Report

9th TAF TSI IMPLEMENTATION STATUS REPORT OF THE EUROPEAN UNION AGENCY FOR RAILWAYS –2nd HALF 2018

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Document History

Version	*Date*	*Comments*
0.1	02/03/2019	1st draft
0.2	29/03/2019	2nd dratf: incorporation of agreed items from the 27 03 2019 TAF cooperation WG meeting (GIS maps, new annexes etc)
0.3	24/05/2019	Incorporation of remarks from CER, NCP CH, NCP HU, NCP DE and NCP LU.

Contents

Abbreviations

Abbreviation	Definition
CC	Company Code
CEF	Connecting Europe Facility
CER	Community of European Railway and Infrastructure Companies
CI	Common Interface
CRD	Central Reference Database
DI	Degree of Implementation
EC	European Commission
ECM	Entity in Charge of Maintenance
EIM	European Rail Infrastructure Managers
EPTO	European Passenger Transport Operators
ERA	European Union Agency for Railways (also referred to as Agency)
ERFA	European Rail Freight Association
ESC	European Shippers' Council
ETA	Estimated Time of Arrival
GCU	General Contract for Use of Wagons
GIS	Geographical Information System
ICG	Implementation Cooperation Group
IM	Infrastructure Manager
INEA	Innovation and Networks Executive Agency
JSG	Joint Sector Group
NCP	National Contact Point
PCS	Path Coordination System by RNE
PM^2	Official Project Management Methodology of the European Commission
RailData	International organisation of European cargo Railway Undertakings. It is established as special group of the International Union of Railways (UIC)
RISC	Rail Interoperability and Safety Committee
RNE	Rail Net Europe
RSRD	Rolling Stock Reference Database
$RSRD^2$	Rolling Stock Reference Database implementation made by UIP members
RU	Railway Undertaking
TAF	Telematics Applications for Freight

Abbreviation	Definition
TCM	Train Composition Message
TIS	Train Information System developed by RNE
TRI	Train Running Information
TSI	Technical Specification for Interoperability
UIC	Union Internationale des Chemins de fer
UIRR	International Union for Road-Rail Combined Transport
UIP	International Union of Wagon Keepers
UITP	International Organisation for Public Transport
UNIFE	Association of the European Rail Industry
WIMO	Wagon and Intermodal Unit Operational Database
WK	Wagon Keeper

Reference documents

Ref. N°	Title	Reference	Version
(1)	TAF-TSI Master Plan	TAF Master Plan – v4.0	17.01.2013
(2)	NOTE TO ERA EXECUTIVE DIRECTOR: Assessment of TAF TSI implementation by the European Railway Agency	Ref. Ares(2014)1706338	26.05.2014
(3)	1st Status Report in 2014 of the European Railway Agency for European Commission regarding the Implementation of TAF TSI.	1st Status Report ERA-REP-114 - IMPL-2015-01	21.04.2015
(4)	2nd Status Report in 2014 of the European Railway Agency for European Commission regarding the Implementation of TAF TSI.	2nd Status Report ERA-REP-114 - IMPL-2015-02	27.11.2015
(5)	3rd TAF TSI Implementation Status Report of the European Union Agency for Railways – 2nd Half 2015	3rd TAF TSI Implementation Status Report ERA-REP-114-IMPL-2016-01.	26.07.2016
(6)	4th TAF TSI Implementation Status Report of the European Union Agency for Railways – 1st Half 2015	4th TAF TSI Implementation Status Report ERA-REP-114-IMPL-2016-02.	22.12.2016
(7)	5th ERA TAF TSI Implementation Cooperation Group held on 22nd and 23rd March 2017	Minutes_TAF_Cooperation Group_20170322_23_Draft_v02	27.03.2017

Reference legislation

Ref. N°	Document Reference	Title	Last Issue
[1]	Directive 2008/57/EC	Interoperability of the rail system	17.06.2008
[1]	Directive (EU) 2016/797	Directive of the European Parliament and of the Council of 11 May 2016 on the interoperability of the rail system within the European Union	11.05.2016
[2]	TAF TSI Regulation No 1305/2014	Commission Regulation (EU) No 1305/2014 of 11 December 2014 on the technical specification for interoperability relating to the telematics applications for freight subsystem of the rail system in the European Union and repealing the Regulation (EC) No 62/2006	11.12.2014
[3]	Corridor Regulation N° 913/2010	Regulation (EU) No 913/2010 of the European Parliament and of the Council of 22 September	22.09.2010

Ref. N°	Document Reference	Title	Last Issue
		2010 concerning a European rail network for competitive freight	
[4]	CEF Regulation	Regulation (EU) No 1316/2013 of the European Parliament and of the Council of 11 December 2013 establishing the Connecting Europe Facility, amending Regulation (EU) No 913/2010 and repealing Regulations (EC) No 680/2007 and (EC) No 67/2010	11.12.2013

Table of Figures

1. Executive summary

This report contains the data provided to report the status of the implementation by **31.12.2018** of the following TAF TSI [2] functions:

- Reference Files Function:
  - Company Codes
  - Primary Location Codes
- Common Interface Function
- Train Running Information Function
- Train Composition Message
- Consignment Order Message
- Wagon Movement
- Wagon and Intermodal Unit Operational Database (WIMO)
- Rolling Stock Reference Database (RSRD)

This 9th report provides a view of the implementation of these eight functions, agreed by the Agency TAF TSI Cooperation Group in October 2018. The first conclusion can be drawn from the fact that number of companies reporting has decreased compared to the previous report, because 172 companies responded out of potential 600 companies registered in the JSG Reporting Tool (http://taf-jsg.info/). Therefore the number of companies reported is close to 29% of the potential responding companies.

To better evaluate the current degree of implementation for each function, the data provided is compared to the baseline defined in the Master Plan (1)[1] to implement the TAF TSI [2] regulation delivered by the European Rail Sector in 2013. The TAF-TSI Master Plan (1) was submitted to the TAF-TSI Steering Committee, DG MOVE and the Agency on 15th November, 2012. A total of 58 companies, representing over 85% of the total Tonne and Track Kilometres in Europe responded with their individual plans for implementation. The target dates are based on the corresponding TAF-TSI function to be implemented and they were set when 80% or more of the respondents indicated a final implementation.

The data provided is a self-declaration made by every company about the level of implementation of the above mentioned functions. Most of the data has been collected through an entity set-up by the European Rail Sector, the so called Joint Sector Group (JSG), to technically support the implementation of the system. The members of the JSG are:

- CER[2]
- UIC
- EIM
- UNIFE
- UIRR
- ESC
- UIP
- RNE
- ERFA
- RAILDATA
- UITP
- EPTO

In addition, the Agency has kept the "Degree of Implementation" for all companies, which have not delivered data for the current report, but data from preceding deliveries was available.

Regarding the function "Rolling Stock Reference Database", the implementation data has been collected by the JSG in close cooperation with the International Union of Wagon Keepers, UIP. They have submitted to the Agency a file containing the status information of 97 companies across Europe.

The following key findings per TAF function can be highlighted:

- In general terms, when we consider a reference group of companies reporting in the last three implementation reports, we can observe an increase of companies having finished implementation of the earliest TAF TSI functions.

[1] See «Reference Documents» and http://www.era.europa.eu/Document-Register/Documents/TAF-TSI-Master-Plan.pdf .

[2] See «Abbreviations» for acronyms.

- The majority of IMs has completed the population of the Common Reference Files for locations on their network.
- Company codes are already widely used within the sector, by both IMs and RUs. Nevertheless, some difficulties still remain in the process conducting to get the Company Codes, in particular for newcomers and wagon keepers.
- The majority of RUs is still developing the common interface, while a more significant number of the IMs have already finished the implementation of the common interface.
- The deployment of the Rolling Stock Reference Database has been already launched. Although the number of Railway Undertakings reporting about this function has significantly increased, still mainly UIP members have delivered data concerning the implementation of this function. Regarding the data delivered, these Wagon Keepers companies' members of UIP have already completed the implementation of this function. Nevertheless, the accomplishment of this function considering the whole European fleet of wagons is clearly delayed.
- The level of realisation of Train Running Information is progressing mostly in accordance with the implementation schedule quoted in the TAF TSI Master plan by 2017, in particular for the Infrastructure Managers, meanwhile the evolution for the Railway Undertakings has significantly improved meeting the milestones quoted in the TAF TSI Master Plan (1).
- The level of fulfilment of the Wagon and Intermodal Unit Operational Database (+ the wagon movement) is improving in comparison with the realisation milestones committed on the TAF TSI Master Plan (1). Indeed, the actual value is however behind the expected implementation value by 2017, when half of Railway Undertakings respondents committed to deploy this function by 2016.
- Regarding the level of implementation of the Train Composition Message, the actual implementation status is significantly below the expectations committed by the companies on the TAF TSI Master Plan (1).

Furthermore, the report identifies the TAF TSI functions where the sector shall allocate more resources to meet the target implementation date quoted in the TAF TSI Master Plan (1), in particular the Rolling Stock Reference Database, the Wagon and Intermodal Unit Operational Database and the Train Composition Message. These functions are either already delayed or on the way of not meeting the implementation deadlines quoted on the TAF TSI Master Plan (1).

In particular, this report shows that the implementation of the Rolling Stock Reference Database (RSRD) by 2nd half of 2018 is in average for the overall European rail sector delayed compared to the declared target implementation date in the Master Plan, 2015. The implementation data used in this report permits to conclude that the RUs have already started delivering information about the implementation of the TAF TSI [2] compliant RSRD database.

2. Introduction

This 9th Implementation Status Report is delivered in accordance with the legal frame provided by the Commission Regulation (EU) No 1305/2014 of 11 December 2014 on the Technical Specification for Interoperability relating to the Telematics Applications for Freight subsystem of the rail system in the European Union and repealing the Regulation (EC) No 62/2006 in force, TAF TSI [2].

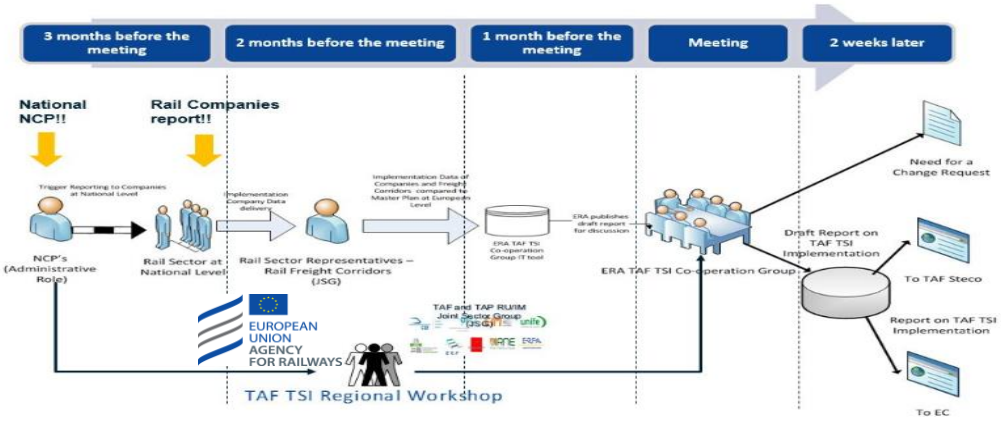
In particular, Article 5 of the Regulation [2] attributes to the European Union Agency for Railways, named the Agency along the report, the task to assess and oversee the implementation of the Regulation to determine whether the agreed objectives and deadlines have been achieved and to provide an assessment report to the TAF steering committee. Furthermore, the European Commission (EC) issued a letter on 26.05.2014 (2) describing the tasks expected to be carried out by the Agency for the Assessment of TAF TSI [2] implementation. In addition, since June 2016 the Agency becomes a system authority for Telematics. This new role prescribed on article 23 of Regulation (EU) 2016/796 requires the Agency to assist the Commission in the monitoring of deployment of specifications for telematics applications in accordance with relevant TSIs.

Beyond this, this activity meets the 4th Strategic Priority of the Agency work programmes 2018 – 2019, "Simplified Access for Customers". On this basis, the Agency launched in October 2014 the Co-operation Group for the Implementation of Telematics Applications for Freight. The Co-operation Group performs the following tasks:

- To assess the reports from the sector (companies, NCPs and RBs) about the TAF TSI [2] implementation.
- To compare the data received with the content of the TAF TSI Master Plan (1) and assess the progress of implementation to determine whether the objectives pursued and deadlines have been achieved.
- To use Key Performance Indicators (KPIs) previously agreed between the Agency and the Rail Sector to assess the evolution of the deployment of the system and report twice per year to the European Commission and to the TAF Steering Committee.
- To perform a dissemination campaign to NCPs and assist them to follow-up the TAF TSI [2] implementation at national level.

All these activities are performed in close cooperation with the different stakeholders, who will provide implementation reports. The Figure below shows the process allowing the Agency to perform the above listed activities:

Figure 1: Agency TAF TSI Implementation Cooperation Group process.



The Agency has to inform the EC about the results of this monitoring and has to advise the EC about the possible changes needed. In a multimodal context, the Agency has to guarantee that any of the actions taken do not create additional obstacles for multimodal environment.

In addition, the effort made by the European rail sector to deploy the TAF TSI [2] system is also supported by the Connecting Europe Facility (CEF) [4] programme launched by the European Commission and managed by the INEA Executive Agency.

The CEF[3] [4] will better mobilise private and public financing and allow for innovative financial instruments such as guarantees and project bonds to gain maximum leverage from this EU funding injection at it's a financial tool at disposal of all the companies implementing TAF TSI [2] regulation.

3. Context

The final version of the TAF-TSI Master Plan (1), establishing the implementation timeline for the Regulation, was submitted to the TAF-TSI Steering Committee, DG MOVE and the Agency on 15th November 2012.

A total of 58 companies, representing over 85% of the total Tonnes and Track Kilometres in Europe responded with their individual plans for implementation. Target dates were set when 80% or more of the respondents indicated a final implementation. The target dates are based on the corresponding TAF-TSI function to be implemented.

An analysis, based on Corridor Regulation N° 913/2010 [3], was also incorporated into this Master Plan (1). As the Corridor Regulation specifically addresses Short Term Path Requests and Train Running Information, these were the only functions included. It should be noted that the TAF-TSI is a supporting tool – and not a prerequisite – for the implementation of Regulation N° 913/2010. Therefore the later date of implementation of the TAF-TSI should have no impact on the implementation of 913/2010.

In order to collect the data and to boost the involvement of the higher possible number of companies, the European Union Agency for Railways has closely worked with the European Rail Sector to set-up the appropriate mechanism to collect the data concerning the deployment of the above mentioned functions. Indeed, the European Rail Sector grouped through the entity Joint Sector Group (JSG) and the Agency has set-up two IT tools to collect and visualize the data submitted by the European rail companies, Infrastructure Managers, Railway Undertakings and Wagon Keepers. For this purpose the companies submit their information to the JSG IT tool through a Web service available for all the companies registered. For the time being the **number of registered companies is 569 thanks to the information delivered by the National Contact Points (NCPs)**. Once the data is collected, the raw data is delivered to the Agency, who incorporates this information in the Agency IT tool for TAF TSI [2] monitoring. This IT tool comprises a database to store the data and a GIS tool to visualize on maps the progress of the implementation. There are three groups of maps:

- Maps to report about common functions. These maps show the degree of implementation of the Reference Files (Company Codes and Primary Location Codes) and the Common Interface functions at European level.

[3] https://ec.europa.eu/inea/en/connecting-europe-facility

- Maps to report about RU-IM Communication functions. These maps show the degree of implementation at country level[4] of the RU-IM Communication functions and there is an additional publication of the data per rail freight corridor in Europe as defined in the Corridor Regulation N° 913/2010 [3]. The presentation of the progress evolution per corridors underpins the implementation of Corridor Regulation N° 913/2010 [3]:
    - Train Running Information,
    - Train Preparation.
- Maps to report about Railway Undertaking's functions. These maps show the degree of implementation at country level of the functions to exchange data amongst Railway Undertakings and Wagon Keepers:
    - Consignment Data Function,
    - Wagon and Intermodal Unit Operational Database (WIMO) Function,
    - Wagon Movement Function,
    - Rolling Stock Reference Database and
    - Train Composition Function.

The scope of the present 9th report is to inform about the deployment of the functions scheduled to be implemented by 2nd half 2018 in the Master Plan (1) delivered by the sector for the implementation of the TAF TSI [2] system. This temporary scope was agreed by the members of the Co-operation Group for the Implementation of Telematics Applications for Freight in the 8th meeting (7) held in October 2018, this report provides information about the implementation of the following functions:

- Reference Files Function:
    - Company Codes
    - Primary Location Codes
- Common Interface Function
- Consignment Data Function
- Rolling Stock Reference Database
- Train Running Information Function
- Wagon and Intermodal Unit Operational Database
- Wagon Movement
- Train Composition Function.

To have a common approach for all companies' contributors submitting implementation information, **a common criterion has been agreed with the representatives of the rail sector at the start of the reporting activities 2015 to assess the degree of deployment of TAF TSI functions**. This criterion is based on the standard division in project phases of IT projects defined in the methodology for project management in use at the European Commission (PM[2]). Assuming that project phases are divisions within a project where extra control is needed to effectively manage the completion of a major deliverable, then it may be ideally

[4] Degree of implementation at country level is based on the average of the degree of implementation of the individual reporting implementing entities (per function) multiplied with weighting factors (say market share) of these entities.

assimilated with each of the 12 TAF TSI functions identified in the TAF TSI Master Plan (1) to an individual IT reference implementation project.

Within every individual IT reference implementation project, we use percentages of completion as early indicators to track the progress made each period of one year (n-3, n-2, and n-1, n) over a 4-year time span. This allows detecting delays in the implementation of a particular function.

Therefore, taking into account the above mentioned assumptions, every function implementation may be considered as an individual project to be split in the following reference phases:

- **Initiating Phase**: This phase may comprise those processes performed to define a new project or a new phase of an existing project by obtaining authorization to start the project or phase. This phase includes typically the following activities:
    - Feasibility Study
    - Business Case
    - Gathering of Technical and Functional Requirements

These activities may correspond in an "optional" reference implementation to a Degree of Implementation (DI) between 0% and 25% for a particular function. If the DI is achieved at the beginning of the timeframe for the deployment of such a function, ideally deadline minus three years (deadline-3), the implementation of this function can be deemed on time.

- **Planning Phase**: this phase includes typically those activities required to establish the scope of the project, refine the objectives, and define the course of action required to attain the objectives that the project was undertaken to achieve:
    - Resource Planning
    - Project Work Planning (Working Break Down Structure)
    - Migration Planning
    - Outsourcing Plan
    - Risk Management Planning

These activities may correspond in an "optional" reference implementation to a Degree of Implementation (DI) between 25% and 50% for a particular function. If the DI is achieved ideally within the deadline minus two years (deadline-2) period, the implementation of this function could be deemed to be on time.

- **Executing Phase**: this phase may comprise those processes performed to complete the work defined in the project management plan to satisfy the project specifications. This phase includes activities such as:
    - Procurement
    - Executing
    - Testing (User Acceptance and system Integration)
    - Training and Education

These activities may correspond in an "optional" reference implementation to a Degree of Implementation (DI) between 50% and 100% for a particular function. If the DI is achieved ideally within the deadline minus one year (deadline-1) period, the implementation of this function could be deemed to be on time.

- **Closing & Production:** this phase may comprise those processes performed to finalise all activities across all phases to formally close the project. Therefore, it may include the delivery of the product/service, in the context of the TAF TSI [2] deployment, the delivery of the IT system implementing a particular TAF TSI [2] function moving to production environment. These activities correspond in an "optional" reference implementation to a Degree of Implementation (DI) of 100% for a particular function. If the DI is achieved within the deadline minus ideally one year (deadline-1) period, the implementation of this function could be deemed to be on time. This level of implementation means that the company is capable to use the system in production or is using already the system in production for a particular TAF TSI function.

The above explained phases are summarised in the following Figure explaining the expected commitment of resources made for every phase of the project.

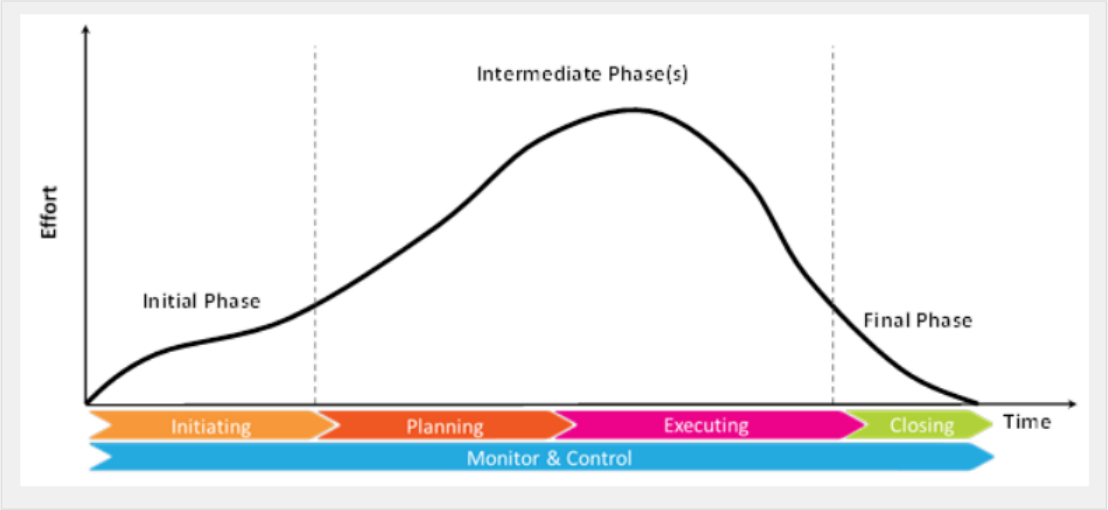


Figure 2: PM^2 project lifecycle.

Nevertheless, the different activities to be developed in the framework of a project to implement a particular TAF TSI [2] function should be adapted to the particular situation in every company. Therefore, every project may be assimilated, on a voluntary basis, to the addition of the four phases aforementioned (Initiating, Planning, Executing and Closing) establishing an optional comparable reference implementation to assess the progress of the implementation per company.

In conclusion, in the context of the Co-operation Group for TAF TSI Implementation there are two ways to report about the implementation of a particular TAF TSI function compared to the TAF TSI Master Plan (1):

- on one hand, companies may declare the final delivery of a particular TAF TSI function within the deadline set out in the TAF TSI Master Plan (1); in this case the implementation of this function will be deemed to be on time, and thus DI = 100% -> Dark Green colour on the map;
- on the other hand, companies may declare the Degree of Implementation (DI) for every function using the optional methodology aforementioned with different phases for the execution of the project. In this case, the declared Degree of Implementation will be colour-coded and displayed as follows:

    - Project not launched: No data -> Blue colour on the map.

- Initiating Phase accomplished: 0% =< DI < 25% -> Red colour on the map.
- Planning Phase accomplished: 25% =< DI < 50% -> Orange colour on the map.
- Executing Phase accomplished: 50% =< DI < 100% -> Green colour on the map.
- Closing & Production accomplished: DI = 100% -> Dark Green colour on the map.

4. Participation in the 9th Reporting Session

i. Responses to the survey

The number of project managers invited to report about the implementation of the TAF TSI and TAP TSI is shown in diagram 1 together with the number of responses received thereof. Starting from the first report, invitations and responses have grown continuously. Despite the growing number of invitations in the present survey, feedback has declined.

The 9th report includes 69 WKs submitted by UIP using RSRD[2].

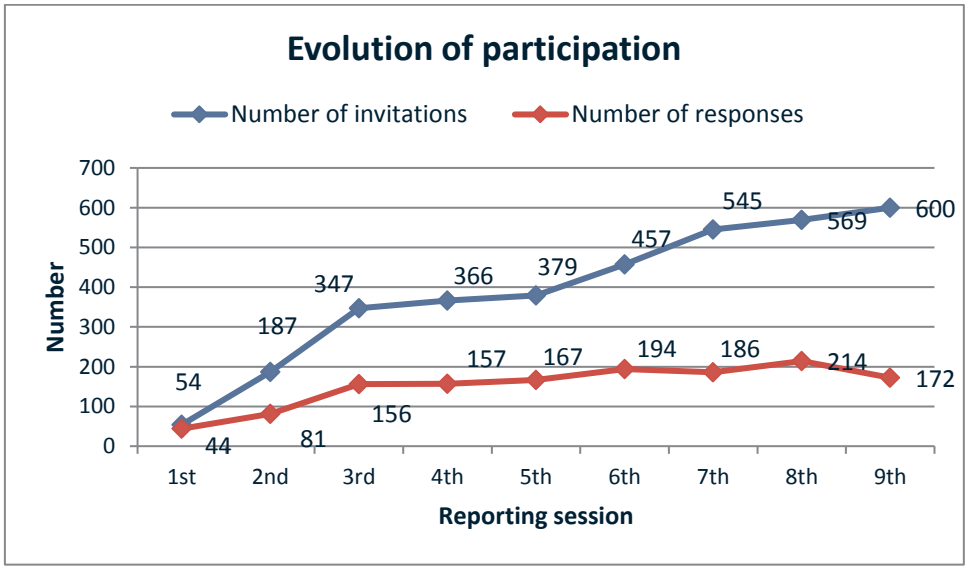


Diagram 1: Evolution of participation over time

Hence, the response rate, calculated as number of responses in relation to number of invitations, has dropped to 28,7 % (see diagram 2).

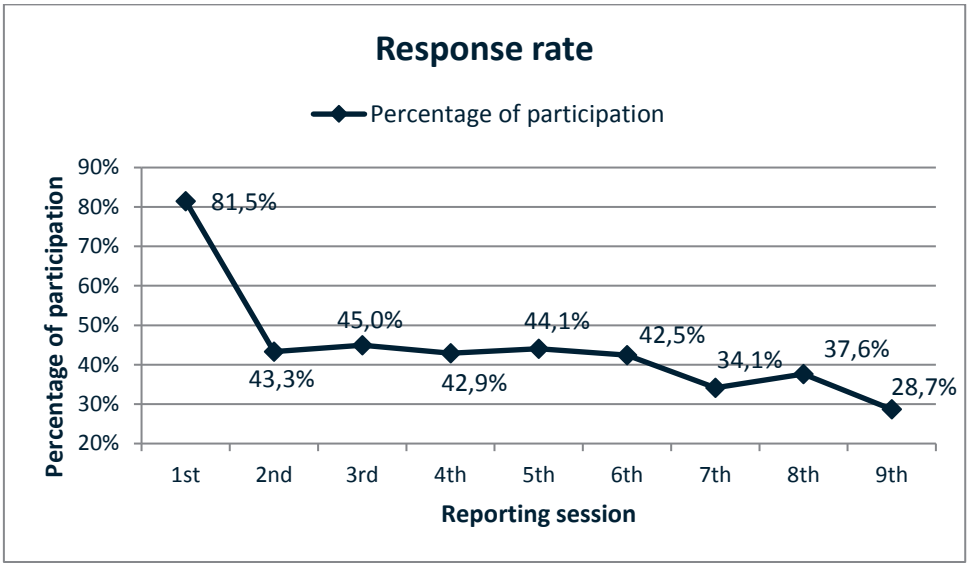


Diagram 2: Evolution of response rate over time

Diagram 3 displays the distribution of total responses per country. The feedback comprises 22 EU Member States plus Switzerland and Turkey.

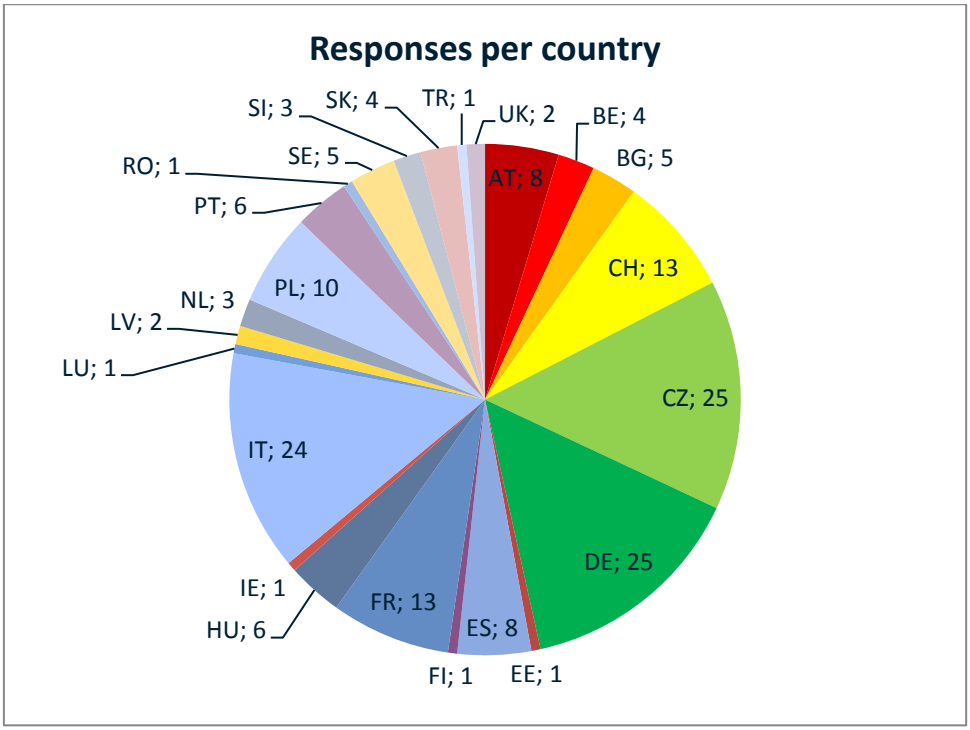


Diagram 3: Number of responses per country

Diagram 4 shows the distribution and the development of responses per country. The total number of responses in the 9th reporting period is 172, which is 42 lower than in the last session.

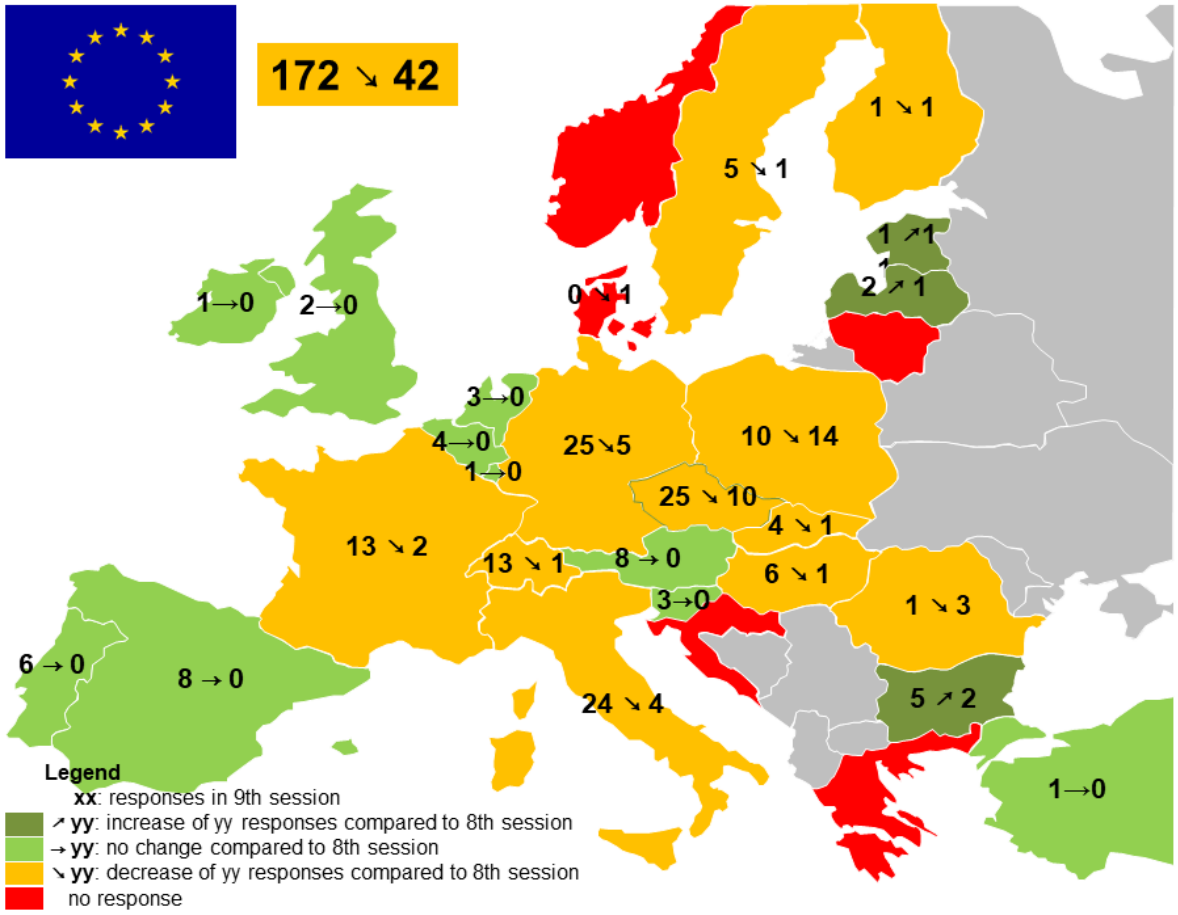


Diagram 4: Evolution of responses per country

ii. Participation per company type

Some companies in this survey may have multiple roles, such as RU and WK at the same time. Therefore, the total number of responses displayed in diagram 1 (172 companies) and listed in Annex 2 is lower than the total number of company types shown in diagram 5 hereafter (201 companies).

Compared to the previous survey, participation for all types of company has declined.

Annex 2 ‘Responses contact list v9’ to this report gives a detailed overview about the companies per country having replied to the ninth session of TAF and TAP TSI implementation monitoring. Please note, that there are entities which have reported on behalf of several companies.

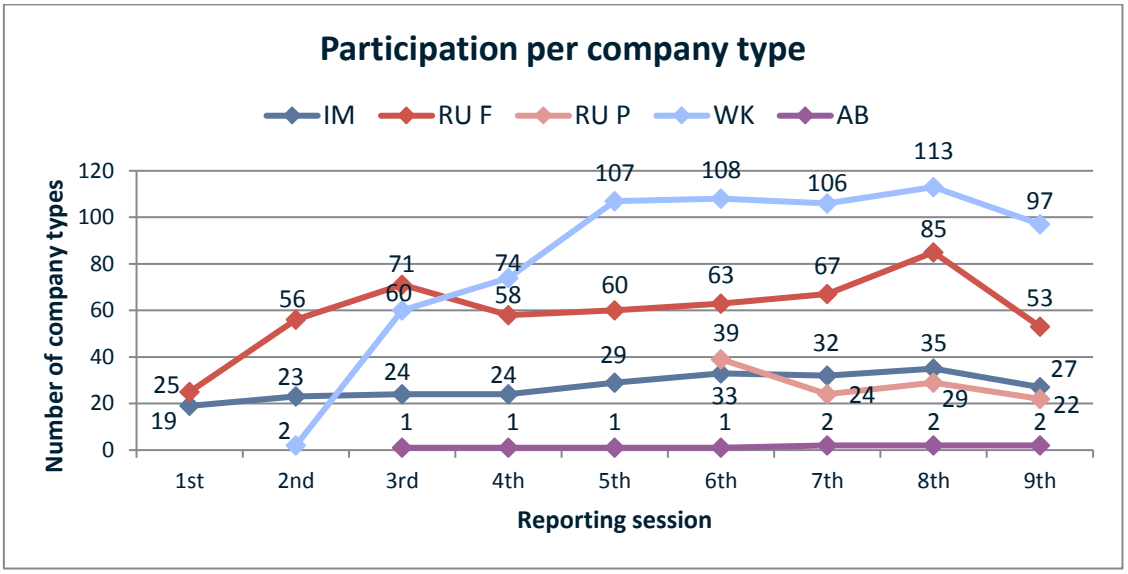


Diagram 5: Evolution of participating per company type over time

5. Data Basis for evaluation

To establish a wider sector representation, 111 companies from the previous survey, which have not replied this time, are also taken into consideration. For companies having reported to both surveys, only the company information from the 9th session is included.

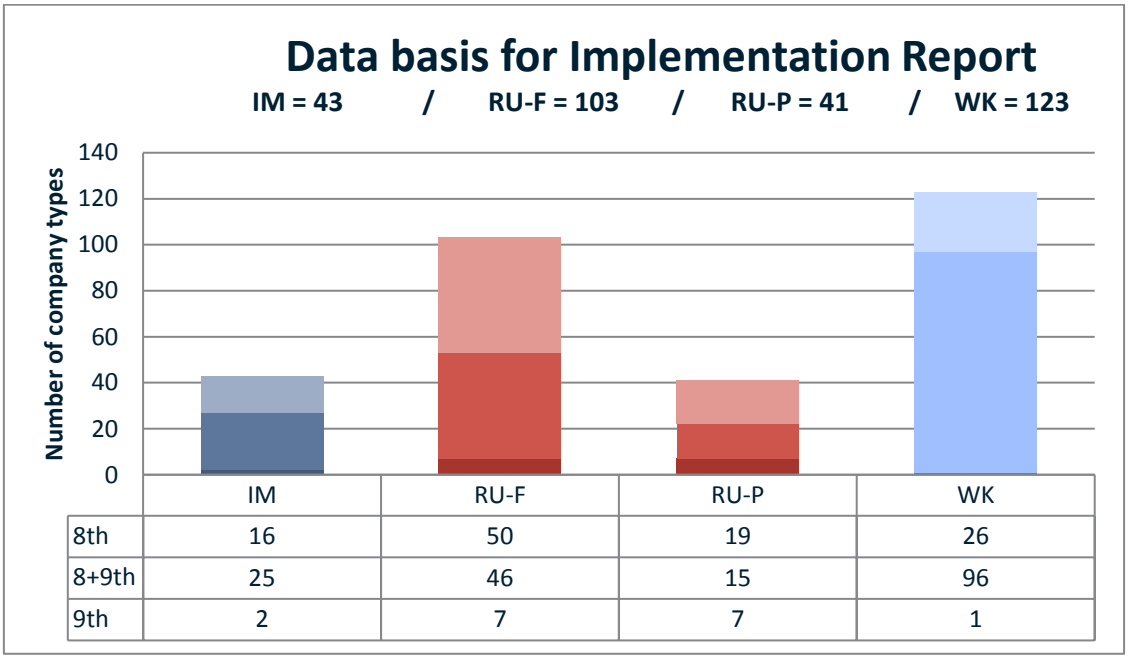
Despite the lower participation in the 9th Reporting Session, the data basis for evaluation could be widened by integrating companies from the previous survey.

Diagram 6 displays the total number of types of company (310) with their allocation to the following reporting sessions:

- Companies only reporting to the 8th reporting session (top with light colour)
- Companies reporting to both 8th and 9th reporting session (middle with normal colour)
- New companies reporting to the 9th reporting session only (bottom with dark colour)

The data included in this report thus represents the whole year 2018.

The number of companies taken over from the last reporting is relatively high (111) while the number of new companies in the present session is relatively low (17).



	IM	RU-F	RU-P	WK
8th	16	50	19	26
8+9th	25	46	15	96
9th	2	7	7	1

Diagram 6: Number of types of company per reporting session

Annex 3 'Responses contact list v8' to this report lists the companies per country having replied to the eighth session of TAF and TAP TSI implementation monitoring and not to the present one.

Since the seventh reporting session, replies from the previous survey have each time been considered. Diagram 7 displays the positive development of this data basis for evaluation as the combination of two subsequent surveys.

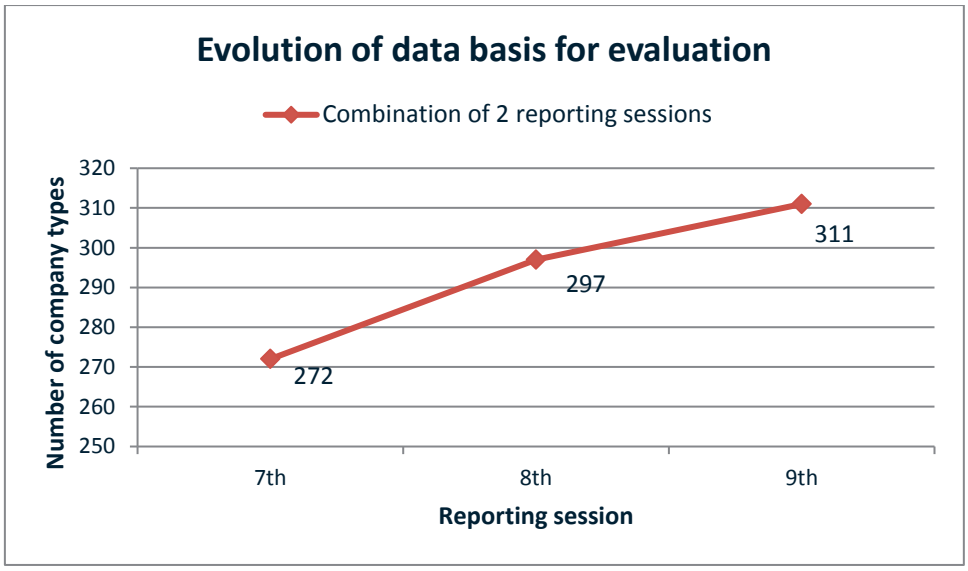


Diagram 7: Number of types of company per reporting session

6. Implementation monitoring of TAF TSI functions

i. Common Reference Files – Primary Location Codes (IMs)

The Target Implementation Milestone for realisation of the Primary Location Code Function (PLC) according to the TAF TSI Masterplan was 2013. This activity corresponds to Primary Location Codes, which must be defined by IMs. Consequently, the following diagram only refers to IMs. Responses refer to initial upload of primary location codes, but update and maintenance process and use of codes is a different issue and not part of this report.

Diagram 8 indicates, that most IMs reported to have completed the Common Reference Files for locations on their network. However, complete population of PLC is not yet reached. Regarding the level of fulfilment of PLC implementation, diagram 8 shows 28 IMs with complete implementation. 16 out of 43 IMs in the evaluation are considered with data from the previous survey.

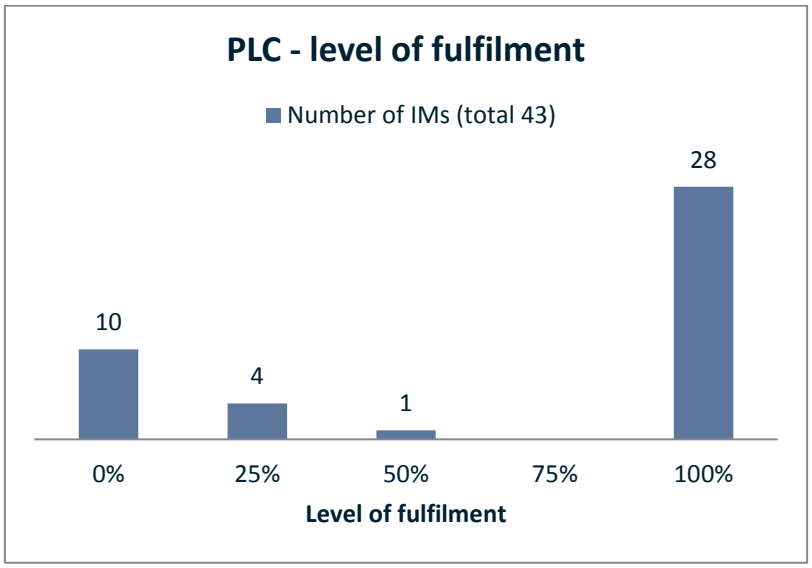


Diagram 8: Common Reference Files - Primary Location Codes (PLC)

Diagram 9 shows the increase of complete implementation of PLC in relation to the growing number of IM responses.

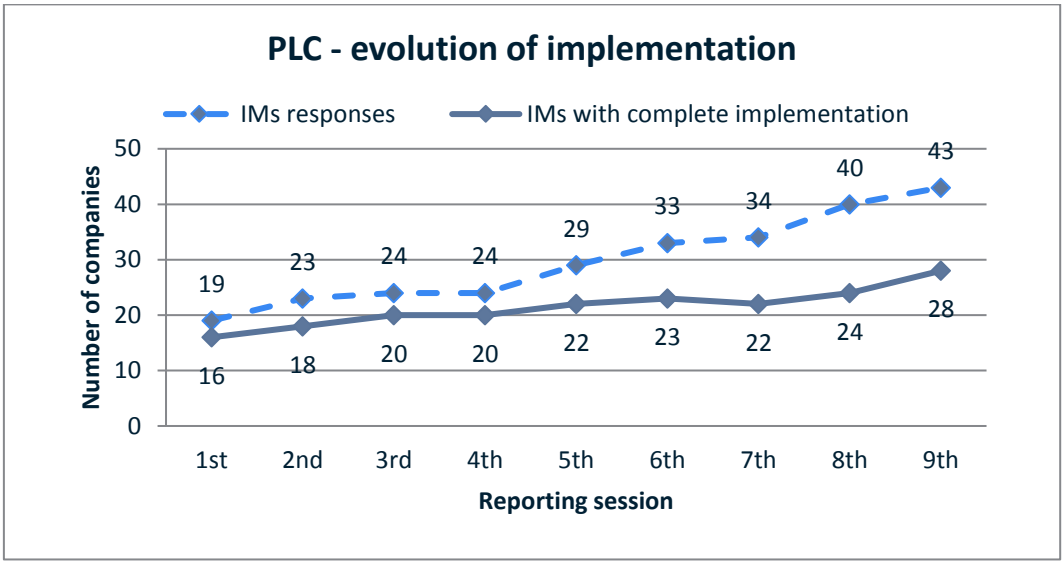
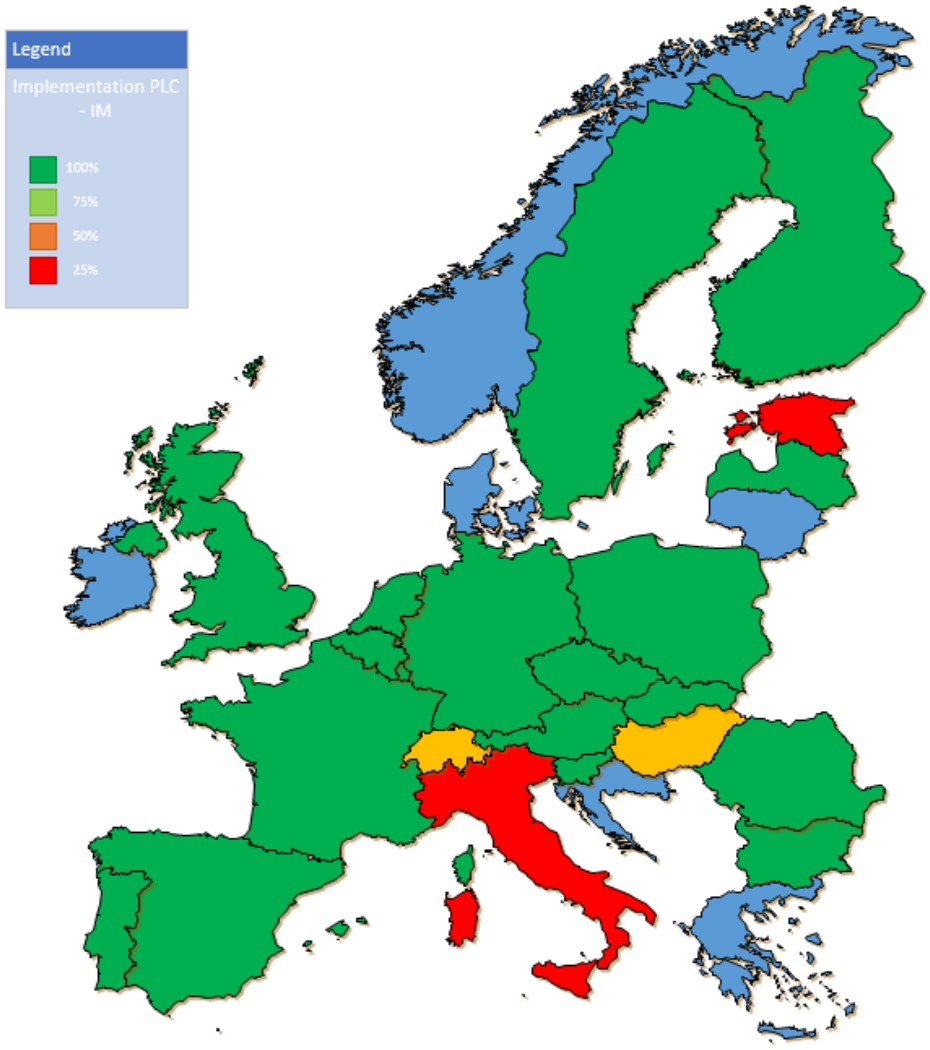


Diagram 9: Evolution of PLC implementation



Map 1: Implementation of Primary Location Codes (IM)

Country in blue = no data

ii. Common Reference Files - Company Code (all companies)

The Target Implementation Milestone for realisation of the Company Code Function (CC) according to the TAF TSI Masterplan was 2013.

The bar chart below (diagram 10) is indicating the existence and use of company codes as part of the Common Reference Files for IMs, RUs-F and WKs. For CCs only two predefined percentage steps exist, because either a company does have an own CC or not. Most of companies having replied to the query possess a CC.

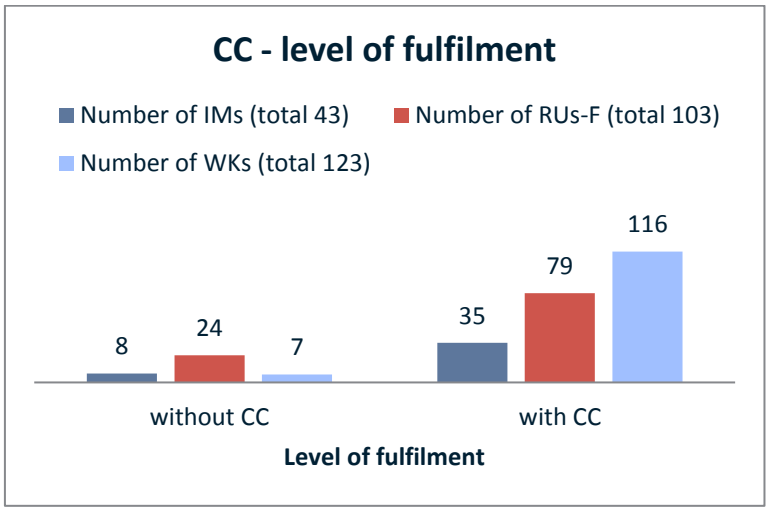


Diagram 10: Common Reference Files - Company Codes (CC)

According to Diagram 11, the number of companies with CCs has grown for all types of companies since the last survey.

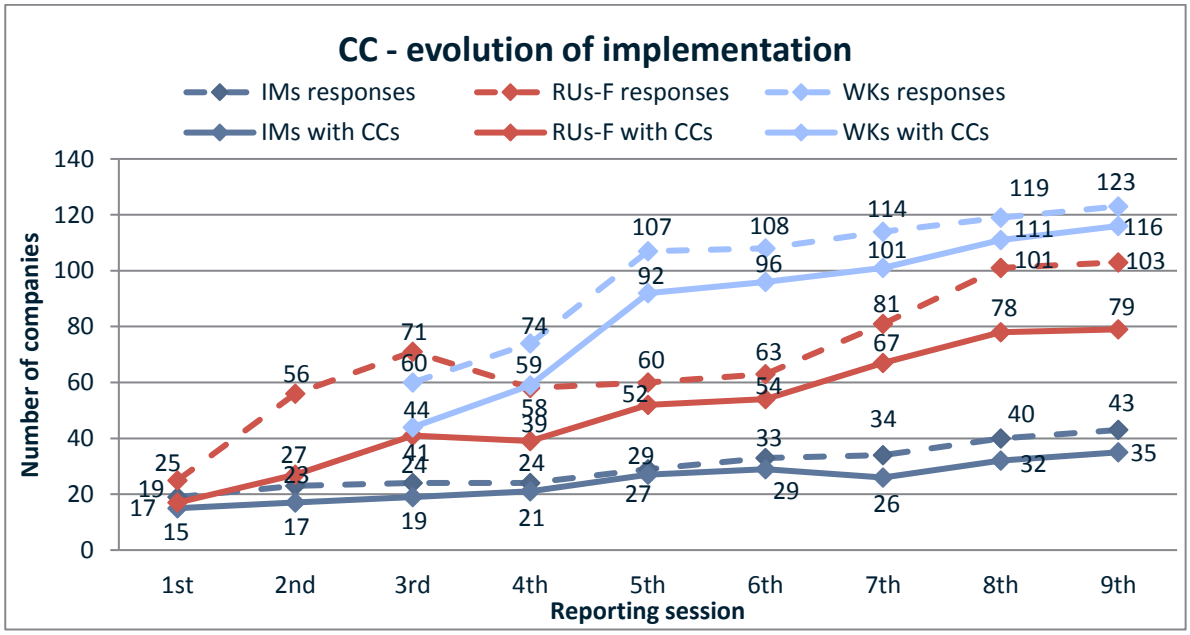
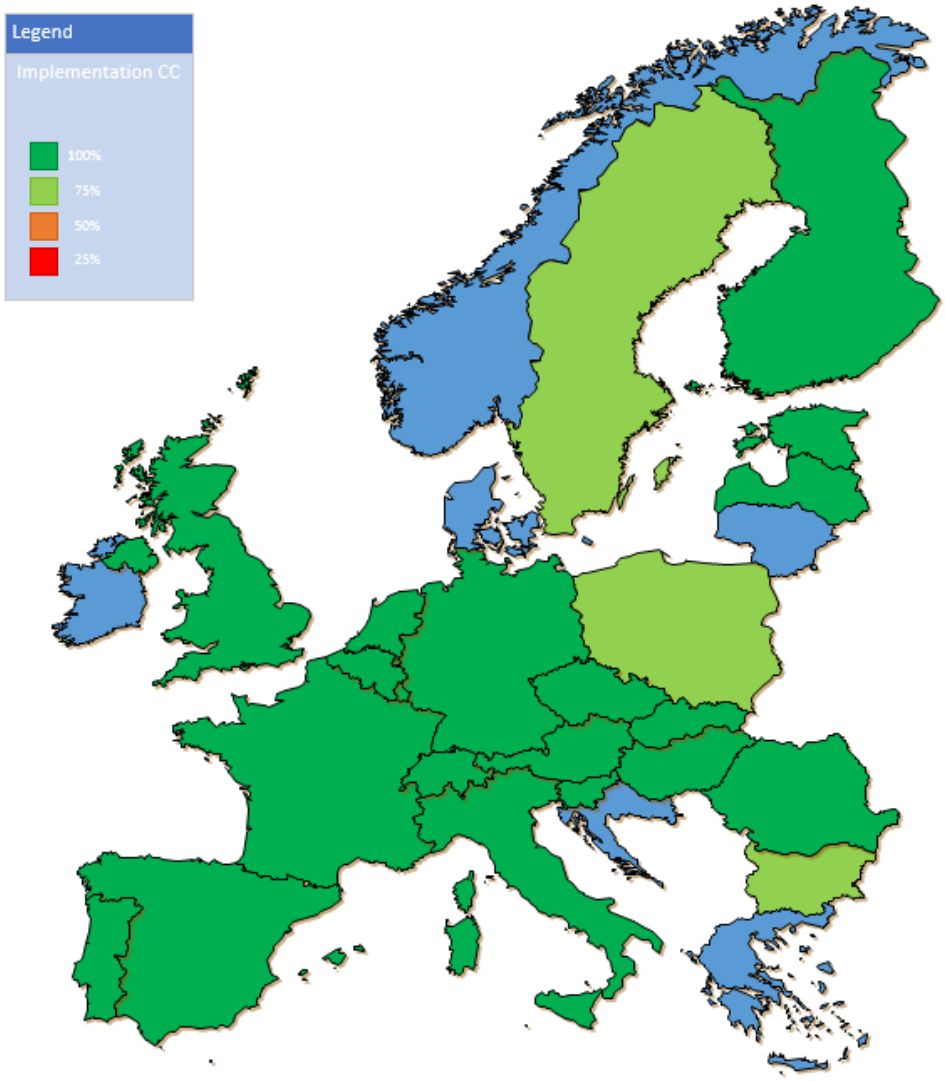


Diagram 11: Evolution of implementation for Company Codes



Map 2: Implementation of Company Codes (IM and RU)

Country in blue = no data

iii. Common Interface Implementation (all companies)

The Target Implementation Milestone for realisation of the Common Interface Function (CI) according to the TAF TSI Masterplan was 2013.

Diagram 12 summarises the feedback related to the availability of CI and shows a difference in level of fulfilment between IMs, RUs-F and WKs. The CI is completely implemented by 19 IMs, 32 RUs-F and 19 WKs. RSRD^2 has yet not implemented the CI. WKs using RSRD^2 therefore form part of the 25% level.

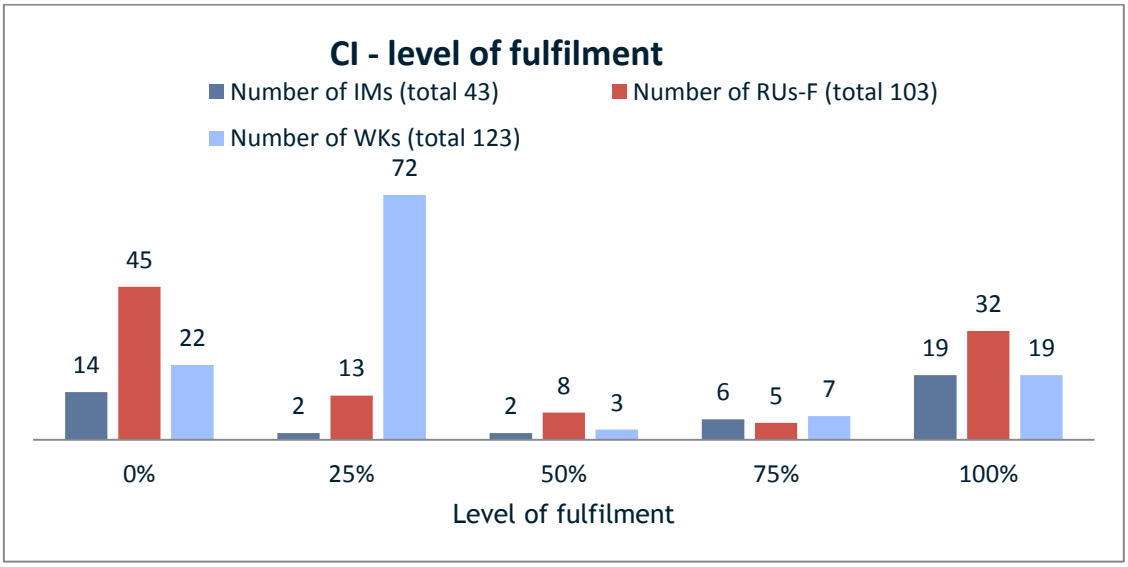


Diagram 12: Common Reference Files – Common Interface (CI)

The development of complete implementation of the CI over time according to diagram 13 shows again the relation to the number of responses per company type. There significant evolution of CI in production for RUs-F and only little evolution for IMs and WKs up to December 2018.

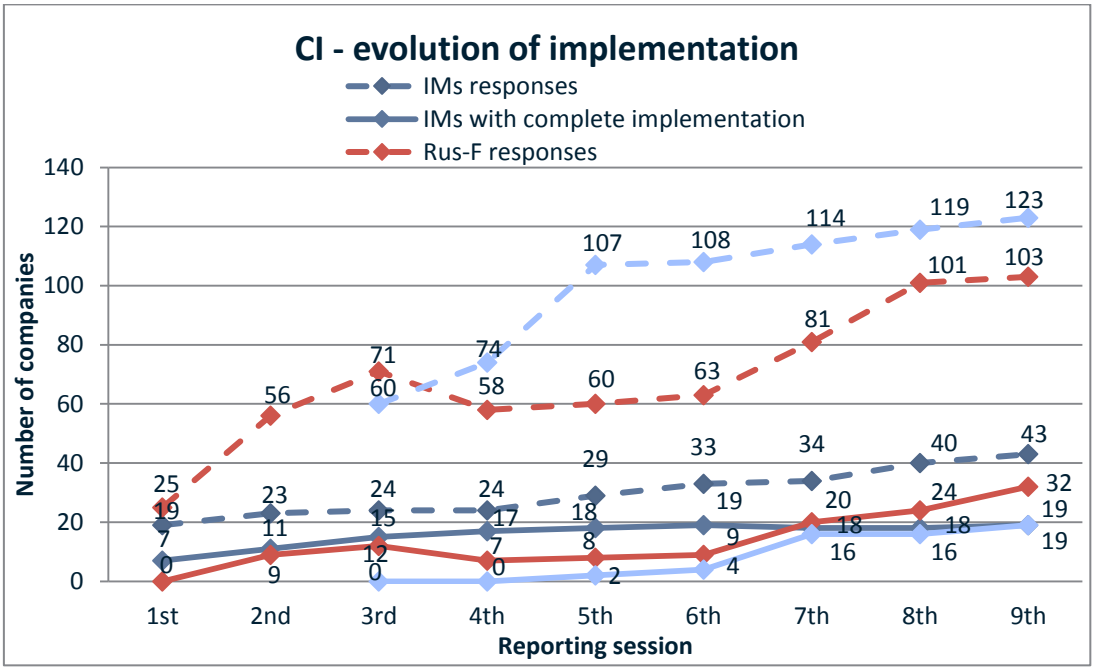
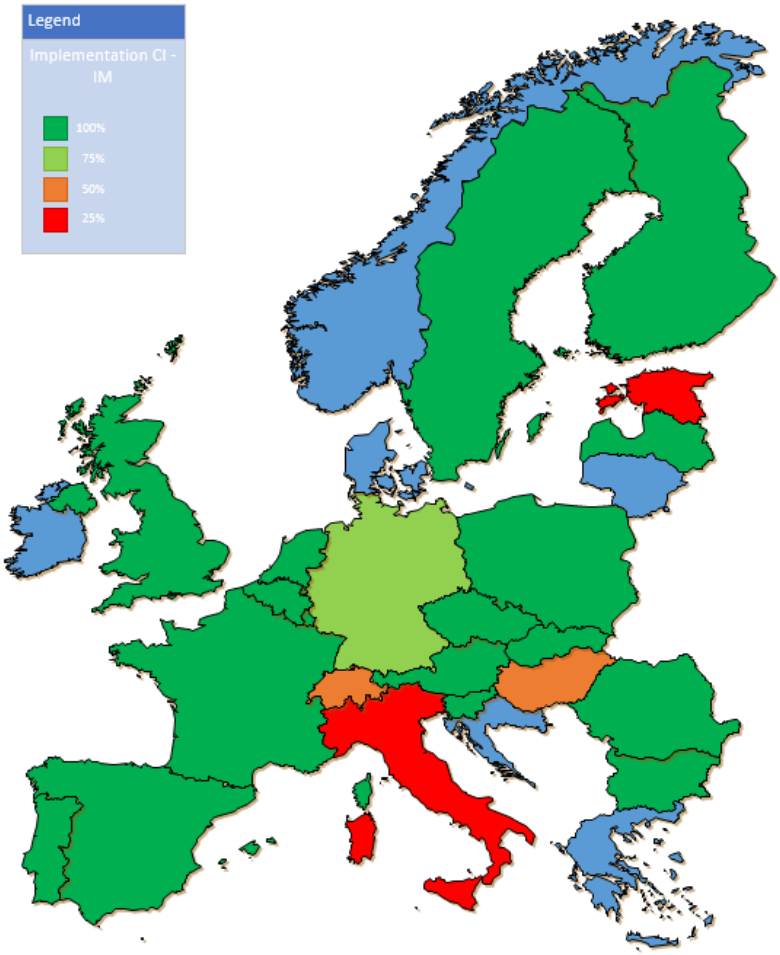
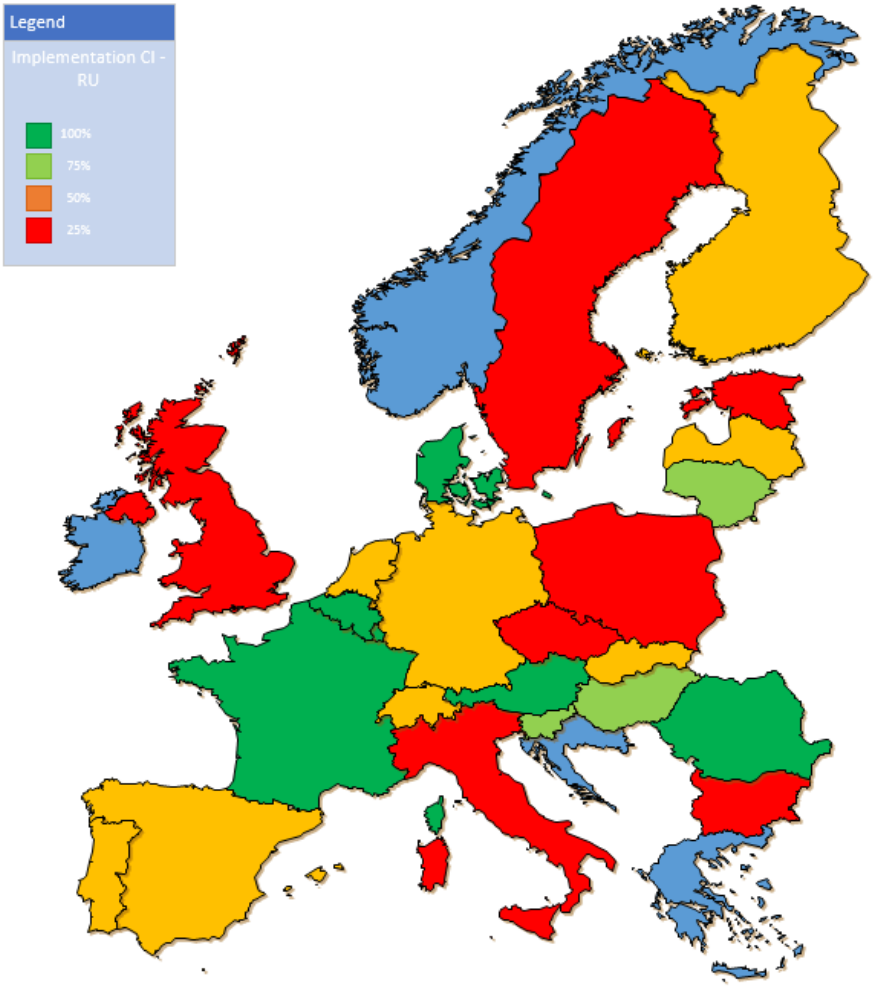


Diagram 13: Evolution of implementation for Common Interface



Map 3: Implementation of Common Interface (IM)

Country in blue = no data



Map 4: Implementation of Common Interface (RU)

Country in blue = no data

iv. Train Running Information (IMs and RUs-F)

The Target Implementation Milestone for realisation of the Train Running Information message (TRI) according to the TAF TSI Masterplan was end of 2017. This monitoring concerns only one aspect of the TAF TSI basic parameter 'Train running forecast', the Train Running Information message. The Train Information System (TIS) is a common sector tool managed by RNE. Messages sent by IMs to TIS or messages received by RUs from TIS through traditional interfaces are considered as 75 % complete fulfilment and TAF messages sent or received by Common Interface are counted as 100 % fulfilment.

Diagram 14 indicates 19 IMs and 39 RUs-F with 100 % level of fulfilment.

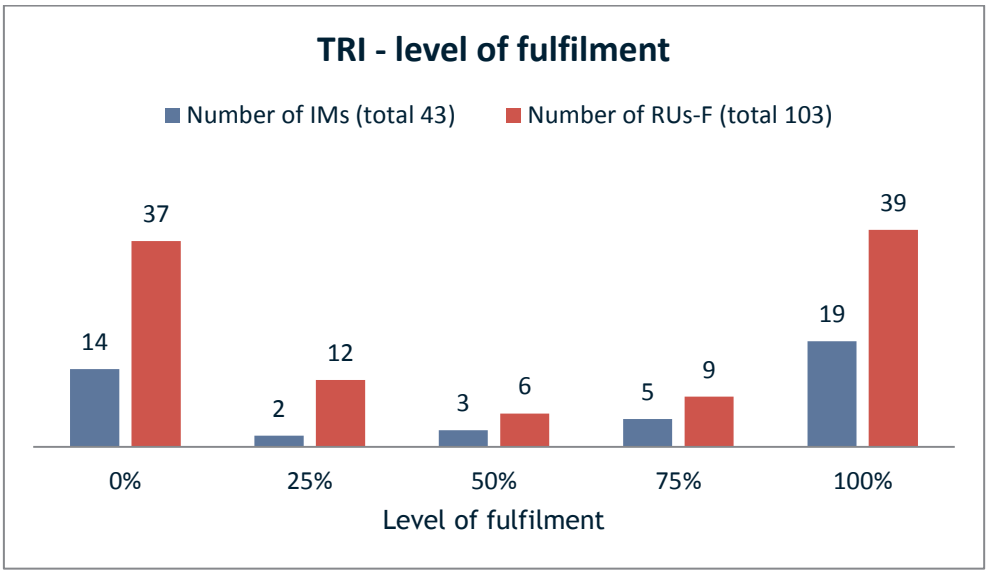


Diagram 14: Train Running Information (TRI)

Regarding diagram 15, both the number of IMs and RUs-F having implemented completely the TRI increased in comparison to the 8th reporting session (plus 4 for both IMs and RUs-F).

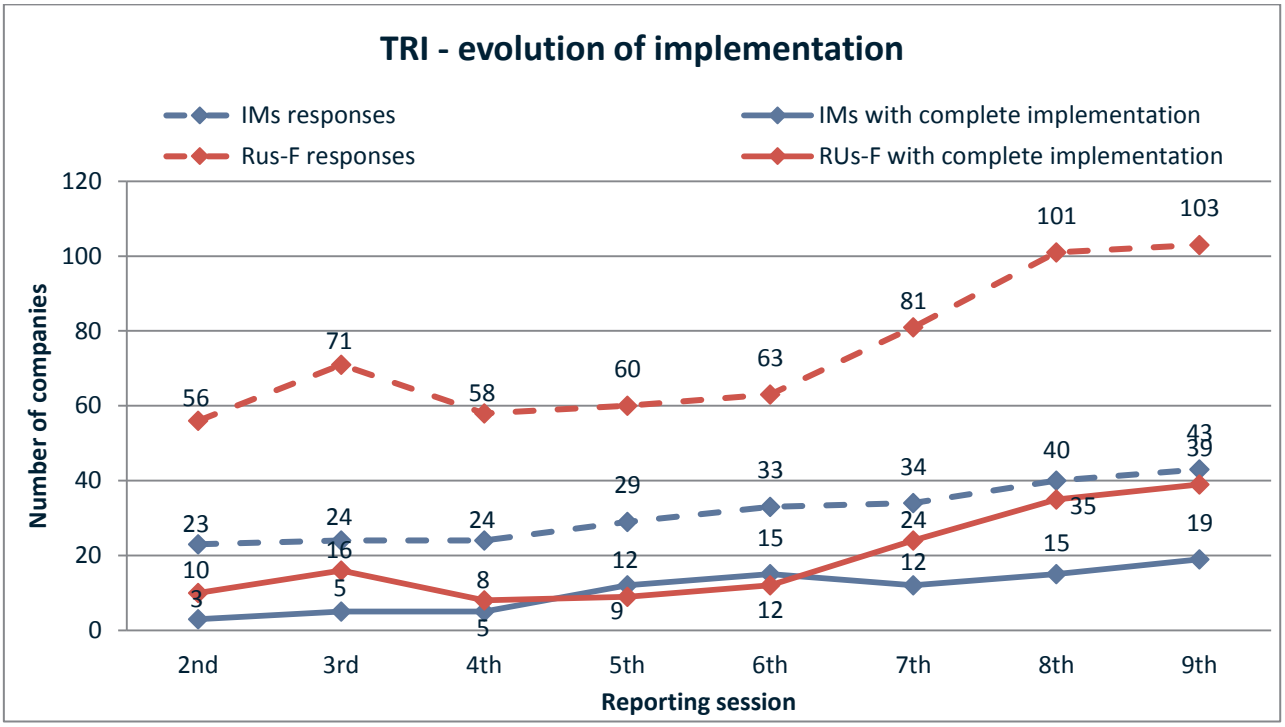


Diagram 15: Evolution of implementation for Train Running Information

Diagram 16 gives an impression about the state of implementation of TRI by IMs in countries across Europe. The IMs having the longest network have been taken as relevant for the country. For IMs still in development the current planned end date and the respective level of fulfilment is shown in diagram 16.

In CH, CZ and HU there are always two IMs having completed TRI implementation. Among the IMs there are 11 small companies, such as harbours, having responded to this survey. Contrary to the level of fulfilment of dominating IMs, such small companies across Europe have not even started projects.

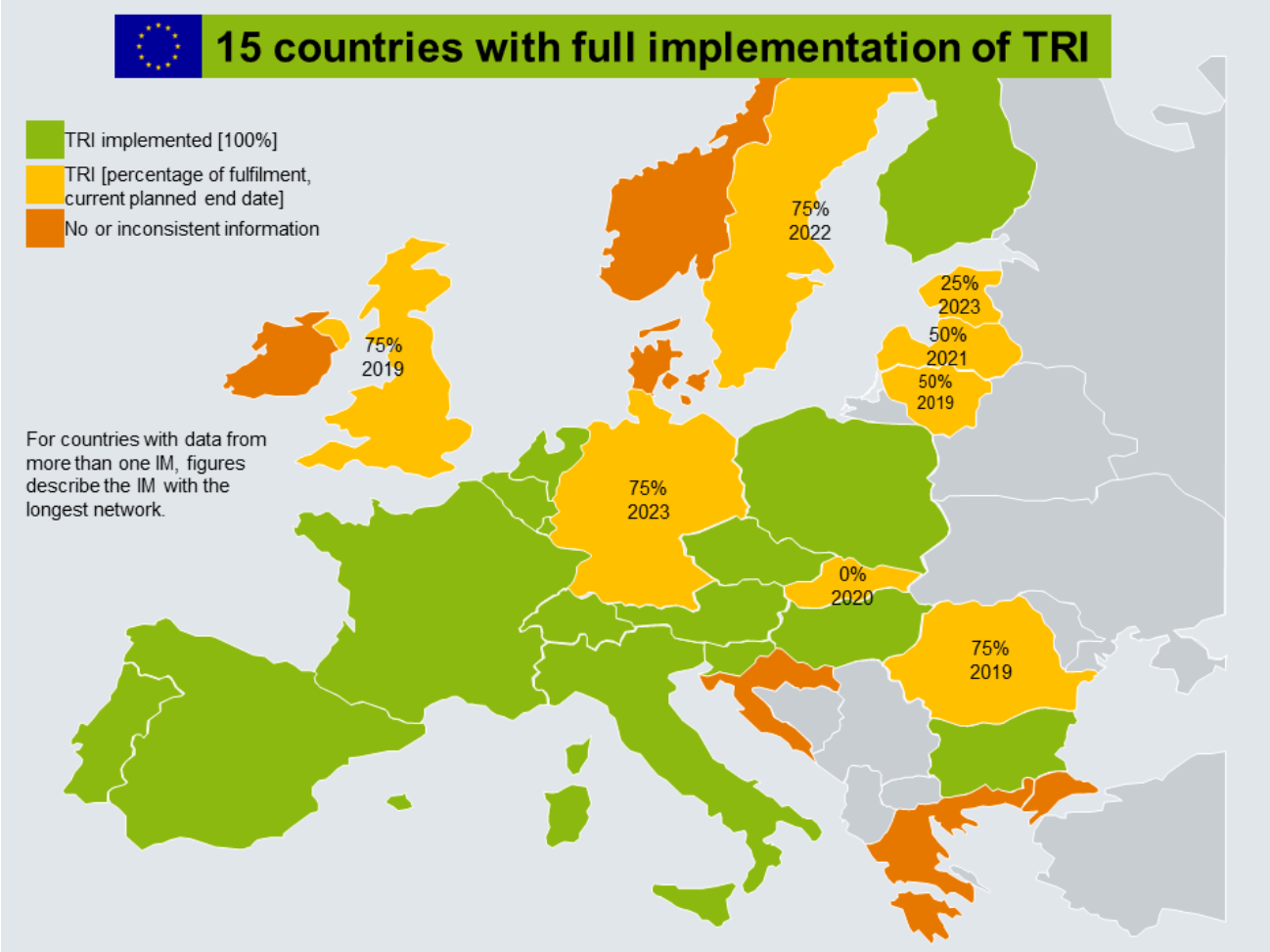


Diagram 16: Implementation of TRI of IMs across European countries

v. Train Composition Message (IMs and RUs-F)

The Target Implementation Milestone for realisation of the Train Composition Message (TCM) as part of the Train Preparation Function according to the TAF TSI Masterplan was end of 2018. TCM is mandatory to be sent by RUs-F. However, implementation by IMs is also reported. Most of them are still developing this TAF TSI function.

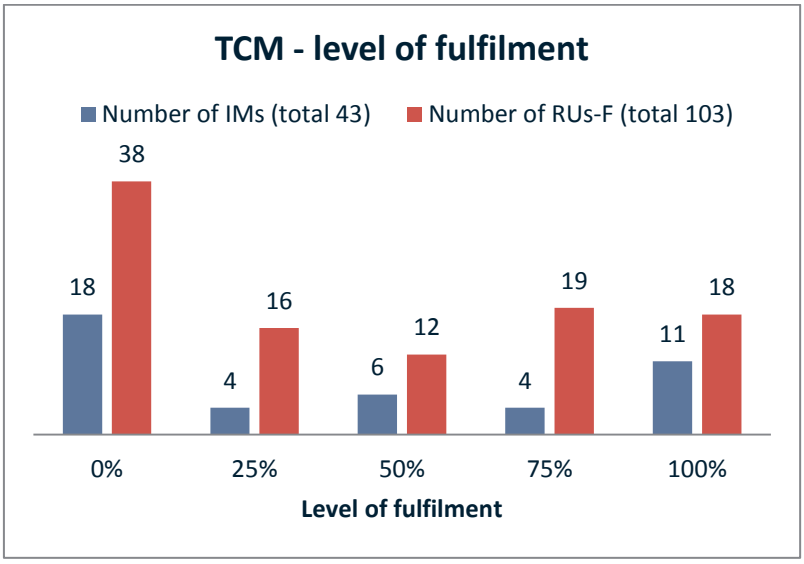


Diagram 17: Train Composition Message (TCM)

Figures show a little increase in terms of complete implementation of TCM since last reporting session. 18 RUs-F out of 103 which replied to the survey have completely implemented the TCM while 11 out of 43 IMs have finished their duty.

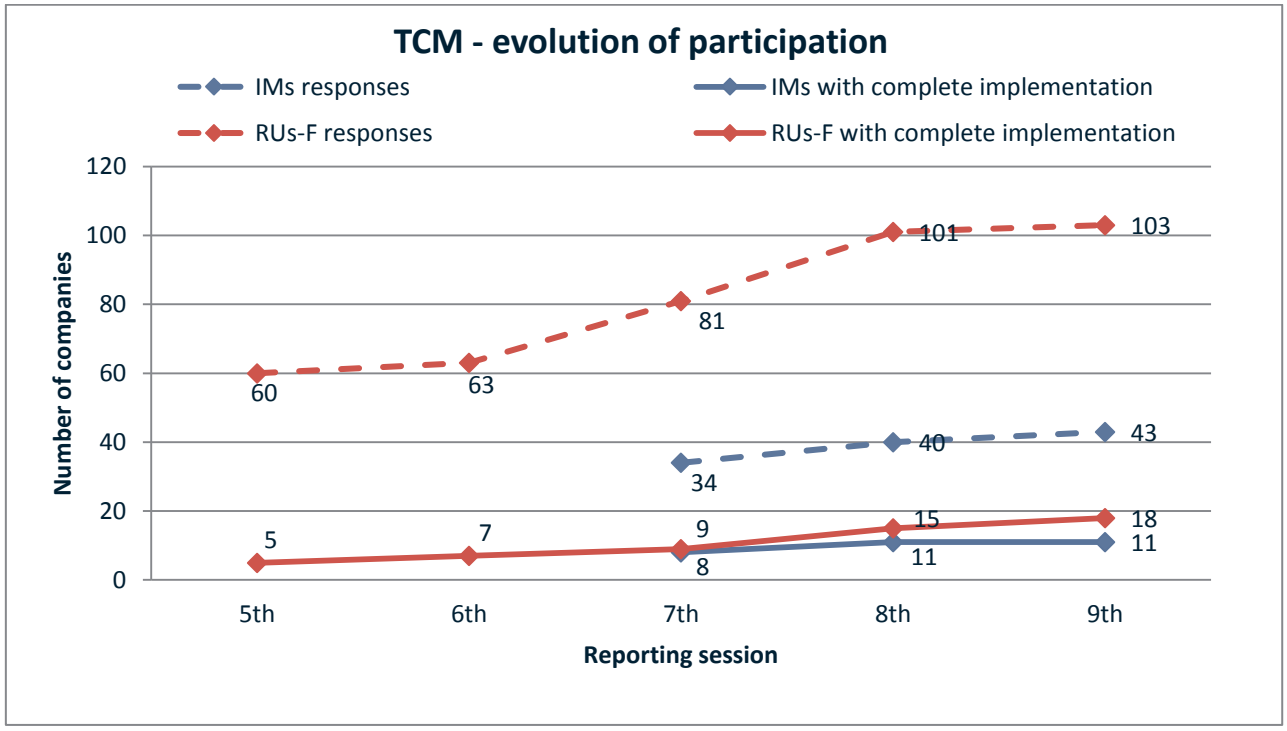


Diagram 18: Evolution of implementation for Train Composition Message

The European map (diagram 19) indicates the level of implementation regarding the TCM function for dominating IMs in each country. Where complete implementation has not yet been reached, current planned end date and level of fulfilment is given.

Among the IMs there are small companies, such as harbours, which have not even started projects.

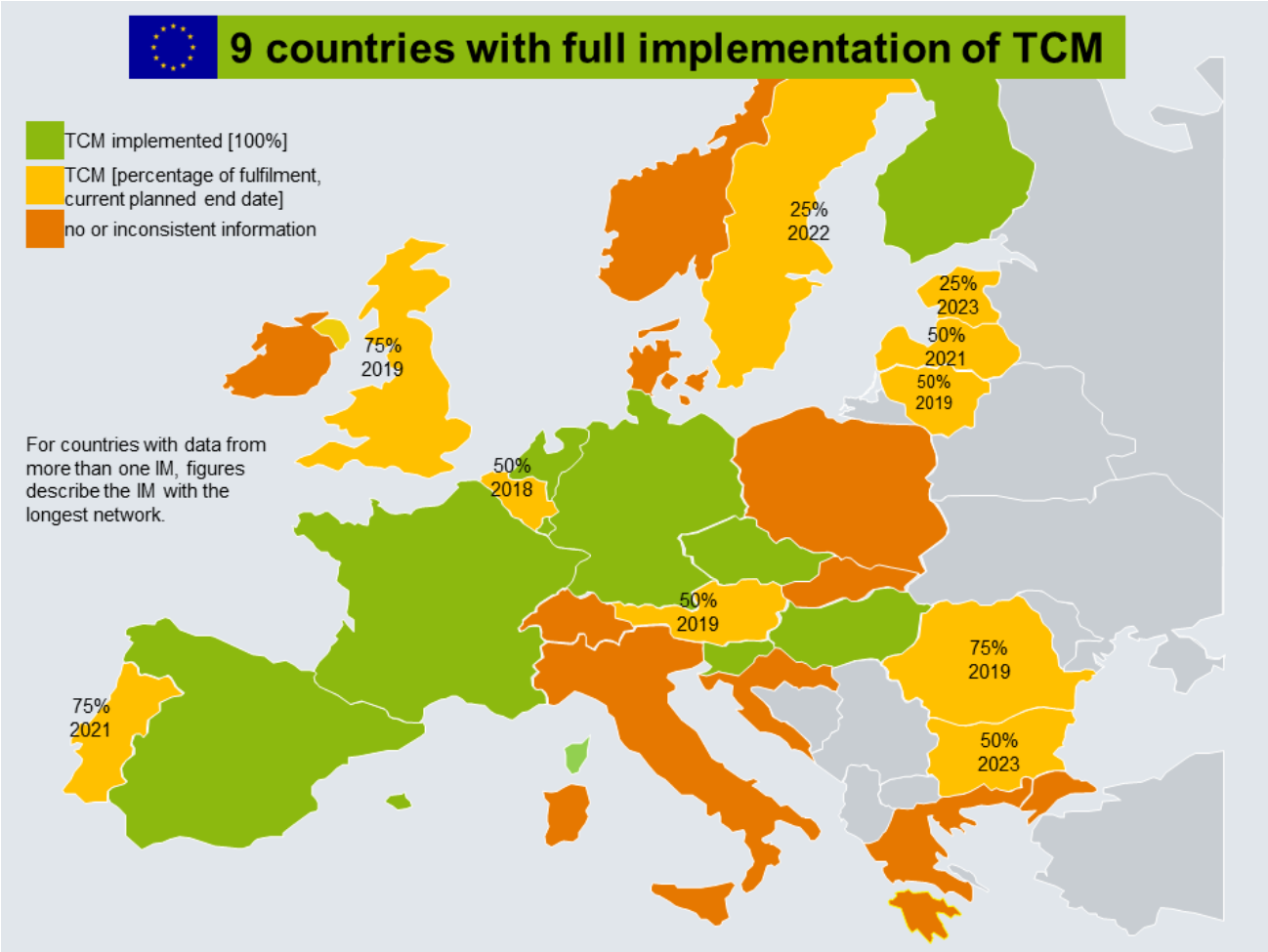


Diagram 19: Implementation of TCM of IMs across European countries

vi. Consignment Note Data (RUs-F)

The Target Implementation Milestone for realisation of the Consignment Note Data function (CND) according to the TAF TSI Masterplan was end of 2017.

Diagram 20 indicates only 3 RUs-F out of 103 having finished implementation of CND.

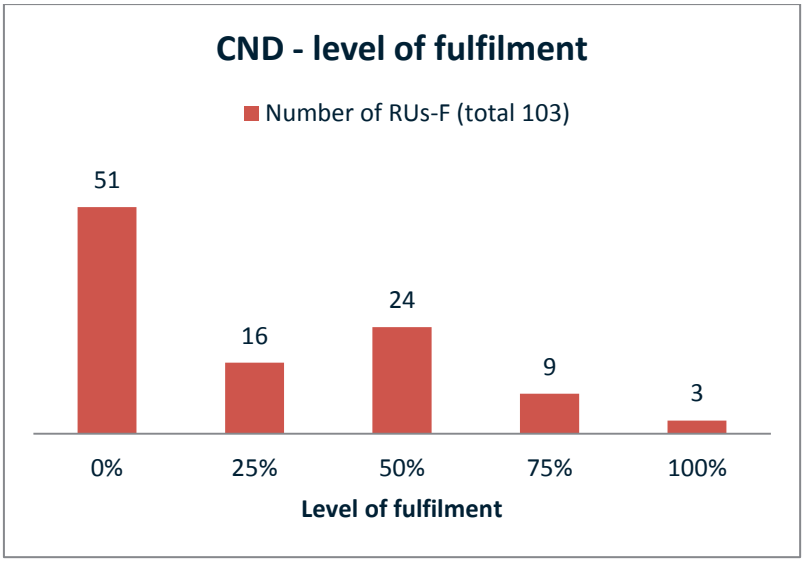


Diagram 20: Consignment Note Data (CND)

Contrary to the evolution of responses the evolution of implementation for CND rests at a very low level for this function (diagram 21).

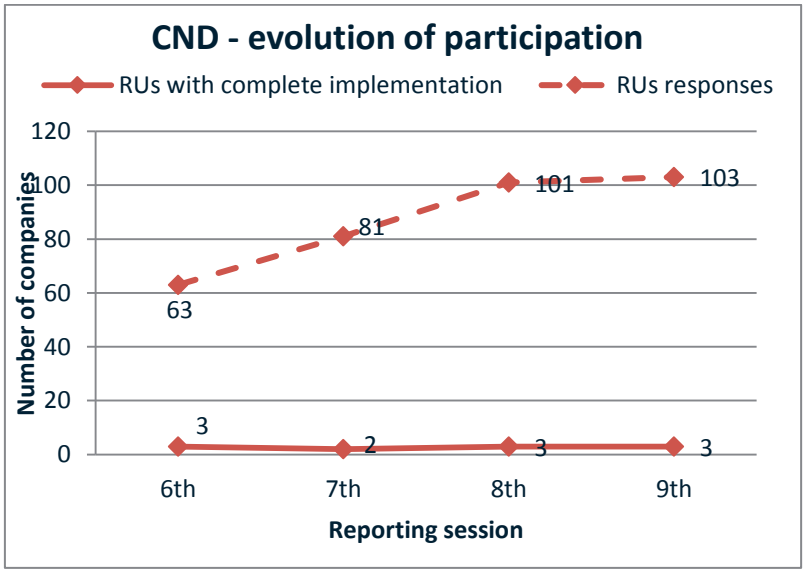
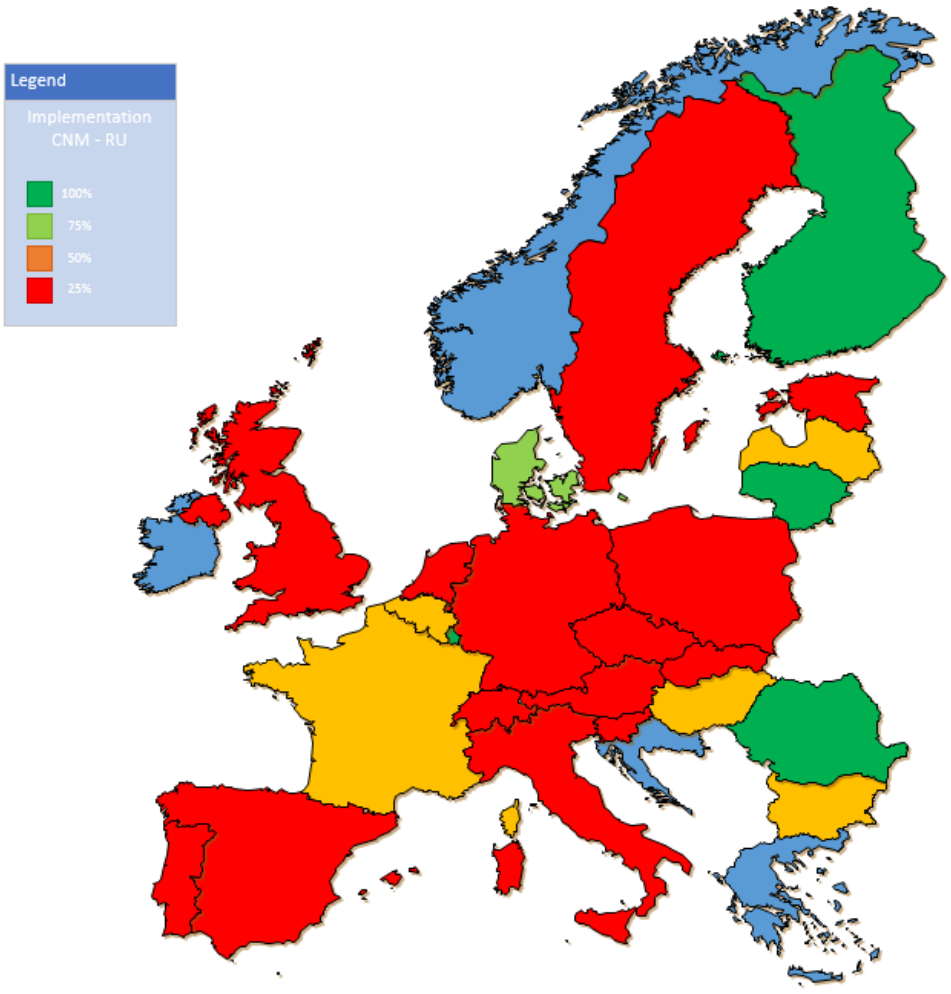


Diagram 21: Evolution of implementation for Consignment Note Data (CND)



Map 5: Implementation of Consignment Order Message (RU)

Country in blue = no data

vii. Wagon Movement (RUs-F)

The Target Implementation Milestone for realisation of the Wagon Movement function (WM) according to the TAF TSI Masterplan was end of 2016.

Responses to this questionnaire indicate 3 RUs-F having completed the WM function from a total of 103 companies.

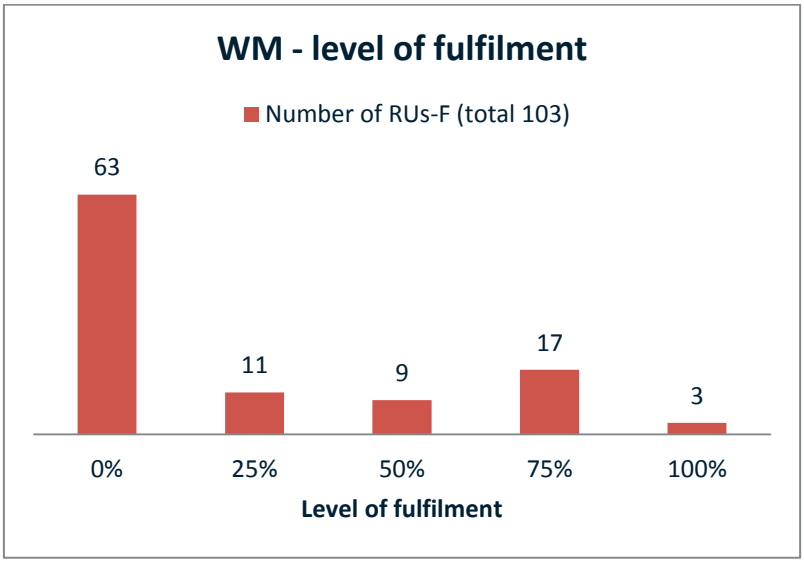


Diagram 22: Wagon Movement (WM)

The evolution of implementation for WM rests at a very low level for this function (diagram 23). The RUs responses start from a lower level for this function in the 8th Reporting session, as it was reported for the first time without any add-on from the 7th query.

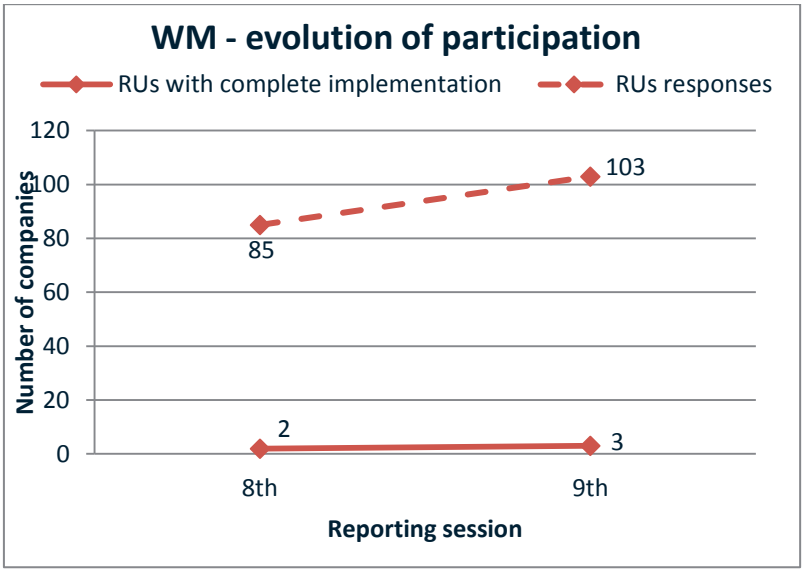
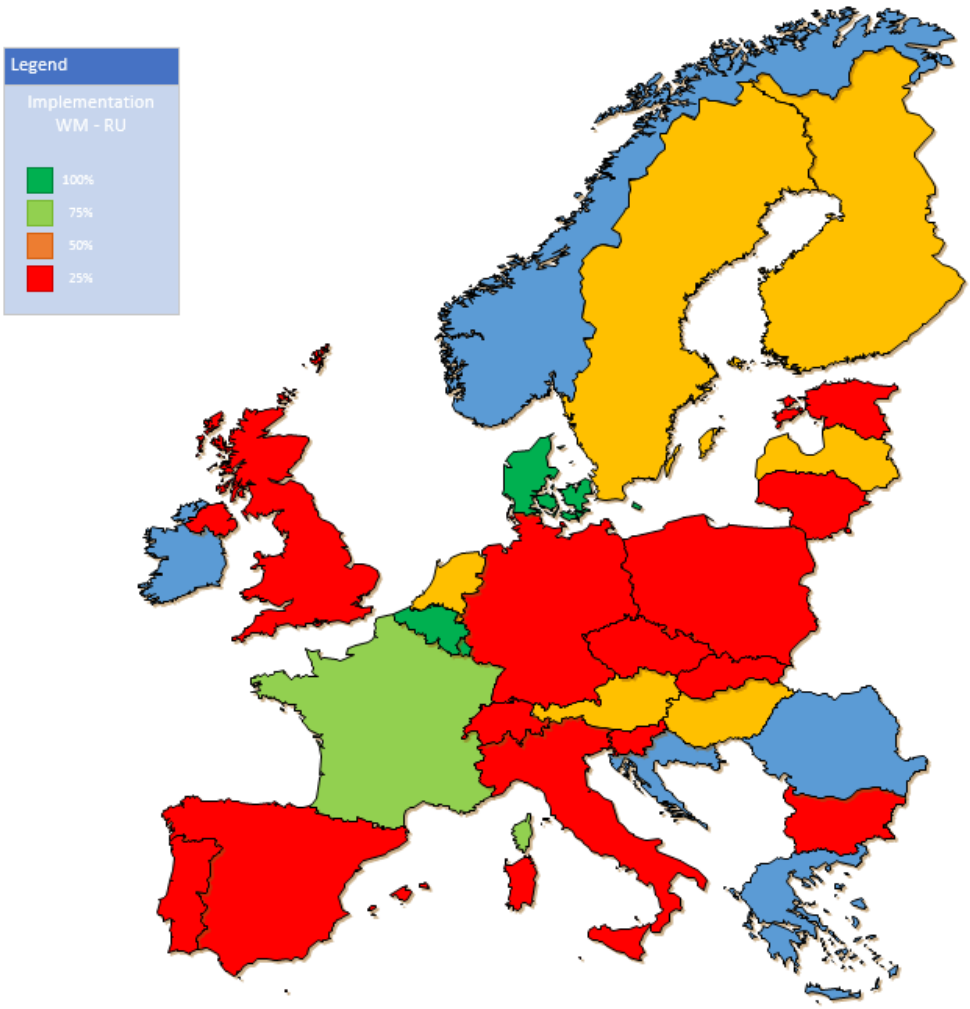


Diagram 23: Evolution of implementation for Wagon Movement (WM)



Map 6: Implementation of Wagon Movement (RU)

Country in blue = no data

viii. Wagon and Intermodal Unit Operating Database (RUs-F)

The Target Implementation Milestone for realisation of the Wagon and Intermodal Unit Operating Database function (WIMO) according to the TAF TSI Masterplan was 2016.

The 'Wagon and Intermodal Unit Operating Database' function (WIMO) is relevant for RUs-F only. However, IMs realising this function on behalf of RUs-F are not considered in the present report.

This function remains at a very low level of fulfilment with 4 companies having this function in production. The reason for this must be further investigated. Companies claim that some requirements and the criteria for fulfilling are still unclear (diagram 24).

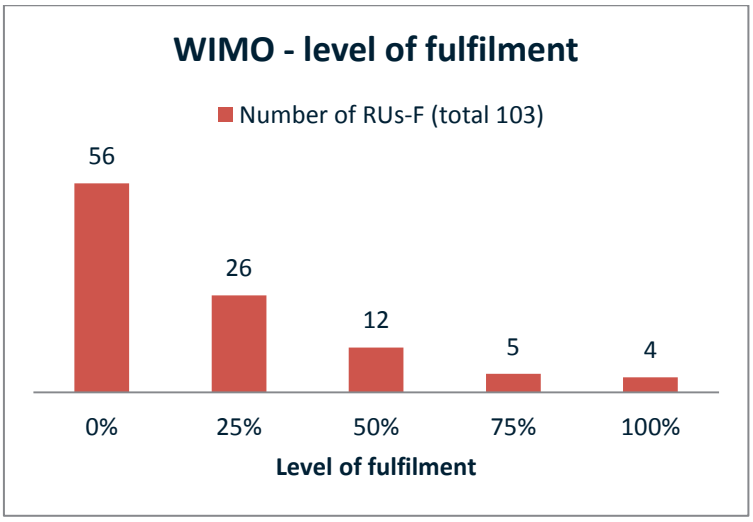


Diagram 24: Wagon and Intermodal Unit Operating Database

Diagram 25 indicates the very low degree of completion for WIMO with no sign of improvement over time.

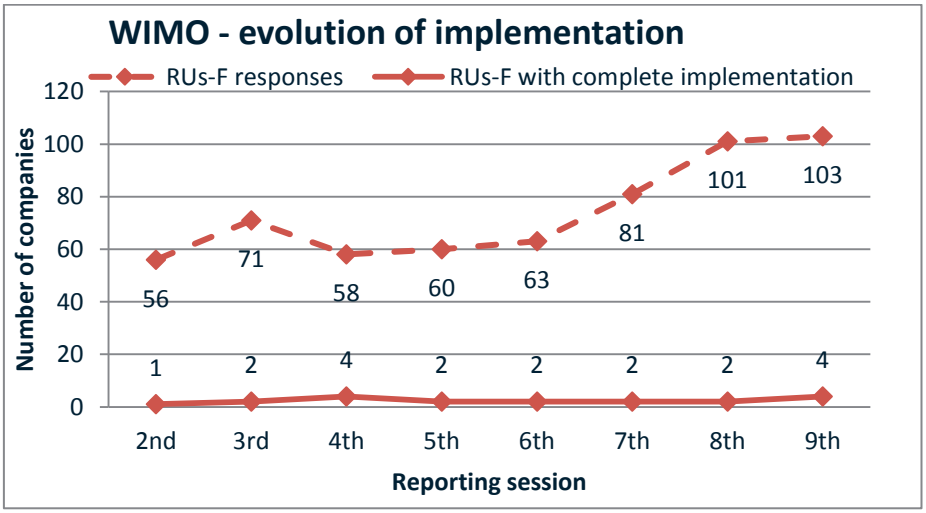
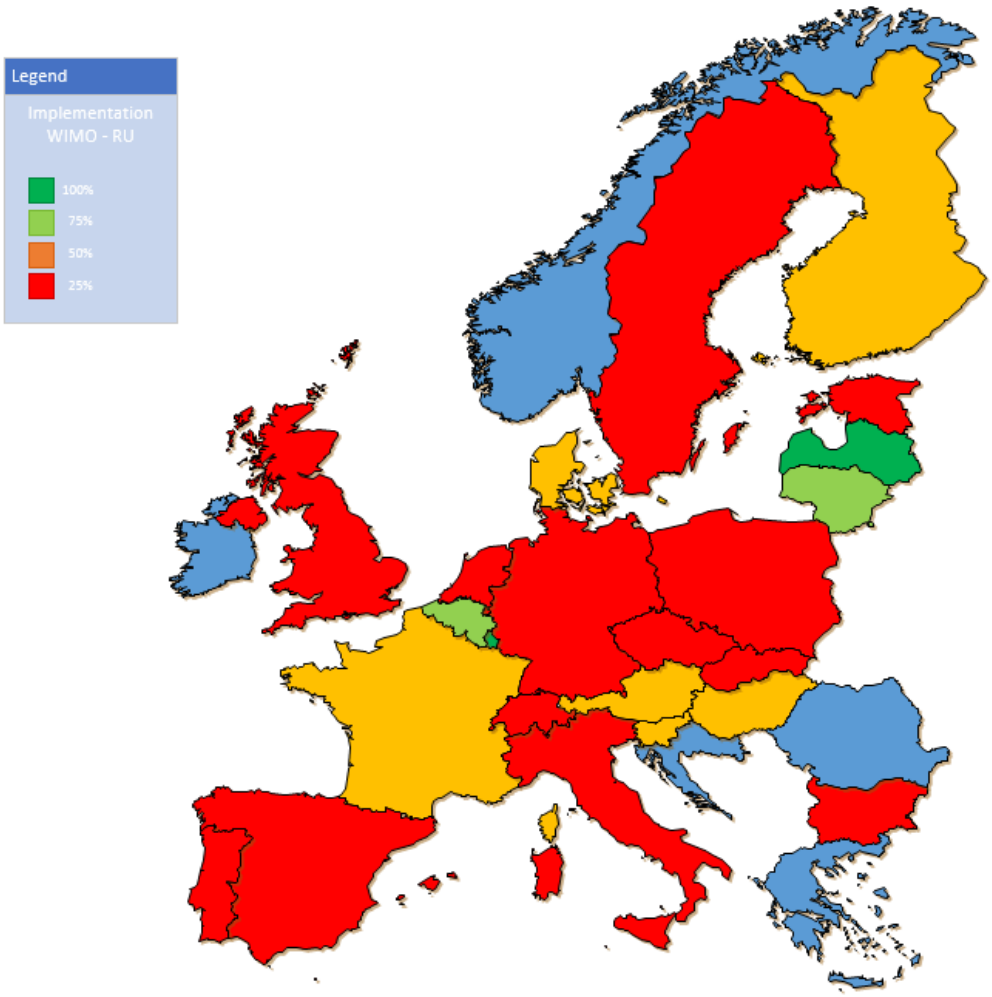


Diagram 25: Evolution of implementation for WIMO



Map 7: Implementation of WIMO (RU)

Country in blue = no data

ix. Rolling Stock Reference Database (WKs)

The Target Implementation Milestone for realisation of the RSRD function according to the TAF TSI Masterplan was 2015.

The 'Rolling Stock Reference Database' function (RSRD) is relevant for companies which keep wagons. Those companies might at the same time also be RUs or IMs.

Many companies intend fulfilling this functionality in a collaborative way via the common sector tool RSRD^2. Information delivered by UIP for RSRD^2 means 100% of fulfilment. 77 WKs have implemented this function, out of which 68 WKs thanks to RSRD^2.

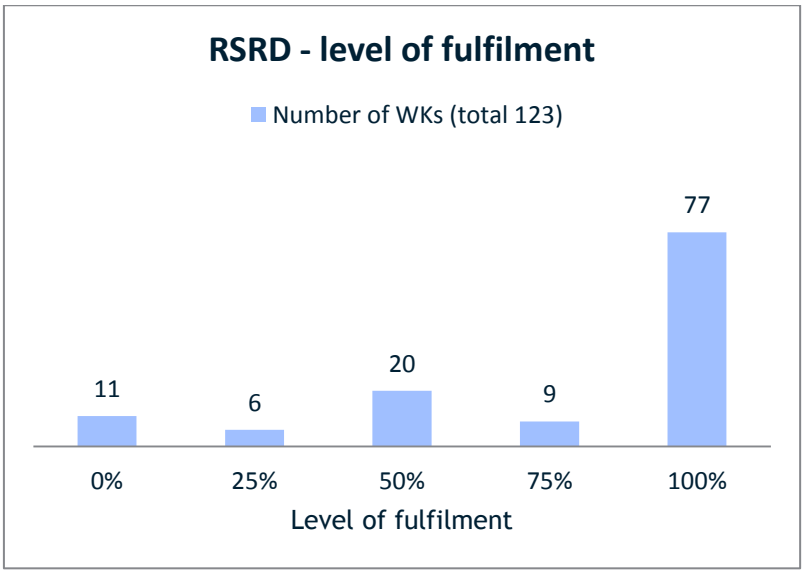


Diagram 26: Rolling Stock Reference Database

Following the higher participation to the survey, the evolution of implementation remains stable compared to the previous report (see diagram 27).

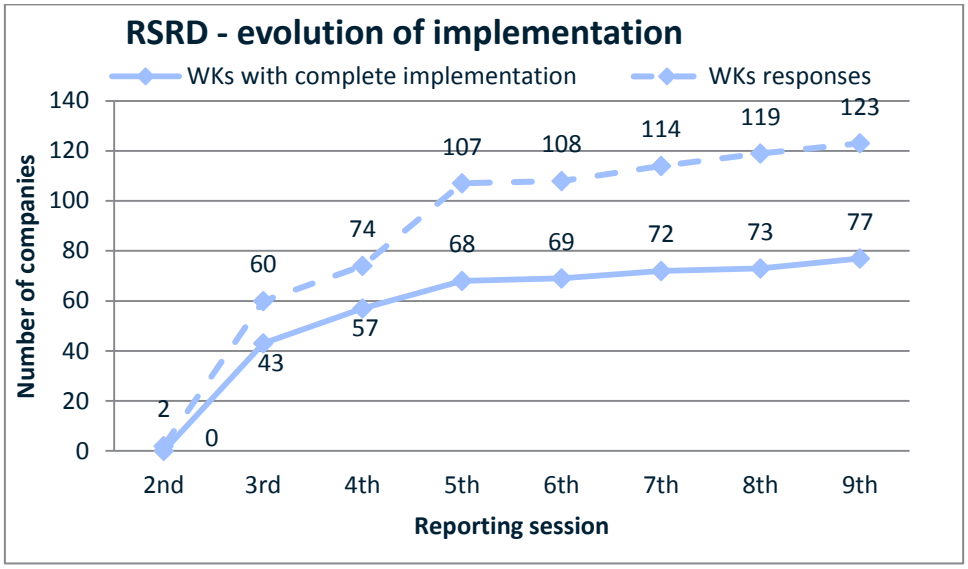
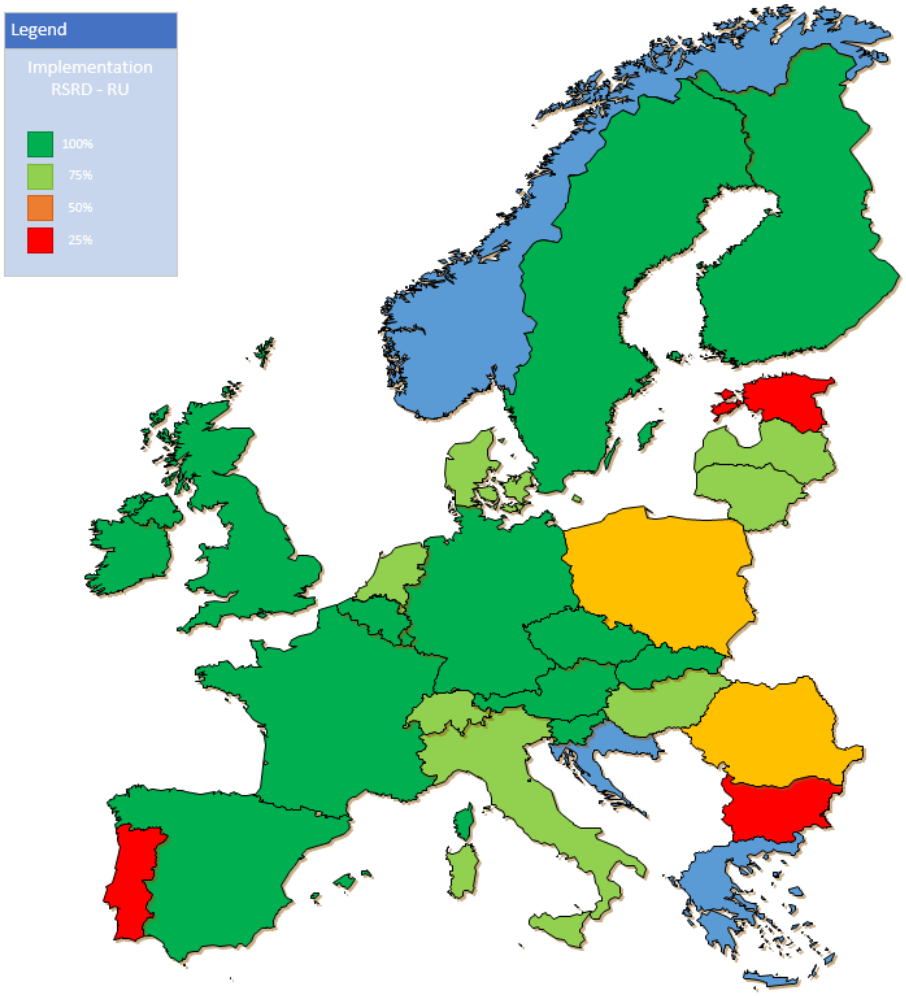


Diagram 27: Evolution of implementation for RSRD



Map 8: Implementation of RSRD (WK)

Country in blue = no data

x. Reasons for not starting implementation of TAF/TAP TSI functions

Companies could declare in a dedicated answer for each TAF/TAP TSI function one reason why they did not yet start implementing it. Diagram 28 gives a summary of the reasons selected by the companies.

Feedback regarding reasons for not implementing increased slightly with plus 8 in total in line with slight increase in terms of participation to the survey.

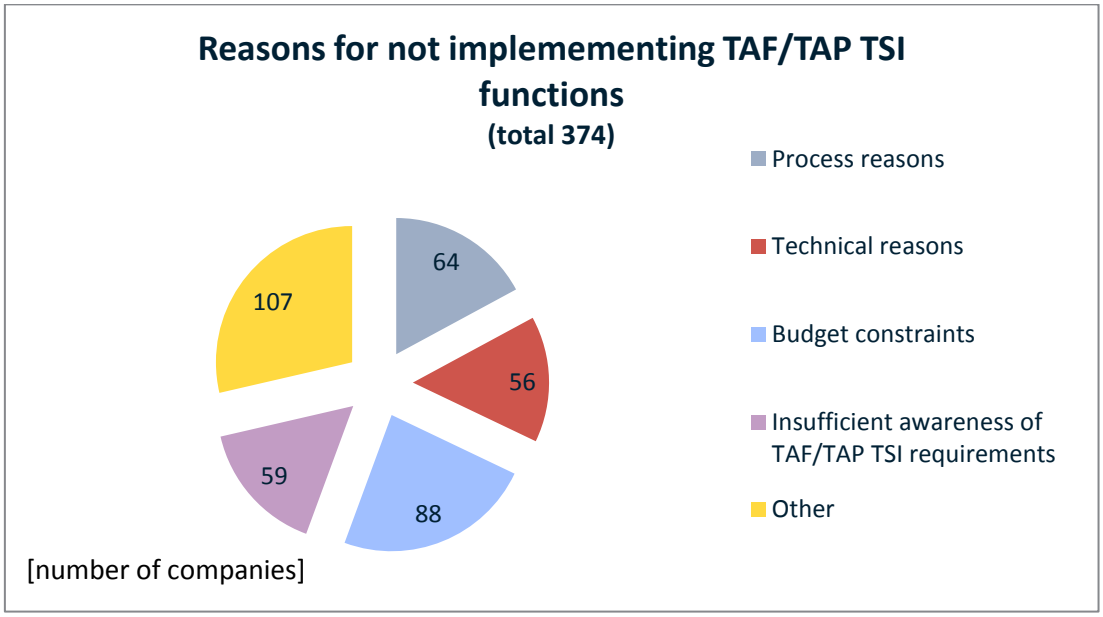


Diagram 28: Reasons for not starting implementation of TAF/TAP TSI functions

Diagram 29 gives a closer look to the development of 'Insufficient awareness of TAF/TAP TSI requirements' over time.

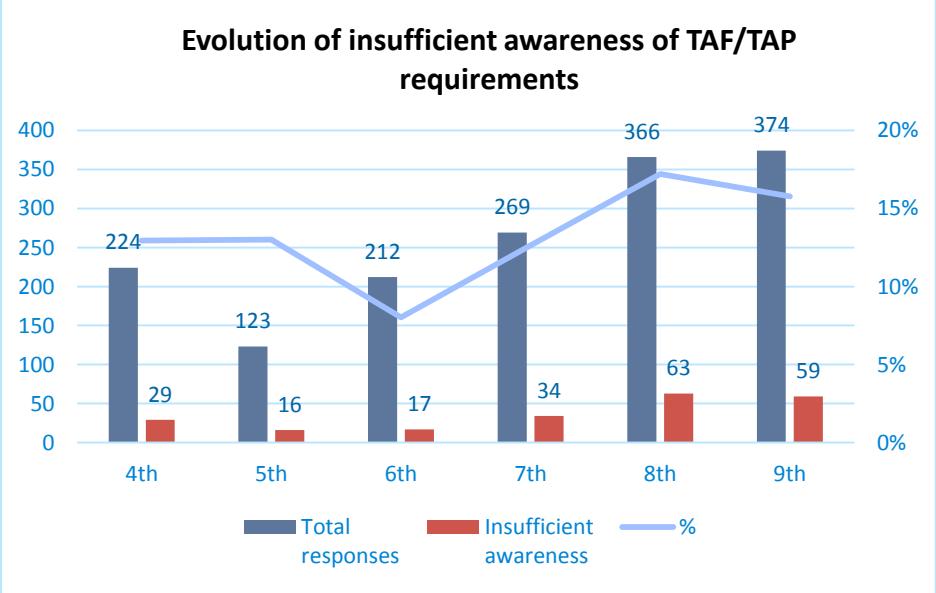


Diagram 29: Evolution of insufficient awareness of TAF/TAP requirements

The percentage given in diagram 29 as a green line, is calculated as the number of companies not being aware about TAF/TAP in relation to all companies giving a reason for not starting to implement. It turns out, that this percentage increased about 10 % since the 6th reporting session. Dedicated information sessions should be initiated as a mitigation measure.

xi. Degree of implementation at European level

This chapter summarises the development of the Degree of Implementation (DI) at European level for the TAF TSI functions since the beginning of reporting.

The DI in this report is defined as the relation of companies having fully implemented (100 %) the function compared to the companies having replied to this query in %.

Diagram 30 shows the DI for functions to be implemented by IMs. Implementation of these functions show a mostly positive trend relative to the last report. The only exception is the CI function, which shows a negative trend already since five reporting sessions.

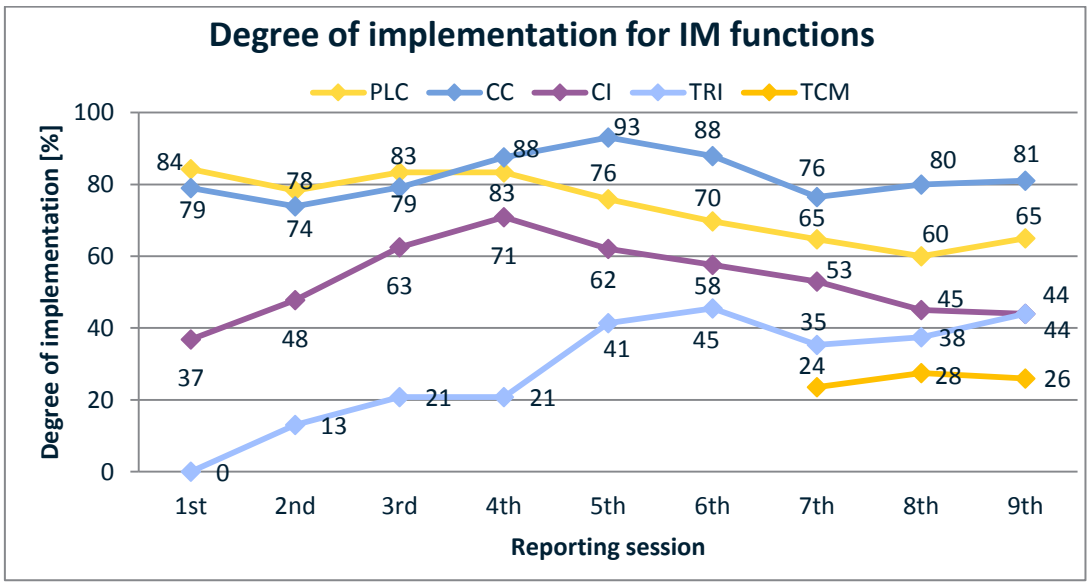


Diagram 30: Reported DI for IM functions

Diagram 31 indicates the evolution of implementation for RUs-F functions. Generally, the proportion of RUs having finished implementation is considerably lower than for IMs. The DI for the CC function stays high at 77 %. For the CI, TRI and TCM functions a positive trend is visible, but the other RUs-F functions stagnate at a low level of implementation.

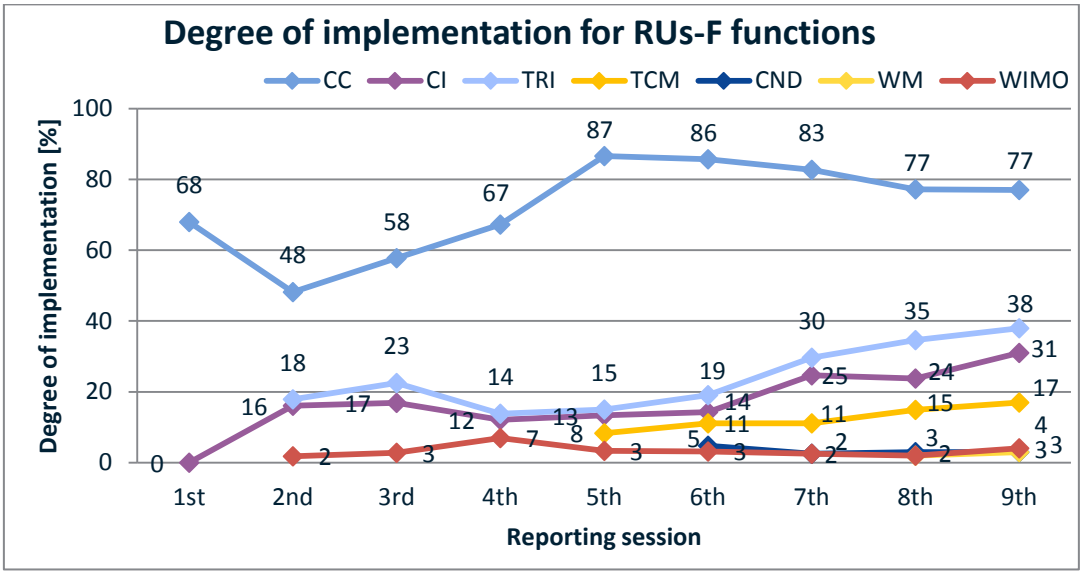


Diagram 31: Reported DI for RUs-F functions

Diagram 32 shows a positive trend for the reported DI for WKs in the present report.

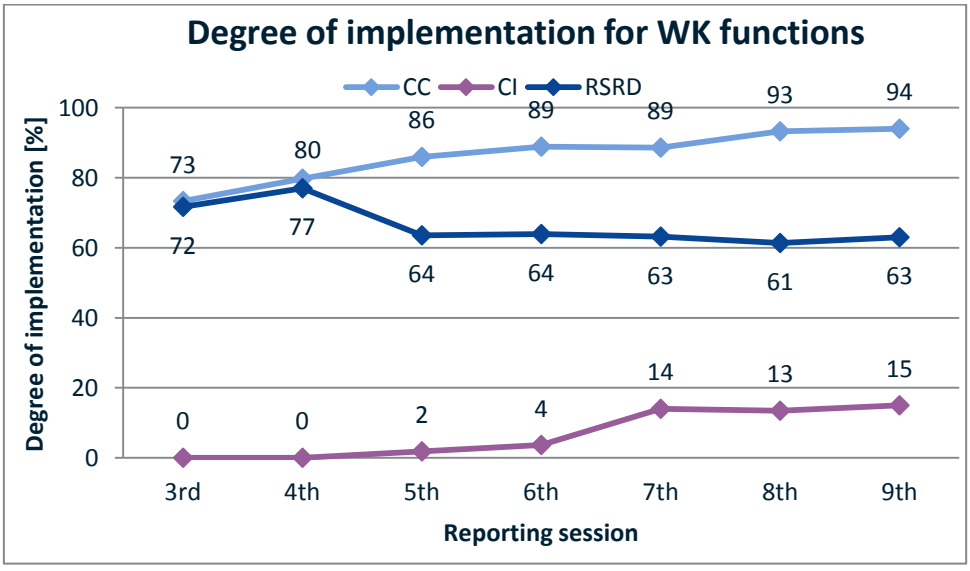


Diagram 32: Reported DI for WK functions

7. Common Sector Tools

Participants of the questionnaire could select all common sector tools in use to meet some specific requirements of the TAF/TAP TSI. The number of companies having indicated using such tools has grown slightly from 467 to 476 and are summarised in diagram 33.

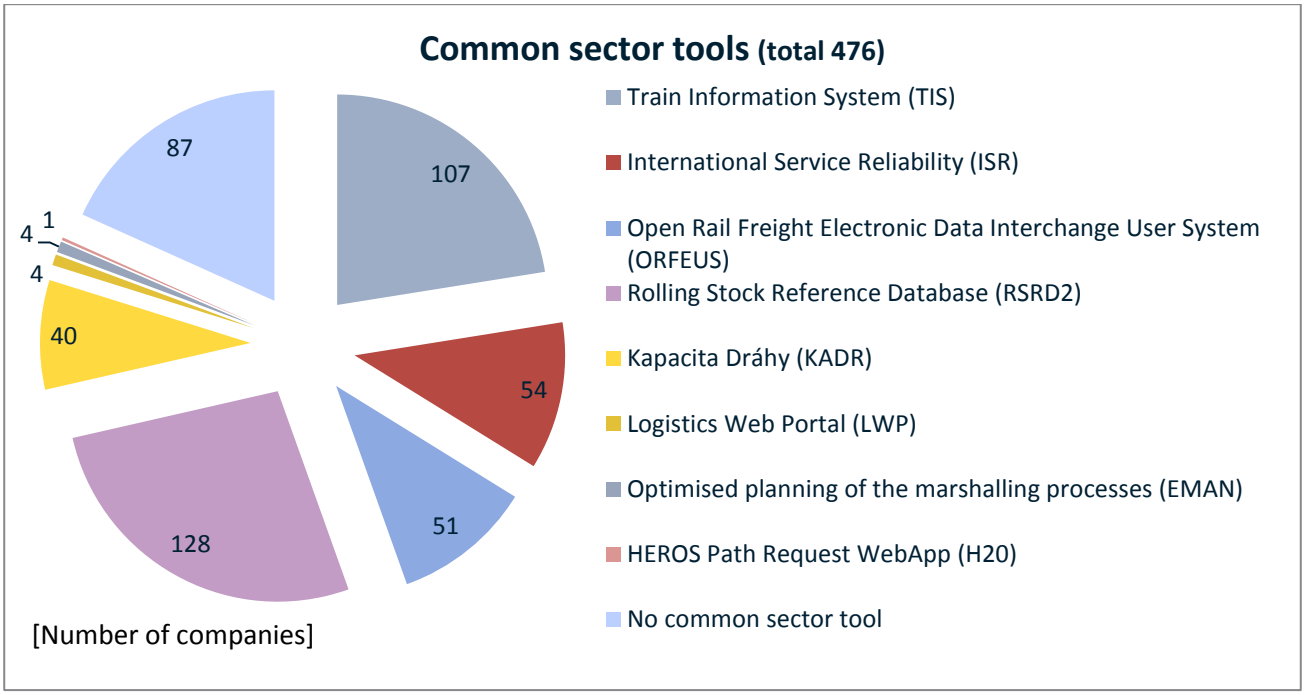


Diagram 33: Common sector tools in use

RSRD^2 and TIS both are the most used Common Sector Tools.

In respect to the responses received from relevant types of companies, RSRD^2 is in use by about 75 % and TIS is in use by about 50 % of its potential users included in this query.

8. Conclusion and Findings

The number of companies having responded to the 9th questionnaire is, as always, significantly lower than the number of companies having been invited. The response rate of 29 % of the current reporting session is the lowest one since the beginning of reporting. There might be different reasons for this negative trend:

- Companies are getting tired answering the same questions every six month
- Little progress within the company to be reported
- Other priorities before Christmas conflicting with the reporting period

Reduction of participation is observed across nearly all European countries, whereas Czech Republic and Poland account already for more than half of the decline.

Participation has also declined for all types of companies, while RUs-F show the highest decline.

The inclusion of data from the previous reporting session is an effort to have a more complete view of the company's feedback and of the current level of implementation. The effect has been relatively high in the present report, as with 111 types of company a large number has been included in the evaluation.

The degree of implementation (DI) for the different TAF functions (diagrams 30 to 32) in the present report shows generally a positive development. Degree of implementation of CC has the highest value for all types of companies. For all other functions the degree of implementation for IMs is higher than the one for RUs.

The DI declines only for the two IM functions, CI and TCM. In these cases, the number of responding companies grows steeper than the number of companies with complete implementation. This might partly be explained by the growing number of smaller companies taking part, which normally are not advanced in TAF/TAP implementation.

For some TAF TSI functions there is a strong need to precisely define the compliance with TAF TSI regulation. For example, for the WIMO function, companies claim that some requirements and the criteria for fulfilling are still unclear. This task has been initiated from the sector and work is ongoing.

The degree of implementation (DI) as set out in diagrams 30 to 32 of this report is calculated from the responses to the questionnaire. If companies not having responded would be also taken into calculation, the degree of implementation would drop off.

RSRD^2 and TIS remain the most used common sector tools following feedback to this survey. 75 % of responding companies benefit from RSRD^2, while it is 50 % for TIS.

9. Upcoming next reporting session

i. Functions to be reported in the next report

During the 9th TAF TSI Implementation Cooperation Group meeting held in March 2019, it was agreed to report about the following functions for the 10th Reporting wave in the frame of the TAF TSI regulation:

- Primary location codes
- Company codes
- Common interface
- Train running information
- RSRD
- WIMO
- Train composition message
- Consignment note data
- Wagon Movement data
- Train ready
- Service Disruption
- Train Running Interrupted Message

ii. Calendar for next reporting

In the frame of the 9th TAF TSI Implementation Cooperation Group meeting held in March 2019, it was agreed the following the schedule to report about the implementation of TAF TSI functions and RU-IM Communication for TAP TSI (10th Reporting wave):

- IRG preparation of questionnaire – 10.04.2019
- ERA-JSG consultation about questionnaire – 10.04.2019
- Questionnaire publication – 20.05.2019
- Opening JSG/CSG tool for reporting – 03-28.06.2019
- ERA/JSG consultation about reports – 30.07.2019
- Approving report at JSG – 18.09.2019
- Presenting at ERA ICG – 16-17.10.2019
- Feedback from ERA ICG Members – 15.11.2019
- Publishing reports – 29.11.2019

Figure 3: Reporting Schedule for the 10th Reporting wave

ANNEX 1: Distribution of freight fleet per country in Europe

Country	Valid registrations VVR / Eurostat	Wagons In GCU	Wagons In RSRD (Data provided by RSRD[2] – UIP)[5]
Austria	19.706	20.052	7.882
Belgium	40.375	10.426	17.361
Bulgaria	12865	3.492	244
Croatia		5.837	5
Czech Republic	53.885	40.503	20.251
Denmark	2.305	1	830
Estonia	-	0	0
Finland	-	4	-
Norway	-	0	0
France	113.261	77.319	53.232
Germany	102.778	168.866	100.722
Greece	4.094	0	2.047
Hungary	12.918	11.649	646
Ireland	-	0	0
Italy	44.482	26.519	31.137
Latvia	11.210	0	8.676
Lithuania	-	0	0
Luxembourg	4.216	2.966	8432
Netherlands	21.957	18.058	7.026
Poland	109.165	70.435	22.924
Portugal	3.379	6	206
Romania	24.076	14.561	963
Slovakia	33.359	24.279	24.352
Slovenia	3.767	3.468	54
Spain	12.760	18.131	4.014
Switzerland	27.398	17.211	13.425
Sweden	12.760	8.820	4.083
United Kingdom	-	616	-

[5] The table has been updated with the data provided by UIP-RSRD[2].

ANNEX 2: Responses contact list v9

Nr.	Member State	Type of Company	Company name	Reporting Entity
1	AT	IM	ÖBB Infrastruktur AG	Heinze
2	AT	RU-F/WK	Rail Cargo Austria AG	Senfter
3	AT	WK	Bahnbau Wels GmbH	RSRD[2]
4	AT	WK	Felbermayr Transport- und Hebetechnik GmbH & Co KG	RSRD[2]
5	AT	WK	GATX Rail Austria GmbH	RSRD[2]
6	AT	WK	Logistik Service GmbH	RSRD[2]
7	AT	WK	Propangas AG	RSRD[2]
8	AT	WK	VTG Austria Ges.m.b.H.	RSRD[2]
9	BE	IM	Infrabel	
10	BE	WK	Lineas Group SA/NV	RSRD[2]
11	BE	WK	Lineas Intermodal NV	RSRD[2]
12	BE	WK	Lineas SA/NV	RSRD[2]
13	BG	IM	NRIC	
14	BG	RU-F	BDZ cargo	
15	BG	RU-F	EXPRESS SERVICE OOD	
16	BG	RU-F	PORT RAIL LTD	
17	BG	RU-F/WK	DB Cargo Bulgaria EOOD	
18	CH	IM	BLS-Netz AG	
19	CH	IM	SBB AG, Division Infrastruktur	
20	CH	IM/RU-P/RU-F	Schweizerische Südostbahn AG	
21	CH	RU-F	BLS Cargo	
22	CH	RU-F	SBB Cargo International AG	SBB Cargo International
23	CH	RU-F/WK	SBB CARGO AG	
24	CH	RU-P	SBB AG, Division Personenverkehr	
25	CH	WK	Diversified Investments SA	RSRD[2]
26	CH	WK	HASTAG (Zürich) AG	RSRD[2]
27	CH	WK	MITRAG AG	RSRD[2]
28	CH	WK	TRANSWAGGON AG	RSRD[2]
29	CH	WK	VTG Schweiz GmbH	RSRD[2]
30	CH	WK	WASCOSA AG Luzern	RSRD[2]

Nr.	Member State	Type of Company	Company name	Reporting Entity
31	CZ	IM/RU-F/WK	DBV-ITL, s.r.o.	
32	CZ	RU-F	GJW Praha spol. s r.o.	
33	CZ	RU-F	Ostravská dopravní společnost - Cargo,a s.	
34	CZ	RU-F	Sokolovská uhelná, právní nástupce, a.s.	
35	CZ	RU-F/RU-P	LTE Logistik a Transport Slovakia s.r.o.	LTE Group
36	CZ	RU-F/WK	Advanced World Transport a.s.	
37	CZ	RU-F/WK	ČD Cargo, a.s.	
38	CZ	RU-F/WK	UNIPETROL Doprava s.r.o.	
39	CZ	RU-P	Leo Express s.r.o.	
40	CZ	RU-P/WK	Ceske drahy, a.s.	
41	CZ	WK	ArcelorMittal Ostrava, a.s.	
42	CZ	WK	Česká republika - Správa státních hmotných rzerv	
43	CZ	WK	Coal Services a.s.	
44	CZ	WK	DIAMO, státni podnik	RSRD[2]
45	CZ	WK	Felbermayr Transport- und Hebetechnik spol.s.r.o.	RSRD[2]
46	CZ	WK	KOS Trading a. s.	
47	CZ	WK	Lafarge Cement, a.s.	RSRD[2]
48	CZ	WK	Lovochemie, a.s.	
49	CZ	WK	NH-TRANS, SE	
50	CZ	WK	Railco a.s.	RSRD[2]
51	CZ	WK	RYKO PLUS spol. s r.o.	
52	CZ	WK	Spolek pro chemickou a hutní výrobu, akciová společnost	
53	CZ	WK	Státní podnik DIAMO	
54	CZ	WK	V.K.S. Vagon Komerc Speed, spol. s r.o.	RSRD[2]
55	CZ	WK	VÁPENKA VITOŠOV s.r.o.	
56	DE	IM	DB Netz AG	
57	DE	RU-F	duisport rail GmbH	
58	DE	RU-F	SBB Cargo International AG	SBB Cargo International
59	DE	RU-F/WK	DB Cargo	
60	DE	RU-P	DB Regio AG	
61	DE	WK	AlzChem Trostberg GmbH	RSRD[2]

Nr.	Member State	Type of Company	Company name	Reporting Entity
62	DE	WK	Aretz GmbH und Co. KG	RSRD[2]
63	DE	WK	BASF SE	RSRD[2]
64	DE	WK	DAHER PROJECTS GmbH	RSRD[2]
65	DE	WK	Ermewa GmbH	RSRD[2]
66	DE	WK	ERR European Rail Rent GmbH	RSRD[2]
67	DE	WK	GATX Rail Germany GmbH	RSRD[2]
68	DE	WK	Kombiverkehr Deutsche Gesellschaft für kombinierten Güterverkehr mbH & Co. KG	RSRD[2]
69	DE	WK	Mosolf Automotive Railway GmbH	RSRD[2]
70	DE	WK	NACCO GmbH	RSRD[2]
71	DE	WK	On Rail - Gesellschaft für Eisenbahnausrüstung und Zubehör mbH	RSRD[2]
72	DE	WK	On Rail Gesellschaft für Vermietung und Verwaltung von Eisenbahnwaggons mbH	RSRD[2]
73	DE	WK	Petrochem Mineralöl-Handels-GmbH	RSRD[2]
74	DE	WK	TRANSWAGGON GmbH	RSRD[2]
75	DE	WK	Tyczka Gase GmbH	RSRD[2]
76	DE	WK	voestalpine Rail Center Königsborn GmbH	RSRD[2]
77	DE	WK	Vossloh Logistics GmbH	RSRD[2]
78	DE	WK	VTG Aktiengesellschaft	RSRD[2]
79	DE	WK	VTG Rail Europe GmbH	RSRD[2]
80	DE	WK	Zürcher Bau GmbH	RSRD[2]
81	EE	IM	AS Eesti Raudtee (Estonian Railways)	
82	ES	IM	ADIF	
83	ES	RU-F	ACCIONA RAIL SERVICES S.A.	
84	ES	RU-F	Logitren Ferroviaria, SA	
85	ES	RU-F	RENFE MERCANCIAS	
86	ES	WK	Ferrocarrils de la Generalitat de Catalunya	RSRD[2]
87	ES	WK	Sociedad de estudios y explotacion de material auxiliar de transportes S.A.	RSRD[2]
88	ES	WK	Transportes Ferroviarios Especiales S.A.	RSRD[2]
89	ES	WK	VTG Rail Europe GmbH Sucursal en España	RSRD[2]
90	FI	RU-F/RU-P	VR Group	
91	FR	IM	SNCF Réseau	
92	FR	RU-F	SNCF MOBILITES - Fret	

Nr.	Member State	Type of Company	Company name	Reporting Entity
93	FR	RU-P	SNCF Mobilités Voyageurs	
94	FR	WK	ATIR-RAIL	RSRD[2]
95	FR	WK	Compagnie Française de Produits Métallurgiques	RSRD[2]
96	FR	WK	Ermewa SA	RSRD[2]
97	FR	WK	EVS S.A.	RSRD[2]
98	FR	WK	Millet SAS	RSRD[2]
199	FR	WK	Monfer France SASU	RSRD[2]
100	FR	WK	NACCO S.A.S.	RSRD[2]
101	FR	WK	SOCOMAC	RSRD[2]
102	FR	WK	STVA S.A.	RSRD[2]
103	FR	WK	VTG France SAS	RSRD[2]
104	HU	AB	VPE Vasúti Pályakapacitás-elosztó Kft.	
105	HU	IM	GYSEV Zrt.	
106	HU	IM	MÁV Hungarian State Railways	
107	HU	IM	MMV Magyar Magánvasút Zrt.	
108	HU	RU-F	Rail Cargo Hungaria Zrt.	
109	HU	RU-P	MÁV-START	
110	IE	WK	TOUAX Rail Ltd.	RSRD[2]
111	IT	IM	Ferrovie Emilia Romagna (FER)	
112	IT	IM	La Ferroviaria Italiana S.p.A.	
113	IT	IM	RETE FERROVIARIA ITALIANA	
114	IT	IM/RU-F	Ferrovie del Gargano	
115	IT	RU-F	Captrain Italia Srl	
116	IT	RU-F	DB Cargo Italia S.r.l.	
117	IT	RU-F	Dinazzano Po SpA	
118	IT	RU-F	Fuorimuro Servizi Portuali e Ferroviari srl	
119	IT	RU-F	GTS Rail S.p.A.	
120	IT	RU-F	HUPAC SpA	
121	IT	RU-F	INRAIL S.p.A.	
122	IT	RU-F	TX Logistik AG - Sede Secondaria Italiana	
123	IT	RU-F/WK	Mercitalia Rail s.r.l.	
124	IT	RU-P	Italo - Nuovo Trasporto Viaggiatori S.p.A.	
125	IT	RU-P	SAD - Trasporto Locale SpA	

Nr.	Member State	Type of Company	Company name	Reporting Entity
126	IT	RU-P	SNCF Voyages Italia	
127	IT	RU-P	Trasporto Ferroviario Toscano	
128	IT	RU-P	Trenitalia SpA	
129	IT	RU-P	Trenord Srl	
130	IT	RU-P	TRENTINO TRASPORTI SPA	
131	IT	WK	Giovanni Ambrosetti Auto Logistica S.p.A	RSRD[2]
132	IT	WK	Lotras srl	RSRD[2]
133	IT	WK	Monfer Cereali SRL	RSRD[2]
134	IT	WK	SITFA SpA	
135	LU	IM/RU-F/RU-P/WK-AB	CFL	
136	LV	IM	VAS Latvijas dzelzceļš (LDz)	
137	LV	RU-F/WK	SIA LDZ CARGO (LDZ CARGO)	
138	NL	IM	ProRail B.V.	
139	NL	RU-F	Spitzke Spoorbouw BV	
140	NL	RU-F/RU-P	Railexperts BV	
141	PL	IM	PKP POLSKIE LINIE KOLEJOWE S.A.	
142	PL	RU-F	Captrain Polska Sp. z o.o.	
143	PL	RU-F	CTL LOGISTICS Sp. z o.o.	
144	PL	RU-F	Kolej Bałtycka S.A.	
145	PL	RU-F/WK	CEMET S.A.	
146	PL	RU-F/WK	JSW Logistics Sp. z o.o.	
147	PL	RU-P	Spółka „Łódzka Kolej Aglomeracyjna” sp. z o.o.	
148	PL	WK	Felbermayr Immo Sp.z.o.o.	RSRD[2]
149	PL	WK	GATX Rail Poland Sp. z o.o.	RSRD[2]
150	PL	WK	Tankwagon Sp. z o. o.	RSRD[2]
151	PT	IM	Infraestruturas de Portugal	
152	PT	RU-F	Medway - Operador Ferroviário e Logístico de Mercadorias, SA	
153	PT	RU-F/WK	TAKARGO	
154	PT	RU-P	CP - Comboios de Portugal EPE	
155	PT	WK	ADP Fertilizantes, S.A.	RSRD[2]
156	PT	WK	CIMPOR - Serviços de Apoio à Gestão de Empresas, S.A.	RSRD[2]

Nr.	Member State	Type of Company	Company name	Reporting Entity
157	RO	IM	CFR	
158	SE	IM	Trafikverket	
159	SE	RU-F	CFL cargo Sverige AB	
160	SE	RU-F/WK	Green Cargo	
161	SE	WK	Stena Recycling AB	RSRD[2]
162	SE	WK	TRANSWAGGON AB	RSRD[2]
163	SI	IM	SŽ infrastruktura, d.o.o.	
164	SI	RU-F	SŽ TOVORNI PROMET D.O.O.	
165	SI	WK	Adria kombi d.o.o.	RSRD[2]
166	SK	RU-F/RU-P	LTE Logistik a Transport Slovakia s.r.o.	LTE Group
167	SK	RU-F/RU-P	ZSSK CARGO	
168	SK	WK	Felbermayr Slovakia s.r.o.	RSRD[2]
169	SK	WK	Ing. Alica Ovciariková A.O.	RSRD[2]
170	TR	WK	TRANSWAGGON Vagon Isletmeleri Ltd. Sti.	RSRD[2]
171	UK	IM	Network Rail Infrastructure Limited	
172	UK	RU-F/WK	DB Cargo UK	

ANNEX 3: Responses contact list v8

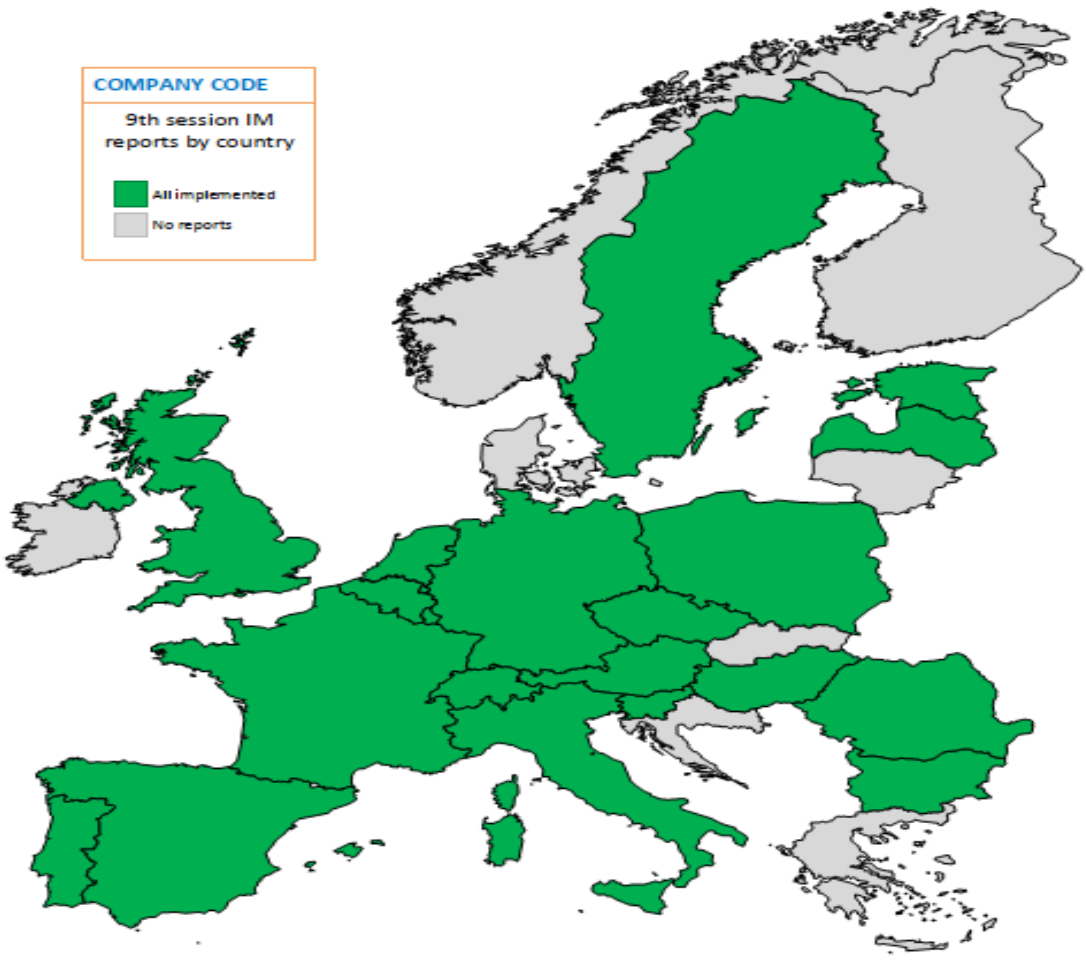
Nr.	Member State	Type of Company	Company name	Reporting Entity
1	BG	RU-F	EXPRESS SERVICE OOD	
2	BG	RU-F	Rail Cargo Carrier - Bulgaris Ltd.	
3	CH	RU-F	DB Cargo Switzerland	
4	CH	RU-F	WRS Widmer Rail Services AG	
5	CH	WK	DB Cargo Switzerland	
6	CZ	IM	KŽC Doprava	
7	CZ	IM	PDV RAILWAY a.s.	
8	CZ	IM	SŽDC	
9	CZ	RU-F	BF Logistics s.r.o.	
10	CZ	RU-F	CityRail, a.s.	
11	CZ	RU-F	EP CARGO a.s	
12	CZ	RU-F	IDS CARGO a.s.	
13	CZ	RU-F	KŽC Doprava	
14	CZ	RU-F	LOKO TRANS s.r.o.	
15	CZ	RU-F	MH-spedition s.r.o.	
16	CZ	RU-F	Ostravská dopravní společnost, a.s.	
17	CZ	RU-F	RegioJet	
18	CZ	RU-F	SLEZSKOMORAVSKÁ DRÁHA a.s.	
19	CZ	RU-F	TCHAS ŽD s.r.o.	
20	CZ	RU-F	VÍTKOVICE Doprava, a.s.	
21	CZ	RU-P	CityRail, a.s.	
22	CZ	RU-P	GW Train Regio a.s.	
23	CZ	RU-P	KŽC Doprava	
24	CZ	RU-P	RegioJet	
25	CZ	WK	Českomoravský cement, a.s.	
26	CZ	WK	LOKO TRANS s.r.o.	
27	CZ	WK	Rail Cargo Operator - CSKD	
28	CZ	WK	Vápenka Čertovy schody a.s.	
29	CZ	WK	ZX-BENET CZ s.r.o.	
30	DE	IM	Bayernhafen GmbH & Co. KG	

Nr.	Member State	Type of Company	Company name	Reporting Entity
31	DE	IM	Container Terminal Halle (Saale) GmbH	
32	DE	IM	evb Infrastrukture	
33	DE	IM	Hafen Krefeld GmbH & Co. KG	
34	DE	IM	Häfen und Güterverkehr Köln AG	
35	DE	IM	HLB Basis AG, HLB Hessenbahn GmbH	
36	DE	RU-F	Captrain CargoWest GmbH	
37	DE	RU-F	Hafen Krefeld GmbH & Co. KG	
38	DE	RU-F	HLB Basis AG, HLB Hessenbahn GmbH	
39	DE	RU-F	MEG Mitteldeutsche Eisenbahn GmbH	
40	DE	RU-F	RBH Logistics GmbH	
41	DE	RU-F	RTB CARGO GMBH/VIAS GMBH	
42	DE	RU-P	Hafen Krefeld GmbH & Co. KG	
43	DE	RU-P	HLB Basis AG, HLB Hessenbahn GmbH	
44	DE	WK	MEG Mitteldeutsche Eisenbahn GmbH	
45	DE	WK	RBH Logistics GmbH	
46	DK	RU-F	DB Cargo Scandinavia A/S	
47	DK	WK	DB Cargo Scandinavia A/S	
48	EE	RU-F	AS Operail	
39	EE	WK	AS Operail	
50	ES	RU-F	TF Transfesa	
51	ES	WK	TF Transfesa	
52	FI	IM	Finnish Transport Agency	
53	FR	RU-F	ECR Euro Cargo Rail SA	
54	FR	WK	ECR Euro Cargo Rail SA	
55	HU	RU-F	DB Cargo Hungária Kft.	
56	HU	RU-F	GYSEV CARGO Zrt.	
57	HU	WK	DB Cargo Hungária Kft.	
58	IT	IM	EAV srl	
59	IT	IM	Gruppo Torinese Trasporti S.p.A.	
60	IT	RU-F	SBB Cargo Italia	
61	IT	RU-P	BUSINESS UNIT TRASPORTO FERROVIARIO di FERROVIE DEL SUD EST	
62	IT	RU-P	Ente Autonomo Volturno s.r.l.	

Nr.	Member State	Type of Company	Company name	Reporting Entity
63	IT	RU-P	Ferrovie del Gargano	
64	IT	RU-P	GRUPPO TORINESE TRASPORTI SPA	
65	IT	RU-P	Italo - Nuovo Trasporto Viaggiatori S.p.A.	
66	IT	RU-P	Trasporto Passeggeri Emilia Romagna SpA	
67	IT	WK	Ambrogio Trasporti SpA	
68	IT	WK	DB Cargo Italia Srl	
69	IT	WK	Mercitalia Intermodal S.p.A.	
70	LT	IM	JSC "Lithuanian Railways"	
71	LT	RU-F	JSC "Lithuanian Railways"	
72	LT	RU-P	JSC "Lithuanian Railways"	
73	LT	WK	JSC "Lithuanian Railways"	
74	NL	RU-F	DB Cargo Nederland N.V.	
75	NL	RU-P	NS Reizigers & NS International	
76	NL	WK	DB Cargo Nederland N.V.	
77	NO	IM	Bane NOR	
78	PL	RU-F	CARGO MASTER SP. Z O.O.	
79	PL	RU-F	CD Cargo Poland Sp. z o.o.	
80	PL	RU-F	CIECH CARGO SP. z o.o.	
81	PL	RU-F	Colas Rail Polska SP.ZO.o	
82	PL	RU-F	DB Cargo Polska Spółka Akcyjna	
83	PL	RU-F	GRUPA AZOTY KOLZAP SP. Z O.O.	
84	PL	RU-F	Inter Cargo Sp. z o .o.	
85	PL	RU-F	LOTOS Kolej Sp. z o.o.	
86	PL	RU-F	Pomorskie Przedsiębiorstwo Mechaniczno - Torowe sp. z o.o.	
87	PL	RU-F	PROTOR Spółka z ograniczoną odpowiedzialnością Spółka komandytowa	
88	PL	RU-F	Przedsiębiorstwo Napraw i Utrzymania Infrastruktury Kolejowej w Krakowie Sp. z o.o.	
89	PL	RU-F	Stanisław Głowacz F.H.U. JMS	
90	PL	RU-F	Zakład Inżynierii Kolejowej Sp. z o.o.	
91	PL	RU-P	Arriva RP Sp. z o.o.	
92	PL	RU-P	CARGO MASTER SP. Z O.O.	
93	PL	RU-P	Koleje Śląskie sp. z o.o.	

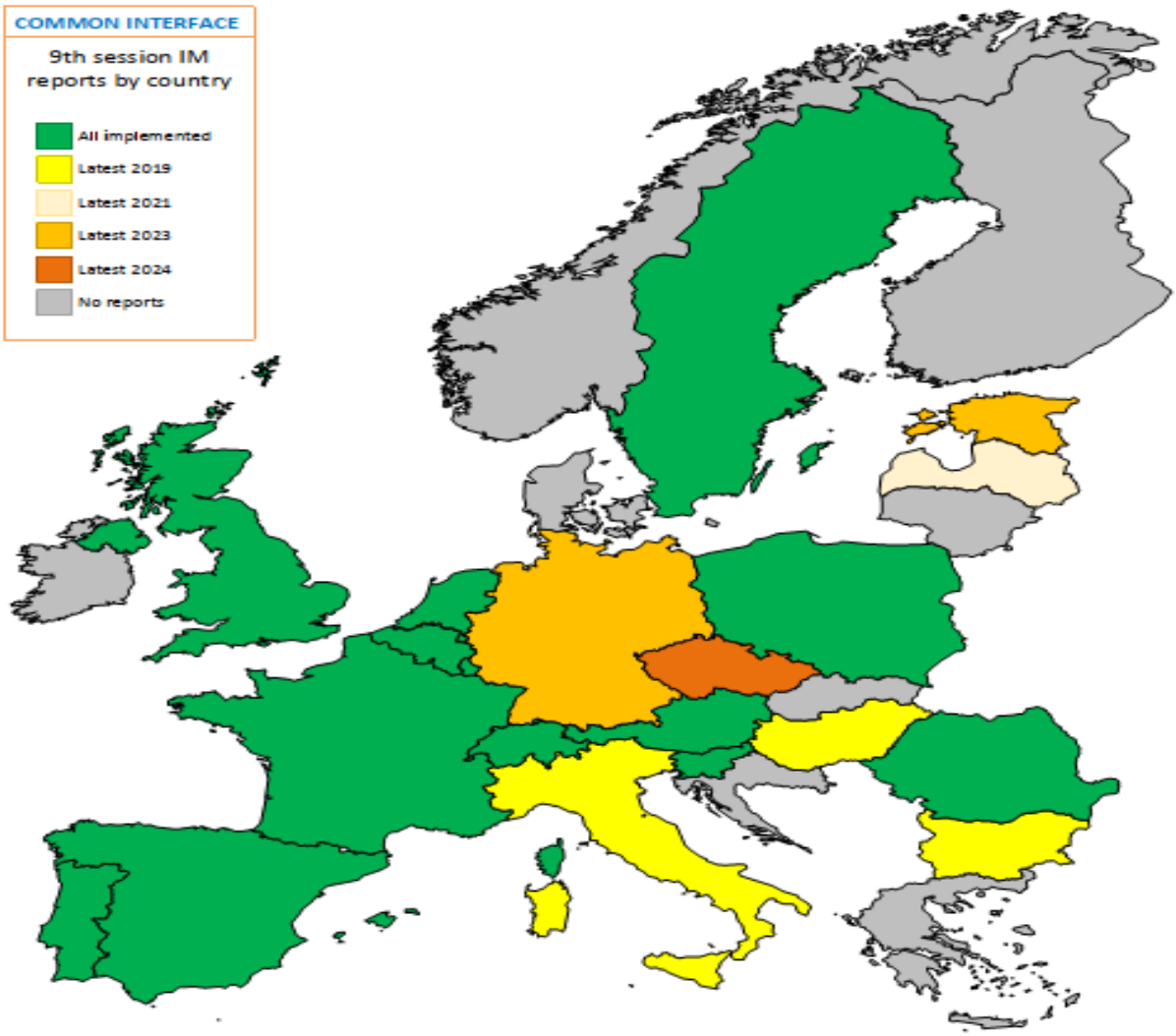
Nr.	Member State	Type of Company	Company name	Reporting Entity
94	PL	RU-P	Stanisław Głowacz F.H.U. JMS	
95	PL	WK	DB Cargo Polska Spółka Akcyjna	
96	PL	WK	LOTOS Kolej Sp. z o.o.	
97	PL	WK	Pomorskie Przedsiębiorstwo Mechaniczno - Torowe sp. z o.o.	
98	PL	WK	Przedsiębiorstwo Napraw i Utrzymania Infrastruktury Kolejowej w Krakowie Sp. z o.o.	
99	PL	WK	Zakład Inżynierii Kolejowej Sp. z o.o.	
100	PT	RU-P	FERTAGUS	
101	RO	IM	TRANSFEROVIAR GRUP SA	
102	RO	RU-F	DB Cargo Rail Romania SRL	
103	RO	RU-F	SNTFM "CFR MARFA" SA	
104	RO	RU-F	TRANSFEROVIAR GRUP SA	
105	RO	WK	DB Cargo Rail Romania SRL	
106	RO	WK	SNTFM "CFR MARFA" SA	
107	SE	RU-F	Hector Rail AB	
108	SI	WK	SŽ TOVORNI PROMET D.O.O.	
109	SK	IM	Slovak Railways - železnice Slovenskej republiky	
110	SK	RU-F	BULK TRANSSHIPMENT SLOVAKIA, a.s.	
111	SK	RU-F	TSS Grade a.s.	

ANNEX 4: GIS Maps with TAF masterplan dates per function[6]

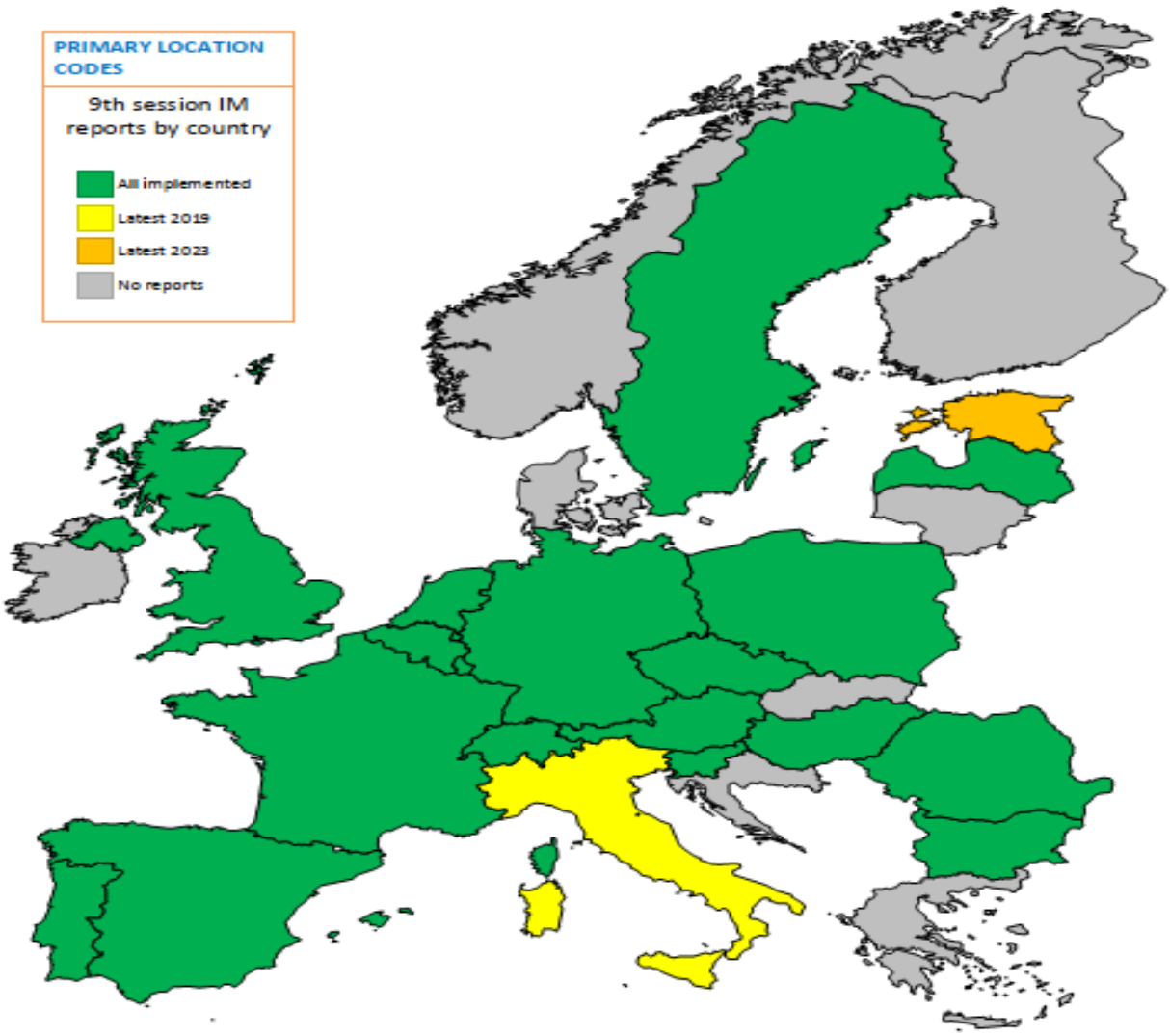


Map 9: Masterplan for Company Codes (IM)

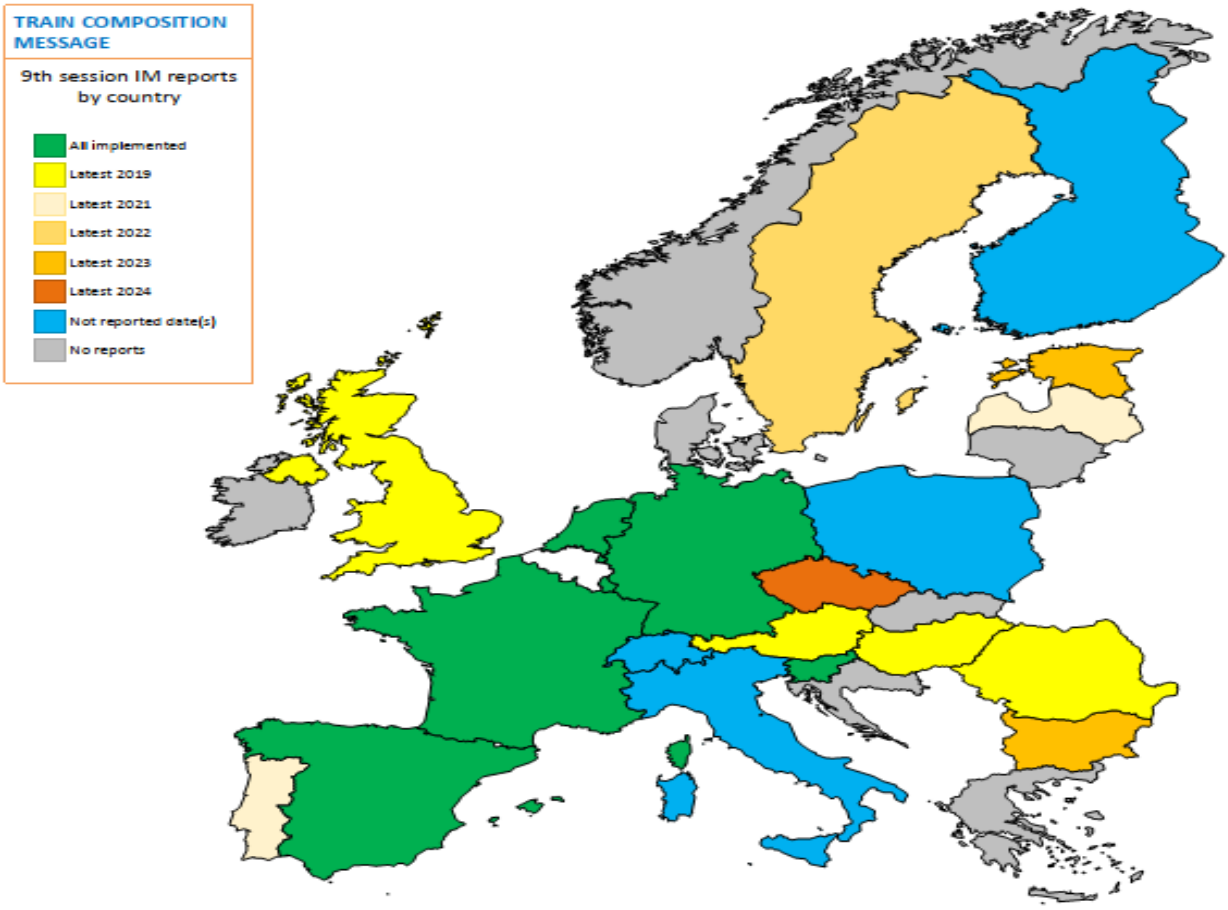
[6] The GIS masterplan maps show per country the latest individual implementation date as reported by the individual implementing entities.



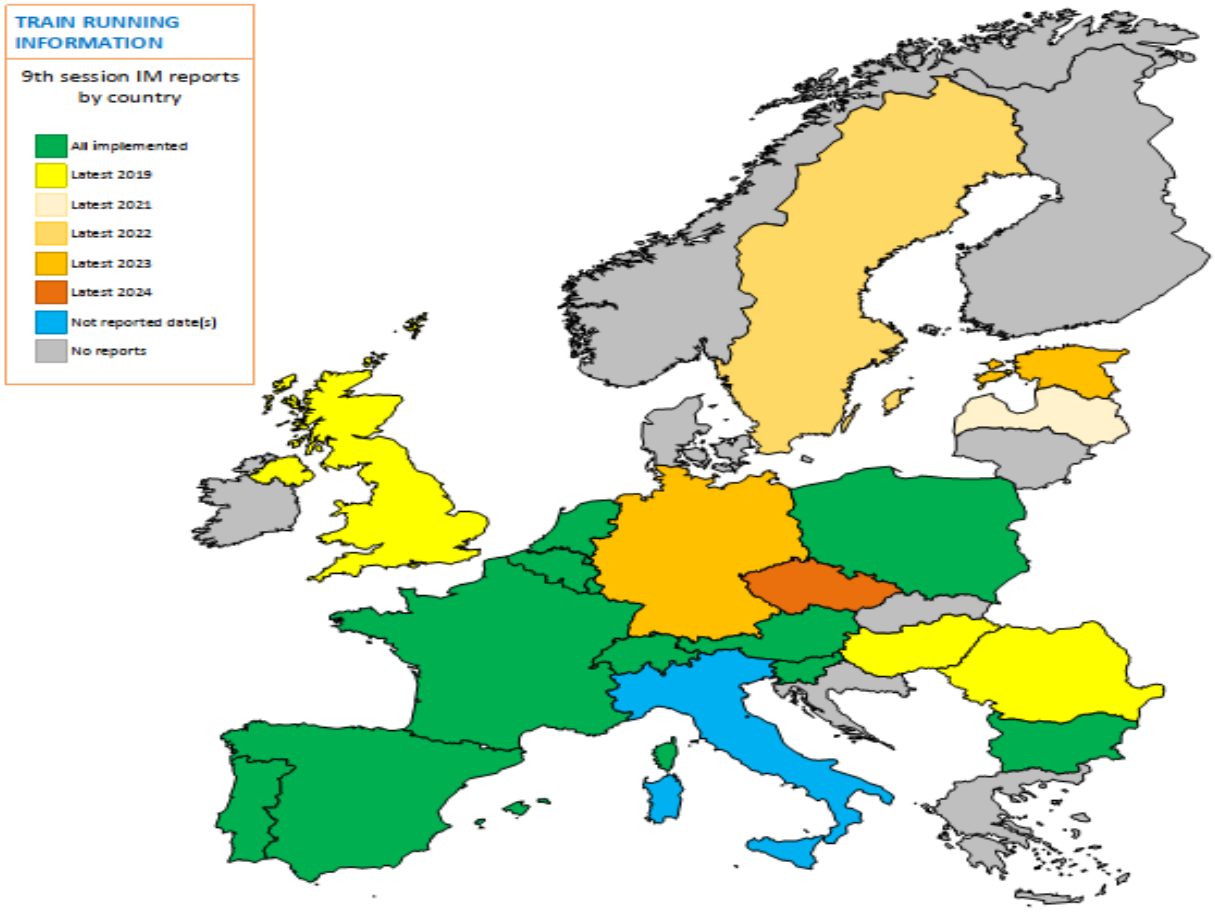
Map 10: Masterplan for Common Interface (IM)



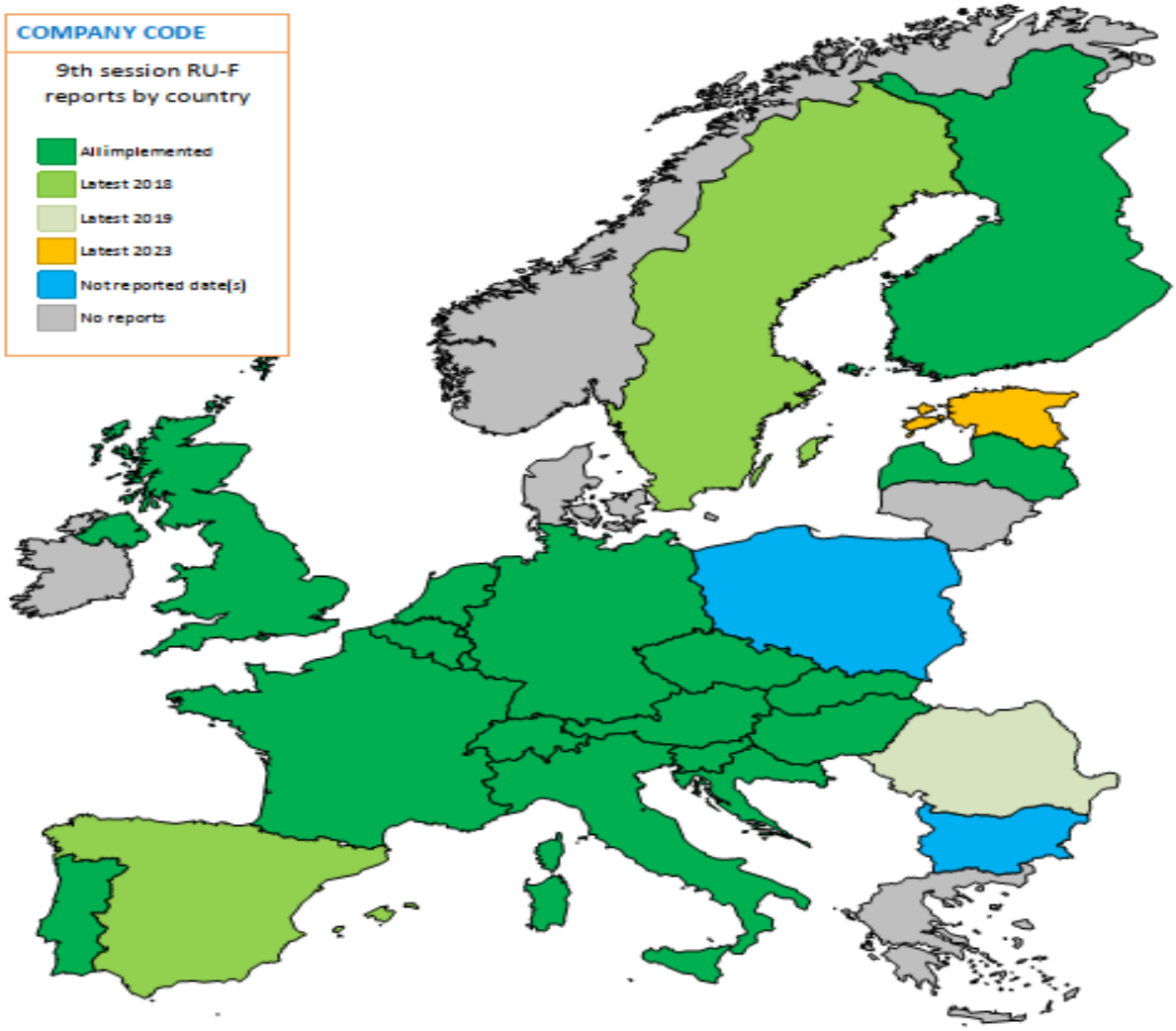
Map 11: Masterplan for Primary Location Codes (IM)



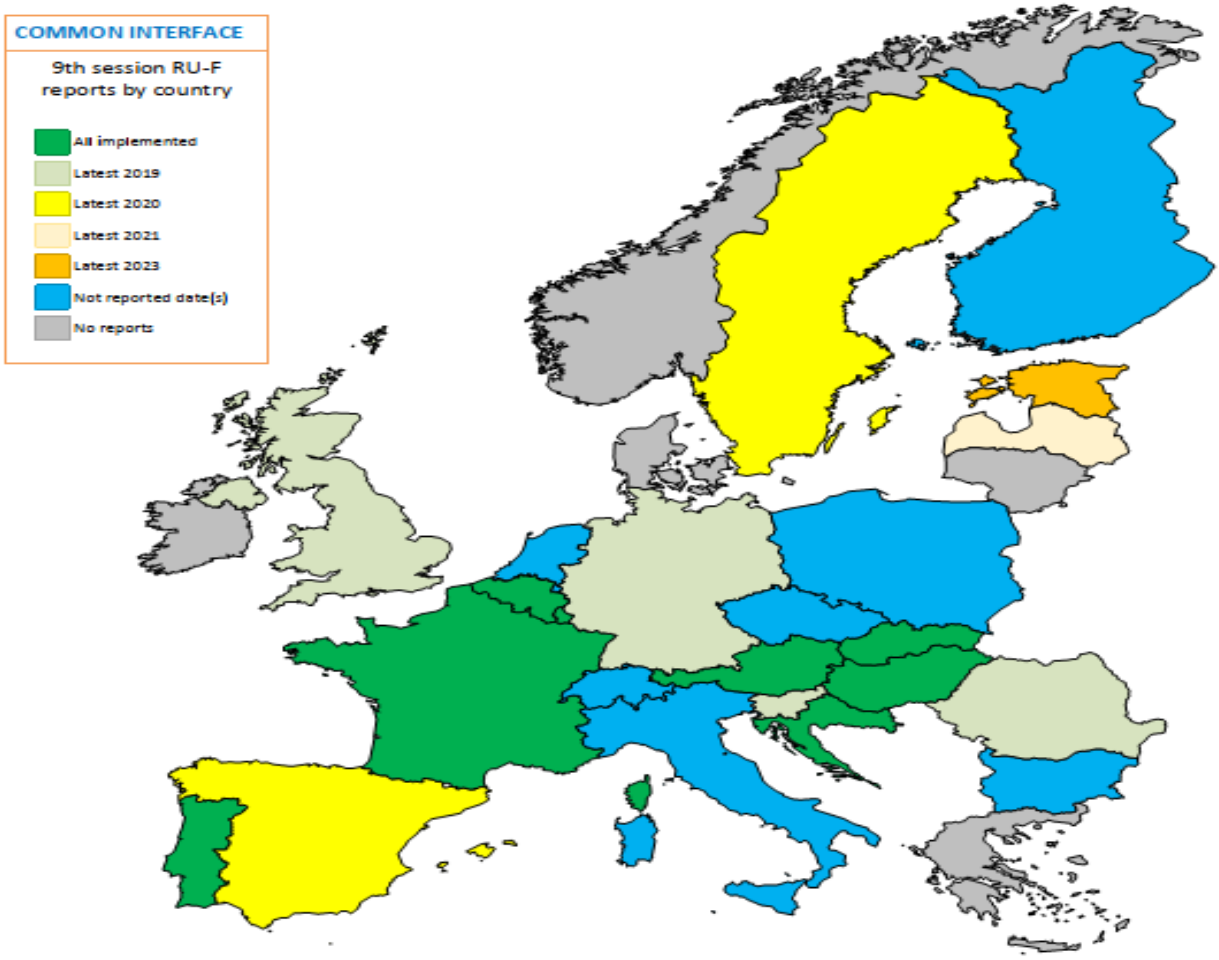
Map 12: Masterplan for Train Composition Message (IM)



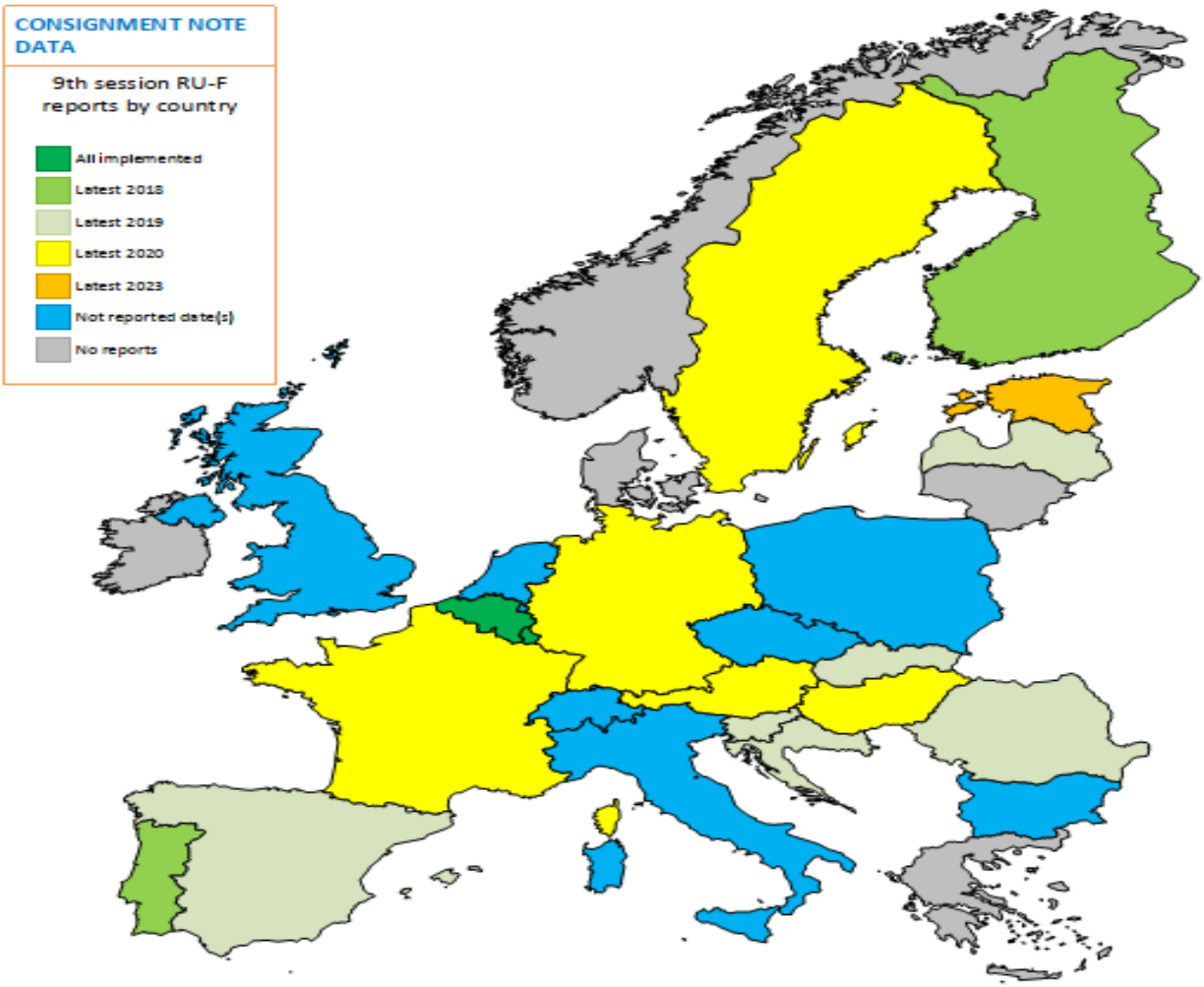
Map 13: Masterplan for Train Running Information (IM)



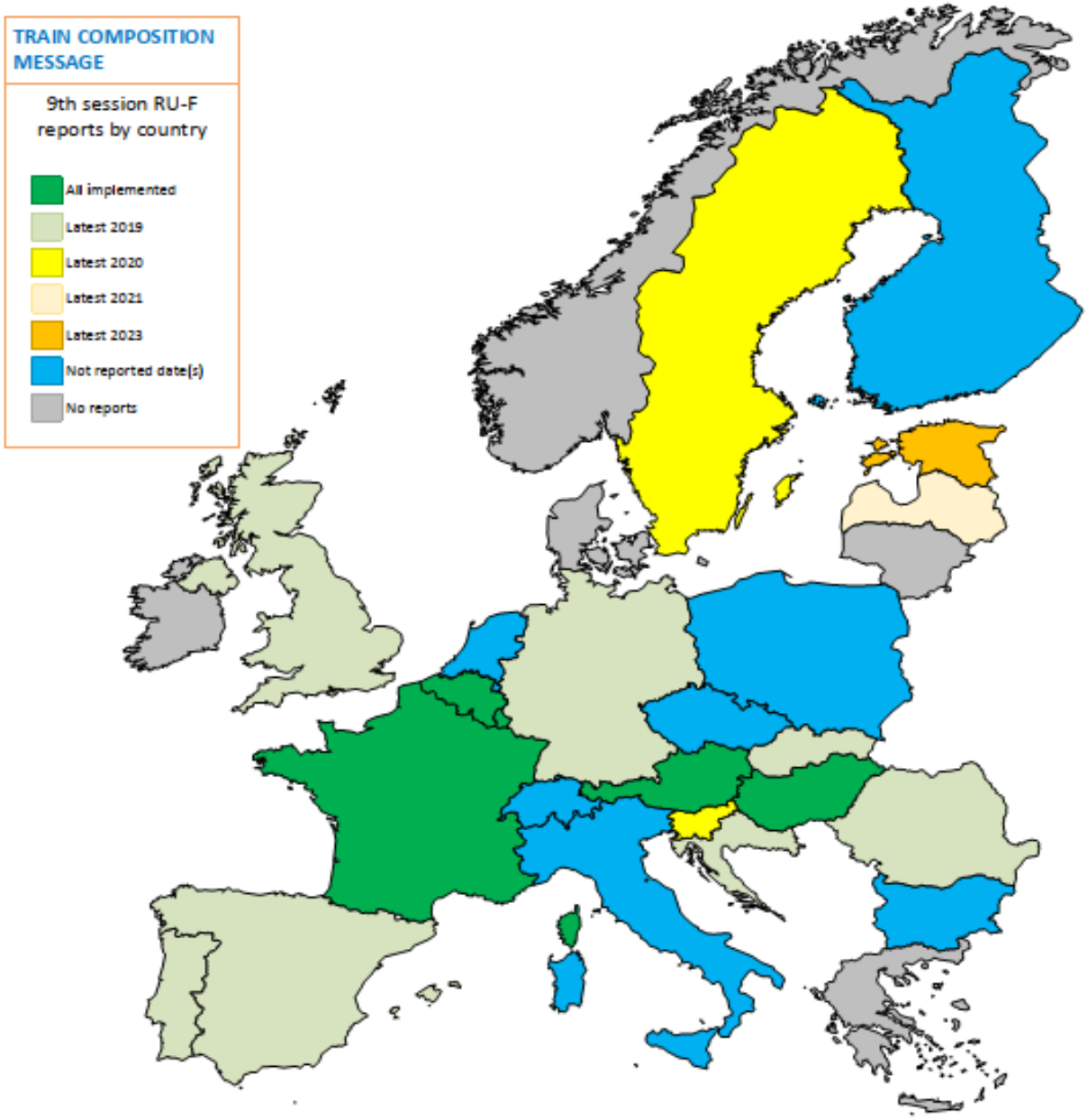
Map 14: Masterplan for Company Codes (RU)



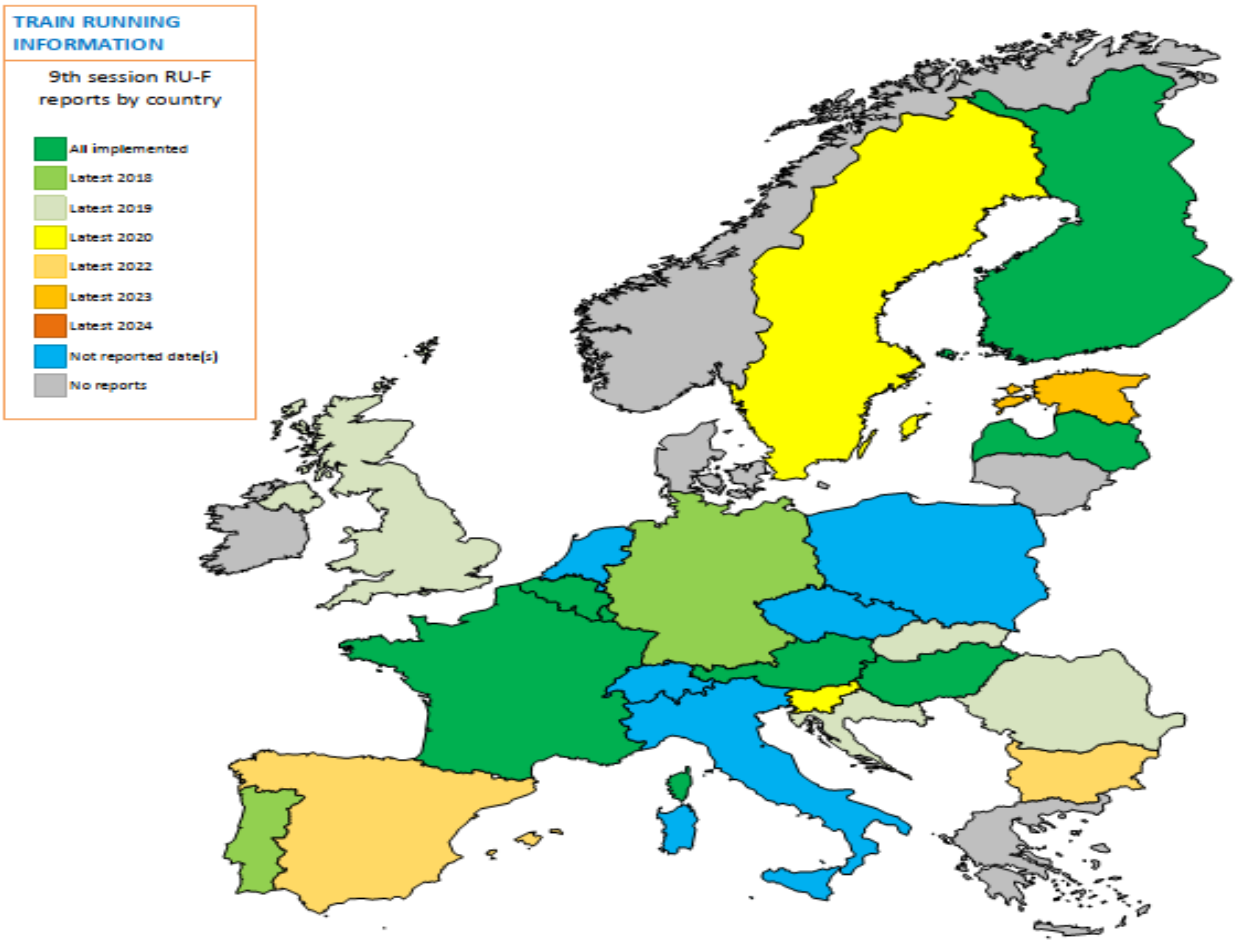
Map 15: Masterplan for Common Interface (RU)



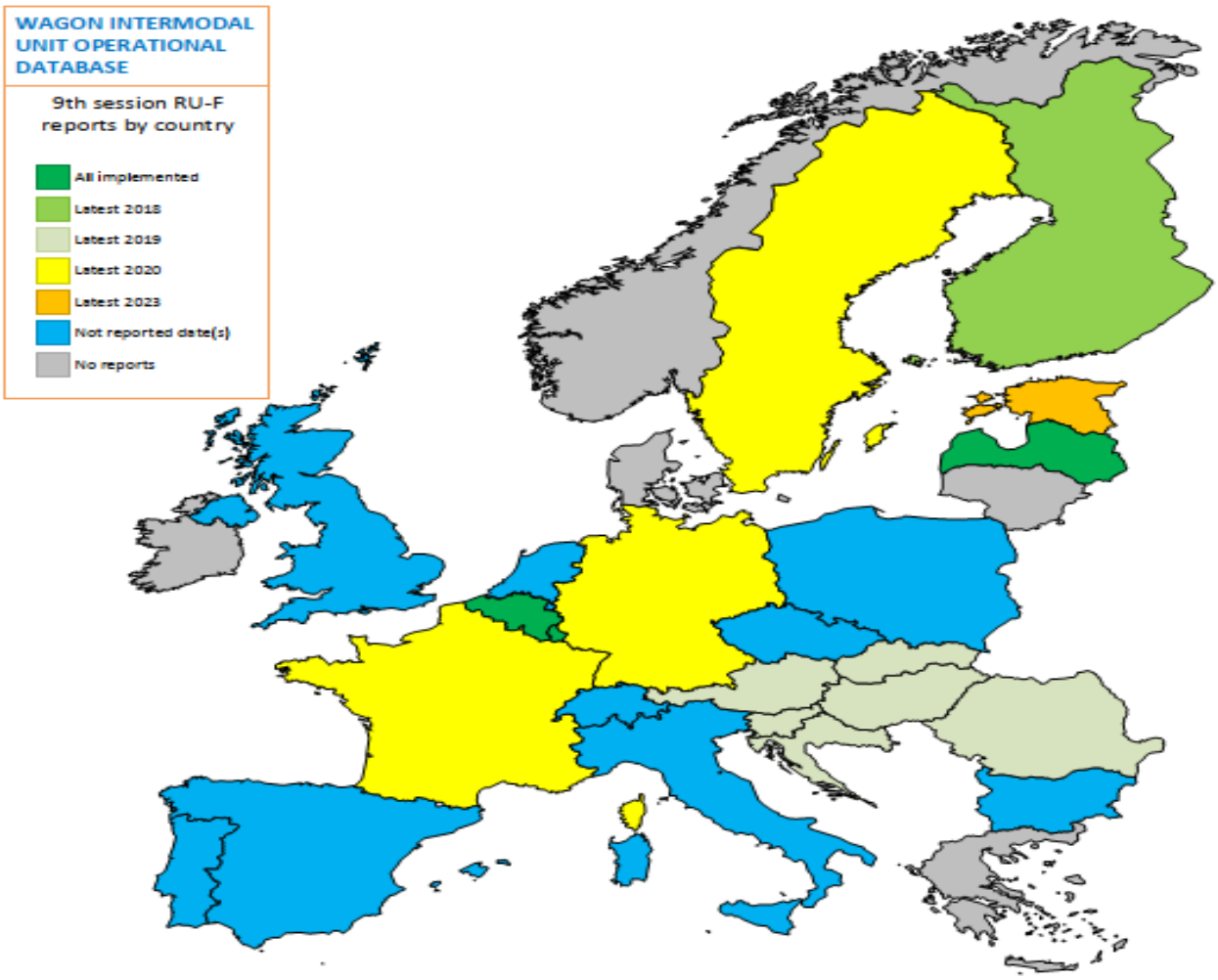
Map 16: Masterplan for Consignment Order Message (RU)



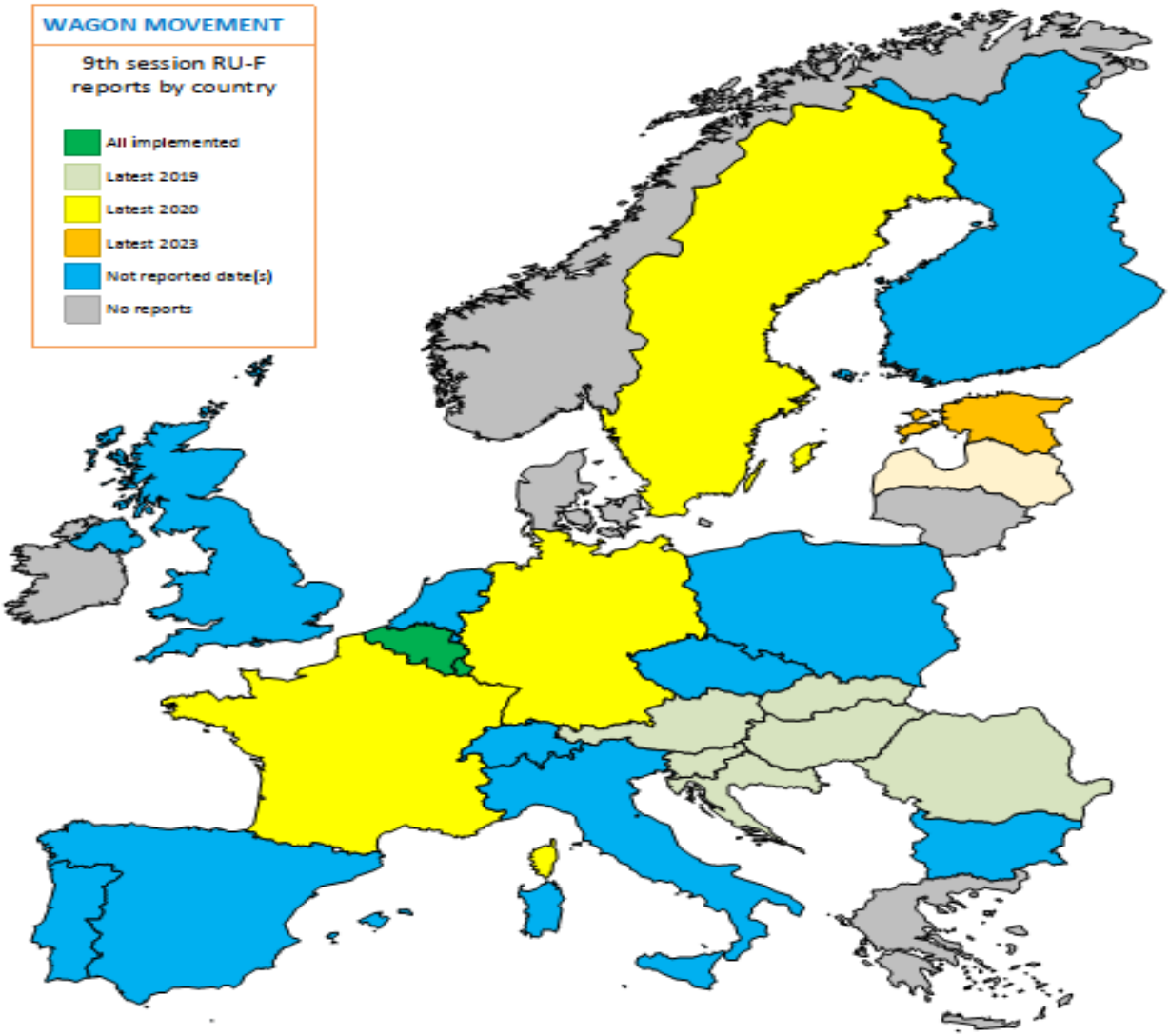
Map 17: Masterplan for Train Composition Message (RU)



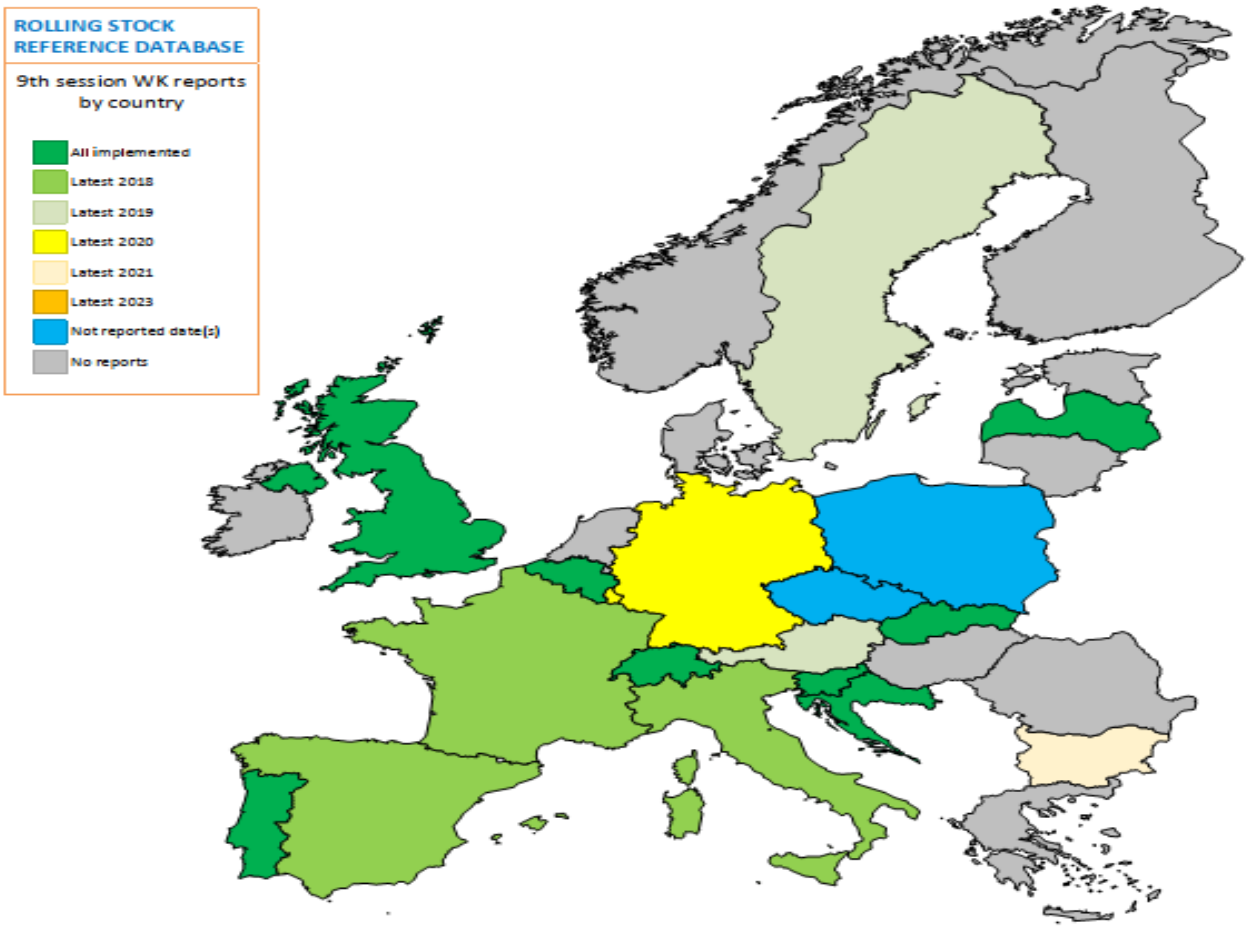
Map 18: Masterplan for Train Running Information (RU)



Map 19: Masterplan for WIMO (RU)



Map 20: Masterplan for Wagon Movement (RU)



Map 21: Masterplan for RSRD (WK)

ANNEX 5: DEVELOPMENT TABLES PER FUNCTION AND PER COUNTRY THROUGHOUT THE REPORTING SESSIONS[7]

1. Development of Company Codes RUs / WKs / IMs

Country Code	Reporting Session 1 - 2014	Reporting Session 2 - 2015	Reporting Session 3 - 2015	Reporting Session 4 - 2016	Reporting Session 5 - 2016	Reporting Session 6 - 2017	Reporting Session 7 - 2017	Reporting Session 8 - 2018	Reporting Session 9 - 2018
AT	1,00	1,00	1,00	1,00	1,00	1,00	0,88	1,00	1,00
BE	1,00	1,00	1,00	1,00	1,00	1,00	0,79	1,00	1,00
BG		1,00	1,00	1,00	1,00	1,00	0,41	0,60	0,60
CH	1,00	0,57	0,57	0,80	1,00	0,75	0,68	1,00	1,00
CZ	1,00	0,75	0,75	0,41	0,64	0,86	0,74	1,00	1,00
DE	1,00	1,00	1,00	1,00	1,00	1,00	0,71	0,47	1,00
DK		1,00	1,00	1,00	1,00	1,00	0,90	1,00	
EE								1,00	1,00
ES	0,50	0,46	0,55	0,50	1,00	0,80	0,53	0,80	0,75
FI		0,13	0,13	0,25	1,00	1,00	1,00	1,00	1,00
FR	0,88	1,00	1,00	1,00	1,00	1,00	0,90	1,00	1,00
GR				0,00		0,00	0,00		
HR		1,00	1,00						
HU	1,00	0,57	0,57	0,72	1,00	1,00	0,58	1,00	1,00
IE					1,00		1,00		
IT	0,88	0,92	0,92	0,69	0,90	1,00	0,39	1,00	1,00
LT		0,00	0,00	1,00	1,00	1,00	1,00	1,00	
LU				1,00	1,00	1,00	1,00	1,00	1,00
LV	0,75	0,75	0,75	1,00	1,00	1,00	1,00	1,00	1,00
NL	1,00	1,00	1,00	1,00	1,00	1,00	0,97	1,00	1,00
NO	0,00	0,75	0,75	0,88	1,00	0,50	1,00	1,00	
PL	1,00	1,00	1,00	1,00	1,00	1,00	0,84	0,44	0,67
PT	1,00	0,31	0,31	0,56	1,00	1,00	0,84	1,00	1,00
RO	0,50	0,92	0,92	0,92	1,00	1,00	0,70	0,60	1,00
SE	1,00	0,13	0,13	0,33	0,80	0,75	0,69	0,75	0,67
SI	1,00	1,00	1,00	1,00	1,00	1,00	0,95	1,00	1,00
SK	1,00	0,41	0,41	0,60	1,00	1,00	0,55	0,60	1,00
UK		0,75	0,75	0,75	1,00	1,00	0,83	1,00	1,00

[7] Legend: dark green = 100%, green = 75%, amber = 50% and red = 25% of implementation. White = no data.

2. Development of IM functions

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
AT						
	2014	1	0,81	1,00		
	2015	2	1,00	0,00		0,00
	2015	3	1,00	1,00		0,75
	2016	4	1,00	1,00		0,75
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	0,90	0,90	0,23	0,90
	2018	8	1,00	1,00	0,00	1,00
	2018	9	1,00	1,00	0,50	1,00
BE						
	2014	1	0,59	1,00		
	2015	2	1,00	0,75		0,25
	2015	3	0,75	1,00		0,75
	2016	4	1,00	1,00		0,75
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		0,75
	2017	7	1,00	1,00	0,25	0,75
	2018	8	1,00	1,00	0,00	

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Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2018	9	1,00	1,00	0,50	1,00
BG						
	2017	7	0,00	0,00	0,00	0,00
	2018	8	0,00		0,00	0,00
	2018	9	0,75	1,00	0,50	1,00
CH						
	2014	1	0,50	1,00		
	2015	2	1,00	1,00		1,00
	2015	3	0,75	1,00		0,50
	2016	4	0,75	1,00		0,25
	2016	5	0,50	0,50		0,50
	2017	6	1,00	1,00		0,50
	2017	7	0,48	0,48	0,00	0,36
	2018	8	1,00	1,00	0,00	1,00
	2018	9	1,00	1,00	0,00	1,00
CZ						
	2014	1	0,60	1,00		
	2015	2	1,00	1,00		0,25
	2015	3	1,00	1,00		1,00
	2016	4	0,50	1,00		0,75
	2016	5	0,28	0,28		0,28

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2017	6	0,40	0,69		0,50
	2017	7	0,49	0,49	0,49	0,49
	2018	8	0,33	0,67	0,67	0,67
	2018	9	0,00	1,00	0,00	0,00
DE						
	2014	1	0,56	1,00		
	2015	2	1,00	0,75		0,25
	2015	3	0,75	1,00		0,75
	2016	4	0,75	1,00		0,75
	2016	5	0,68	0,90		0,68
	2017	6	0,75	1,00		0,75
	2017	7	0,17	0,23	0,23	0,17
	2018	8	0,00	0,29	0,14	0,00
	2018	9	0,75	1,00	1,00	0,75
DK						
	2015	2	1,00	1,00		0,00
	2015	3	1,00	1,00		1,00
	2016	4	1,00	1,00		1,00
	2016	5	1,00	0,75		1,00
	2017	6	1,00	0,75		1,00
EE						

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2018	9	0,25	0,25	0,25	0,25
ES						
	2014	1	0,50	1,00		
	2015	2	1,00	0,63		0,63
	2015	3	0,63	0,50		0,63
	2016	4	1,00	1,00		1,00
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	1,00	1,00	0,75	1,00
	2018	8	1,00	1,00	1,00	1,00
	2018	9	1,00	1,00	1,00	1,00
FI						
	2015	2	0,00	1,00		1,00
	2015	3	0,00	0,00		0,00
	2016	5	0,50	0,50		0,50
	2018	8		0,00	1,00	1,00
FR						
	2014	1	0,63	1,00		
	2015	2	1,00	0,00		1,00
	2015	3	0,75	1,00		0,75
	2016	4	1,00	1,00		1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	1,00	1,00	1,00	1,00
	2018	8	1,00	1,00	1,00	1,00
	2018	9	1,00	1,00	1,00	1,00
GR						
	2016	4	0,00	0,00		0,00
	2017	6	0,25	0,25		0,25
	2017	7	0,24	0,24	0,00	0,24
HU						
	2014	1	0,50	1,00		
	2015	2	0,67	0,58		0,67
	2015	3	0,50	0,67		0,42
	2016	4	0,83	0,67		0,42
	2016	5	0,50	0,50		0,50
	2017	6	1,00	1,00		1,00
	2017	7	0,50	0,50	0,50	0,50
	2018	8	1,00	1,00	1,00	1,00
	2018	9	0,83	1,00	0,83	0,83
IT						
	2014	1	0,66	1,00		

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2015	2	0,00	1,00		1,00
	2015	3	0,75	1,00		0,75
	2016	4	0,75	1,00		0,75
	2016	5	0,30	0,30		0,30
	2017	6	0,38	0,38		0,31
	2017	7	0,15	0,15	0,08	0,15
	2018	8	0,20	0,17	0,00	0,17
	2018	9	0,31	0,31	0,25	0,33
LT						
	2015	2	0,00	0,00		0,00
	2015	3	0,00	0,00		0,00
	2016	4	0,50	1,00		0,50
	2016	5	0,50	1,00		0,50
	2017	6	0,50	1,00		0,50
	2017	7	0,50	1,00	0,50	0,50
	2018	8	0,00	1,00	0,00	0,00
LU						
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	1,00	1,00	1,00	1,00
	2018	8	1,00	1,00	1,00	1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2018	9	1,00	1,00	1,00	1,00
LV						
	2014	1	0,38	0,50		
	2016	5	0,75	1,00		0,75
	2017	6	0,75	1,00		1,00
	2017	7	0,00	1,00	0,00	1,00
	2018	8		1,00	0,00	0,00
	2018	9	0,75	1,00	0,50	0,50
NL						
	2014	1	0,75	1,00		
	2015	2	1,00	0,00		0,00
	2015	3	1,00	1,00		0,75
	2016	4	1,00	1,00		0,50
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	1,00	1,00	1,00	1,00
	2018	8	1,00	1,00	1,00	1,00
	2018	9	1,00	1,00	1,00	1,00
NO						
	2014	1	0,00	0,00		
	2015	2	1,00	0,00		1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2015	3	1,00	0,75		0,75
	2016	4	0,75	1,00		0,75
	2016	5	0,75	1,00		0,75
	2017	6	0,75	1,00		0,75
	2017	7	0,75	1,00	0,00	0,75
	2018	8		1,00	0,00	
PL						
	2014	1	1,00	1,00		
	2015	2	1,00	0,00		1,00
	2015	3	1,00	1,00		0,75
	2016	4	1,00	1,00		0,75
	2016	5	1,00	1,00		1,00
	2017	6	0,50	0,50		1,00
	2017	7	0,90	0,90	0,00	0,90
	2018	8	1,00	1,00	0,00	1,00
	2018	9	1,00	1,00	0,00	1,00
PT						
	2014	1	0,75	1,00		
	2015	2	1,00	0,00		1,00
	2015	3	1,00	1,00		0,50
	2016	4	1,00	1,00		0,75

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		0,75
	2017	7	1,00	1,00	0,50	0,75
	2018	8	1,00	1,00	0,00	
	2018	9	1,00	1,00	0,75	1,00
RO						
	2014	1	0,25	0,50		
	2015	2	1,00	0,00		0,75
	2015	3	0,75	1,00		0,25
	2016	4	1,00	1,00		1,00
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		0,75
	2017	7	1,00	1,00	0,75	0,75
	2018	8	0,50	0,50	0,00	0,00
	2018	9	1,00	1,00	0,75	0,75
SE						
	2014	1	1,00	1,00		
	2015	2	1,00	0,00		1,00
	2015	3	1,00	1,00		0,75
	2016	4	1,00	1,00		0,75
	2016	5	1,00	1,00		1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2017	6	1,00	1,00		0,75
	2017	7	1,00	1,00	0,25	0,75
	2018	8	1,00	1,00	0,00	
	2018	9	1,00	1,00	0,25	0,75
SI						
	2014	1	0,90	1,00		
	2015	2	1,00	1,00		0,00
	2015	3	1,00	1,00		0,75
	2016	4	1,00	1,00		0,75
	2016	5	1,00	1,00		1,00
	2017	6	1,00	1,00		1,00
	2017	7	1,00	1,00	1,00	1,00
	2018	8	1,00	1,00	1,00	1,00
	2018	9	1,00	1,00	1,00	1,00
SK						
	2014	1	0,83	1,00		
	2015	2	1,00	1,00		0,00
	2015	3	1,00	1,00		1,00
	2016	4	0,00	0,00		0,00
	2016	5	0,75	0,25		0,75
	2017	6	0,75	0,25		

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Primary Location Codes	Train Preparation Function	Train Running Function
	2017	7	0,75	0,25	0,00	0,75
	2018	8		0,00	0,00	0,00
UK						
	2015	2	1,00	1,00		0,00
	2015	3	0,25	0,50		0,25
	2016	4	0,25	0,50		0,25
	2016	5	0,48	0,95		0,48
	2017	6	0,75	1,00		0,25
	2017	7	0,90	0,90	0,23	0,23
	2018	8	1,00	1,00	0,00	0,00
	2018	9	1,00	1,00	0,75	0,75

3. Development of RU / WK functions

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
AT									
	2014	1							0,15
	2015	2	1,00		1,00			0,21	0,12
	2015	3	1,00		1,00			0,21	0,12
	2016	4	1,00		0,80			0,20	0,10
	2016	5	1,00	0,80	0,80			0,02	0,61
	2017	6	1,00	1,00	1,00	0,25		0,50	0,88
	2017	7	1,00	1,00	1,00	0,25		0,50	0,92
	2018	8	1,00	1,00	1,00	0,25	0,50	0,50	0,93
	2018	9	0,80	0,80	0,80	0,20	0,40	0,40	0,96
BE									
	2015	2	0,50		0,00			0,22	0,22
	2015	3	0,50		0,00			0,22	0,22
	2016	4	0,50		0,00			0,22	0,43
	2016	5	0,75	0,64	0,00			0,00	0,43
	2017	6	0,75	0,75	0,50	0,25		0,50	1,00
	2017	7	0,75	0,75	0,75	0,25		0,50	1,00
	2018	8	0,75	0,75	0,75	0,25		0,50	1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2018	9	0,75	0,75	0,75	0,25		0,50	1,00
BG									
	2015	2	0,75		0,63			0,04	0,04
	2015	3	0,75		0,63			0,04	0,04
	2016	4	0,75		0,07			0,02	0,04
	2016	5	0,75	0,05	0,45			0,02	0,04
	2017	6	0,75	0,75	0,75	0,25		0,00	0,00
	2017	7	0,38	0,35	0,25	0,40		0,30	0,50
	2018	8	0,38	0,35	0,25	0,40	0,63	0,30	0,50
	2018	9	0,08	0,10	0,15	0,25	0,10	0,16	0,50
CH									
	2014	1							0,11
	2015	2	0,38		0,35			0,08	0,08
	2015	3	0,38		0,35			0,08	0,08
	2016	4	0,56		0,07			0,04	0,06
	2016	5	0,92	0,07	0,15			0,06	0,44
	2017	6	0,88	0,50	0,88	0,13		0,00	0,88
	2017	7	0,75	0,25	0,75	0,19		0,05	0,94
	2018	8	0,80	0,30	0,80	0,30	0,31	0,10	0,94
	2018	9	0,44	0,17	0,44	0,17	0,15	0,05	0,94

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
CZ									
	2014	1							0,02
	2015	2	0,42		0,17			0,15	0,05
	2015	3	0,42		0,17			0,15	0,05
	2016	4	0,14		0,03			0,01	0,01
	2016	5	0,18	0,04	0,03			0,02	0,25
	2017	6	0,19	0,46	0,32	0,16		0,16	0,51
	2017	7	0,19	0,48	0,21	0,13		0,14	0,48
	2018	8	0,20	0,56	0,45	0,13	0,15	0,10	0,48
	2018	9	0,14	0,35	0,31	0,04	0,02	0,02	0,42
DE									
	2014	1							0,61
	2015	2	0,50		0,22			0,23	0,52
	2015	3	0,50		0,22			0,23	0,52
	2016	4	0,50		0,12			0,06	0,05
	2016	5	0,81	0,18	0,19			0,06	0,56
	2017	6	0,75	0,55	0,70	0,20		0,10	0,88
	2017	7	0,59	0,44	0,66	0,25		0,31	0,93
	2018	8	0,48	0,35	0,53	0,25	0,45	0,25	0,93
	2018	9	0,31	0,26	0,36	0,17	0,17	0,22	0,93

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
DK									
	2015	2	0,50		0,25			0,18	0,18
	2015	3	0,50		0,25			0,18	0,18
	2016	4	0,50		0,36			0,18	0,36
	2016	5	0,75	0,75	0,75			0,25	0,18
	2017	6	0,75	0,75	0,75	0,25		0,00	0,00
	2017	7	1,00	0,75	1,00	0,50		0,25	0,50
	2018	8	1,00	0,75	1,00	0,50	0,75	0,25	0,50
	2018	9	1,00	0,75	1,00	0,50	0,75	0,25	0,50
EE									
	2018	8	0,00	0,00	0,00	0,00	0,00	0,00	0,00
	2018	9	0,00	0,00	0,00	0,00	0,00	0,00	0,00
ES									
	2014	1							0,38
	2015	2	0,25		0,07			0,07	0,44
	2015	3	0,25		0,07			0,07	0,44
	2016	4	0,21		0,00			0,00	0,04
	2016	5	0,50	0,16	0,10			0,08	0,26
	2017	6	0,44	0,38	0,44	0,25		0,25	1,00
	2017	7	0,40	0,38	0,50	0,31		0,31	0,83

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2018	8	0,42	0,33	0,50	0,25	0,38	0,29	0,75
	2018	9	0,28	0,21	0,37	0,15	0,23	0,19	0,80
FI									
	2015	2	0,00		0,25			0,25	0,25
	2015	3	0,00		0,25			0,25	0,25
	2016	4	0,25		0,25			0,25	0,25
	2016	5	0,25	0,00	1,00			0,25	
	2017	6	0,25		1,00	0,75		0,25	0,00
	2017	7	0,25		1,00	0,75		0,25	
	2018	8	0,25	0,25	1,00	0,75	0,25	0,25	
	2018	9	0,25	0,25	1,00	0,75	0,25	0,25	
FR									
	2014	1							0,22
	2015	2	0,63		0,13			0,30	0,16
	2015	3	0,63		0,13			0,30	0,16
	2016	4	0,63		0,27			0,18	0,06
	2016	5	0,92	0,19	0,26			0,14	0,44
	2017	6	0,88	0,75	0,75	0,13		0,25	0,88
	2017	7	1,00	0,75	1,00	0,25		0,38	0,91
	2018	8	1,00	0,88	1,00	0,25	0,63	0,38	0,92
	2018	9	0,83	0,70	0,83	0,25	0,54	0,29	0,95

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
GR									
	2016	4	0,25		0,25			0,50	0,50
HR									
	2015	2	1,00		0,73			0,23	0,23
	2015	3	1,00		0,73			0,23	0,23
HU									
	2015	2	0,13		0,00			0,06	0,02
	2015	3	0,13		0,00			0,06	0,02
	2016	4	0,38		0,02			0,01	0,01
	2016	5	0,31	0,16	0,08			0,03	0,01
	2017	6	0,63	0,63	0,63	0,25		0,25	0,00
	2017	7	0,50	0,69	0,75	0,31		0,31	0,50
	2018	8	0,56	0,75	0,75	0,31	0,58	0,31	0,50
	2018	9	0,53	0,71	0,78	0,29	0,39	0,26	0,50
IE									
	2016	5							0,10
	2017	6							1,00
	2017	7							1,00
	2018	8							1,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2018	9							1,00
IT									
	2014	1							0,00
	2015	2	0,88		0,79			0,31	0,31
	2015	3	0,88		0,79			0,31	0,31
	2016	4	0,58		0,21			0,19	0,14
	2016	5	0,40	0,01	0,02			0,00	0,58
	2017	6	0,36	0,22	0,36	0,11		0,11	0,45
	2017	7	0,31	0,28	0,39	0,19		0,11	0,81
	2018	8	0,31	0,27	0,38	0,20	0,18	0,10	0,79
	2018	9	0,10	0,06	0,08	0,08	0,04	0,01	0,96
LT									
	2015	2	0,00		0,00			0,00	0,00
	2015	3	0,00		0,00			0,00	0,00
	2016	5	0,50	0,50	0,50			0,50	
	2017	6	0,25	0,50	0,75	0,75		0,25	0,50
	2017	7	0,50	0,50	0,50	1,00		0,50	0,50
	2018	8	0,50	0,50	0,50	1,00		0,50	0,50
	2018	9	0,50	0,50	0,50	1,00	0,00	0,50	0,50
LU									

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2016	4	1,00		0,38			0,13	0,25
	2016	5	1,00	0,25	1,00			0,25	
	2017	6	1,00	1,00	1,00	1,00		0,50	1,00
	2017	7	1,00	1,00	1,00	1,00		1,00	1,00
	2018	8	1,00	1,00	1,00	1,00	1,00	1,00	0,25
	2018	9	1,00	1,00	1,00	1,00	1,00	1,00	0,25
LV									
	2015	2	0,50		1,00			0,77	0,77
	2015	3	0,50		1,00			0,77	0,77
	2016	4	0,75		0,77			0,77	0,77
	2016	5	0,75	1,00	1,00			1,00	
	2017	6	0,75	0,00	1,00	0,00		1,00	1,00
	2017	7		0,00	1,00	0,00		1,00	1,00
	2018	8	0,38	0,13	1,00	0,13	0,25	1,00	1,00
	2018	9	0,38	0,25	1,00	0,25	0,25	1,00	0,51
NL									
	2015	2	0,50		0,25			0,16	0,25
	2015	3	0,50		0,25			0,16	0,25
	2016	4	0,50		0,32			0,16	0,32
	2016	5	0,75	0,56	0,56			0,19	0,16
	2017	6	0,75	0,75	0,75	0,25		0,00	0,00

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2017	7	1,00	0,75	1,00	0,50		0,25	0,50
	2018	8	0,75	0,88	0,75	0,50	0,63	0,13	0,50
	2018	9	0,34	0,26	0,34	0,17	0,25	0,09	0,50
NO									
	2016	4	0,25		0,00			0,00	0,00
	2017	6	0,00	0,00	0,00	0,00		0,00	
PL									
	2014	1							0,04
	2015	2	0,50		0,01			0,01	0,03
	2015	3	0,50		0,01			0,01	0,03
	2016	4	0,50		0,03			0,02	0,05
	2016	5	0,75	0,08	0,08			0,03	0,18
	2017	6	0,75	0,75	0,75	0,25		0,00	0,65
	2017	7	1,00	0,75	1,00	0,50		0,25	0,75
	2018	8	0,33	0,38	0,33	0,50	0,75	0,25	0,36
	2018	9	0,13	0,11	0,13	0,09	0,13	0,04	0,31
PT									
	2015	2	0,08		0,13			0,07	0,08
	2015	3	0,08		0,13			0,07	0,08
	2016	4	0,13		0,22			0,22	0,14

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2016	5	0,25	0,00	0,00			0,00	0,10
	2017	6	0,25	0,00	0,13	0,00		0,00	1,00
	2017	7	0,25	0,00	0,00	0,00		0,00	0,75
	2018	8	0,25	0,00	0,00	0,00		0,00	0,75
	2018	9	0,43	0,01	0,40	0,00	0,00	0,00	1,00
RO									
	2015	2	0,75		0,61			0,01	0,01
	2015	3	0,75		0,61			0,01	0,01
	2016	4	0,75		0,04			0,01	0,02
	2016	5	0,75	0,64	0,64			0,21	0,05
	2017	6	0,75	0,75	0,75	0,25		0,00	0,00
	2017	7	1,00	0,75	1,00	0,50		0,25	0,50
	2018	8							0,38
	2018	9							0,25
SE									
	2014	1							0,20
	2015	2	0,00		0,04			0,00	0,03
	2015	3	0,00		0,04			0,00	0,03
	2016	4	0,15		0,00			0,00	0,05
	2016	5	0,38	0,09	0,09			0,00	0,45
	2017	6	0,25	0,08	0,08	0,17		0,17	0,75

Country Code	Reporting session year	Reporting session number	Common Interfaces Function	Train Preparation Function	Train Running Function	Consignment Data Function	Wagon Movement Function	WIMO Function	Rolling Stock Reference Database
	2017	7	0,25	0,08	0,08	0,17		0,17	0,75
	2018	8	0,00	0,00	0,00	0,00		0,00	0,75
	2018	9	0,13	0,09	0,09	0,09	0,35	0,18	0,83
SI									
	2015	2	1,00		1,00			0,02	0,02
	2015	3	1,00		1,00			0,02	0,02
	2016	4	1,00		0,07			0,02	0,02
	2016	5							0,10
	2017	6	0,50	0,25	0,00	0,25		0,50	1,00
	2017	7	0,75	0,25	0,00	0,25		0,50	1,00
	2018	8							0,75
	2018	9	0,65	0,22	0,00	0,22	0,00	0,43	1,00
SK									
	2014	1							0,01
	2015	2	0,29		0,15			0,07	0,10
	2015	3	0,29		0,15			0,07	0,10
	2016	4	0,56		0,17			0,12	0,12
	2016	5	0,25	0,06	0,06			0,01	0,50
	2017	6	0,50	0,38	0,25	0,38		0,50	0,75
	2017	7	0,25	0,25	0,25	0,25		0,25	0,75
	2018	8	0,13	0,25	0,25	0,25		0,25	0,75