

Webinar

RAILWAY VEHICLE MAINTENANCE: A SHARED RESPONSIBILITY



EUROPEAN
UNION
AGENCY
FOR RAILWAYS



15 September 2026

15:00 - 16:00 CEST



Online





Moderation

Cyriel MARTIN

Project Officer | ERA

Introduction

Pio GUIDO

Head of Safe Rail Department | ERA

Presenting the ECM Guidance

Nikola ILIEVSKI

Project Officer | ERA

Maintenance File

Giuseppe RAGUSA

ECM Project Officer | Trenitalia

Responsibility

Aleksandra KANIA

Head of the Railway Control Systems Division | UTK

Outsourcing activities

Giuseppe RAGUSA & Susanna TURRILLO

ECM Project Officer |
Trenitalia

Manager for Rolling Stock Operations
and Maintenance Conditions | RENFE

Competencies

Gianni FERRERO

Product Line Service Platforms Quality Director | Alstom





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F1 – ECM MANAGEMENT



Decide and Act
maintenance activities



Supervise
maintenance activities



Allocate
Resources and means



Assess effectiveness
and performance

F2 – MAINTENANCE DEVELOPMENT



Develop
solutions



Ensure
compliance



Analyse and
ensure
traceability



Define
maintenance rules



Approve maintenance
documentation

F3 – FLEET MAINTENANCE MANAGEMENT



Plan maintenance
activities



Organise
activities



Check maintenance
execution



Audit
maintenance
processes



Manage outsourced
maintenance activities

F4 – MAINTENANCE DELIVERY



Inspect
rolling stock



Perform
maintenance
tasks



Record
maintenance
activities



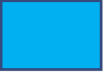
The current status 47 certification bodies

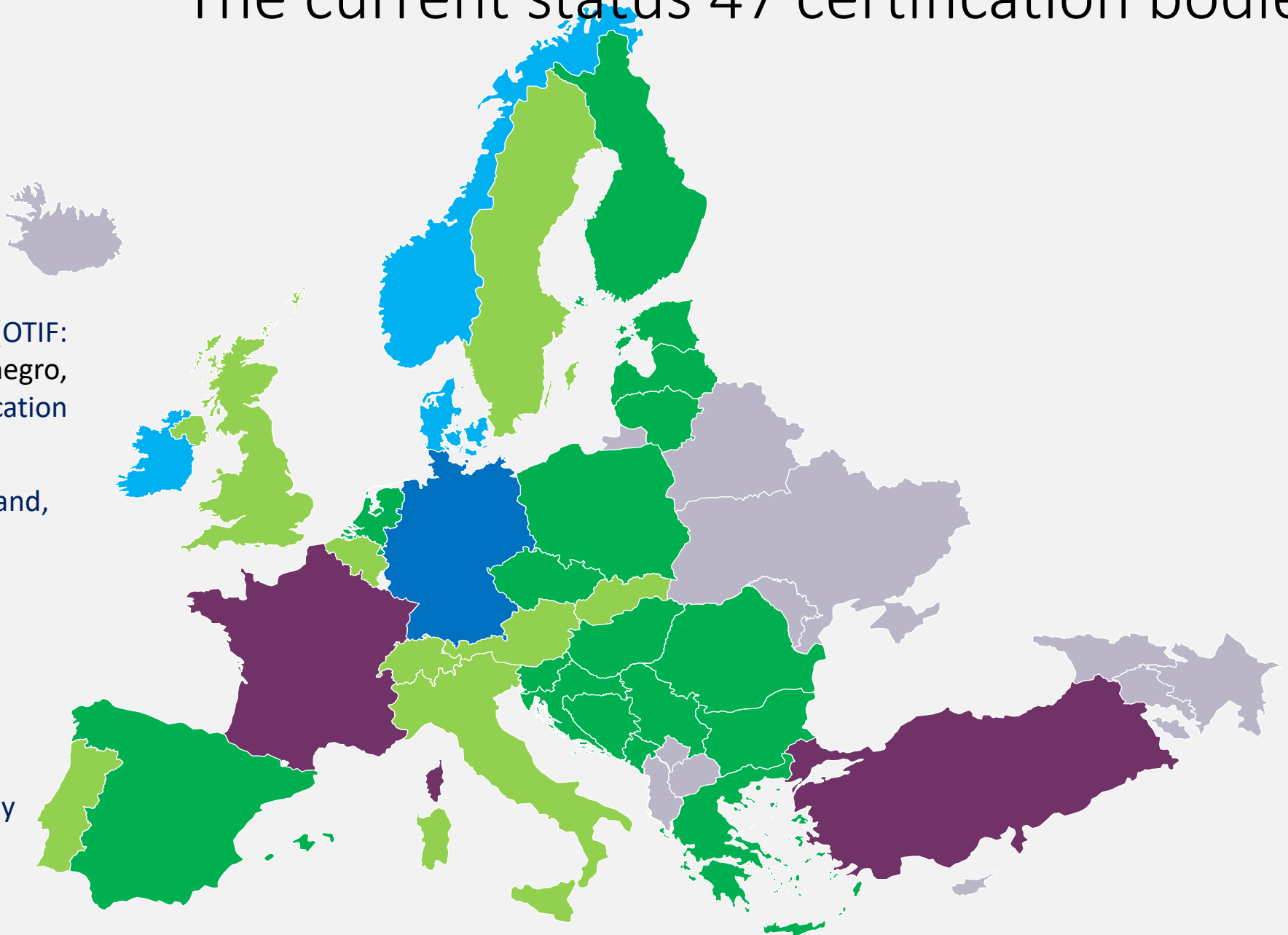
 NSA or Safety authority (OTIF: Serbia, Bosnia, Montenegro, Turkey) acting as certification body 19 NSAs acting as CB

 Accreditation 8 MS, Switzerland, 24 ACBs

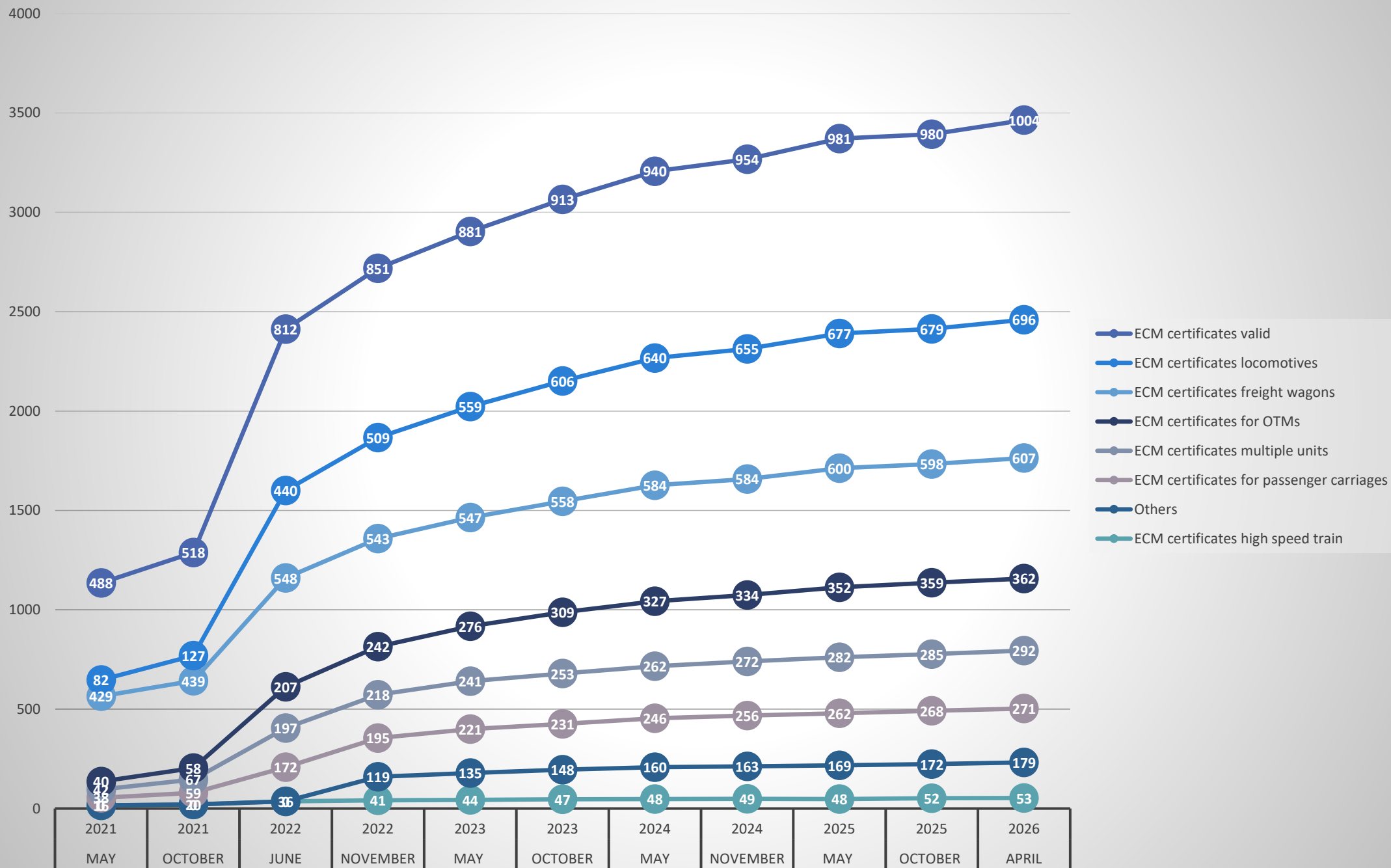
 NSA + accreditation 2 MS

 Recognition 1 MS - 4 RCBs

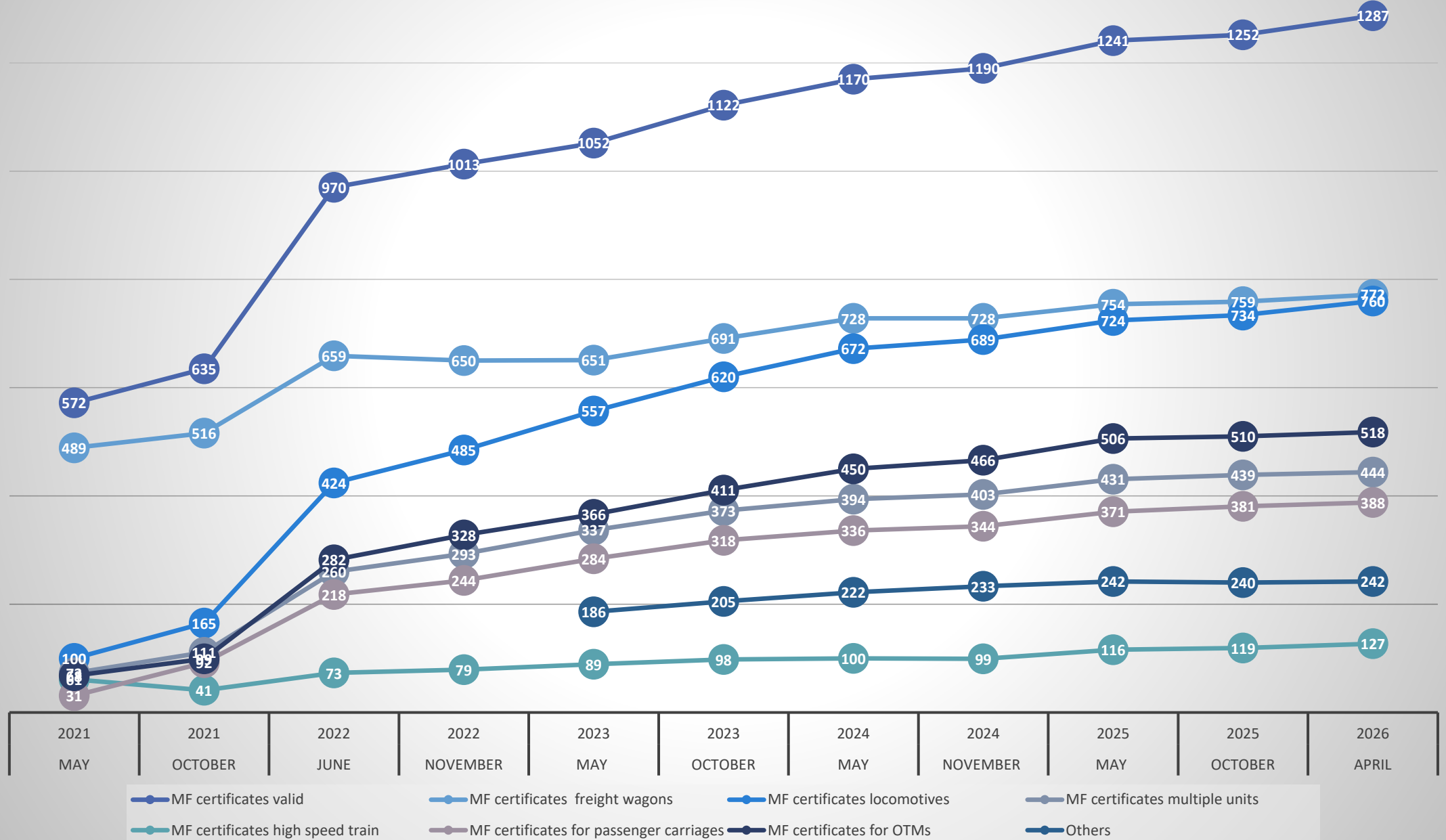
 EU countries, without CBs, Denmark, Ireland and Norway



ECM certificates



ECM Maintenance functions certificates



ERA ECM Guidance

Version 10.0
(2025)

vs

Version 9.0
(2021)



Why revised?

Experience gained from applying Regulation (EU) 2019/779 and feedback from the sector.

Who contributed?

ERA, ECM Certification Bodies and railway sector stakeholders

How was it developed?

More than 2 years of collaboration and over 20 dedicated meetings involving ERA, Certification Bodies, NSAs and railway sector stakeholders.

Objective

Improve harmonisation, consistency and practical implementation



Digitalisation

References to digital tools,
diagnostics and cybersecurity

**Newly
introduced
topics**

EVR Alignment

Updated references reflecting
European Vehicle Register
implementation.

Vehicles Before Service

Clarification for testing,
commissioning and entry into
service.



Certification & Assessment

Multi-Site Organisations

Guidance for audit sampling and assessment of organisations with multiple sites.

Use of Existing Certifications

Recognition of ISO 9001, IRIS and similar evidence **where appropriate.**

Consistency

More harmonised practices across Certification Bodies.



ECM Responsibilities

Outsourcing

More detailed expectations on interfaces and contractor management.

Competencies

Further clarification of competency requirements and assessment.

Maintenance file

More detailed guidance on maintenance file structure, content and responsibilities.

GCU Clarification

GCU arrangements do not replace legal ECM responsibilities.

Safety Critical Components

Updated guidance aligned with latest sector developments.



What changed?

Version 10 is an evolution rather than a complete rewrite. Most changes clarify expectation and reflect sector experience.

Why it matters?

Greater clarity, improved consistency, reduced interpretation differences and better support for digital maintenance practices.

Takeaways



Key Message

The main value of Version 10.0 is increased clarity and harmonisation of ECM certification practices, and not introducing major new regulatory obligations.





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Webinar

Railway Vehicle Maintenance: A Shared Responsibility

The Maintenance File – Chapter 7 of the ECM Guide



Mr Giuseppe
Ragusa

Maintenance Engineering Project Officer – ECM Management Team

CER – ECM Support Group Speaker

CEN-TC256-WG48 Representative

CENELEC-TC9X Liaison Officer for Vehicle Maintenance

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15/9/2026

Maintenance File definition

Maintenance File:

A structured set of documents specifically compiled by the ECM, based on recommendations for maintenance of the initial documentation – delivered by the manufacturer – and information on planned operations also taking into account the information contained in any associated guarantees, that includes relevant maintenance documentation necessary to perform the maintenance and to ensure safe and reliable operation throughout the vehicle's lifecycle. It is continuously updated based on operational experience and regulatory requirements.

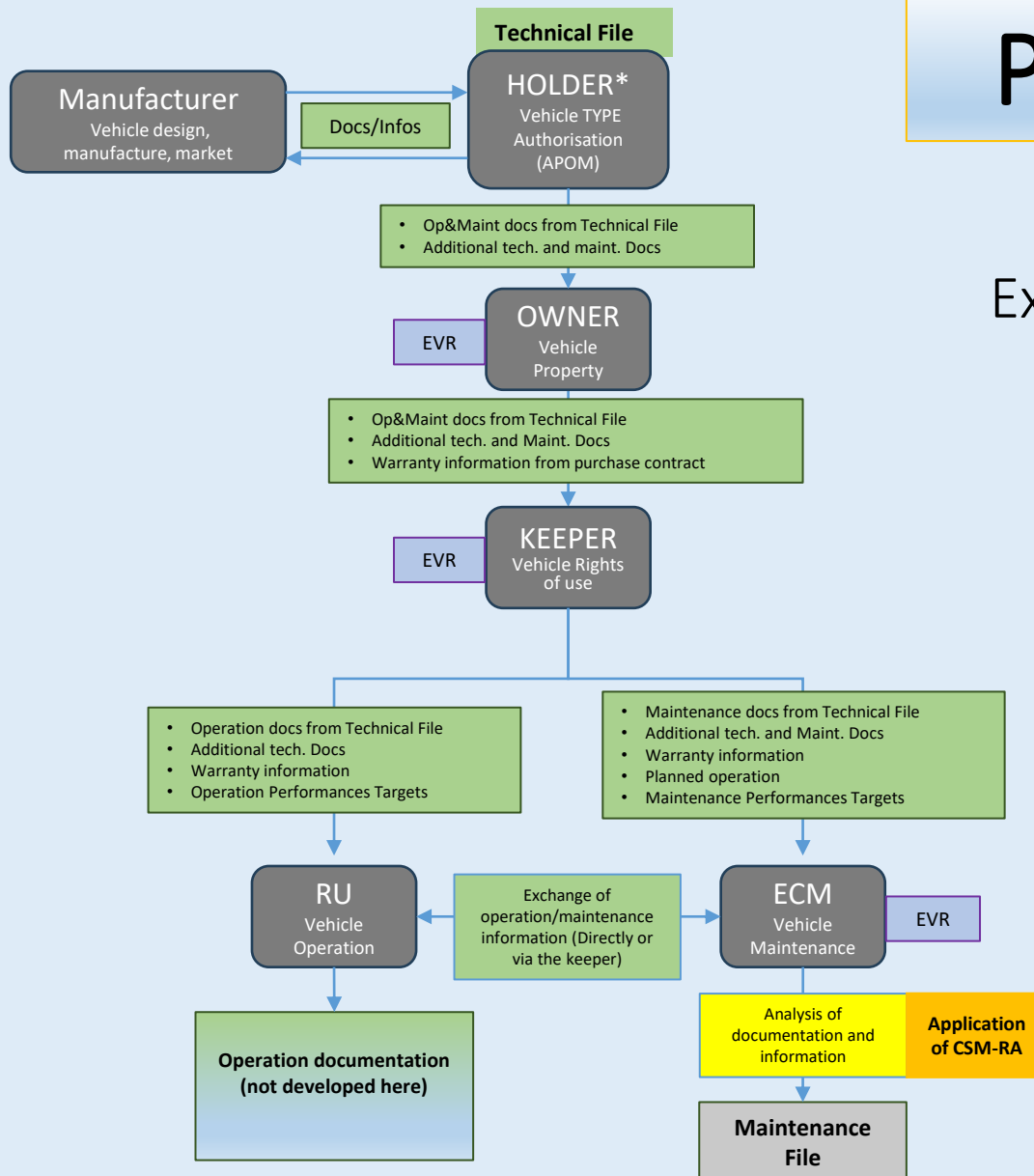
The maintenance file serves several key purposes:

- Ensuring compliance with European railway legislation, including ECM certification requirements.
- Providing a systematic approach to maintenance planning, execution, and record-keeping.
- Facilitating communication between stakeholders, including Manufacturers, ECMs, and railway operators.
- Ensuring safety-critical components are monitored and maintained effectively.
- Supporting risk management by integrating safety analysis and failure prevention strategies.

The **maintenance file is a dynamic document** that evolves with operational experience, technical advancements, and regulatory updates. The ECM-F2 is responsible for preparing the first Maintenance File and updating it during the life-cycle of the vehicle.

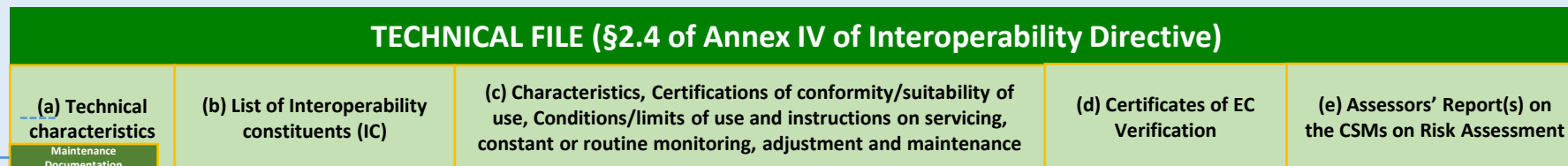
Preparing Maintenance File

Exchange of documents/information to prepare the first Maintenance File starting from the APOM

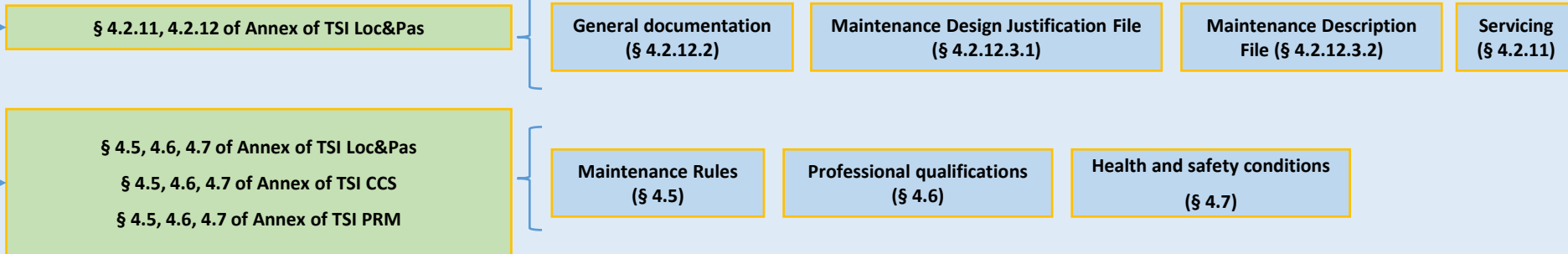


Preparing Maintenance File is a task for ECM-F2

Technical File and Maintenance Documentation for a vehicle compliant with TSIs Loc&Pas, PRM, CCS

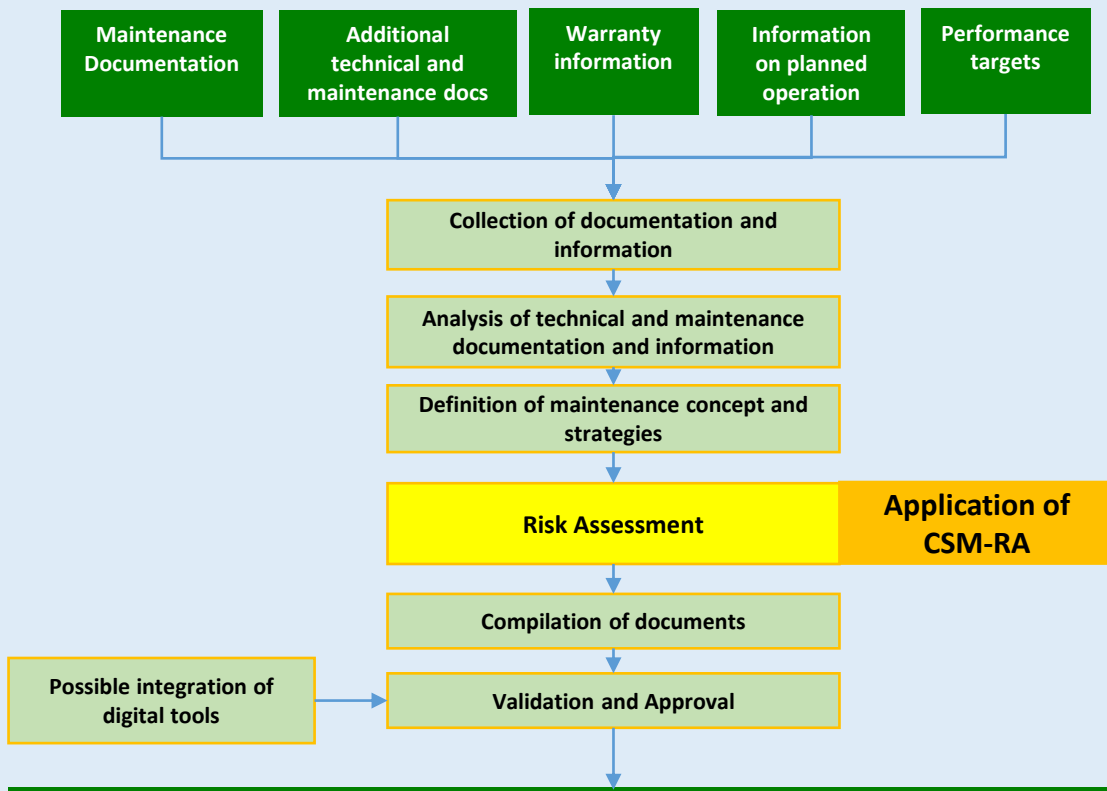


Maintenance Documentation
(TSI Loc&Pas, CCS, PRM)



Maintenance Documentation
(TSI Loc&Pas, CCS, PRM)

General documentation	Maintenance Design Justification File (MDJF)	Maintenance Description File	Other information
- General drawings - Diagrams: electrical, pneumatic, etc.. - Computerized on-board systems, Data and Communications - Gauging - Load conditions and weighed masses - Axle load parameter - Vehicle dynamic behaviour - Running gear - Braking - Toilets - Environmental conditions - Cross wind - Traction performance - Energy measurement System (EMS) - System energy disturbances for AC systems - Pantographs - Other as in § 4.2.12 of Annex of TSI Loc&Pas	- Precedents, principles and methods used to design maintenance - Precedents, principles and methods used to identify safety critical components and their requirements - Utilisation profile: Limits of the normal use of the unit (e.g. km/month, climatic limits, authorised types of loads etc.). - Relevant data used to design the maintenance and origin of these data (return of experience) - Tests, investigations and calculations carried out to design the maintenance.	- Component hierarchy and functional description - Schematic circuit diagrams, connection diagrams and wiring diagrams - Parts list - Safety critical components list - In service limit values - European legal obligations - Structured set of maintenance tasks - Description of the maintenance activities - Disassembly/assembly instructions and drawings - Maintenance criteria - Checks and tests - Tools and materials - Consumables required - Personal protective safety provision and equipment (special). - Tests and procedures before re-entry into service of rolling stock. - Troubleshooting (fault diagnosis) manuals or facilities	- Servicing - Maintenance rules - Professional qualifications - Health and safety conditions



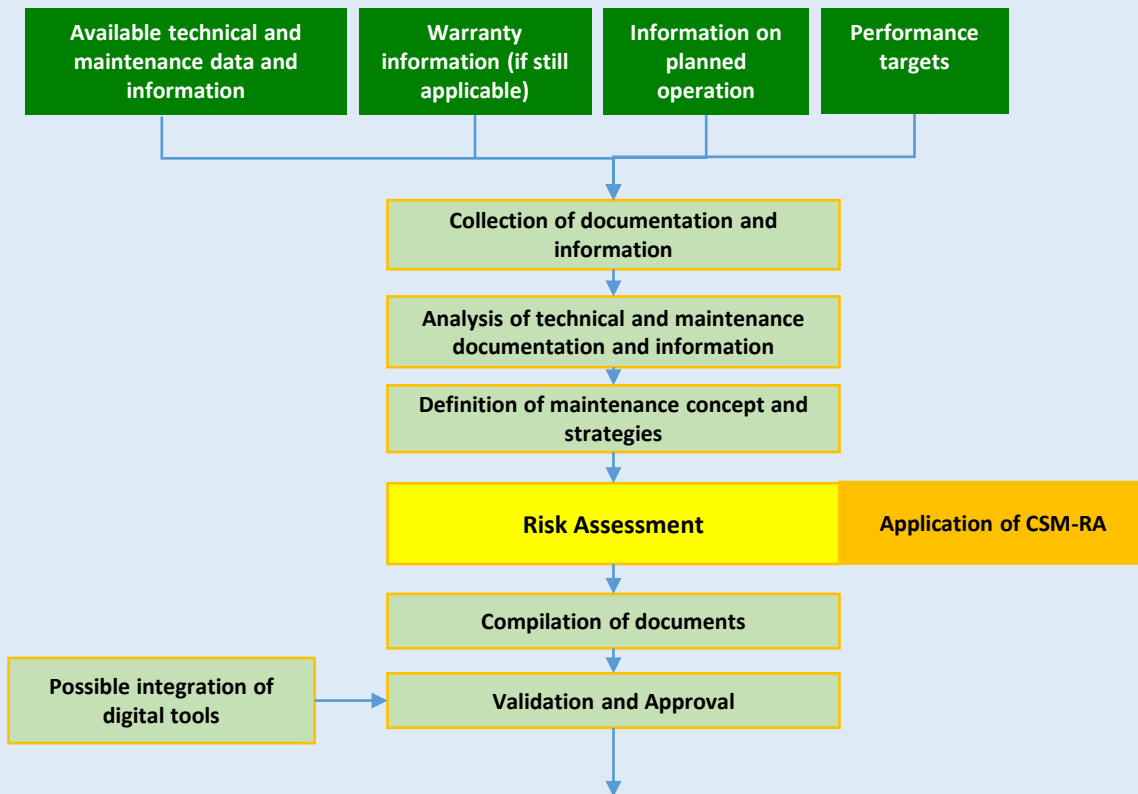
Preparing Maintenance File for a new vehicle compliant with TSIs Loc&Pas, PRM, CCS

Preparing Maintenance File is a task for ECM-F2

MAINTENANCE FILE

- Maintenance Plan (intervals, activities, instructions/procedures/rules, tools, spare parts, materials, consumables, Competencies, skills, experience of personnel), references to documents (manuals, instructions, functional descriptions, parts list, troubleshooting procedure, diagnosis equipment, protective safety provisions for personnel, health/safety and environment provisions)
- Maintenance Rules
- Rules for records and traceability of the activities/tasks affecting safety)
- Identification of safety-related activities/tasks
- Safety critical components (identification and requirements)
- Applicable conditions/restrictions of use from APOM

- Safety requirements and compliance checks for “Release to Service”
- Records of past changes to Maint. File
- Records of maintenance activities performed and affecting safety
- Information on operation
- Performance targets
- Current Configuration file
- Records on Return-on-experience
- Maintenance provisions for Servicing



Preparing Maintenance File for an existing vehicle not compliant with any TSIs

The maintenance file for non-TSI compliant vehicles (the majority of the existing vehicles) is assumed not to have a well-defined structure and be complete in all its parts.

As a consequence, it can be assumed that the maintenance file for non-TSI compliant vehicles is the set of documents, containing the **available technical and maintenance data and information** used by the ECM to perform the maintenance (current and historical data, rules, activities and tasks, planning, return-on-experience, methods, records of performed maintenance and other technical data) and useful for ensuring safe and reliable operation throughout the vehicle's lifecycle.

Preparing Maintenance File is a task for ECM-F2

MAINTENANCE FILE

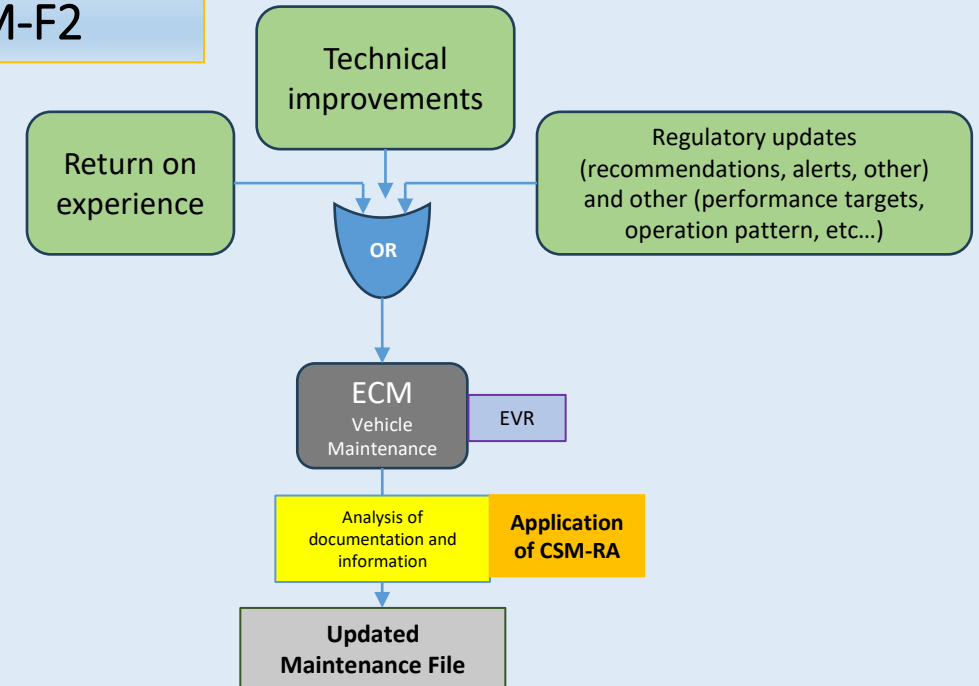
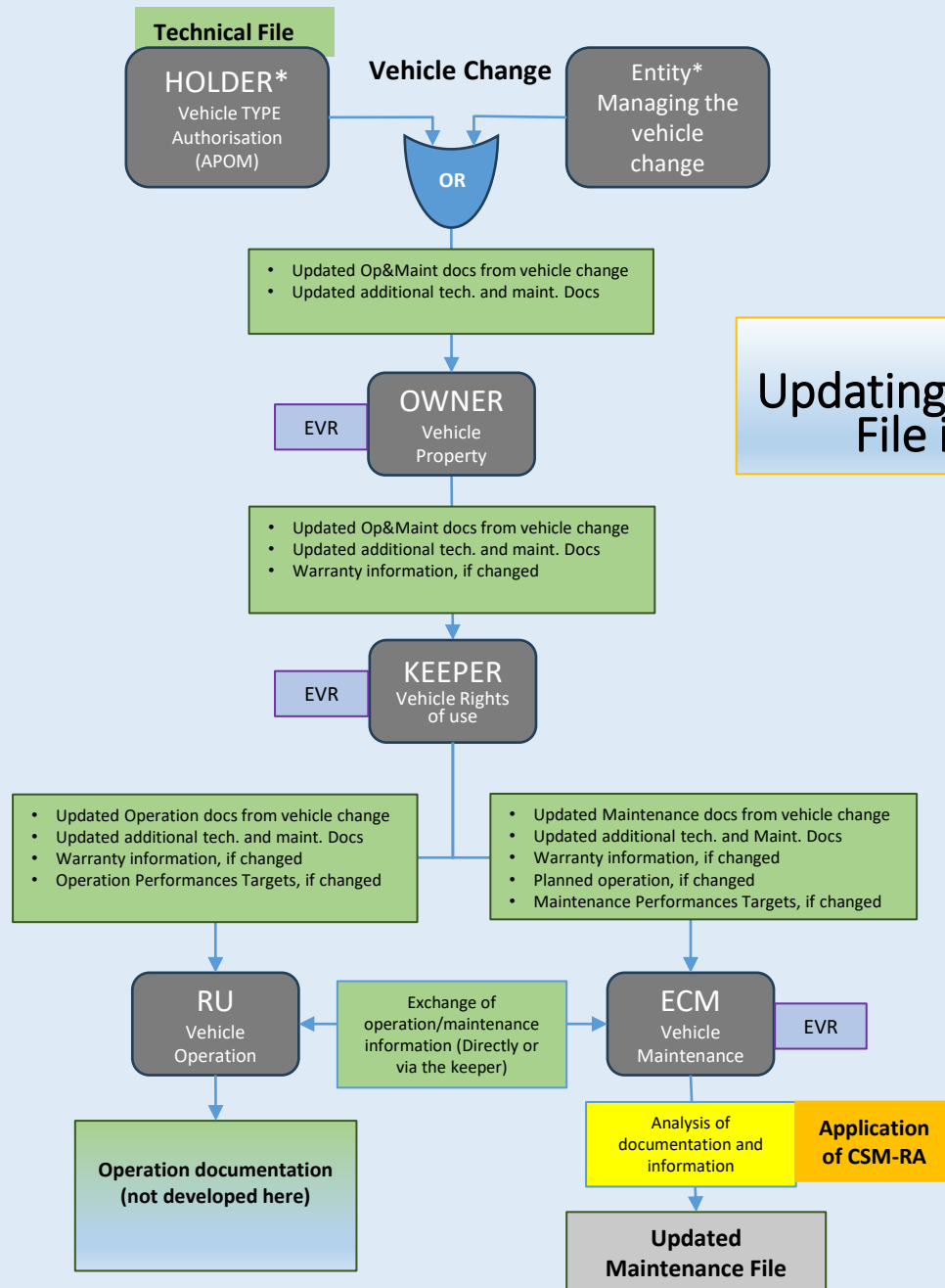
- Maintenance Plan (intervals, activities, instructions/procedures/rules, tools, spare parts, materials, consumables, Competencies, skills, experience of personnel), references to documents (manuals, instructions, functional descriptions, parts list, troubleshooting procedure, diagnosis equipment, protective safety provisions for personnel, health/safety and environment provisions), or an equivalent document used for the planning of the vehicle's maintenance with identification of activities/tasks and instructions/information to perform them (also spare parts list, where available, or other related maintenance information,
- Rules for records and traceability of the activities/tasks affecting safety)
- Identification of safety-related activities/tasks (starting from the date of the applicability of ECM Regulation)
- list of safety critical components (it can be assumed that for old existing and non TSI compliant vehicles it could be empty) where to insert new safety critical components gathered from monitoring during operation/maintenance (starting from the date of the applicability of ECM Regulation)

- Applicable conditions/restrictions of use from APOM
- Safety requirements and compliance checks for "Release to Service"
- Records of past changes to Maint. File (starting from the date of the applicability of ECM Regulation)
- Available Records of maintenance activities performed and affecting safety
- Information on operation
- Performance targets
- configuration file (starting from the date of the applicability of ECM Regulation)
- Available return-on-experience

Updating/Changing process for the Maintenance File

Exchange of documents/information to update the Maintenance File following a vehicle change or ECM internal process

Updating/Changing Maintenance File is a task for ECM-F2



Railway Vehicle Maintenance: A Shared Responsibility

The Maintenance File

Thanks for joining the Webinar

Questions ?



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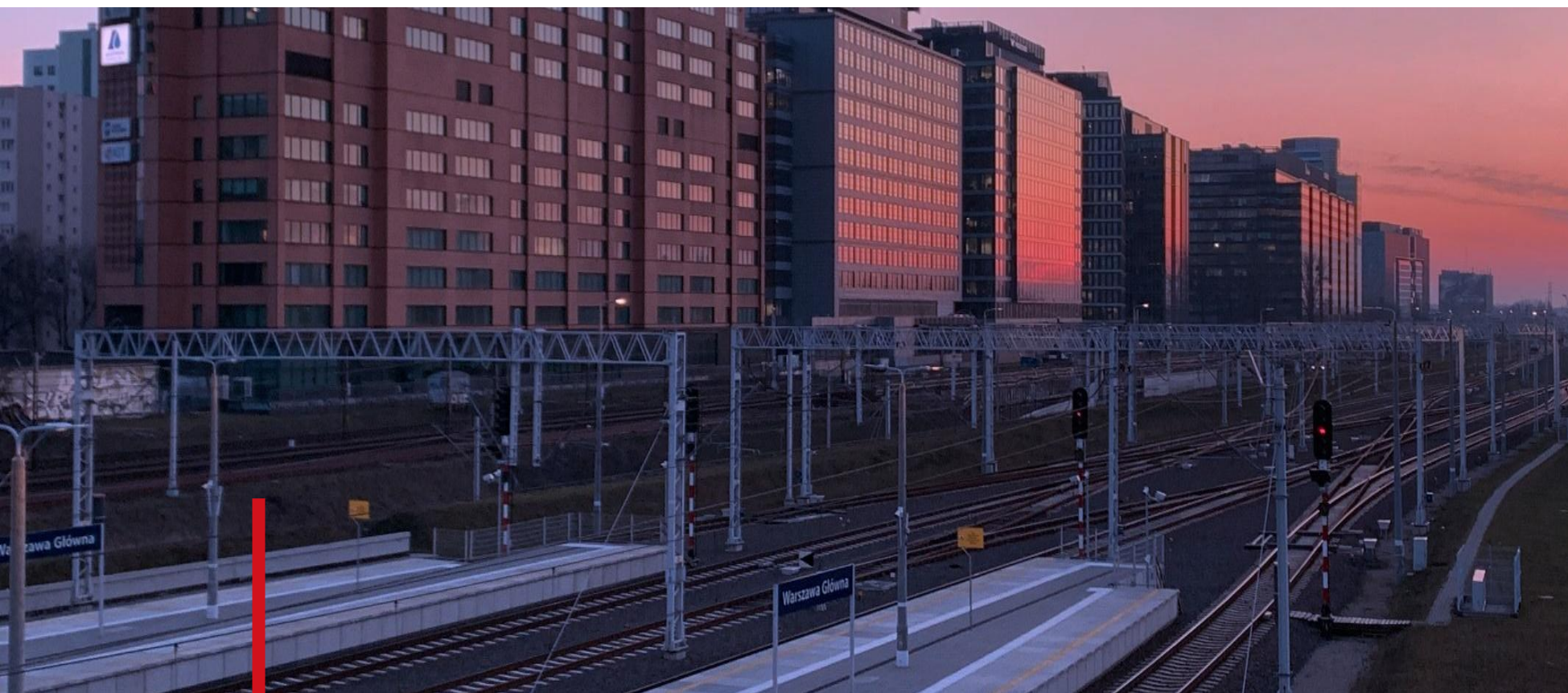
Manager for Rolling Stock Operations
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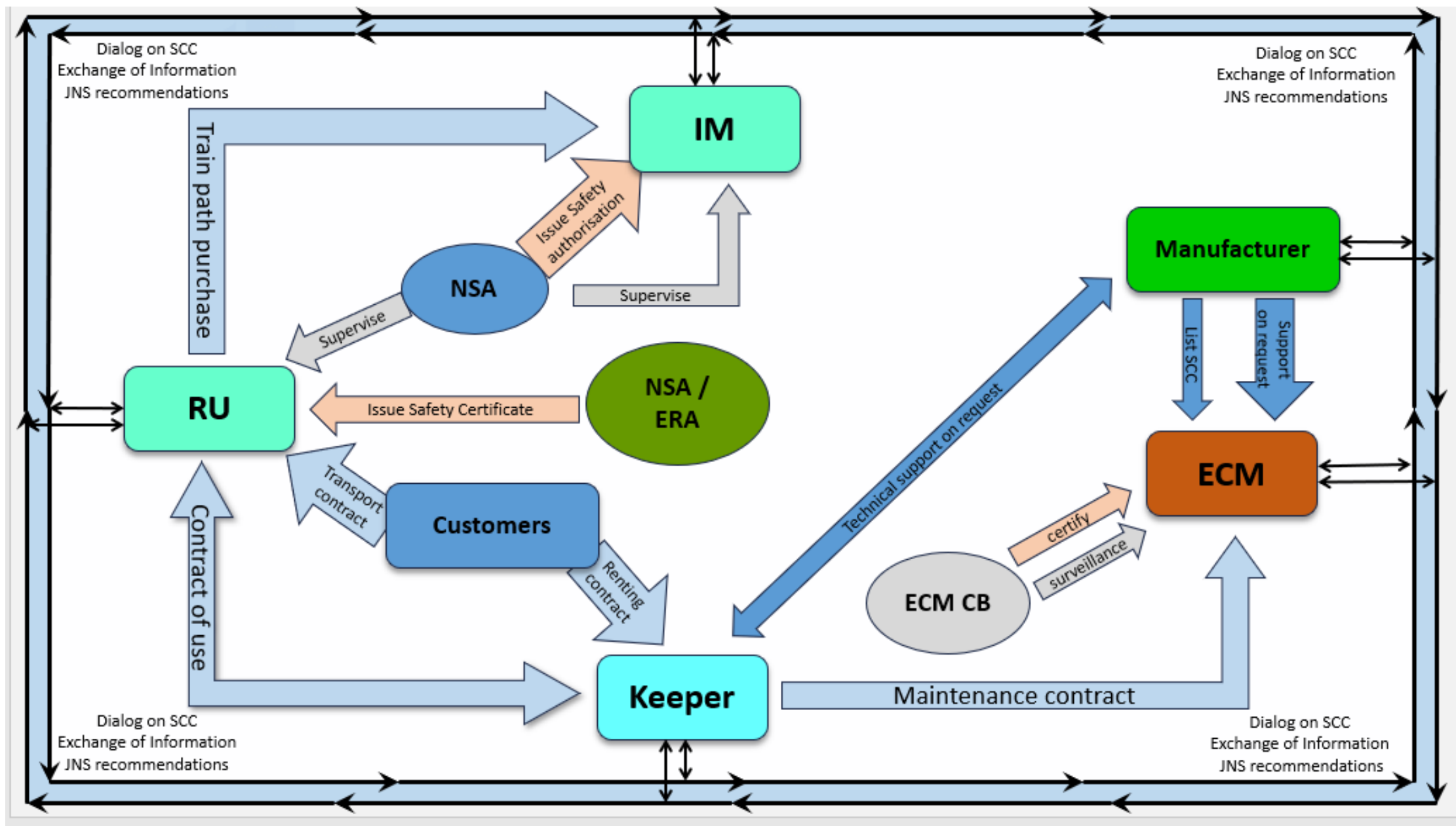




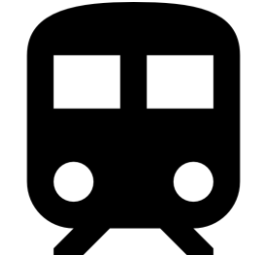
15.09.2026

Responsibilities of other participants in the railway system

Aleksandra Kania



Who Is the Keeper?



Definition & General Role

- Defined in:
 - Safety Directive 2016/798 (Art. 3(19)) - natural or legal person that, being the owner of a vehicle or having the right to use it, exploits the vehicle as a means of transport and is registered as such in a vehicle register referred to in Article 47 of Directive (EU) 2016/797
 - Interoperability Directive 2016/797 (Art. 3(21))
- Usually considered the **registration holder** unless otherwise stated.
- No additional explicit maintenance duties in the Directives.
- Main responsibility (Art. 4(4) Safety Directive): **Implement risk control measures** and ensure vehicles provided to RUs/IMs consistently meet safety and legal requirements.

Contractual Obligations

- Contract of use with RU/IM must include:
 - Safety-related obligations
 - Information exchange
 - Traceability of safety documentation



31 51 535 1 001-7^A
PL-PKPC^B
Eaos^C
^D

KEEPER

What the Keeper Must Ensure?

- **Before Vehicles Are Used**
 - The keeper must ensure that each vehicle has:
 - A **valid authorisation for placing on the market**
 - A **registered ECM** in the EVR
 - All **initial maintenance documentation** delivered to the ECM Act if the ECM certificate is **suspended or revoked**:
 - For all vehicles a **valid ECM certificate**
- **Keeper vs ECM**
 - A keeper **may** also be an ECM, but it is **not mandatory**.
 - If not the ECM, the keeper must:
 - Appoint an ECM and establish contracts
 - Ensure EVR data is correct and up to date

The screenshot displays the European Vehicle Register (EVR) interface. At the top, there is a header with the European Union Agency for Railways logo and the text 'EUROPEAN VEHICLE REGISTER'. Below the header, there is a navigation bar with 'Vehicles' and 'Vehicle history' tabs. The main content area is a search results page. It features a search bar at the top right. Below the search bar, there is a table of search results. The table has columns for various vehicle details, including EVN, Previous EVN, Status, Registration regime, Date of the authorisation, Date of Revocation of Authorisation, Registration Status Date, Suspension of authorization, Authorisation valid until (if specified), Manufacturing Year, Additional conditions, Vehicle Type ID, EIN, Series, Resulting Area of Use, EC declaration reference, EC Issuing Body, EC Issuing Body Org. Code *, Owner's Name, Owner Org. Code *, Owner's RBN, Keeper's Name, and Keeper's Org. Code *. The table is currently empty, and there are filters on the left side of the page.

Operational Responsibilities During Vehicle Operation

Ensure vehicles are made available **in due time** to the ECM for maintenance.

- Assign a new ECM
- Inform customers and RUs
- Understand that vehicle registration may be suspended

Information & Risk Management

Specify **conditions of use** to RUs/IMs (e.g., goods allowed, operational limits).

Participate in **information exchange** between ECMs and RUs/IMs.
Implement **risk control measures** and cooperate with all actors.

International Transport

OTIF CUV and GCU rules apply to keepers and RUs for freight wagons.

Keeper obligations are detailed in **GCU Chapter II**.

RU/IM

Legal Basis

- RUs/IMs are responsible for safe operation and must establish a Safety Management System (SMS).
- RUs/IMs must control all risks related to the supply of maintenance.

What “controlling risks” means?

- Identifying hazards linked to maintenance.
- Evaluating risks affecting operations.
- Defining and implementing **control measures** to ensure safe train operations.
- Important: **Controlling risks ≠ performing maintenance.** Maintenance remains the **ECM’s responsibility.**

RU/IM

Assurance on Maintenance & ECM Certification

Assurance Obligations

RUs/IMs must obtain assurance that:

- Maintenance performed by the ECM keeps vehicles in a **safe state of running**.
- The ECM's maintenance system is capable and effective.

ECM Certification

- ECM certification is the **main assurance tool** for RUs/IMs.
- RUs/IMs **should not re-evaluate** an ECM already certified.
- Before departure, RUs/IMs must ensure:
 - Vehicles have a **certified ECM** (freight wagons + vehicles under Art. 3(2)(b) ECM Regulation).
 - Certificate is **valid**, issued by an accredited body, and matches the **correct scope**.
 - Checks may be supported by contractual arrangements (e.g., with keeper) or sectoral agreements (e.g., GCU).

Inspections

- ECM certification does **not** guarantee absence of defects.
- RUs/IMs must perform:
 - **Pre-departure inspections**
 - **On-route inspections**
- Purpose: ensure vehicles are in a **safe condition for use**, not to verify maintenance quality

RU/IM

Information Exchange & Additional Duties

Information Exchange

RUs/IMs must:

- Share operational data (e.g., **mileage**, specific conditions) with the ECM or keeper (Art. 5(2) ECM Regulation).
- Exchange maintenance-related information with all contracting parties (Art. 5(3) ECM Regulation).
- Communicate with commercial partners (other RUs/IMs, keepers, ECMs).

Reporting Non-Compliance

- If an RU/IM has justified concerns that an ECM does not comply with legal requirements, it must:
 - Inform the **certification body** and the **NSA** without delay.
 - Trigger possible actions: improvement plan, scope limitation, suspension, or revocation of the ECM certificate.

Continuous Risk Control

- Implement any **additional control measures** needed to keep maintenance-related risks under control.
- Use findings from routine monitoring and SMS processes.
- Ensure inspections and ECM feedback loops support continuous improvement.

MANUFACTURER

General Role & Core Responsibilities

Role Under the Interoperability Directive

- Beyond the obligations of an “**applicant**”, the Interoperability Directive does **not** assign additional explicit responsibilities to manufacturers.
- As defined in **Article 2(22)**, the manufacturer acting as applicant must provide essential information to the **keeper** of the vehicle.

Information the manufacturer must provide

- **Initial identification of safety-critical components (SCCs).**
- **Complete technical file**, including maintenance instructions, as required by **Article 15(4)** of the Interoperability Directive.
- **Recommendations for maintenance** as part of the initial documentation.
- **Maintenance instructions for SCCs**, referenced in the subsystem technical file.

MANUFACTURER

Technical Support & Information Exchange

Support to ECMs and Keepers

- Provide **technical and engineering support** on SCCs and their safe integration when requested by:
 - the **ECM**, or
 - the **keeper**. (This support may be organised through agreements or contractual arrangements.)

Information Exchange Obligations

- Under **Article 5 of the ECM Regulation**, the manufacturer must:
 - Exchange relevant information with the **ECM**.
 - Share information with other actors when they request it.
 - Ensure that all safety-critical and maintenance-related information is communicated effectively.

ECM

Core Responsibilities of an ECM Maintenance File & Implementation

- Establish and keep the **maintenance file** updated (Annex II, II.4(b) &
- Ensure the **first maintenance file** is correctly implemented (Annex I
- Guarantee that the maintenance file is **applied correctly** for each ve

Coordination & Supervision

- Coordinate all maintenance activities (ECM-F1).
- Supervise subcontractors and outsourced functions.
- Ensure technical expertise is available (internally or externally).

Information Exchange

- Exchange information with other actors (Art. 5(1) ECM Regulation).
- Provide **RTO (Return to Operation)** information to RUs/IMs and ke

 CERTYFIKAT ZGODNOŚCI DLA PODMIOTU ODPOWIEDZIALNEGO ZA UTRZYMANIE

potwierdzający zaakceptowanie systemu utrzymania podmiotu odpowiedzialnego za utrzymanie w Unii Europejskiej zgodnie z dyrektywą Parlamentu Europejskiego i Rady (UE) 2016/798 i rozporządzeniem wykonawczym Komisji (UE) 2019/779

1. Numer EIN	PL/31/0026/0009
--------------	-----------------

2. PODMIOT ODPOWIEDZIALNY ZA UTRZYMANIE, KTÓREGO DOTYCZY CERTYFIKAT

Nazwa prawna:	PKP CARGO SERVICE SPÓŁKA Z OGRANICZONĄ ODPOWIEDZIALNOŚCIĄ
Nazwa handlowa lub akronim (dobrowolnie):	----
Pełny adres pocztowy (ulica, kod pocztowy, miejscowość, kraj):	ul. Marcina 11, 40-854 Katowice, Polska
Numer przedsiębiorstwa w rejestrze:	0000131988 NIP: 5262649402

3. ORGAN CERTYFIKUJĄCY

Nazwa prawna:	Prezes Urzędu Transportu Kolejowego
Pełny adres pocztowy (ulica, kod pocztowy, miejscowość, kraj):	Aleje Jerozolimskie 134, 02-305 Warszawa, Polska
Numer referencyjny organu certyfikującego:	PL/30/0021/0001

4. INFORMACJE O CERTYFIKACIE

Jest to:	☐ - nowy certyfikat	☒ - przedłużenie certyfikatu	☐ - aktualizacja / zmiana certyfikatu	Numer EIN poprzedniego certyfikatu: PL/31/0025/0009
Ważny od:	24 kwietnia 2026 r.	Ważny do:	24 kwietnia 2031 r.	
Rodzaj przedsiębiorstwa: przedsiębiorstwo kolejowe, dysponent, dostawca usług utrzymania (przedsiębiorstwo kolejowe, dysponent, dostawca usług utrzymania itp.)				

5. ZAKRES DZIAŁALNOŚCI PODMIOTU ODPOWIEDZIALNEGO ZA UTRZYMANIE

Kategoria pojazdów: (wagony towarowe, lokomotywy, zespoły trakcyjne, wagony pasażerskie, pojazdy dużych prędkości, maszyny torowe, inne)	wagony towarowe, lokomotywy, inne: pojazdy specjalne
Obejmuje wagony specjalne przystosowane do przewozu towarów niebezpiecznych	TAK/NIE

6. INFORMACJE DODATKOWE

Brak

Data wydania: 20 kwietnia 2026 r.

Wewnętrzny numer referencyjny: 2025-ECM-00044

Podpis: 
Ignacy Góra

Pieczęć organu certyfikującego: 

ECM

Compliance & Certification Responsibilities

Legal Requirements

The ECM must continuously meet the requirements of:

- **Safety Directive Art. 14(3)**
- **ECM Regulation Art. 4, 5(1), 5(3), 5(5)**
- **Annex II of the ECM Regulation**

Assurance to Railway Actors

- Assurance may be provided through:
 - **ECM certification** (mandatory for freight wagons and others under Art. 3(2)(b)).
 - Compliance with **Article 3(4)** when certification is not mandatory.

Monitoring & Performance

- Establish a system to **monitor performance** of maintenance activities (Art. 9(3)).
- Apply the **CSM on Monitoring**.
- Remain responsible for outcomes even when tasks are outsourced.



NSA

NSAs do not routinely supervise certified ECMs

- Surveillance of certified ECMs is normally performed by the **ECM Certification Body**

When can an NSA intervene?

- During supervision activities related to **railway undertakings (RUs)** and **infrastructure managers (IMs)**, an NSA may identify deficiencies that raise concerns about an ECM's compliance with Regulation (EU) 2019/779.

Notification to:

- Accreditation/Recognition Body
- ERA
- Certification Body
- Other relevant parties



Thank you for attention!



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Railway Vehicle Maintenance: A Shared Responsibility

Outsourcing Functions/Activities – Chapter 9.2 of the ECM Guide



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CEN-TC256-WG48 Representative

CENELEC-TC9X Liaison Officer for Vehicle Maintenance

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Mrs Susana Turrillo

Rolling Stock Safety and Maintenance Manager. Internal Auditor- SMS

CER – ECM Support Group Speaker

CEN-TC269 –WG5 Expert

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15/09/2026

Outsourcing Functions/Activities

Proposed question:

I'm the ECM and want to outsource one or more functions of the maintenance system, the whole functions, or parts of them. How do I proceed?

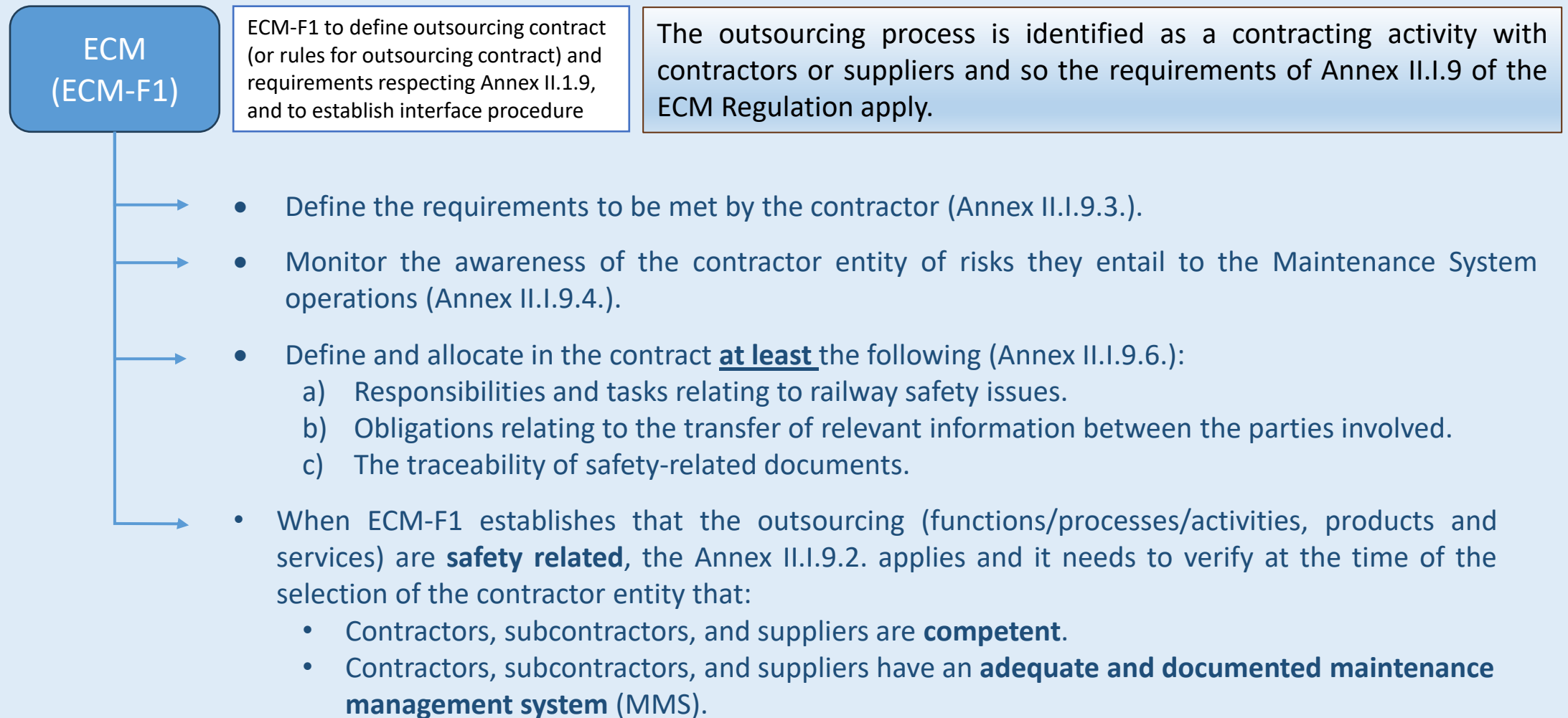
Outsourcing functions/Activities of the maintenance system is a task for ECM-F1.

ECM-F1 needs to **inform its Certification Body** about the functions/processes/activities outsourced:

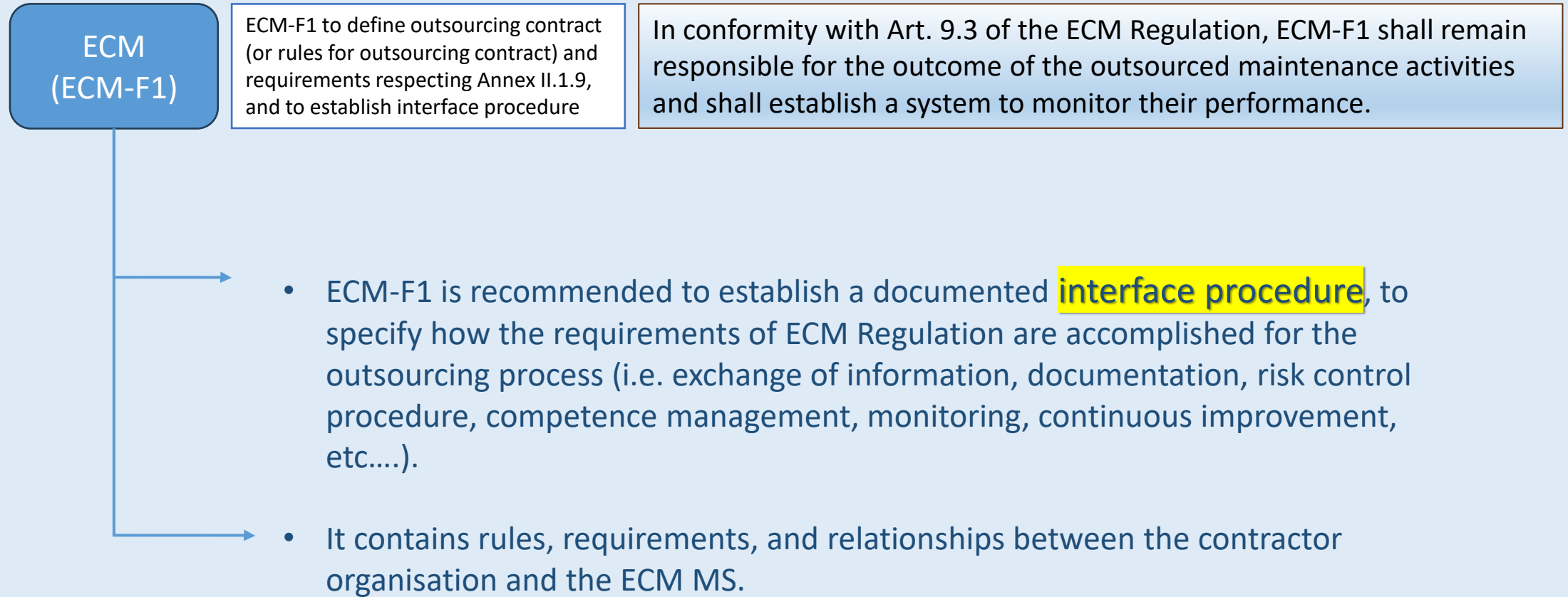
- In conformity with Article 7(8) of the ECM Regulation **without delay in case the functions/processes/activities outsourced might have an impact on the validity of the certificate.** The impact might be identified through a Risk Assessment process or other internal procedures of the ECM.
- Anyway, through the annual report.

In both cases, the ECM CB could decide if a supplementary visit is requested to ensure the certificate's validity, and ECM-F1 shall demonstrate to the certification body how it complies with all the requirements of ECM Regulation regarding the functions (or parts thereof) it decided to outsource.

Outsourcing Functions/Activities – General steps-part 1



Outsourcing Functions/Activities - General steps-part 2



Outsourcing Functions/Activities – Different cases

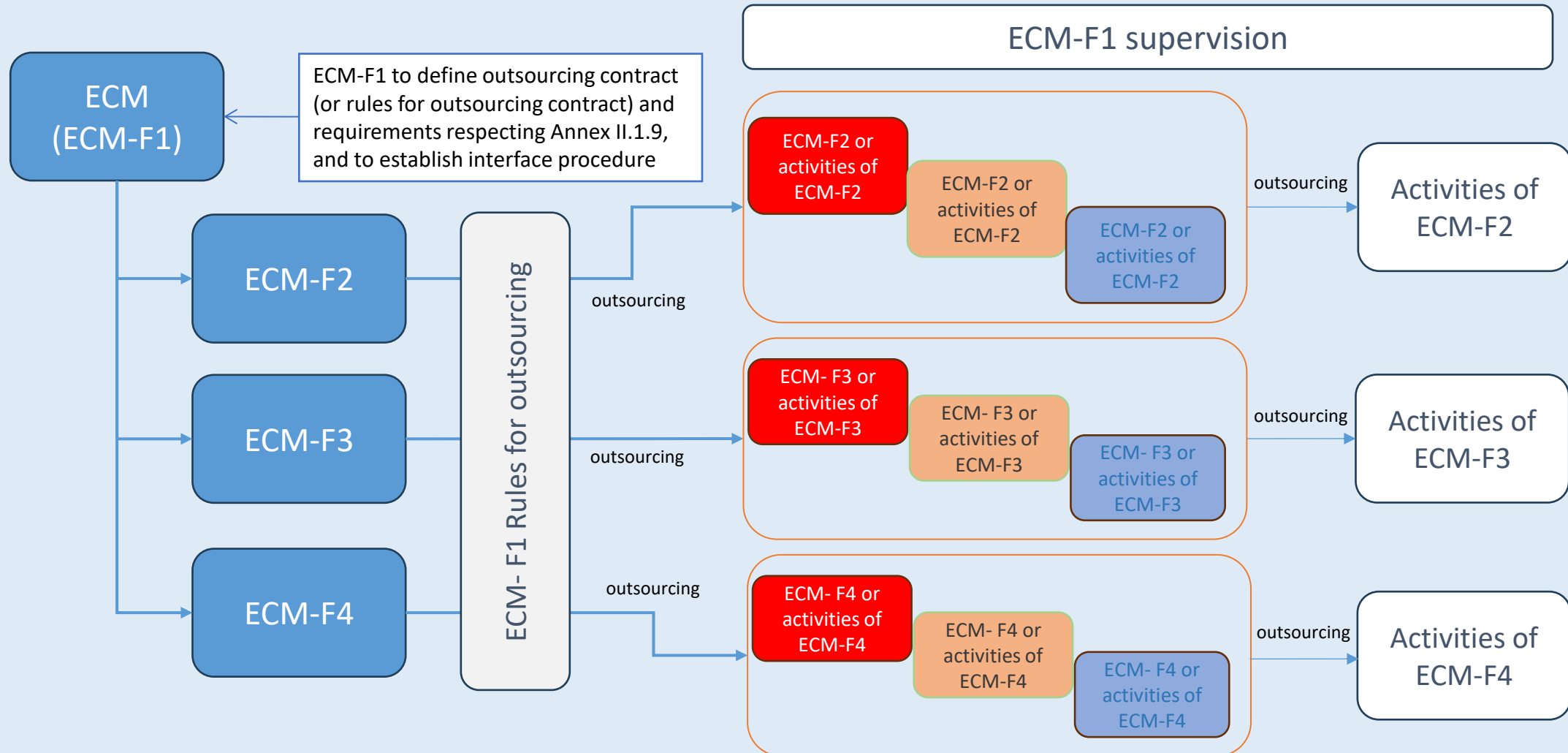
The outsourcing process can be differentiated between the cases when the external company (i.e. the contractor) has a:

- Maintenance System certified in conformity with ECM Regulation,
- a generic maintenance or management system certified against a recognized international standard (e.g. ISO 22163),
- and the case when the external company hasn't got any certified maintenance or management system.

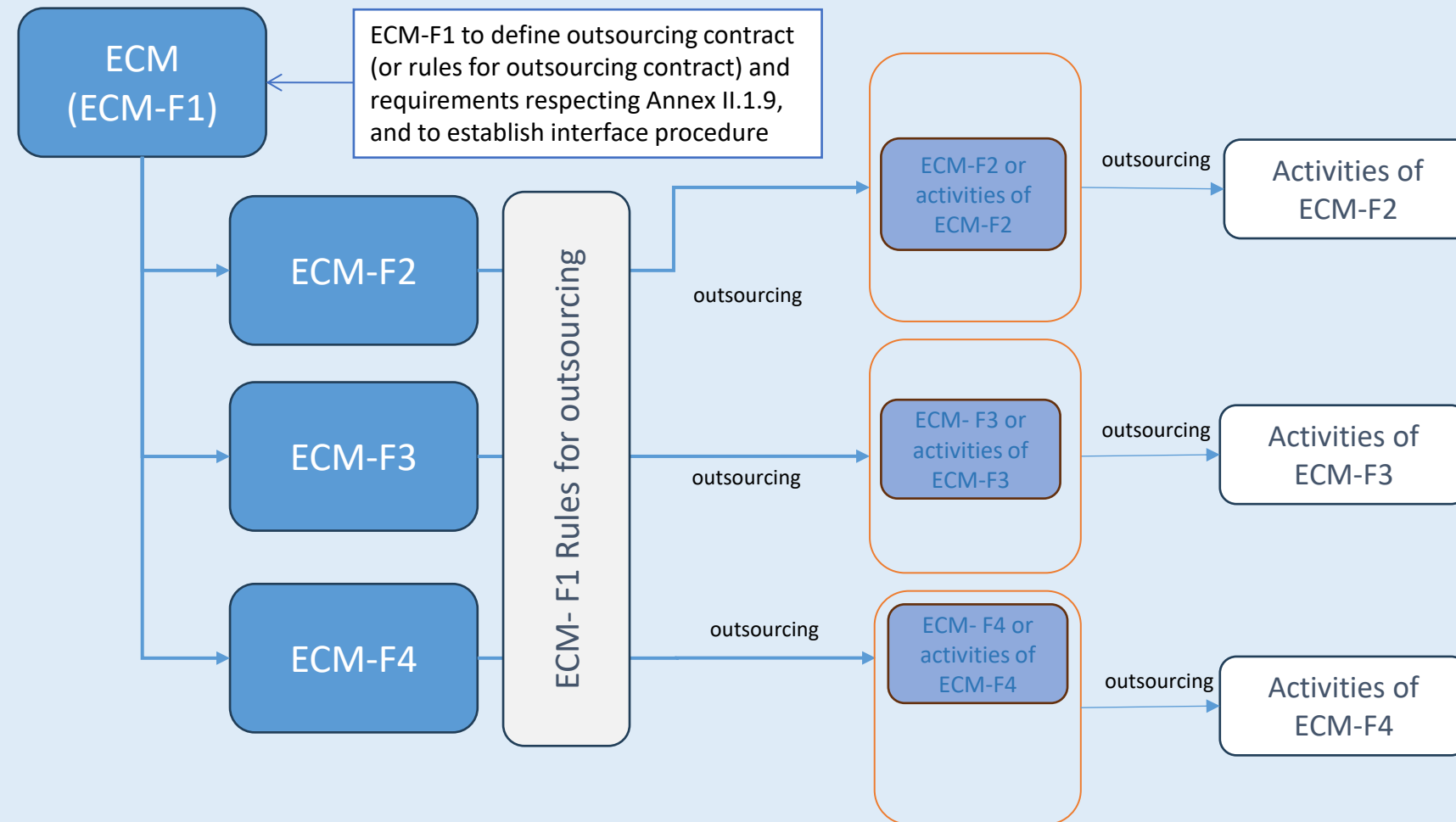


Mixed situations with the different cases (multiple outsourcing) in the ECM Maintenance System are possible and can be managed adequately by ECM-F1

Outsourcing Functions/Activities – Main outline



Case 1- Outsourcing Functions/Activities to company certified under ECM Regulation



This is the case when the contractor has an:

- ECM certificate (valid for the vehicles related to the outsourcing)
- ECM Function certificate (valid for the function/processes/activities to be outsourced)

INTERNAL

Outsourced companies (with MS certified under ECM Regulation)

Case 1 - Outsourcing Functions/Activities to company certified under ECM Regulation

ECM (ECM-F1)

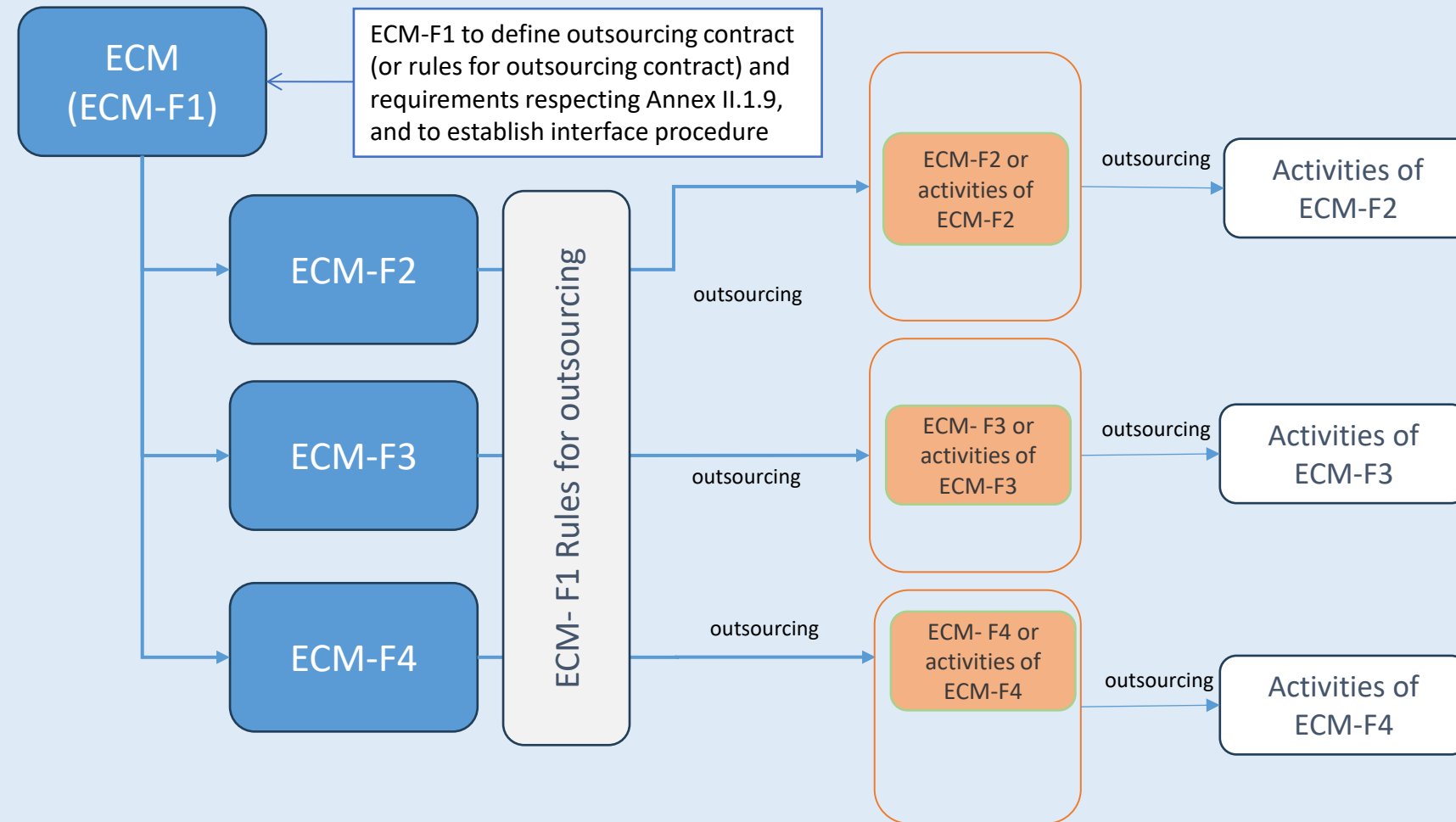
ECM-F1 to define outsourcing contract (or rules for outsourcing contract) and requirements respecting Annex II.1.9, and to establish interface procedure

In conformity with Art. 9.3 of the ECM Regulation, ECM-F1 shall remain responsible for the outcome of the outsourced maintenance activities and shall establish a system to monitor their performance.

1. ECM-F1 is recommended to **check** into the contractor's procedures related to the outsourced functions/processes/activities **to create links with the ECM MS**
2. ECM-F1 must identify if **safety-related** activities are involved and, consequently, must apply specific requirements of Annex II.1.9. Check if the MS of the contractor is adequate and documented and if it is competent (if not, to cover discrepancies)
3. ECM-F1 is responsible for establishing the rules, conditions, and constraints to manage contracting activities in compliance with Annex II.1.9.
4. ECM-F1 may limit monitoring of outsourced processes to the results

ECM-F1 is recommended to establish a documented **interface procedure**, to specify how the requirements of ECM Regulation are accomplished for the outsourcing process (i.e. exchange of information, documentation, risk control procedure, competence management, monitoring, continuous improvement, etc....). It contains rules, requirements, and relationships between the contractor MS and the ECM MS.

Case 2 - Outsourcing Functions/Activities to company certified under recognized standard



This is the case when the contractor has a:

Certificate of its Maintenance or Management system under a recognized international standard

INTERNAL

Outsourced companies only with generic certified Maintenance or management system

Case 2 - Outsourcing Functions/Activities to company certified under recognized standard

ECM (ECM-F1)

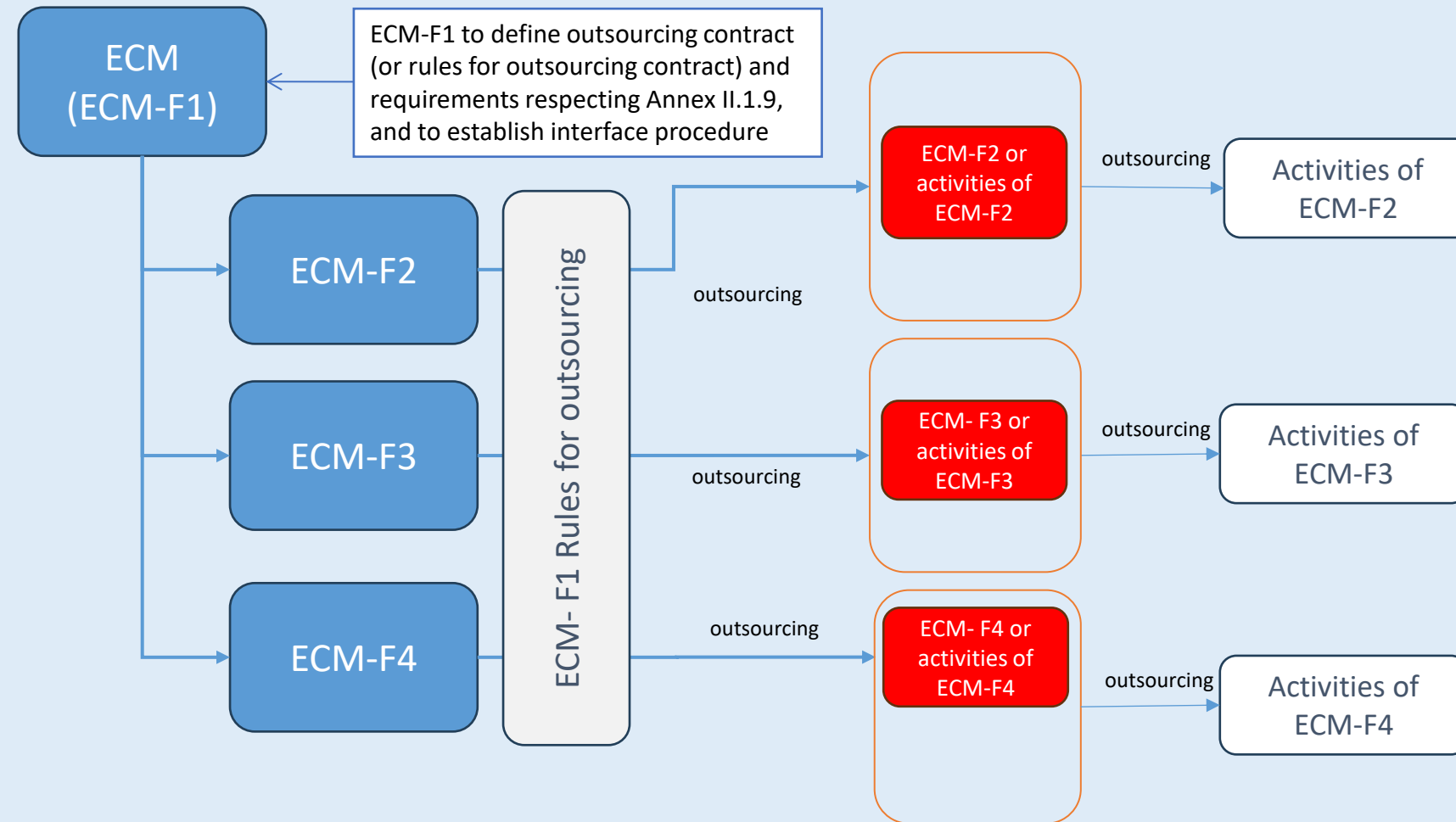
ECM-F1 to define outsourcing contract (or rules for outsourcing contract) and requirements respecting Annex II.1.9, and to establish interface procedure

In conformity with Art. 9.3 of the ECM Regulation, ECM-F1 shall remain responsible for the outcome of the outsourced maintenance activities and shall establish a system to monitor their performance.

1. ECM-F1 is recommended to **check** into the contractor's procedures related to the outsourced functions/processes/activities **to cover any discrepancies with the ECM Regulation** requirements through supplemented procedures and **to create links** between the Maintenance System of the ECM and the certified MS of the outsourced contractor
2. ECM-F1 must identify if **safety-related** activities are involved and, consequently, must apply specific requirements of Annex II.1.9. Check if the MS of the contractor is adequate and documented and if it is competent (if not, to cover discrepancies)
3. ECM-F1 is responsible for establishing the rules, conditions, and constraints to manage contracting activities in compliance with Annex II.1.9.
4. ECM-F1 may limit monitoring of outsourced processes to the results

ECM-F1 is recommended to establish a documented **interface procedure**, to specify how the requirements of ECM Regulation are accomplished for the outsourcing process (i.e. exchange of information, documentation, risk control procedure, competence management, monitoring, continuous improvement, etc....).
It contains rules, requirements, and relationships between the contractor MS and the ECM MS.

Case 3 - Outsourcing Functions/Activities to non-certified company



This is the case when the contractor doesn't have any:

Certificate of its Maintenance or Management system under a recognized international standard

Case 3 - Outsourcing Functions/Activities to non-certified company

ECM (ECM-F1)

ECM-F1 to define outsourcing contract (or rules for outsourcing contract) and requirements respecting Annex II.1.9, and to establish interface procedure

In conformity with Art. 9.3 of the ECM Regulation, ECM-F1 shall remain responsible for the outcome of the outsourced maintenance activities and shall establish a system to monitor their performance.

1. ECM-F1 **establishes the procedures** to cover the conformity of the functions/processes/activities outsourced with the ECM Regulation
2. ECM-F1 must identify if **safety-related** activities are involved and, consequently, must apply specific requirements of Annex II.1.9. **ECM-F1 covers these requirements by establishing the set of procedures** to be used by the contractor and needs to check the contractor's competency in advance of any contract agreement.
3. ECM-F1 is responsible for establishing the rules, conditions, and constraints to manage contracting activities in compliance with Annex II.1.9.
4. ECM-F1 **cannot limit monitoring** of outsourced processes to the results (Annex II.1.9.5 doesn't apply)

ECM-F1 is recommended to establish a documented **interface procedure**, to specify how the requirements of ECM Regulation are accomplished for the outsourcing process (i.e. exchange of information, documentation, risk control procedure, competence management, monitoring, continuous improvement, etc....).

It contains rules, requirements, and relationships between the contractor organisation and the ECM MS.

Railway Vehicle Maintenance: A Shared Responsibility

Outsourcing

Thanks for joining the Webinar

Questions ?



Moderation

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Introduction

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Presenting the ECM Guidance

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Competencies

Gianni FERRERO

Product Line Service Platforms Quality Director | Alstom



Competences of staff

Gianni FERRERO – Services Platforms Quality

15th September 2026



Guidance on competence management evolution from Version 9 to Version 10: from F4 focus to all functions

V9

Competence guidance centred on maintenance delivery

PRIMARY SCOPE

Specific focus on ECM-F4 maintenance staff

COMPETENCE MATRIX

Generic mix of experience, education and activity-related training

SPECIALIST ACTIVITIES

Detailed NDT and welding qualification expectations



V10

Broader, role-based and more operational competence framework

01 Coverage expands

Dedicated guidance for ECM-F1, F2, F3 and F4, not only maintenance delivery.

02 Competence Management System becomes actionable

Adds job-description requirements, training-needs reviews, onboarding, records, monitoring and reassessment.

03 Role-specific expectations

Defines recommended technical, regulatory, managerial and interface competences by ECM function.

04 Proportional application

Requirements are adapted to each position and may be covered collectively by the function or outsourced.

05 Updated specialist framing

Adds bonding via EN 17460; welding certification language shifts from required to recommended.

06 National-rule wording

Consistently refers to notified national rules and removes mandatory third-party certification wording where absent.

KEY TAKEAWAY V10 turns competence management from an F4-oriented good-practice guide into an end-to-end, auditable framework across all ECM functions.

Guidance on competence management in Version 10: from requirements to maintained competence

V10 makes the competence management system explicit, traceable and applicable to internal and external resources.



What the system must manage

- Knowledge, skills and experience for safety-related tasks
- Selection, initial training and qualification/certification
- Ongoing training, periodic checks and reassessment
- Awareness of each role's contribution to safety objectives

1	Define	Requirements in job descriptions: education, experience, training and certifications.
2	Identify	Training needs through manager/team reviews, with focus on newcomers and temporary workers.
3	Deliver	Training programmes using identified internal specialists or recognised external centres.
4	Record & monitor	Delivered training, acquired qualifications/certifications, skills updates and reassessments.
5	Control external scope	Competence requirements for organisations supplying outsourced resources or activities.

AUDIT EVIDENCE | defined requirements • training records • current qualifications • reassessment trail

Guidance on competence management in Version 10: competence expectations across the four ECM functions

The competence matrix is expanded from F4 delivery to function-specific requirements for F1, F2, F3 and F4.

ECM-F1 Maintenance management

- Coordinate and monitor F2, F3 and F4
- ECM legislation, management systems and MMIS
- Monitoring, audits and REX
- Risk/change management
- Accidents and incidents management
- Outsourcing management

ECM-F2 Maintenance development

- Develop and update maintenance plans/files
- RAMS, CSM risk assessment, configuration and change management
- Technical investigation, validation
- Facilities/tools specification
- Concession management

ECM-F3 Fleet maintenance management

- Plan and order maintenance work
- Verify delivery capability
- Manage priorities
- Return-to-operation notices, including restrictions and records
- Communication with internal and external stakeholders

ECM-F4 Maintenance delivery

- Execute and record work using procedures, tools and equipment
- Vehicle/system knowledge plus theoretical and practical training
- Release to service and safety-specific activities
- Specific technical and professional areas knowledge

Cross-functional foundation: railway maintenance knowledge • safety responsibility • interfaces • documentation • communication

Realise the power of rail



**Nathalie
DUQUENNE**



**Nikola
ILIEVSKI**

**ECM
Team**



**Aleksandra
PERKUSZEWSKA**



**Jean-Marie
DECHAMPS**



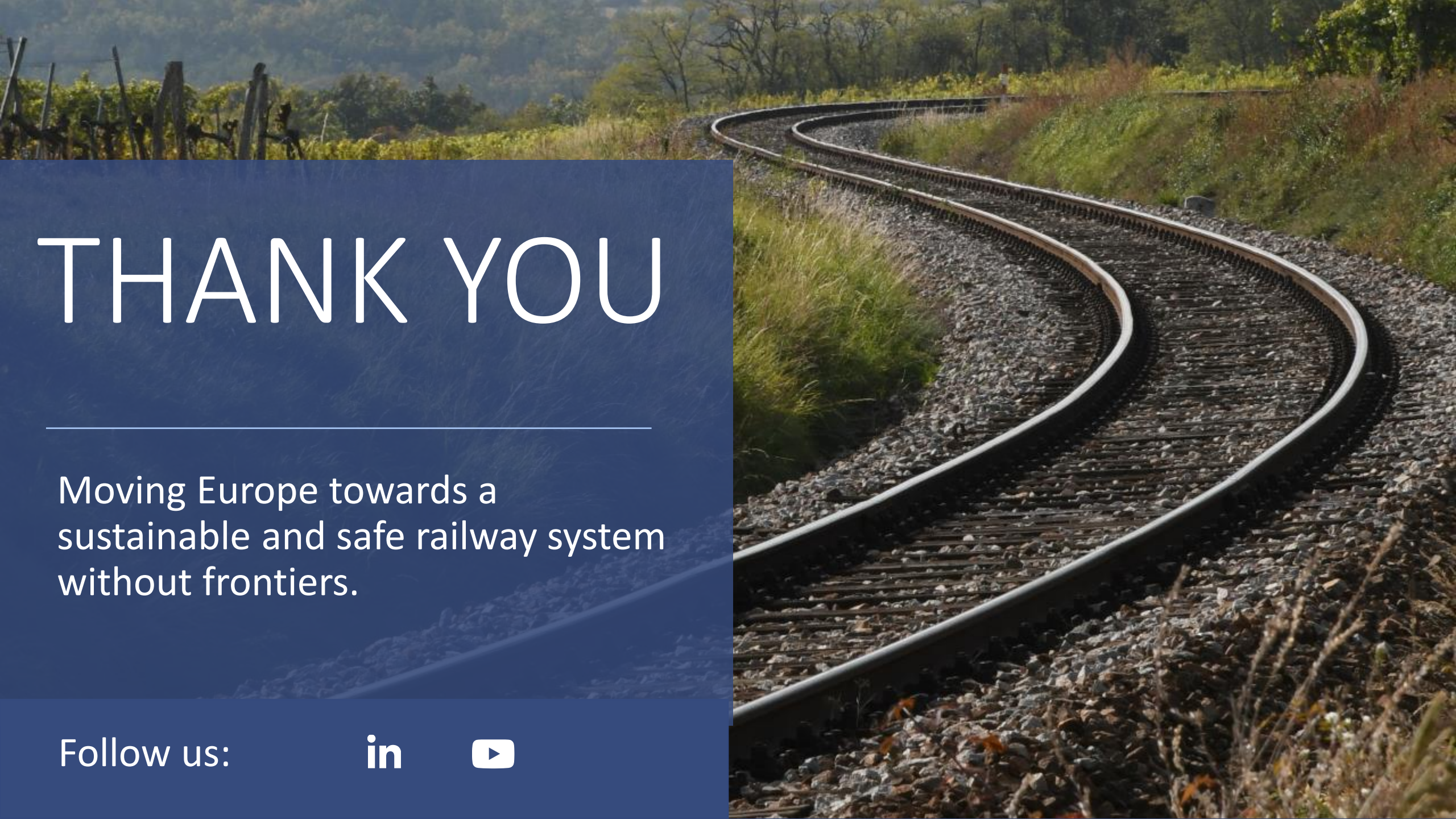
EUROPE IS HERE *LET'S TALK!*

Meet us at InnoTrans, Berlin
📍 Hall 4.2 Stand 260 22-25 September 2026



ECM Guidance





THANK YOU

Moving Europe towards a sustainable and safe railway system without frontiers.

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