be able to pre-reserve this vehicle numbers.</p> <p>The Keeper might propose in its request a preferred pre-reserved vehicle number or list of pre-reserved vehicle numbers; to that end, the system might optionally provide the Keeper the possibility to determine the availability status (Available/Not available) of one or more of this numbers.</p>	M	
Pre-reserve vehicle number	Ditto	Keeper, RE	BRF#49	Harmonised interface - reservation form	<p>The electronic reservation form is electronic, i.e. it is:</p> <ul style="list-style-type: none"> - web-based and can be accessed via the most commonly used web browsers. - accessible after authentication of the applicant. <p>The electronic reservation:</p> <ul style="list-style-type: none"> - is multilingual and the applicant (Keeper) can select any official EU language. 	M	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
					<p>- if relevant, performs the validation of the format of the data upon input and the consistency against the reference data.</p> <p>- if relevant, allows the selection of values within the reference data.</p>		
Issue registration fees	The RE issues the registration fees corresponding to action fulfilled after the Keeper's request	RE	BRF#50	Fees	The system should be capable to generate on demand of the RE a report listing the applications completed in a certain period by the RE after a Keeper's request.	O	
Issue registration document	The RE issues the registration document providing evidence of the registration or modification.	RE, Keeper	BRF#51	Registration document	The system should be capable to generate on demand of the RE a registration document for one EVN or a list of EVNs. (RVRR conclusion)	O	
Run report	An authorised user runs a pre-defined report. Examples: 1. Data quality reports for REs 2. Reports specific for the given category of user.	Users	BRF#52	Reports	The consultation function of the harmonised interface should be allow users to run predefined reports to be defined based on use cases and in conformity to the access rights of each category of user. (RVRR conclusion)	O	
Consult ECM Certificate data	An authorised user consults the ECM Certificate data (from	Users	BRF#1	Consult ECM Certificate data	The consultation function of the harmonised interface should be able to display together with the registration data of a vehicle, the information	O	

Use Case name	Use Case description	Actors involved	Functional Business Requirement Index	Business Requirement Title	Business Requirement Description	Mandatory\Optional	Legal base
	ERADIS) for a ECM within a vehicle registration				on the ECM Certificate from ERADIS for the associated ECM. (RVRR conclusion)		

○ **Non-functional requirements**

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
n.a	n.a.		BRNF#1	Implementation	The system shall be implemented taking into consideration and re-using as far as possible the tools already developed by the Agency and the Member States, i.e. sNVRs, NVRs, NVR-TEs, custom TEs, VVR.	M	Article 47(5) ¹⁶ of Directive (EU) 2016/797.
n.a	n.a.		BRNF#2	Reference data	The system shall make use of reference data.	M	
n.a	n.a.		BRNF#3	Usability of the harmonised interface	<p>The harmonised user interface shall be multilingual.</p> <p>The user shall be able to select his/her preferred language among the official EU languages.</p> <p>A common look and feel shall be applied throughout all sections of the harmonised interface.</p> <p>The navigation between the various pages of the harmonised interface shall be simple and understandable.</p> <p>Naming of labels shall be consistent.</p>	M	

¹⁶ Article 47(5) of Directive (EU) 2016/797: “The European Vehicle Register shall be developed taking into consideration the IT applications and registers already set up by the Agency and the Member States, such as the European Centralised Virtual Vehicle Register connected to the national vehicle registers”.

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
					An online help shall be available.		
n.a	n.a.		BRNF#4	Usability of the harmonised interface – mobile support	Web pages of the harmonised interface should be mobile friendly, i.e. visualized correctly on mobile devices.	O	
n.a	n.a.		BRNF#5	Data quality	Data formats (e.g.: dates, numbers) shall be applied consistently. The system shall apply data validation rules.	M	
n.a	n.a.		BRNF#6	Availability	As a general rule, EVR shall be available 24 hours a day, 7 days a week, 365 days a year with a target system availability of 98 %. However, in the case of a failure occurring out of business hours - Monday to Friday from 07:00 to 20.00 Central European Time (CET) - the restoration of the service shall be handled the next working day after the failure. The unavailability of the system shall be minimal during the maintenance.	M	
n.a	n.a.		BRNF#7	Performance	The maximum loading time for pages others than search or reports results shall be less than 10 seconds, given that a stable internet connection featuring a download speed of at least 1mbps is available. The maximum response time to users' queries shall be shall be less than 180 seconds, given that a stable	M	

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
					internet connection featuring a download speed of at least 1mbps is available.		
n.a	n.a.		BRNF#8	Capacity	<p>The number of registered users supported by the system shall be at least 15.000.</p> <p>The number of registrations that can be recorded in the system shall be at least 10.000.000.</p> <p>The maximum size of each document in Mb shall be 10.</p> <p>The maximum number of concurrent users shall be up to 500.</p>	M	
n.a	n.a.		BRNF#9	Compatibility	The harmonised interface shall be accessible via the most common web browsers.	M	
n.a	n.a.		BRNF#10	Level of support	<p>Support to user is provided during business hours by a Help Desk on matters related to the use of the system (e.g.: access issues, performance issues).</p> <p>For parts of the system developed by the Agency, the terms of technical support shall be specified in the conditions of use agreement.</p>	M	
n.a	n.a.		BRNF#11	Maintainability	In case of decentralised system, the deployment of updates distributed by the Agency to common	M	

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
					<p>components shall be carried out in timely manner by the responsible entities.</p> <p>Any normal maintenance activities should take place outside business hours, Monday to Friday, from 07:00 to 20.00 Central European Time (CET), in order to minimise access disturbance.</p> <p>System's health shall be monitored and automatic notifications shall be sent to system administrators in case of anomalies.</p>		
n.a	n.a.		BRNF#12	Scalability	The EVR system should be designed and developed in a modular manner so that it could be possible to scale up the system if needed.	O	
n.a	n.a.		BRNF#13	Auditability	<p>The system shall maintain a record of each action performed by users for 10 years:</p> <ul style="list-style-type: none"> - Action (e.g. submit an application); - User (e.g.: username); - Role (role of the user when performing the action); - Date and Time of action. 	M	
n.a	n.a.		BRNF#14	Security	<p>In case of decentralised system, all the subsystems and their interconnections shall have an equivalent level of security.</p> <p>Software, hardware and network components shall be protected from malicious activity by implementing the</p>	M	<p>Regulation (EU) No 910/2014</p> <p>Regulation (EU) 2015/1502</p>

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or <u>new</u>)
					<p>appropriate controls such as anti-virus, firewalls, and intrusion prevention systems.</p> <p>The appropriate environmental and physical security controls shall be implemented to ensure that information and information systems remain secure.</p> <p>Industry best practices shall be adopted to protect the confidentiality, integrity and availability of information.</p> <p>Information regarding technical vulnerabilities shall be obtained in a timely manner, shall be evaluated for its relevance and potential impact to its assets, and appropriate measures shall be taken to address the associated risk.</p> <p>Backup of information shall be available according to policies.</p> <p>The system shall be able to authenticate (verify the identity of) users.</p> <p>Authentication shall be compliant with Regulation (EU) 2015/1502; for the different categories of users different levels of assurance will apply:</p> <ul style="list-style-type: none"> - REs: <i>substantial</i> as referred to in Annex 2.2.1. - Applicant (Keeper): <i>substantial</i> as referred to in Annex 2.2.1. 		

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
					<ul style="list-style-type: none"> - Other users (RUs, IMs, owners, ECMs, ...): <i>low</i> standard user authentication (username and password) <p>The system shall be able to authorise users to access the resources (information and functionality) they are authorised to.</p>		
n.a	n.a.		BRNF#15	Data protection	The system shall comply with the applicable legal framework on personal data protection (Regulation (EC) 45/2001, OJ L 8/12.01.2001, data protection Directive 95/46/EC, General Data Protection Regulation (GDPR) (Regulation (EU) 2016/679) entering into force on 25 May 2018, and related personal data legislation applicable to the EU Member States.	M	
n.a	n.a.		BRNF#16	Architectural Requirements	<p>The EVR shall enable the access to data (by authorised users) recorded in the vehicle registers of EU Member States and non-EU OTIF Contracting States.</p> <p>The EVR shall provide a harmonised interface to all users for the registration of vehicles and data management.</p>	M	
n.a	n.a.		BRNF#17	Conditions of use	Subsystems and other components developed by the Agency and made available to Member States or non-EU OTIF Contracting States shall be subject to a condition of use agreement.	M	
n.a	n.a.		BRNF#18	Content management	The system shall be able to manage the registrations including the attached supporting documents.	M	

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
					Any attached supporting document shall be signed using a recognised electronic signature service that allows the signature to be verified.		
			BRNF#19	Workflow management	The system will enable the workflows for the registration of vehicles and the data management as described in the business requirements.	M	
n.a	n.a.		BRNF#20	File system access	<p>Services for accessing a file system shall be provided, so that applicants can use the documents stored on their devices (e.g.: for uploading them).</p> <p>Multiple document upload should be supported.</p> <p>Document type and size limitations shall be applied.</p> <p>REs, and applicants limitedly to the documents they provided, shall be able to download documents to their devices.</p> <p>Multiple document download should be supported.</p>	M	
n.a	n.a.		BRNF#21	Communication	The system shall be capable to send messages and emails.	M	
n.a	n.a.		BRNF#22	Printing	<p>Facilities for printing shall be provided.</p> <p>It shall be possible to print all documents and information items.</p>	M	

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
n.a	n.a.		BRNF#23	Reporting	The system shall be capable to generate reports. The system shall be capable to export data to file (e.g. pdf, excel, csv, XML).	M	
n.a	n.a.		BRNF#24	System Documentation	The following documentation shall be available for each subsystem: - technical and functional description of the subsystem and their interfaces. - installation and configuration manuals. - user manuals. - data migration manual for the migration of data from the NVRs to EVR. - backup and recovery plan.	M	
n.a	n.a.		BRNF#25	Interfaces to External Systems or Devices	The EVR system shall implement the following interfaces including via links to the relevant tools: - the repository of reference data if external to the EVR, in order to provide access to the reference data recorded therein; - vis a vis the NVRs of non-EU OTIF Contracting States, in order to provide access to the data of vehicles registered therein; - ERATV, in order to provide access to the data of vehicle types referenced in vehicle registrations.	M	

Use case name	Use case description	Actors involved	Business Requirement Index	Non-functional Business Requirement Title	Business Requirement Description	Mandatory \ Optional	Legal base (existing or new)
n.a	n.a.		BRNF#26	Interfaces to External Systems or Devices	EVR system should implement the following interfaces: - ERADIS, in order to retrieve information on ECM Certificates of ECMs referenced in vehicle registrations; - OSS, in order to retrieve, during the application for registration process, information on relevant parameters of issued authorisations; - TAF TSI RSRDs, in order to provide master administrative data to the operational databases.	O	
n.a	n.a.		BRNF#27	Applicable Standards	For the representation of dates, the ISO standard is used. (RVRR conclusion)	M	
			BRNF#28	Safety of data	It shall be possible to recover the data after a failure. A backup system shall be available and functioning according to a recovery management plan.	M	
			BRNF#29	Testing	A EVR test environment shall be available.	M	
			BRNF#30	Transition	A transition plan shall be available describing the steps for the migration from the NVR systems to the EVR. The plan shall cover aspects such as: - configuration of EVR, - data migration, - fall-back.	M	

Annex 6: Preliminary analysis of access rights to EVR for Entity Fleet Manager

The EVR Working party discussed the possibility to delete the *Fleet manager* entity from the section 3.3.2 Access Rights table at its final meeting before the submission of the EVR Recommendation, which took place on 14 and 15 November 2017 (7th EVR Working Party Meeting).

No analysis of the implications of the deletion of this entity was done because the discussion was triggered during the final phase of the project. Moreover, the discussion in the EVR Working Party did not conclude with a common proposal. It was agreed by the EVR Working party to keep the current situation with fleet manager entity being included in the section 3.3.2 Access rights table and to include a preliminary analysis of the fleet manager entity in the Accompanying report.

○ Definition of fleet manager

The definition of fleet manager was introduced in the original NVR Decision ([L6] Decision 2007/756/EC) and slightly modified in the Decision 2011/107/EU amending Decision 2007/756/EC.

<i>Decision</i>	<i>Fleet managers Definition</i>	<i>Fleet managers Read rights</i>
Decision 2007/756/EC	Managing vehicles as appointed by the Keeper	Vehicles for which he has been appointed by the keeper
Decision 2011/107/EU	Manager of vehicles as appointed by the keeper	Vehicles for which they have been appointed manager by the keeper

○ Analysis of organisations registered as fleet managers and their number of vehicles in ECVVR

A draft analysis of the number of organisations registered in ECVVR, done in January 2016 for [D2] Rationalisation of vehicle-related registers (RVRR) project, showed a number of 243 organisations registered with a role of fleet manager (number of distinct company names in all EU national vehicle registers except HU, DE and ES). During a separate review of the ECVVR, done in December 2017, more than 100.000 vehicles were found to be assigned to different fleet managers.

- **Conclusion**

The implications of the deletion of the access rights for the organisations recorded as fleet managers in ECVVR has not been further analysed in detail. Moreover, because of this lack of detailed analysis and because the subject was raised so late in the drafting process, no common approach was decided in the EVR working party. Consequently, the Agency proposal for the EVR Recommendation is to maintain the access rights for the Entity *Fleet managers* as they are defined in the [L6] NVR Decision (2007/756/EC and amended by Decision 2011/107/EU).

Annex 7: Final comments received from the EVR Working Party members

The below comments were received just before the submission of the EVR Recommendation and therefore they could not be analysed and discussed within the EVR Working Party.

<i>Requestor</i>	<i>Date</i>	<i>Received comment</i>	
CER	4.12.2017		
		<i>Reference</i>	<i>Reviewer's Comments, Questions, Proposals</i>
		Section 3.3.2, line Fleet Manager	<p>Whereas:</p> <ul style="list-style-type: none"> • The concept of Fleet Manager was introduced by the NVR WP in 2006 in the spirit of ECM. • The ECM was formally introduced in the Safety directive 2004/49 by amendment end 2008 and the function of Fleet Maintenance Manager is one sub-function of the ECM as described in the ECM Certification regulation 445/2011 (it is the only place in the EU Interoperability and Safety legislation where the role is described). • The ECM will be included in the access rights table for the first time since the publication of NVR decision in 2007 via this EVR IA. • In addition no formal and relevant process exists for the delegation from the Keeper to the Fleet Manager, e.g.: <ul style="list-style-type: none"> - the Fleet Manager User Manual v1.1 grants access to all vehicles without any restriction, i.e. more rights than the delegating keeper, which has only access to the vehicles for which it is the keeper !); - the Fleet Manager is not listed in the actors informed of a change in the EVR (section 3.2.3 Automatic notification of changes). • The creation of this EVR IA is the best opportunity to align this IA with the 4th Package Interoperability and the Safety legislation) and to clean-up transitional options taken 12 years ago. <p>It is proposed:</p> <ul style="list-style-type: none"> • To delete the Fleet Manager of the EVR access rights table (section 3.3.2). • For the existing actors with the status of Fleet Manager in the NVRs, study during the drafting of the EVR Guidelines the re-allocation to a relevant role through a clear and documented process.

<i>Requestor</i>	<i>Date</i>	<i>Received comment</i>
NSA FR	4.12.2017	<p>Proposal to modify §3.2.2.3 Change of keeper of the draft EVR IA</p> <p>“Should a keeper of a vehicle change, it is the responsibility of the currently registered keeper to inform in due time the RE in due time, so that the latter may update the EVR. The former keeper is removed from the EVR registration and relieved of its responsibilities only when the new keeper has acknowledged its acceptance of keeper status, taking therefore full responsibility of changes to vehicles made by former keepers. If on the date of de-registration of the currently registered keeper no new keeper has accepted the keeper status, the registration of the vehicle is suspended.”</p> <p>Justification</p> <p>The new keeper must acknowledge its acceptance of keeper status but also take full responsibility for the changes made to the fleet in the framework of the configuration management. This amendment proposal aims at preventing the break down of the chain of responsibility if one of the keeper loses its legal existence. This amendment also aims at building a link with article 16(5) on changes to an already authorised vehicle, of the Commission Implementing Regulation on practical arrangements for the railway vehicle authorisation and railway vehicle type authorisation process.</p> <p>“Every change to a vehicle shall be subject to configuration management under the responsibility of the keeper or of the entity entrusted by it.”</p>