

9th report of the TAF TSI Implementation

RU/IM Telematics Joint Sector Group (JSG)

January 2019



Version 1.0

Jan-Christian Arms, JSG Vice-chairman

Document history

Version	Name	Changes	Date
0.1	Jan-Christian Arms	Initial version, pages 1 to 25	25.01.2019
0.2	Jan-Christian Arms	Document ready for IRG	01.02.2019
0.3	Jan-Christian Arms	Document ready for JSG	07.02.2019
1.0	Jan-Christian Arms	Approved at JSG, Document ready for publication	06.03.2019

Contents

LIST OF TABLES	5
LIST OF DIAGRAMS	5
EXECUTIVE SUMMARY	6
1. BACKGROUND TO THE ASSIGNMENT	7
2. METHODOLOGY	8
General assumptions	8
Establishment of this report	8
3. PARTICIPATION IN THE 8TH REPORTING SESSION	10
Responses to the survey	10
Participation per company type	12
4. DATA BASIS FOR EVALUATION	13
5. IMPLEMENTATION MONITORING OF TAF TSI FUNCTIONS	15
Common Reference Files - Primary Location Codes (IMs)	15
Common Reference Files - Company Code (all companies)	16
Common Interface Implementation (all companies)	17
Train Running Information (IMs and RUs-F)	18
Train Composition Message (IMs and RUs-F)	20
Consignment Note Data (RUs-F)	22
Wagon Movement (RUs-F)	23
Wagon and Intermodal Unit Operating Database (RUs-F)	24
Rolling Stock Reference Database (WKs)	25
Reasons for not starting implementation of TAF/TAP TSI functions	26
Degree of implementation at European level	27
6. COMMON SECTOR TOOLS	29
7. CONCLUSION AND FINDINGS	30

ANNEX 1: MEMBERS OF THE IMPLEMENTATION REPORTING GROUP (IRG)	31
ANNEX 2: RESPONSES CONTACT LIST V9	32
ANNEX 3: RESPONSES CONTACT LIST V8	37

LIST OF TABLES

Table 1: Reporting periods	9
Table 2: TAF/TAP TSI functions as reported per type of company	9

LIST OF DIAGRAMS

Diagram 1: Evolution of participation over time	10
Diagram 2: Evolution of response rate over time	10
Diagram 3: Number of responses per country	11
Diagram 4: Evolution of responses per country	11
Diagram 5: Evolution of participating per company type over time	12
Diagram 6: Number of types of company per reporting session	13
Diagram 7: Number of types of company per reporting session	14
Diagram 8: Common Reference Files - Primary Location Codes (PLC)	15
Diagram 9: Evolution of PLC implementation	15
Diagram 10: Common Reference Files - Company Codes (CC)	16
Diagram 11: Evolution of implementation for Company Codes	16
Diagram 12: Common Reference Files - Common Interface (CI)	17
Diagram 13: Evolution of implementation for Common Interface	17
Diagram 14: Train Running Information (TRI)	18
Diagram 15: Evolution of implementation for Train Running Information	18
Diagram 16: Implementation of TRI of IMs across European countries	19
Diagram 17: Train Composition Message (TCM)	20
Diagram 18: Evolution of implementation for Train Composition Message	20
Diagram 19: Implementation of TCM of IMs across European countries	21
Diagram 20: Consignment Note Data (CND)	22
Diagram 21: Evolution of implementation for Consignment Note Data (CND)	22
Diagram 22: Wagon Movement (WM)	23
Diagram 23: Evolution of implementation for Wagon Movement (WM)	23
Diagram 24: Wagon and Intermodal Unit Operating Database	24
Diagram 25: Evolution of implementation for WIMO	24
Diagram 26: Rolling Stock Reference Database	25
Diagram 27: Evolution of implementation for RSRD	25
Diagram 28: Reasons for not starting implementation of TAF/TAP TSI functions	26
Diagram 29: Evolution of insufficient awareness of TAF/TAP requirements	26
Diagram 30: Reported DI for IM functions	27
Diagram 31: Reported DI for RUs-F functions	27
Diagram 32: Reported DI for WK functions	28
Diagram 33: Common sector tools in use	29

EXECUTIVE SUMMARY

This 9th TAF TSI implementation report summarized the results received via the JSG Reporting Tool in December 2018 and thus shows the status of implementation by 31 December 2018.

Despite the growing number of invitations in the present survey, feedback has declined. Despite the lower participation in the 9th Reporting Session, the data basis for evaluation could be widened by integrating companies from the previous survey and is with 310 types of companies at the highest level ever.

Regarding the TAF TSI functions reported, the following Levels of Fulfilment can be observed:

- Most IMs reported to have completed the Primary Location Codes on their network.
- Most of companies (around 80 %) are identified by Company Code.
- The level of fulfilment for Common Interface shows a remarkable difference between IMs, RUs-F and WKs. Half of IMs have already implemented, while most of RUs-F and WKs are still developing.
- About 40 % of participating companies have Train Running Information in production, representing a similar level of fulfilment for IMs and RUs-F.
- Figures show little de- or increase in terms of complete implementation of Train Composition Message at a level of about 20 %.
- Half of the RUs-F companies (52 out of 103) started implementing the Consignment Note Data function, out of which three having finished.
- Three RUs-F are ready to exchange the Wagon Movement messages.
- Implementation of the Wagon and Intermodal Unit Operating Database function rests at very low level of fulfilment with four companies having it in production.
- A large number WKs fulfil the Rolling Stock Reference Database functionality via the common sector tool RSRD². There are seventy-seven WKs having RSRD in production.

At European level the Degrees of Implementation show indifferent trends over time as follows:

- Decline of implementation of IMs functions might partly be explained by the growing number of smaller IMs taking part, which normally are not advanced in TAF/TAP implementation.
- Generally, the proportion of RUs having finished implementation is considerably lower than for IMs. However, there are some positive trends at a low degree of implementation visible.
- For WKs the evolution of implementation remains stable.

Only a part of the companies invited to participate to the survey deliver feedback. Consequently, the degree of implementation relative to invitations is always considerably lower than the degree of implementation relative to responses. It is likely, that the degree of implementation as set out in this report does not reflect real situation.

1. BACKGROUND TO THE ASSIGNMENT

According to Article 5, Section 1, of Commission Regulation (EU) No 1305/2014 relating to the Telematics Applications for Freight subsystem (TAF TSI), the European Union Agency for Railways (ERA) shall assess and oversee its implementation.

The Agency has established the 'TAF TSI Implementation Cooperation Group' to evaluate the reports of the sector. The remit of this group is monitoring the parameters for RU/IM communication of both TAF and TAP TSIs. Members of the European railway sector are encouraged to submit their reports through the JSG to the Agency.

2. METHODOLOGY

General assumptions

Starting with the 6th Reporting session, the monitoring of RU/IM functions is being carried out using one common questionnaire for both TAF and TAP TSIs. However, results from the survey are presented in two separate reports.

The progress of implementation of the TAF and TAP TSI is reported twice a year based on the following assumptions:

- Companies are requested to report per mandatory TAF or TAP TSI function compared to their own Master Plan target date. In case there is no company Master Plan it will be reported against the target implementation date.
- The level of fulfilment will be displayed in predetermined percentage steps at 0%, 25%, 50%, 75% and 100%.
- Each message-based function is realized at 100%, if there is at least one implementation of message exchange in production, even if with a single partner only.

The level of fulfilment in terms of percentage steps are defined as follows:

- 0% - Level 1: Not started - Project not launched
- 25% - Level 2: Initiating phase - Implementation plan is available in the company
- 50% - Level 3: Planning phase - Project development
- 75% - Level 4: Executing phase - Pilot project / System testing
- 100% - Level 5: In-Production & Monitor and Control: Finished means Telematics data exchange is implemented

The obligation to meet functions of the TAF and TAP TSI is sometimes limited to specific stakeholders of the railway sector. Evaluation of the results of this survey is therefore stakeholder-specific. For that reason and in accordance with European legislation the following stakeholders are considered:

- Infrastructure Manager (IM)
- Railway Undertaking for Freight transport (RU-F)
- Railway Undertaking for Passenger transport (RU-P)
- Wagon Keeper (WK)
- Allocation Body (AB)

Establishment of this report

The present report integrates also data from wagon keepers using RSRD2 submitted by UIP.

This report summarised the results received via the JSG Reporting Tool during the ninth reporting period lasting from 26 November 2018 to 21 December 2018 and thus shows the status of implementation by 31 December 2018. Diagrams in the following chapters of this report show results per RU/IM function summarised in an anonymous way.

Table 1 gives an overview about the history of reporting periods.

Report session	Reporting period	Number of questions ¹
1 st Report	01.07.2014 - 31.12.2014	21
2 nd Report	01.01.2015 - 30.06.2015	40
3 rd Report	01.07.2015 - 31.12.2015	42
4 th Report	01.01.2016 - 30.06.2016	53
5 th Report	01.07.2016 - 31.12.2016	57
6 th Report TAF/1 st Report TAP	01.01.2017 - 30.06.2017	91
7 th Report TAF/2 nd Report TAP	01.07.2017 - 31.12.2017	65
8 th Report TAF/3 rd Report TAP	01.01.2018 - 30.06.2018	66
9 th Report TAF/4 th Report TAP	01.07.2018 - 31.12.2018	59

Table 1: Reporting periods

The 'TAF/TAP TSI Implementation Report Volume 9' questionnaire contains eleven question groups, nine of which are about the current implementation of TAF and TAP TSI functions:

TAF/TAP TSI functions for RU/IM communication to be implemented/reported per type of company		Type of company				
		IM	RU-F	RU-P	WK	AB
TAF/TAP TSI function	Primary Location Codes (PLC)	X				
	Company Code (CC)	X	X	X	X	X
	Common Interface (CI)	X	X	X	X	X
	Train Running Information (TRI)	X	X	X		
	Train Composition Message (TCM)	X	X			
	Consignment Note Data (CND)		X			
	Wagon Movement (WM)		X			
	Wagon InterModal unit Operational database (WIMO)		X			
	Rolling Stock Reference Database (RSRD)				X	

Table 2: TAF/TAP TSI functions as reported per type of company

Two more general question groups intend to find out the actual situation and intentions of companies:

- Company information
- Sector Tools in use

This report was drafted by the Implementation Reporting Group (IRG), the members of which are listed in Annex 1. As a result, it was endorsed at the JSG meeting on 6 March 2019 and published accordingly. It will be presented at the ERA TAF TSI Implementation Cooperation Group meeting on 27 March 2019.

¹ Please note, the questions in the TAF and TAP RU/IM questionnaire are context specific. The number of question to be responded, depend on the type of company and is not the total number listed in the table 1.

3. PARTICIPATION IN THE 9TH REPORTING SESSION

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 RSRD².

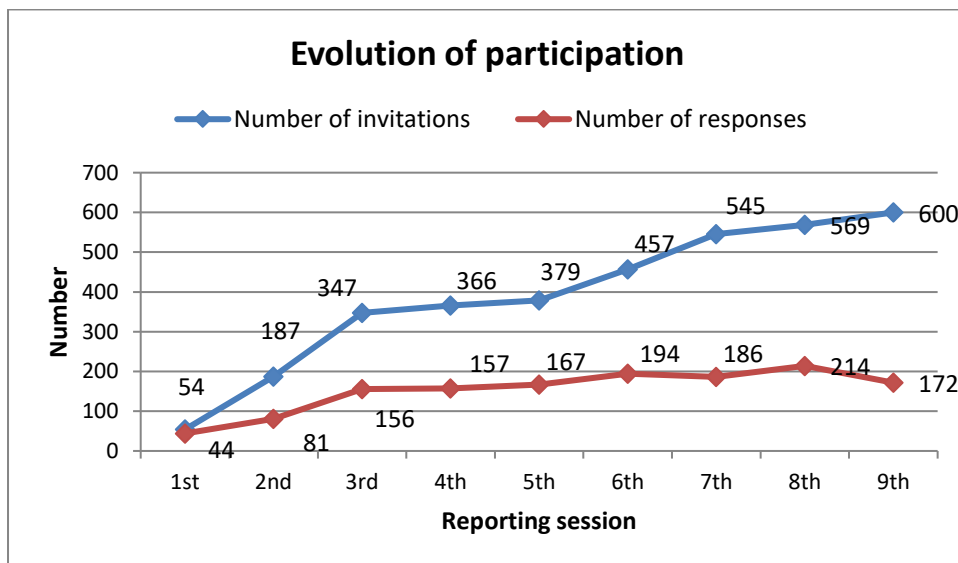


Diagram 1: Evolution of participation over time

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

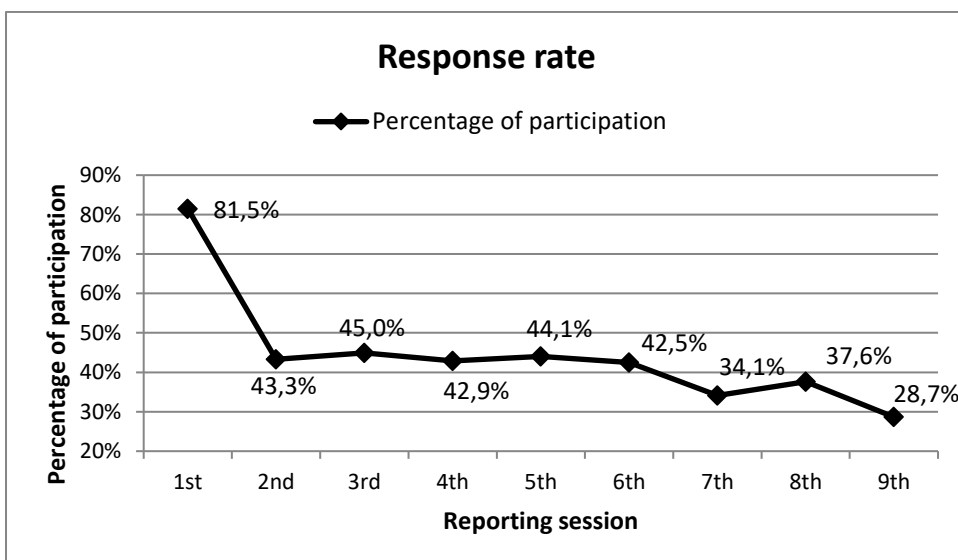


Diagram 2: Evolution of response rate over time

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

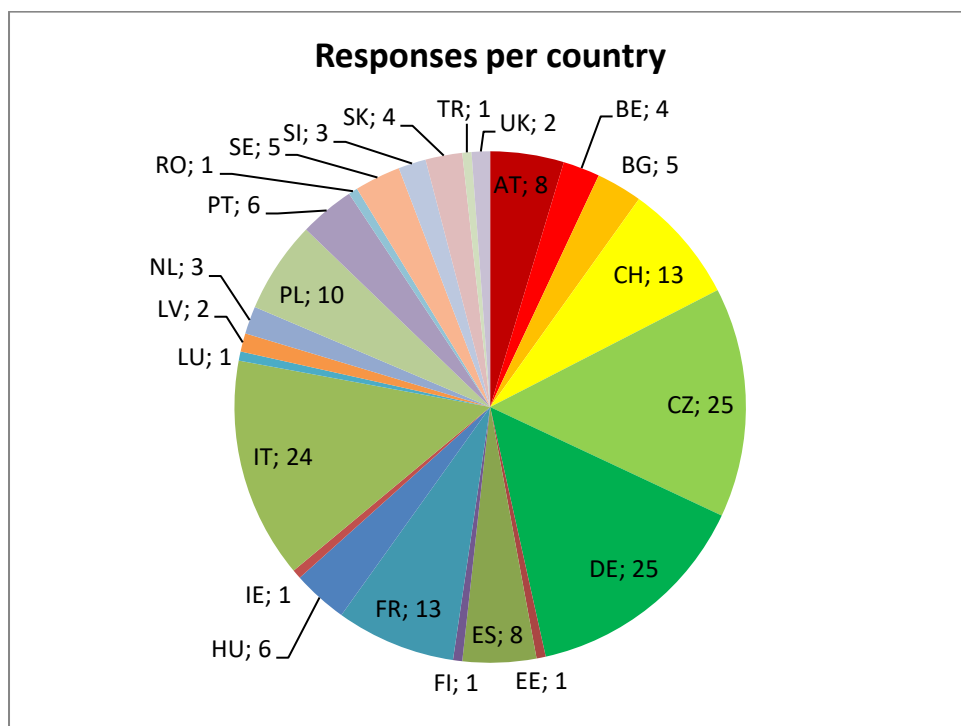


Diagram 3: Number of responses per country

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.

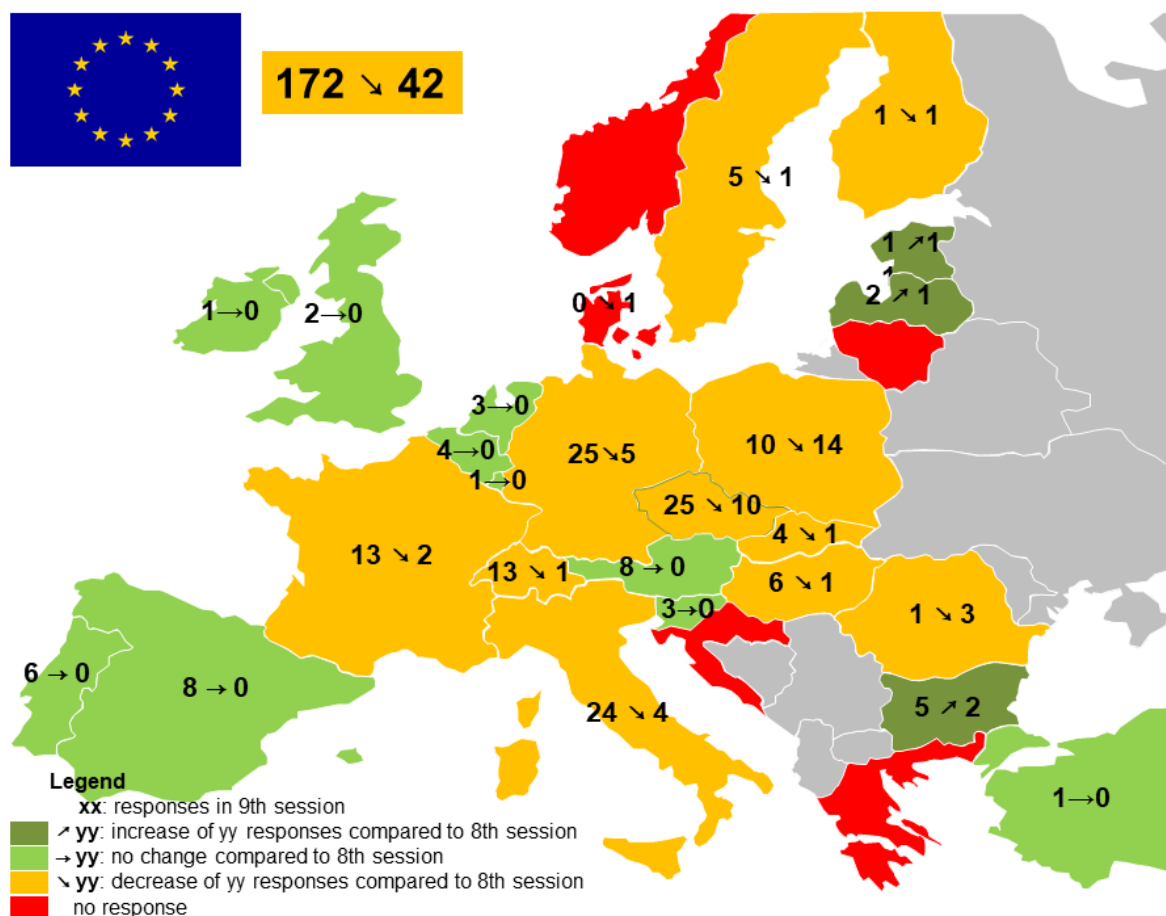


Diagram 4: Evolution of responses per country

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.

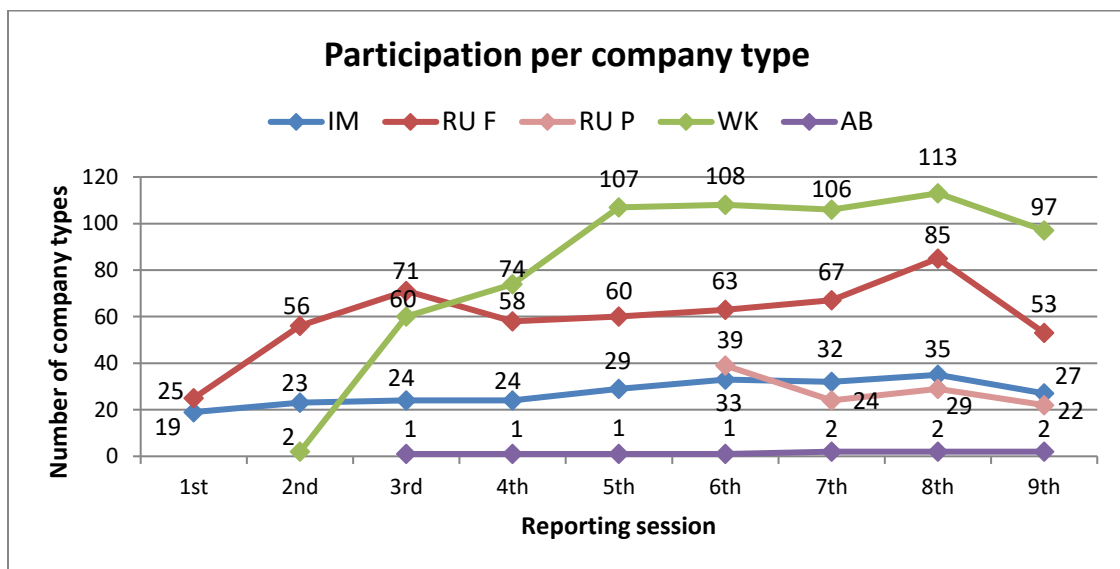


Diagram 5: Evolution of participating per company type over time

4. 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).

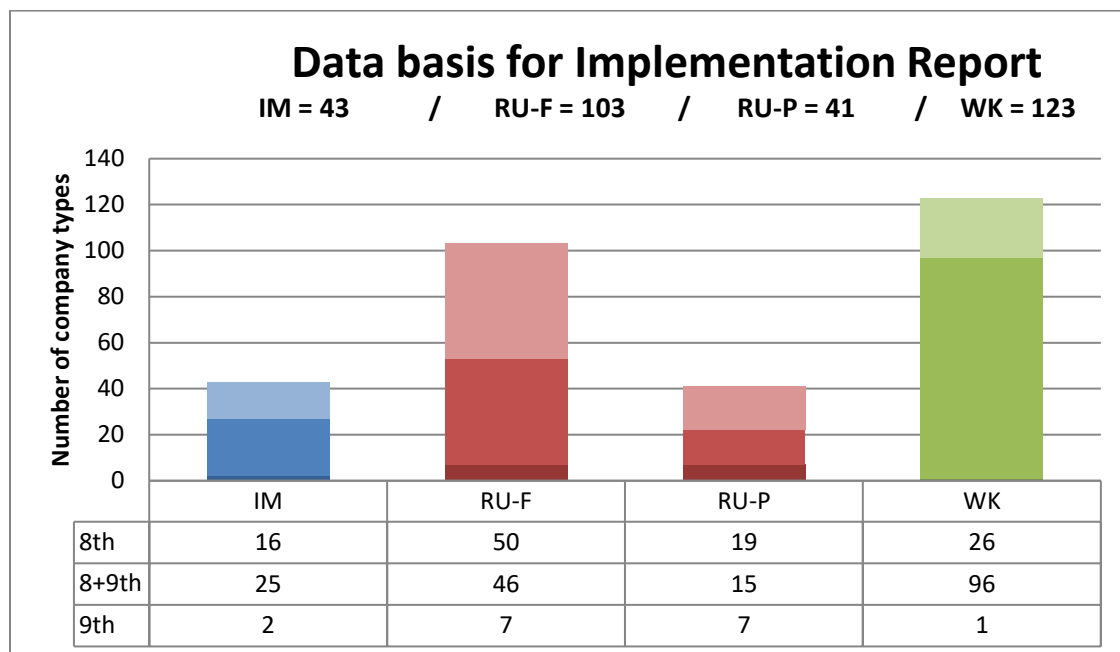


Diagram 6: Number of types of company per reporting session

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.

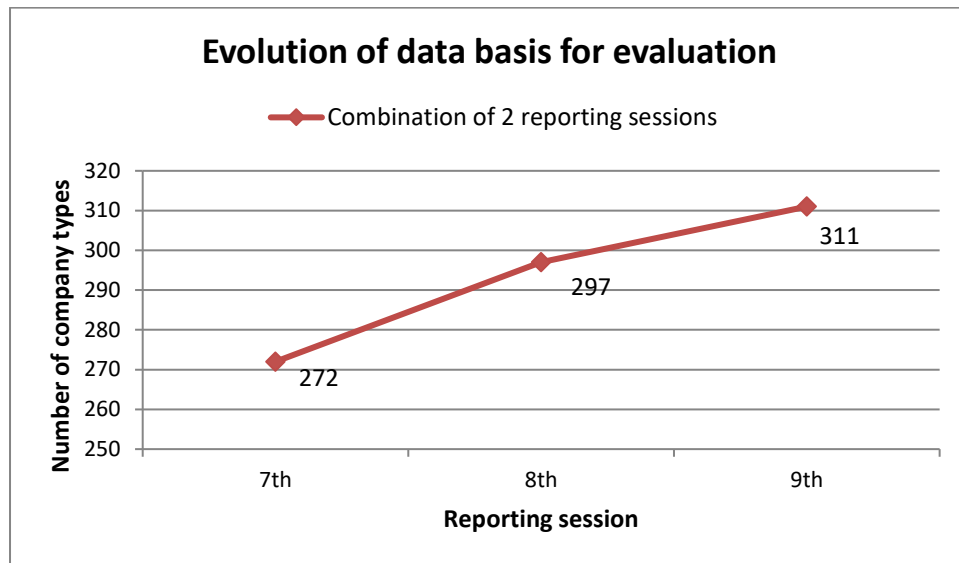


Diagram 7: Number of types of company per reporting session

5. IMPLEMENTATION MONITORING OF TAF TSI FUNCTIONS

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.

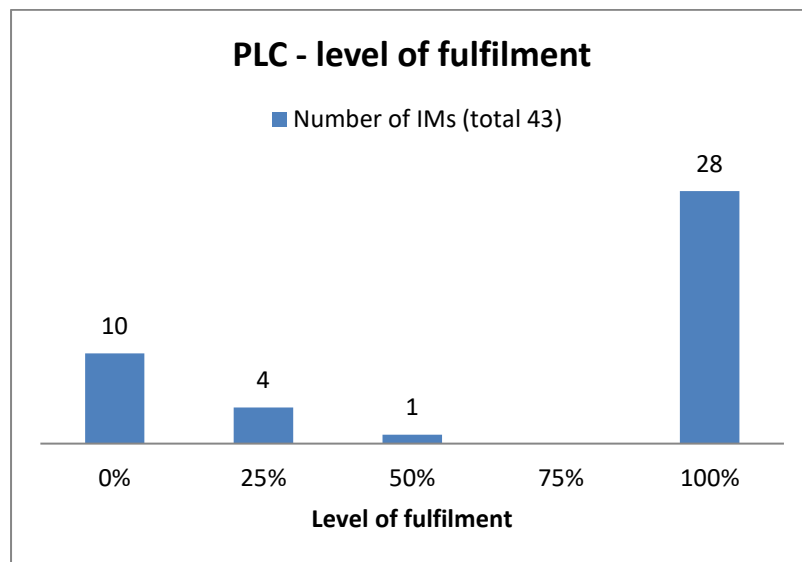


Diagram 8: Common Reference Files - Primary Location Codes (PLC)

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

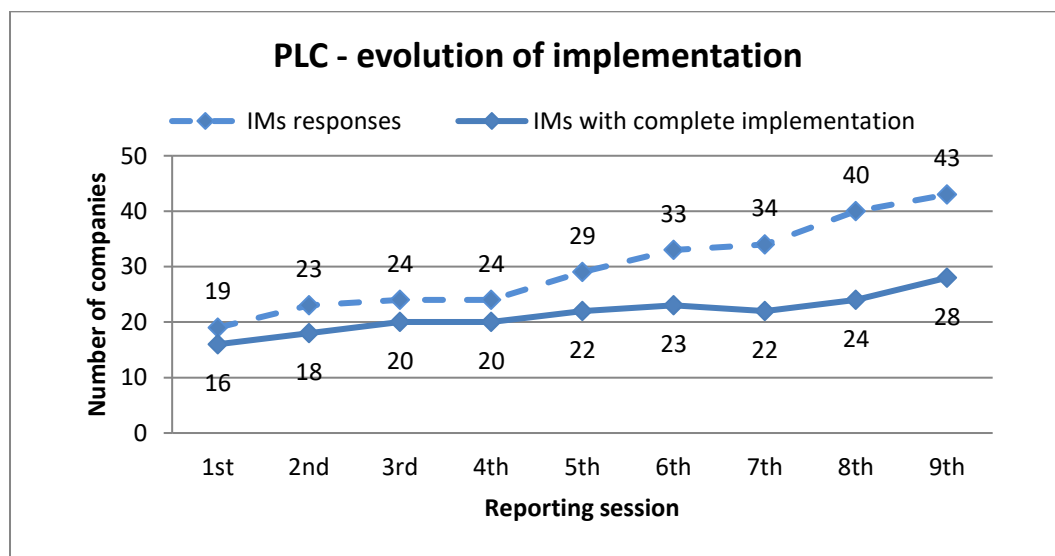


Diagram 9: Evolution of PLC implementation

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.

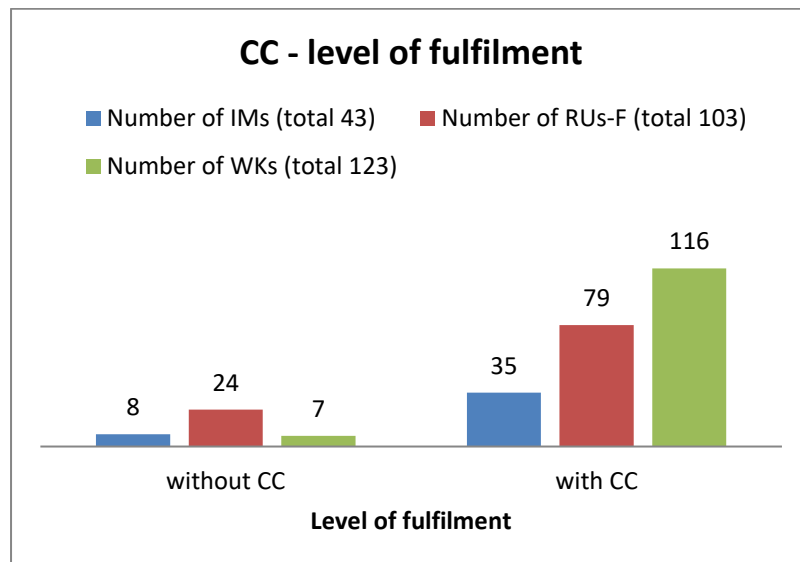


Diagram 10: Common Reference Files - Company Codes (CC)

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

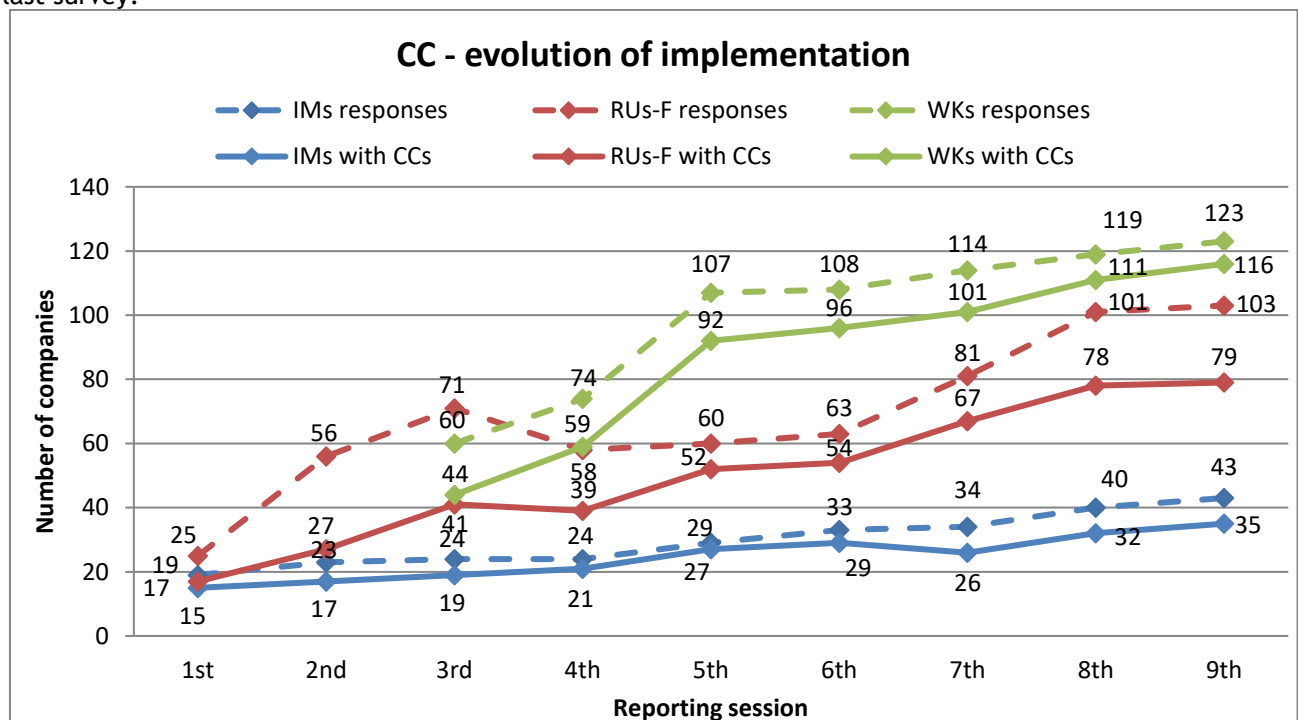


Diagram 11: Evolution of implementation for Company Codes

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. RSRD² has yet not implemented the CI. WKs using RSRD² therefore form part of the 25% level.

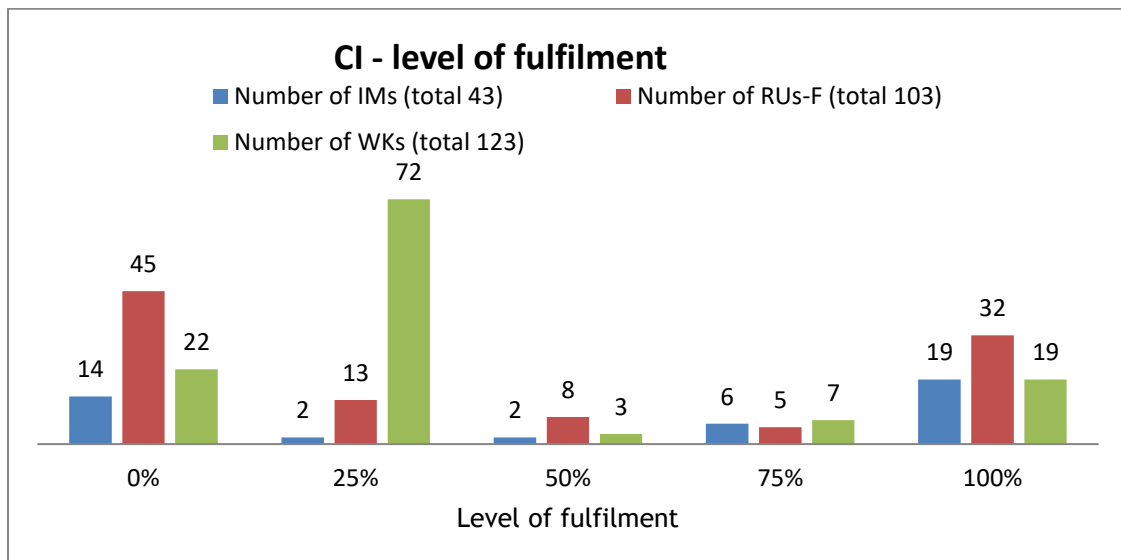


Diagram 12: Common Reference Files - Common Interface (CI)

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.

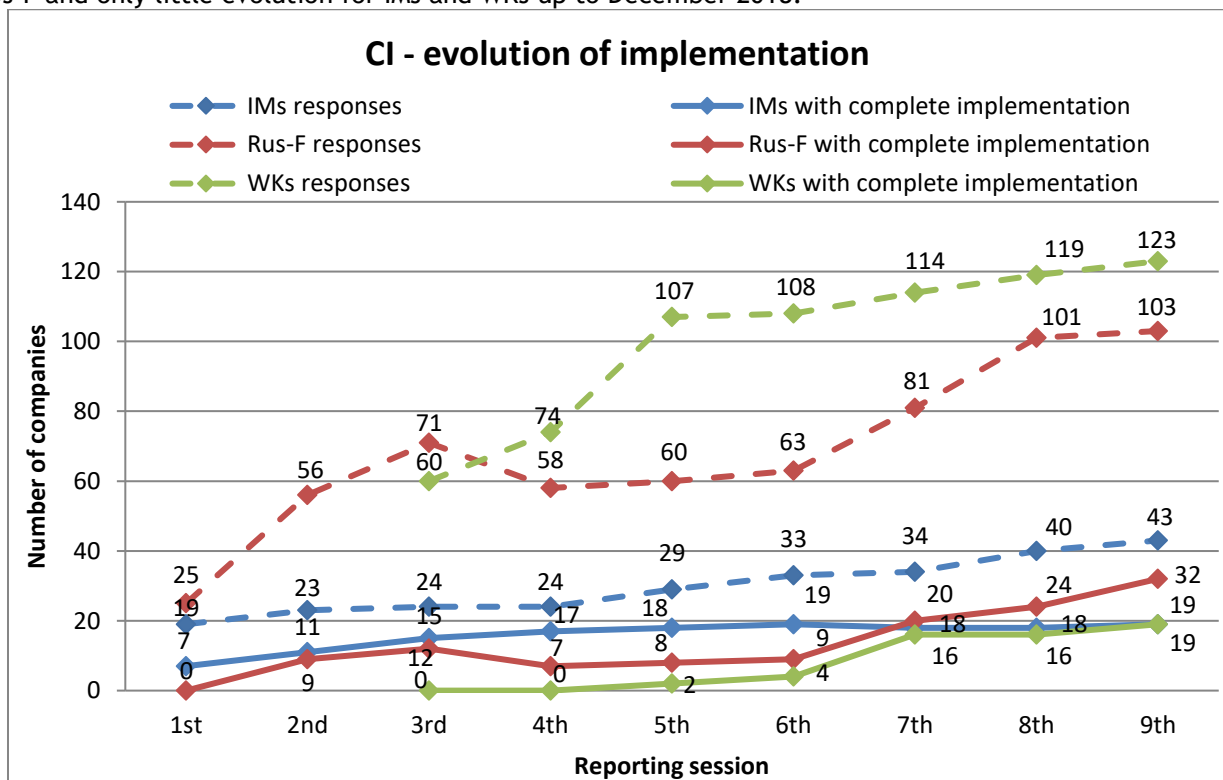


Diagram 13: Evolution of implementation for Common Interface

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.

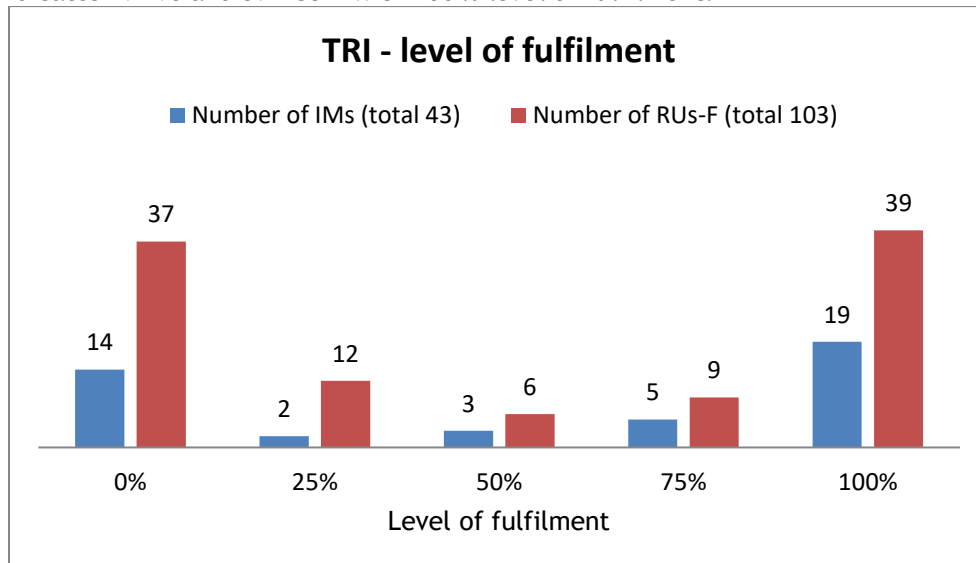


Diagram 14: Train Running Information (TRI)

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).

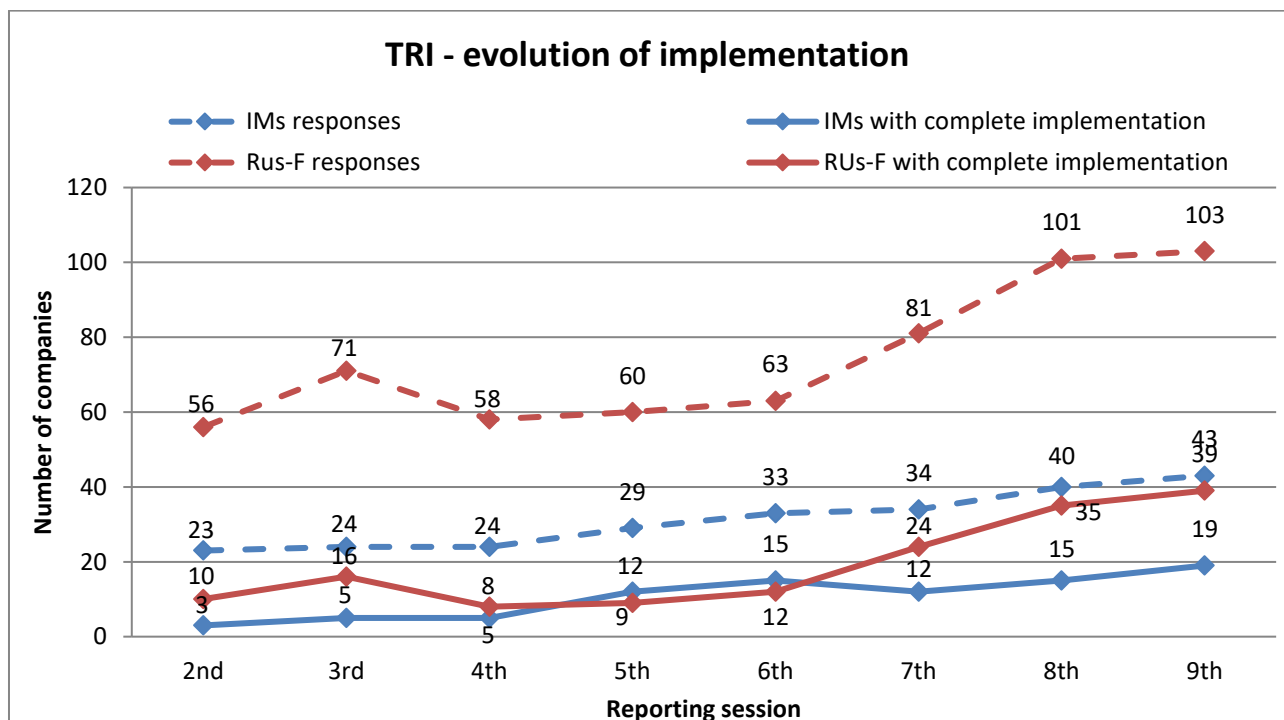


Diagram 15: Evolution of implementation for Train Running Information

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.

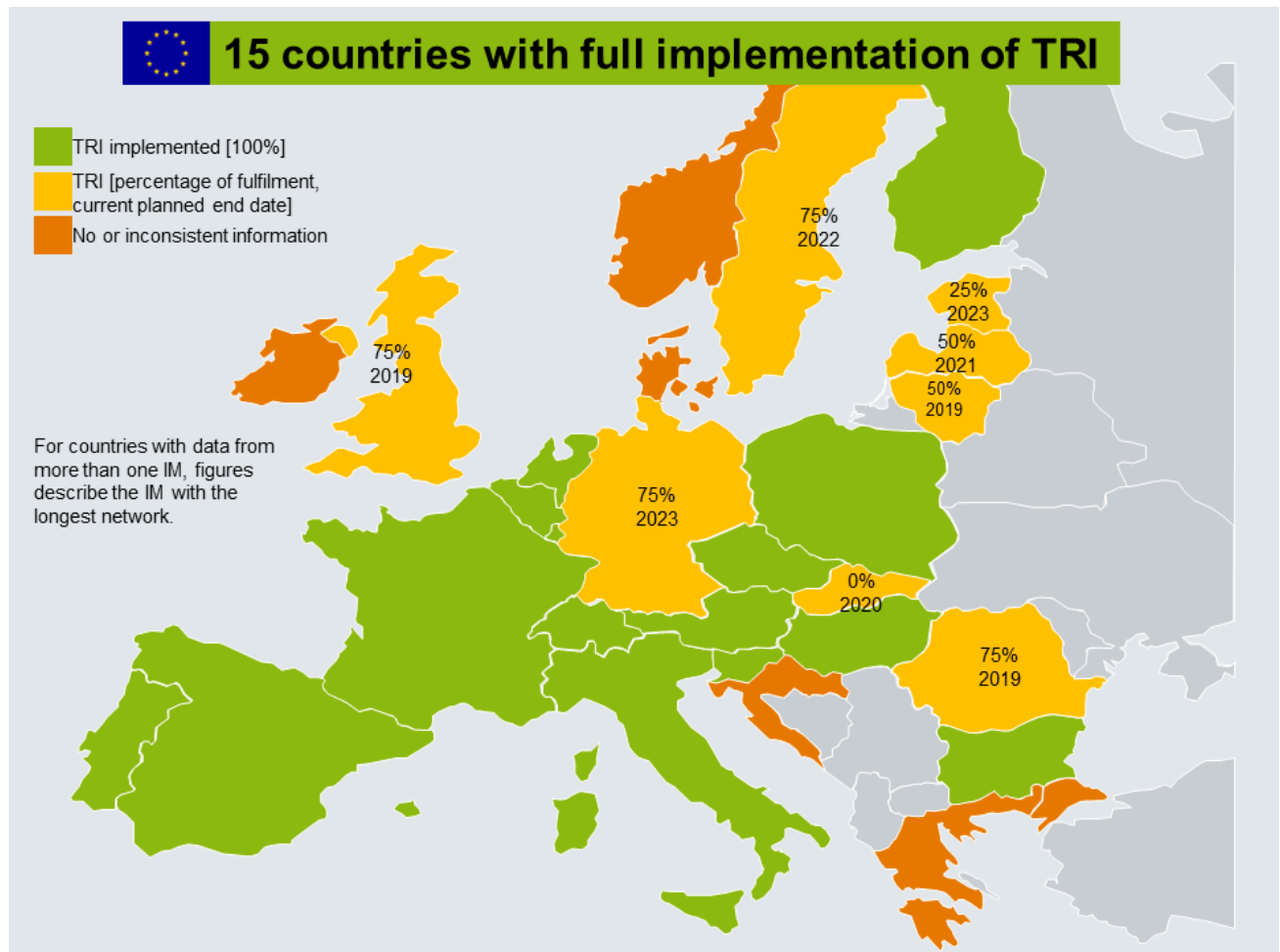


Diagram 16: Implementation of TRI of IMs across European countries

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.

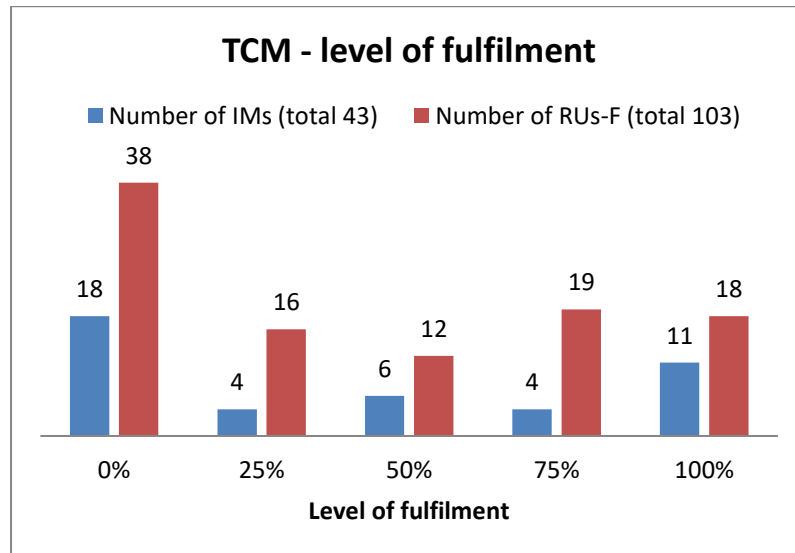


Diagram 17: Train Composition Message (TCM)

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.

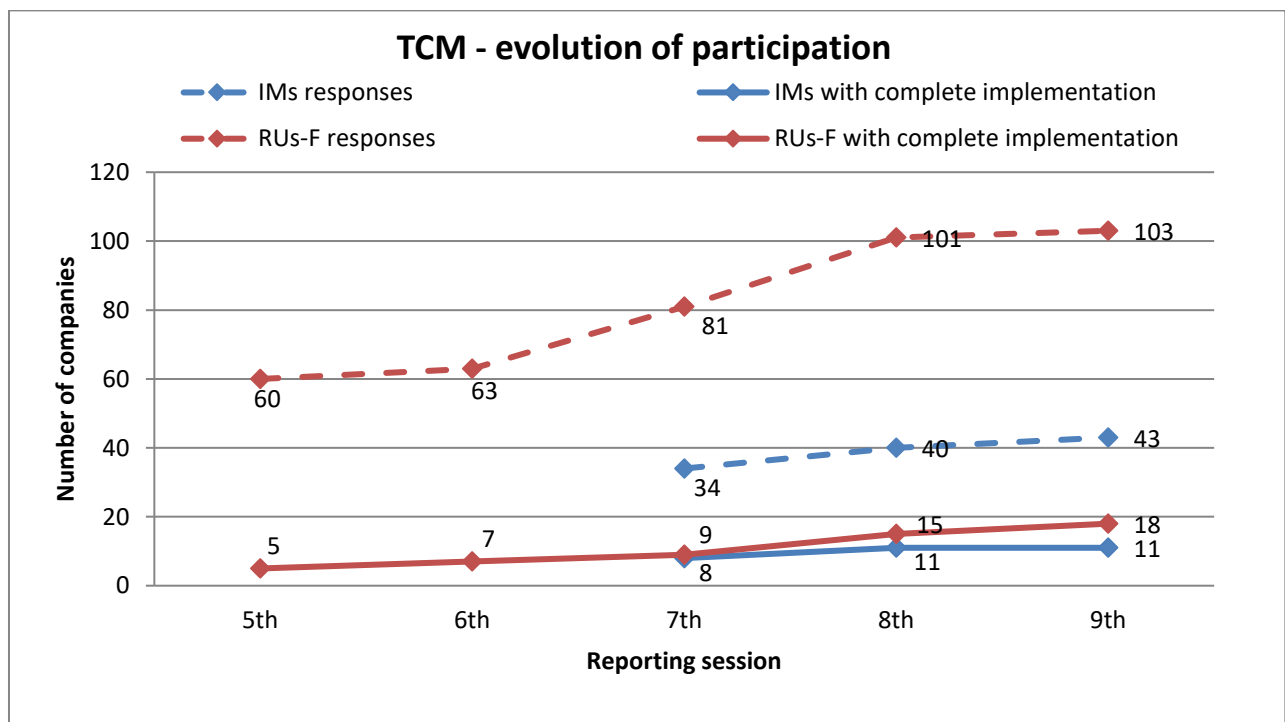


Diagram 18: Evolution of implementation for Train Composition Message

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.

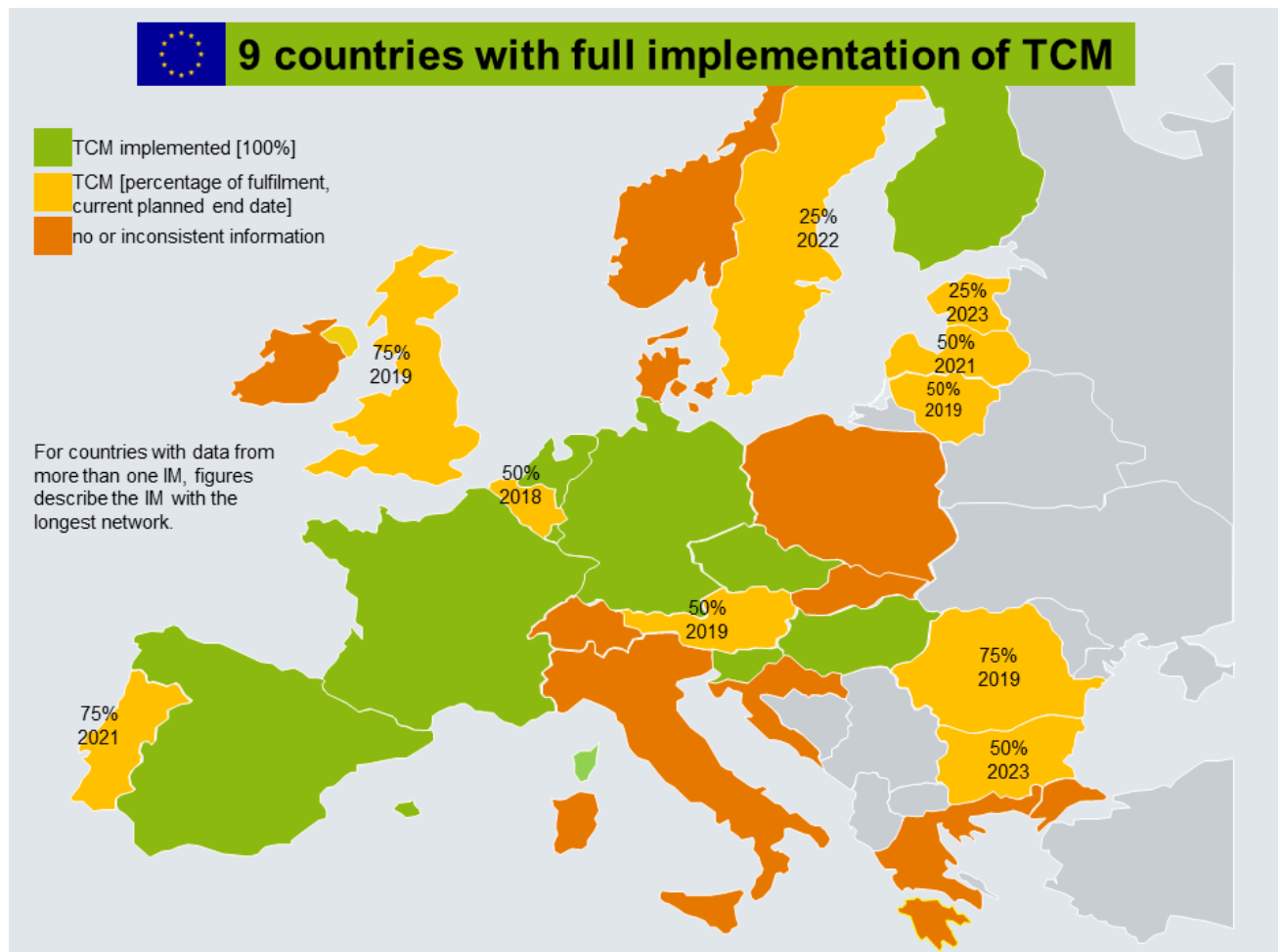


Diagram 19: Implementation of TCM of IMs across European countries

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.

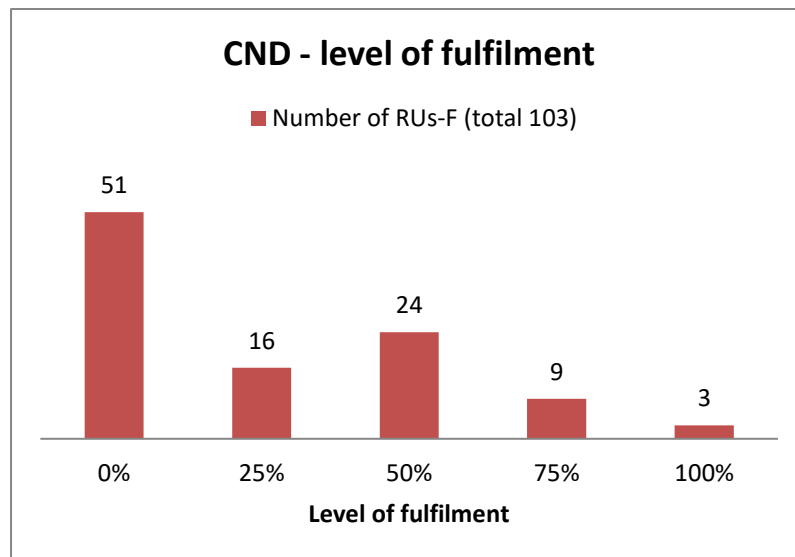


Diagram 20: Consignment Note Data (CND)

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

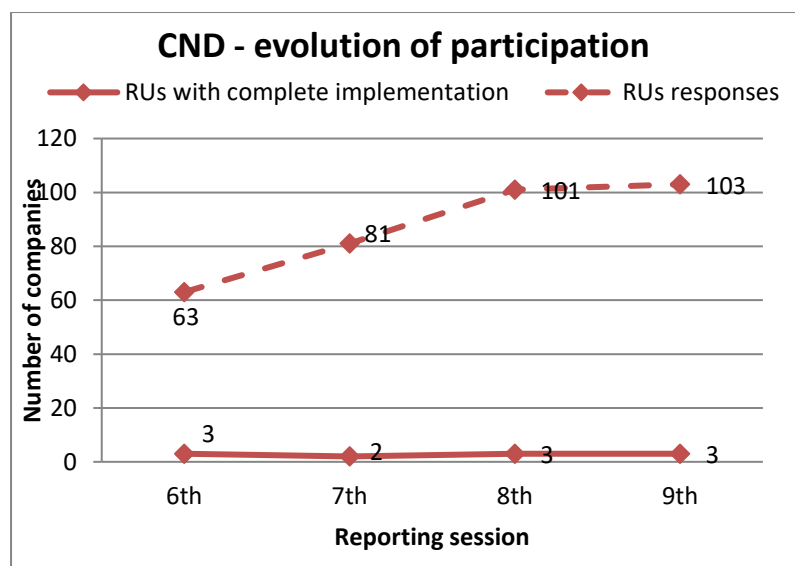


Diagram 21: Evolution of implementation for Consignment Note Data (CND)

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.

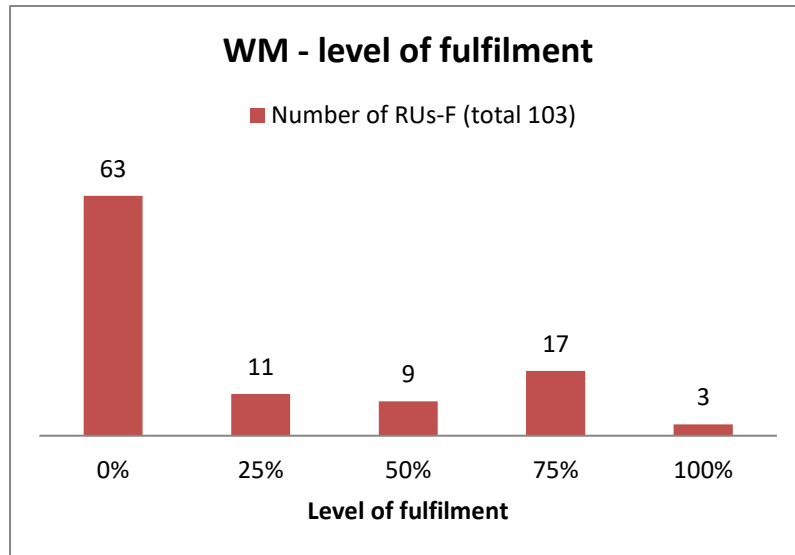


Diagram 22: Wagon Movement (WM)

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.

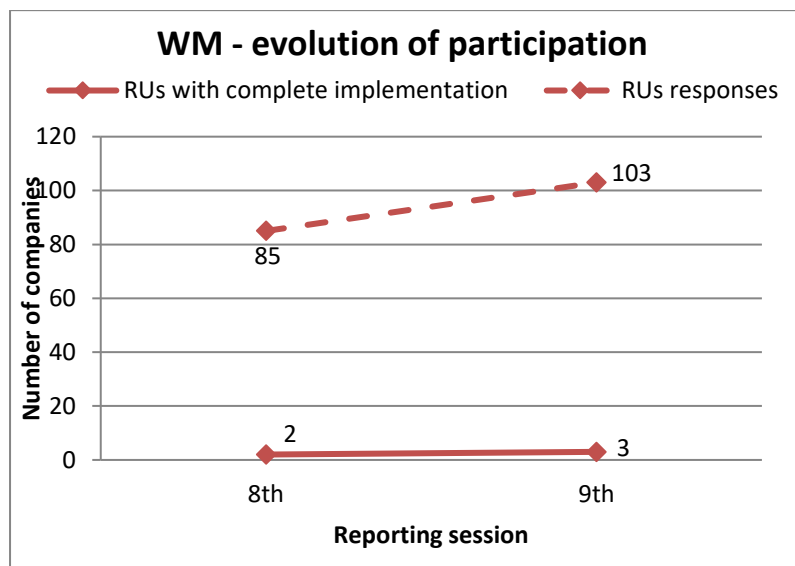


Diagram 23: Evolution of implementation for Wagon Movement (WM)

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).

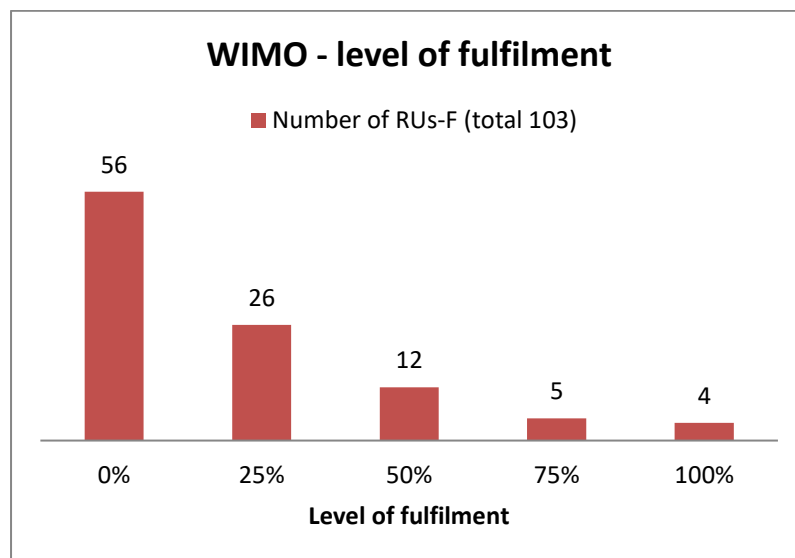


Diagram 24: Wagon and Intermodal Unit Operating Database

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

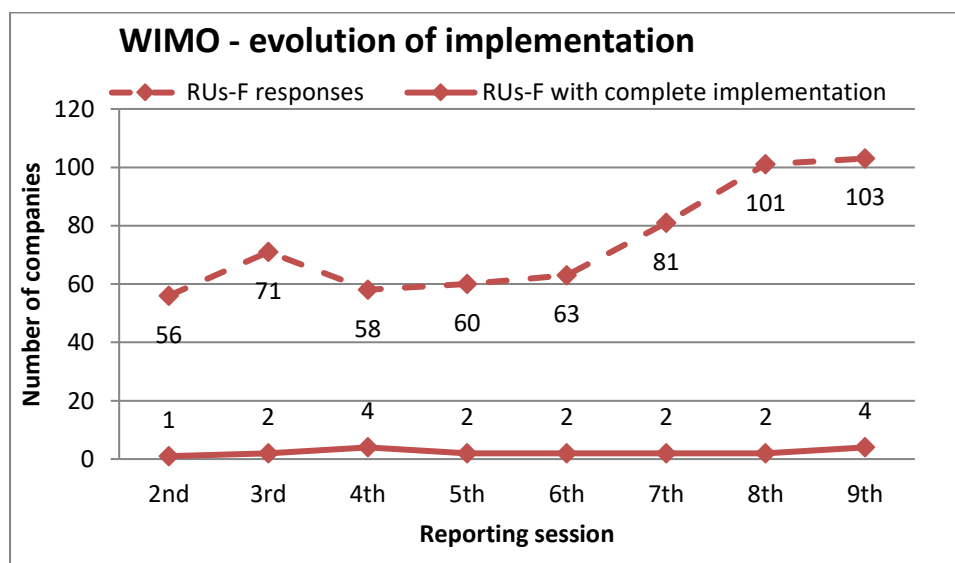


Diagram 25: Evolution of implementation for WIMO

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 RSRD². Information delivered by UIP for RSRD² means 100% of fulfilment. 77 Wks have implemented this function, out of which 68 Wks thanks to RSRD².

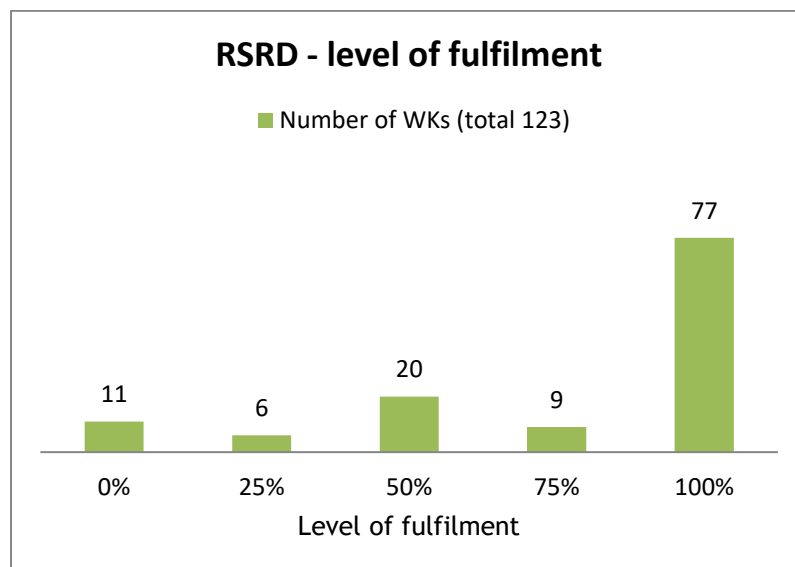


Diagram 26: Rolling Stock Reference Database

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

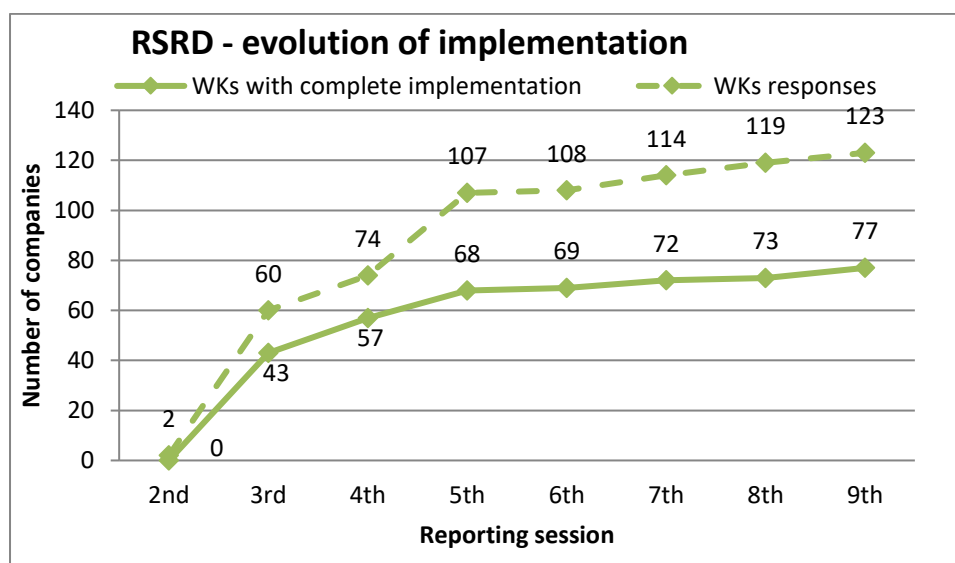


Diagram 27: Evolution of implementation for RSRD

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.

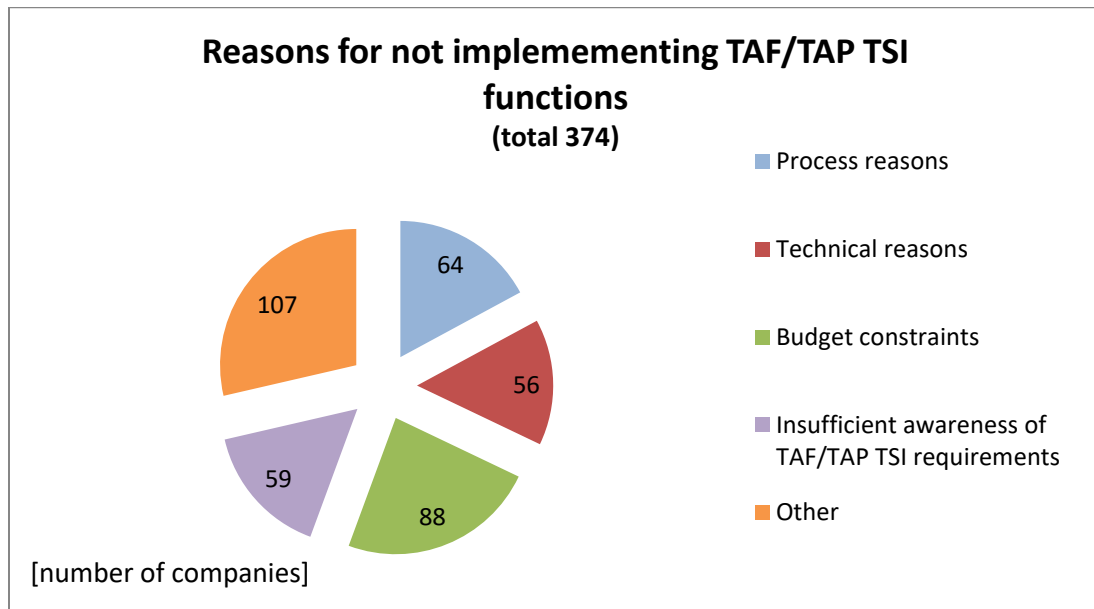


Diagram 28: Reasons for not starting implementation of TAF/TAP TSI functions

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

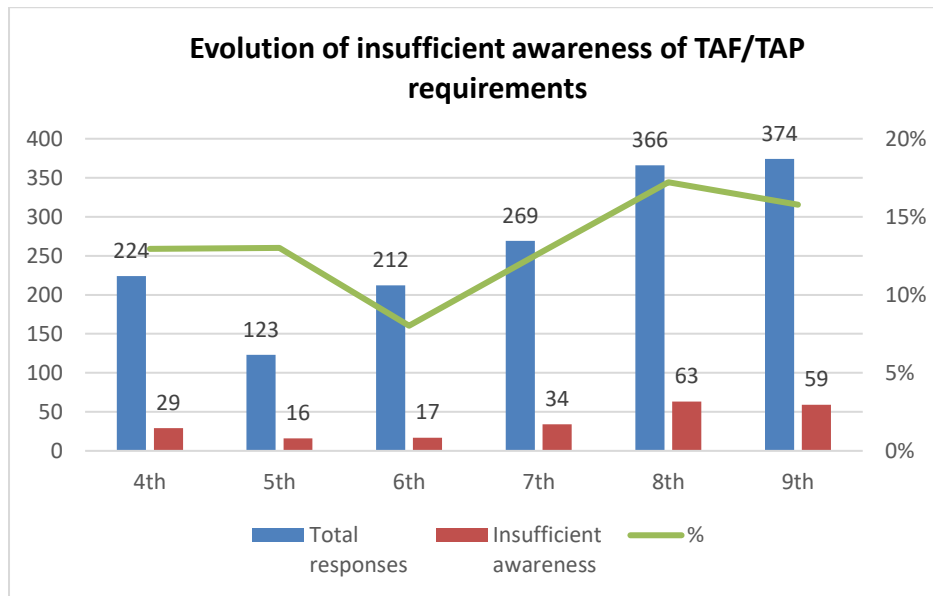


Diagram 29: Evolution of insufficient awareness of TAF/TAP requirements

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.

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.

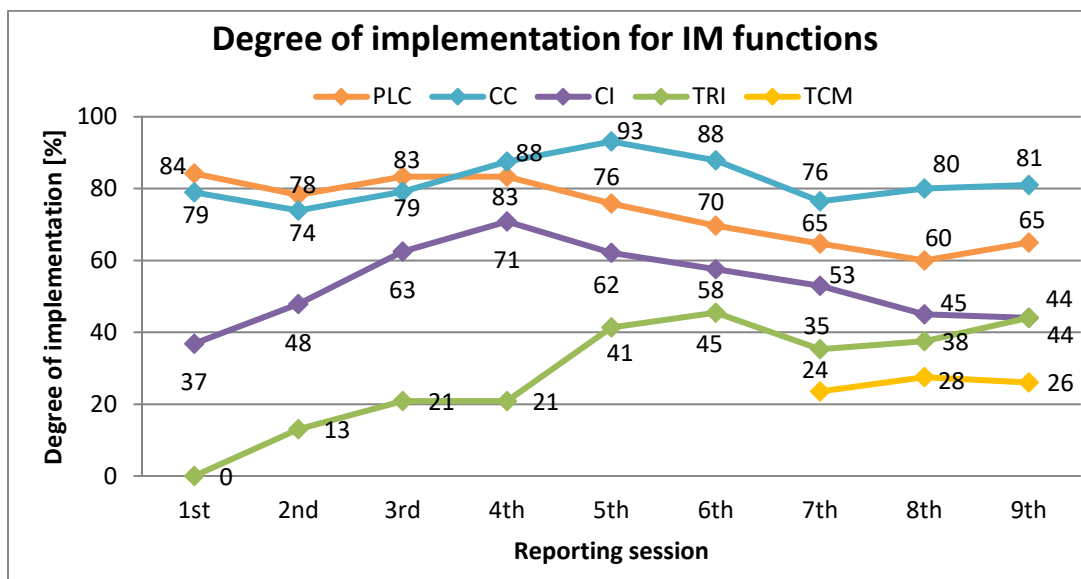


Diagram 30: Reported DI for IM functions

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.

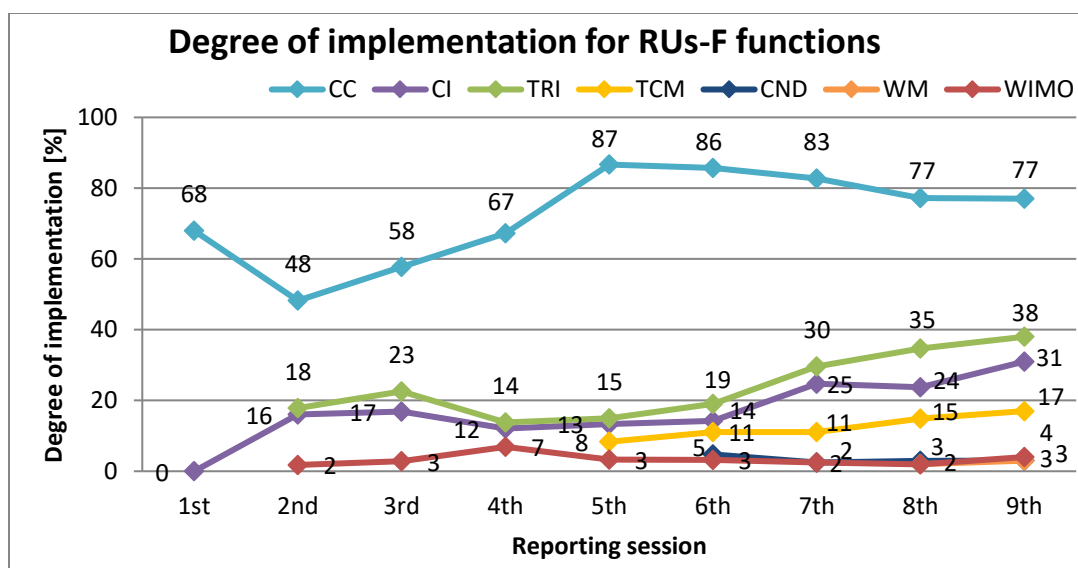


Diagram 31: Reported DI for RUs-F functions

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

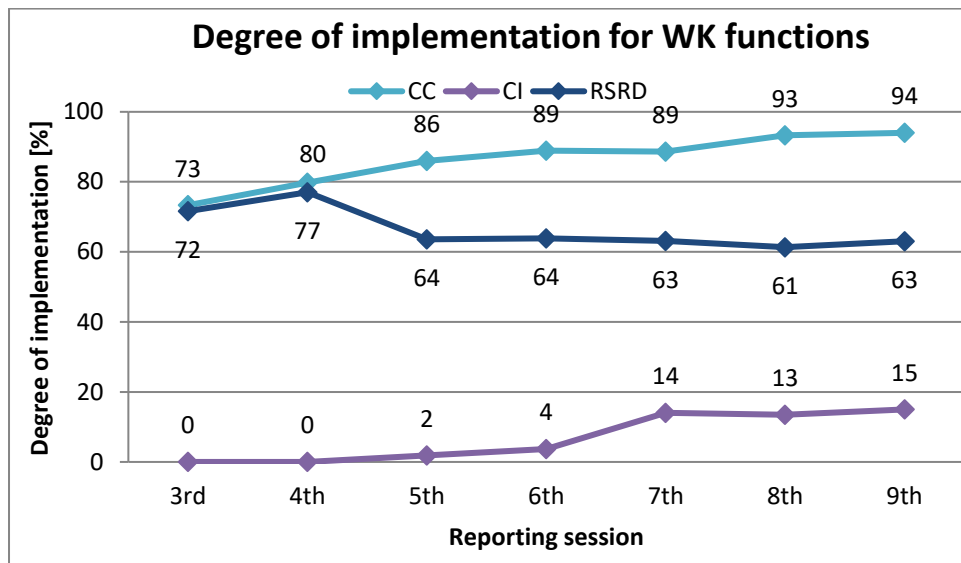


Diagram 32: Reported DI for WK functions

6. 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.

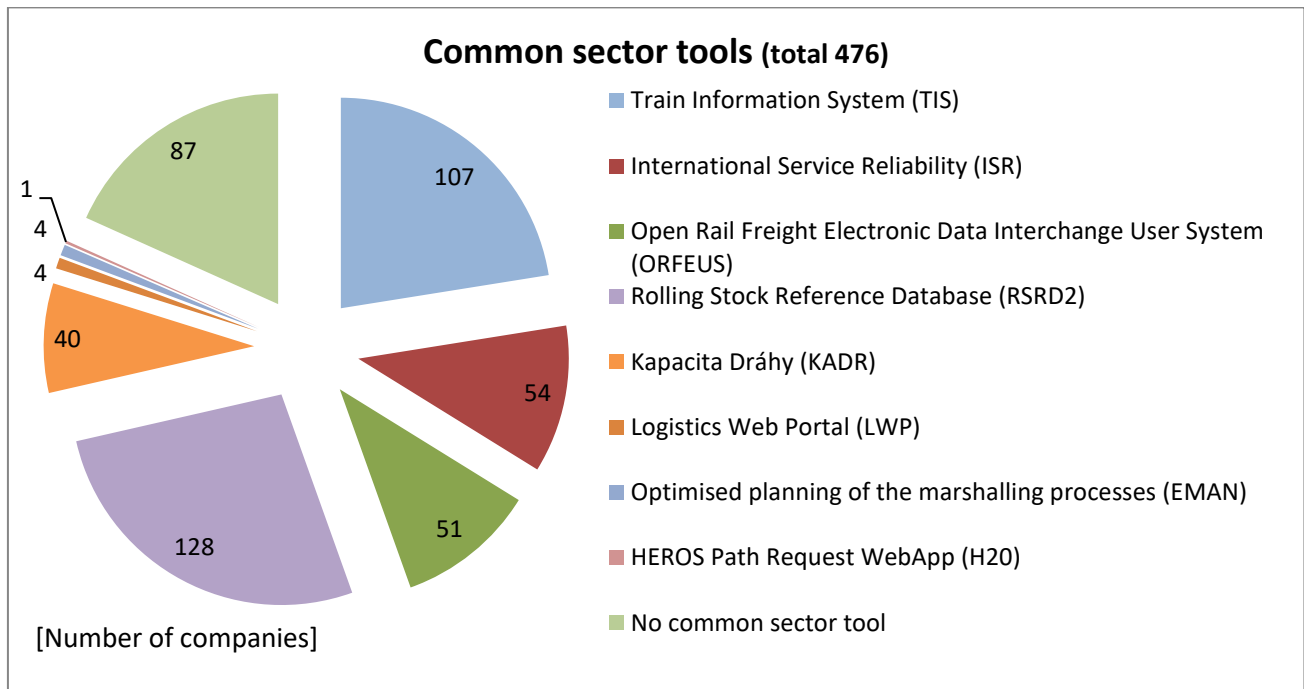


Diagram 33: Common sector tools in use

RSRD² and TIS both are the most used Common Sector Tools.

In respect to the responses received from relevant types of companies, RSRD² is in use by about 75 % and TIS is in use by about 50 % of its potential users included in this query.

7. 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.

RSRD² and TIS remain the most used common sector tools following feedback to this survey. 75 % of responding companies benefit from RSRD², while it is 50 % for TIS.

ANNEX 1: MEMBERS OF THE IMPLEMENTATION REPORTING GROUP (IRG)

Last Name	First Name	Company	e-mail
Arms (Chair)	Jan-Christian	DB AG	jan-christian.arms@deutschebahn.com
Achermann	Rudolf	SBB	rudolf.achermann@sbb.ch
Achille	Vito Sante	RFI	v.achille@rfi.it
Heydenreich	Thomas	UIP	rsd@th-heydenreich.de
Lo Duca	Carmen	Trenitalia	c.loduca@trenitalia.it
Seimandi	Yann	CER	yann.seimandi@cer.be
Weber	Christian	SNCF	christian.weber@sncf.fr

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-FWK	Rail Cargo Austria AG	Senfter
3	AT	WK	Bahnbau Wels GmbH	RSRD ²
4	AT	WK	Felbermayr Transport- und Hebetchnik 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-FWK	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-FWK	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
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-FWK	Advanced World Transport a.s.	
37	CZ	RU-FWK	ČD Cargo, a.s.	
38	CZ	RU-FWK	UNIPETROL Doprava s.r.o.	
39	CZ	RU-P	Leo Express s.r.o.	
40	CZ	RU-P/WK	Ceske drahy, a.s.	

Nr.	Member State	Type of Company	Company name	Reporting Entity
41	CZ	WK	ArcelorMittal Ostrava, a.s.	
42	CZ	WK	Česká republika - Správa státních hmotných rezerv	
43	CZ	WK	Coal Services a.s.	
44	CZ	WK	DIAMO, státní podnik	RSRD ²
45	CZ	WK	Felbermayr Transport- und Hebetchnik 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-FWK	DB Cargo	
60	DE	RU-P	DB Regio AG	
61	DE	WK	AlzChem Trostberg GmbH	RSRD ²
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

Nr.	Member State	Type of Company	Company name	Reporting Entity
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	
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	

Nr.	Member State	Type of Company	Company name	Reporting Entity
123	IT	RU-FWK	Mercitalia Rail s.r.l.	
124	IT	RU-P	Italo - Nuovo Trasporto Viaggiatori S.p.A.	
125	IT	RU-P	SAD - Trasporto Locale SpA	
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-FWK	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-FWK	CEMET S.A.	
146	PL	RU-FWK	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-FWK	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
157	RO	IM	CFR	
158	SE	IM	Trafikverket	
159	SE	RU-F	CFL cargo Sverige AB	
160	SE	RU-FWK	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.	

Nr.	Member State	Type of Company	Company name	Reporting Entity
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-FWK	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	
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	

Nr.	Member State	Type of Company	Company name	Reporting Entity
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.	
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.	

Nr.	Member State	Type of Company	Company name	Reporting Entity
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.	
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.	

Disclaimer

The RU/IM Telematics Joint Sector Group (JSG)

The JSG was set up in October 2012 as a voluntary organisation supported by nine European Associations involved in the implementation of the rail technical specifications for interoperability of the Telematic Application for Freight (TAF TSI).

<http://taf-jsg.info/>